

BEFORE THE PUBLIC UTILITIES COMMISSION
OF STATE OF CALIFORNIA



FILED
11-07-14
04:59 PM

Investigation on the Commission's Own Motion into the Operations, Practices, and Conduct of Comcast Phone of California, LLC (U-5698-C) and its Related Entities (Collectively "Comcast") to Determine Whether Comcast Violated the Laws, Rules, and Regulations of this State in the Unauthorized Disclosure and Publication of Comcast Subscribers' Unlisted Names, Telephone Numbers, and Addresses.

I.13-10-003
(Filed October 3, 2013)

**AMENDED OPENING BRIEF
OF THE SAFETY AND ENFORCEMENT DIVISION**

[PUBLIC]

CHRISTOPHER WITTEMAN
HIEN VO WINTER
Attorneys

Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Phone (415) 355-5524
Fax: (415) 703-2262
E-mail: chris.witteman@cpuc.ca.gov
hien.vo@cpuc.ca.gov

November 7, 2014

EXECUTIVE SUMMARY

The following facts are uncontested: (1) that Comcast released approximately 75,000 Californians' unlisted or non-published ("non-published") telephone numbers onto the Internet, to at least one nationwide directory assistance provider, and to a smaller number of print directories; (2) the breach lasted for at least 29 months, i.e., it took Comcast that long to detect and try to fix it; and (3) it took Comcast another month to report it to the Commission. For each of these 29 months, 75,000 Californians paid \$1.50/month for a service they were not receiving. Comcast also admits that there were other breaches that released California non-published numbers into the "ecosystem," although apparently not of this magnitude (this remains unclear). It is also largely uncontested that it was Comcast Phone's name (not that of Comcast IP) on most of the operative contracts relating to directory listings.

Thus, Comcast essentially admits a violation of Public Utilities Code § 2891.1, the codification of the California Constitution's privacy protections, as applied to non-published numbers. What remains inexplicable, however, is how this happened. Comcast claims that there was an account number reassignment, and that a new table was then used to draw published or non-published status from the accounts in the billing database, but the new account numbers somehow prevented the data table query from picking up pre-existing non-published orders on the accounts. If that were not confusing enough, Comcast then admits that it *continued for the entire duration of the breach to bill these customers for the non-published service they were not receiving*. The bills went out, but the customers received no protection.

As disturbing as was the release of the personal information of 75,000 Californians who had paid to keep that information confidential, equally alarming are the facts surrounding Comcast's normal, baseline treatment of non-published numbers before and during the breach. The preponderance of evidence shows that : (1) it was Comcast's regular practice (until halted in October 2012) to send all its listings, *including* non-published names, addresses, and telephone numbers, to a third party which used those

non-published numbers to “corroborate” larger consumer datasets sold to third parties for purposes other than directory listings; (2) in all likelihood, the data breach identified by Comcast as the “Process Error” was just one of a series of ongoing breaches of non-published numbers; (3) after discovering the breach, Comcast failed to undertake online data removal measures it had used previously to protect individual non-published subscribers whose numbers had been inadvertently released.

In short, Comcast did not take seriously the relationship of trust that is established between a carrier and customers who, for whatever reason, feel vulnerable enough to request a non-published number. The full extent of the breach, not to mention Comcast’s standard practices with non-published numbers, may never be known. This is due in equal parts to Comcast’s misdirection during the investigation in this case, to the “veil of secrecy” that pervades the data marketing and ancillary markets, and to the general “information asymmetry” between Commission staff and industry.

This Investigation has pulled back the “veil of secrecy” around data marketing and the role telephone carriers play in that industry, at least slightly. Recent reports by the Senate Commerce Committee, the Federal Trade Commission, and the General Accounting Office attempt to explore the sources of consumer information found in large commercial databases, and all are stopped short of any final conclusions by the lack of transparency in the data world. Staff’s investigation has revealed at least the appearance of a mutually dependent and synergistic relationship between data brokers and telephone carriers. Comcast-provided directory lists appear to be used to corroborate and assist in the construction of large consumer profile databases sold to third parties. This raises profound questions about the relationship of telephone service to privacy.

Consumers are, of course, the last to know. The evidence shows that Comcast hides the uses of its directory listings behind vague, fine-print disclosures, deep in its “Privacy Notice,” such as “We may also disclose personally identifiable information about you to outside auditors, professional advisors, [and] service providers and vendors.” In other words, to anyone. If customers understood the full nature of such use, would more choose non-published service? Would they demand more privacy protection? And

the corollary: is non-published service adequate to protect a consumer from the predations of the data industry? Were non-published subscribers inadequately informed about the non-published service they were purchasing, what its limitations were, and what other services might help them secure the privacy they were so clearly seeking?¹ These are just a few of the questions that Comcast's privacy breach puts on the table.

These questions gain urgency in light of the new digital, networked world, where Comcast is a major player, and where inadvertently released personal information can travel around the world at almost the speed of light, and be stored, indexed, and "appended" to create individual consumer profiles. Comcast showed no discernable diligence in light of these new realities, and little concern about its duties to non-published customers. SED believes that a substantial penalty, meaningful injunctive remedies addressing customer harm, and Comcast's implementation of measures to prevent future privacy breaches are appropriate in this case.

Staff recommends a fine of approximately \$43.9 million, and equitable relief to address the privacy loss of the 75,000 affected customers, and protect the privacy of non-published and other Comcast customers in the future.

¹ SED's testimony includes the declarations of 11 customers, Jane and John Does 1 through 11. Four of these customers testified at the hearing anonymously (without their names being placed on the record). This testimony documents the reasons and desire for privacy that have caused roughly 15% of Comcast's California customers to seek non-published status.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

TABLE OF AUTHORITIES viii

I. INTRODUCTION & SUMMARY OF RECOMMENDATIONS 1

 A. PARTIES AND AUTHORITY 1

 B. SUMMARY OF RECOMMENDATIONS (RULE 13.11) 2

 C. QUESTIONS PRESENTED 2

II. BACKGROUND 3

 A. FACTUAL 3

 1. History 3

 2. Comcast’s Release of Non-Published Numbers Compromised the Safety and Invaded the Privacy of its Customers. 4

 3. Risk to Comcast Non-Published Subscribers Is High Because of the Way Comcast Uses Data Brokers to Distribute its Subscriber Information. 7

 4. Comcast’s Credibility Problem Casts a Pall over this Case, and Creates Doubt about its Explanation of the Breach, its Scope, Results and Ultimate Discovery. 10

 a) Comcast’s Frustration of Discovery 10

 b) Comcast’s Misleading Statements Under Oath, and Before this Commission 13

 5. Information Asymmetry 19

 B. PROCEDURAL 21

III. FACTUAL ISSUES 22

 A. THE NATURE OF THE BREACH/RELEASE (ALLEGED PROCESS ERROR) 22

 1. Comcast’s Story About How the Alleged 2010 Breach Occurred Is Contradictory and Likely Incomplete, and Shows a Callous Disregard of its Non-Published Customers. 22

2.	Was there More than One Breach?	27
B.	THE FULL EXTENT OF THE BREACH – HOW FAR THE NON-PUBLISHED NUMBERS TRAVELED -- MAY NEVER BE KNOWN, BUT IT WAS SUBSTANTIALLY LARGER THAN ORIGINALLY REPORTED.....	29
1.	Comcast Sent Non-Published Records to Targus/Neustar (aka Localeze and Amacai)	31
2.	Comcast Non-Pub Records Went to kgb (a national directory assistance company)	36
3.	Comcast Non-Published Listings May Also Have Gone from Targus to Unidentified Third Parties	38
4.	Comcast Admits that its Non-Published Records Went to Ecolisting.....	39
5.	Comcast Admits that its Non-Published Account Listings Went to Other Third Parties	40
a)	Comcast Non-Published Records Went to Microsoft Fast	40
b)	Comcast Non-Published Records Went to Frontier Communications (and its agents Berry Publishing and Datalink).	40
c)	Comcast Non-Published Records Went to Supermedia and Valley Yellow Pages.....	41
d)	Comcast Non-Published Records Went to Relevate.....	41
e)	Comcast Non-Published Records Went to Intelligenx	41
6.	Comcast Records Went to LSSi, although it is Uncertain Whether these Records Included Non-published Accounts.	42
B.	THE BREACH CONTINUED FOR LONGER THAN COMCAST ADMITS.....	42
C.	COMCAST’S EXPLANATION OF HOW IT DISCOVERED THE PRIVACY BREACH RAISES MORE QUESTIONS THAN IT ANSWERS.....	43
D.	COMCAST OFFERS NO CREDIBLE EXPLANATION OF WHY IT TOOK AT LEAST 27 MONTHS TO DISCOVER THE MAIN PRIVACY BREACH.....	44
E.	COMCAST’S CLAIMS TO HAVE FIXED THE ERROR AND DELETED THE NON-PUBLISHED LISTINGS, BUT IGNORES THE LONG-TERM CONSEQUENCES OF ITS ACTIONS	49

F.	COMCAST BASELINE POLICIES AND PROCEDURES BEFORE (AND DURING) THE BREACH NEITHER PROTECTED CONSUMERS NOR DISCLOSED TO THEM THE REALITY OF COMCAST’S PRACTICES.	49
1.	Comcast’s Disclosure of Terms and Conditions Regarding its Nonpublished Service was Confusing and Inadequate.....	50
a)	The Reality of Non-Published Service Is Not Adequately Disclosed.....	50
b)	The Dis-Empowerment of the Consumer: Comcast’s Privacy Disclosures Are Incomprehensible to Even a Well-Educated Consumer; Nowhere Is Non-Published Service [Adequately] Distinguished from Other Privacy Protections, Nor Are Consumers Given A Straightforward Method to Opt for Maximum Privacy.....	54
(i)	Customer Proprietary Network Information (CPNI).....	54
(ii)	Personally Identifiable Information.....	55
(iii)	Non-Published Numbers	55
(iv)	Comcast’s Internal Do Not Call List.....	56
(v)	Caller ID Blocking	56
(vi)	Federal Trade Commission’s Do Not Call List.....	57
(vii)	Information on How to Have One’s Address Omitted From Any Publication.....	57
2.	Comcast Made the Choice to Send Non-Published Numbers to its Directory Distributors/Data Brokers, and Did Not Disclose this Fact to Consumers.....	58
3.	Other Policies & Procedures.....	64
a)	Comcast’s Complaint Monitoring Process Failed to Alert Comcast to the Breach of 75,000 Customers Non-Published Numbers, Over Two Years.	64
G.	COMCAST’S EFFORTS TO REMEDY THE PRIVACY BREACH WERE INADEQUATE, AND LARGELY DESIGNED TO PROTECT ITSELF.....	65
1.	Efforts Incommensurate with Harm to Consumers	66
2.	Ineffective Notice to Affected Customers	70

a)	Letters.....	71
3.	Incomplete Refunds for Non-Published Fees	74
4.	Other Relief Provided to Customers, and Relief that Comcast Chose Not to Provide to Customers	75
a)	Comcast’s minimal “package of remedies”	76
b)	Comcast’s Failure to Provide Online Site Removal.	77
c)	Comcast Did Substantially Less than Cox Did.	79
H.	COMCAST NON PUBLISHED POLICIES AND PROCEDURES SINCE DISCOVERY OF RELEASE	81
I.	THE FACTUAL RECORD SUPPORTS SUBSTANTIAL PENALTIES AGAINST COMCAST.....	81
IV.	LEGAL ISSUES	82
A.	THE COMMISSION HAS JURISDICTION OVER THE SUBJECT MATTER OF THIS INVESTIGATION.	82
1.	The Commission Has <i>In Personam</i> Jurisdiction Over Comcast Phone of California, LLC	84
2.	The Commission Has Jurisdiction Over the Related Entities, as Comcast Phone, Comcast IP, and Other Comcast Affiliates Operate as One Integrated Business.	85
a)	§ 2111 (aiding and abetting)	87
b)	Alter Ego & Other Theories of Vicarious Liability.	88
3.	Does section 710 limit the scope of the investigation to the period ending Dec 2012? (See Feb 2014 scoping memo).....	88
B.	EVIDENTIARY STANDARD	89
C.	VIOLATIONS OF LAW	90
1.	California Constitution	90
a)	The Strong Protections for Privacy in California.....	90
2.	Comcast Violated the Public Utilities Code	93
a)	Comcast Violated Sections 2891 and 2891.1, which Codify	

the California Right of Privacy.....	93
b) Comcast Violated Section 451 of the Code by Failing to Provide Just & Reasonable Service, and by Failing to Make Adequate Disclosures to Consumers.	95
(i) Comcast’s imposition of a \$1.50/month charge, for a service the customers were not receiving, was not just and reasonable.	95
(ii) Comcast’s Massive Release of Non-Published Account Information Is a Failure to Provide Just and Reasonable Service.....	95
(iii) The Failure to Protect Consumer Information – Both Non-Published and Published Customers’ Information – By Monitoring and Enforcing Use Restrictions with Downstream Companies Like kgb, Targus, and LSSi, Is Also a Violation.	95
(iv) The Disclosures Applicable to Non-Published Service Were Not Just and Reasonable.	98
3. Additional Violations of Law	99
a) Comcast Violated Consumers’ Rights Under the Commission’s General Order 168.	99
b) Comcast may also have violated Business & Professions Code §§ 17200 & 17500 by providing false, misleading, or incomplete information in its “Welcome Kit.”	100
c) Comcast Violated the Commission’s Rule 1.1 with at least Two Separate, Material Misrepresentations to Commission Staff that were Untrue.....	101
d) Comcast Violated the Spirit of California’s Information Practices Act and Shine the Light Laws, Cal. Civ. Code § 1798.1-99.....	103
D. PENALTIES ARE REQUIRED TO ADDRESS EGREGIOUS CONDUCT AND DETER SUCH CONDUCT IN THE FUTURE	105
1. Penalties Are Appropriate Under Section 2107.....	105
a) Severity of the Offense.....	106
(i) Number and Scope of Violations	106

(ii)	Resources of the Utility.....	107
(iii)	Economic Harm	108
(iv)	Harm to the Regulatory Process.....	108
b)	Comcast’s Conduct Here Increases Rather than Mitigates the Need for a Penalty in this Case.	109
(i)	The Utility Made a Decision to Put Non-Published Consumers in Harm’s Way by Sending their Account Records to a Third Party (Targus).....	109
(ii)	The Utility Took Apparently No Actions to Prevent the Violations.....	110
(iii)	Comcast Was Unable to Detect the Violations for over Two and One-Half Years.	110
(iv)	Disclosure Came Slowly -- Even After Discovering in October that it Had a Serious Problem, it Took Comcast another Four Months to Disclose it to the Commission and its Customers.	111
(v)	Comcast’s Efforts to Remedy the Situation Were Less than Robust	112
c)	The Public Interest & the Need for Deterrence.....	112
d)	Precedent.....	112
2.	Further Specification of Penalty Pursuant to Sections 2108 and 2111.....	114
a)	Calculating Amount of Penalty Pursuant to § 2108.....	114
b)	Liability for Aggregate Comcast Entities Under § 2111.....	118
E.	RESTITUTION AND NON-MONETARY REMEDIES	118
1.	No Provision of Non-Published Numbers to Third Parties.	118
2.	Restitution and Cy Pres.....	119
3.	Disclosure and Choice.	119
4.	Reform of Complaint/Monitoring Process.	120
5.	The Commission Should Require Comcast to Perform Online Site Removal for the Affected Customers.....	121

6. The Commission Should Require Downstream Audits121

7. The Commission Should Require Comcast to Issue Some Form
of Public Notice, and Should Release Customers from the Secrecy
Provisions of the Release that Were Imposed on Them121

V.CONCLUSION.....123

Confidential Appendix 1 - Timeline of Events & Complaints re Comcast Privacy Breach

Appendix 1.1 - Annotations for Timeline (citations to evidentiary record)

Confidential Appendix 2 - Distribution Chart for Comcast Directory Listings

Confidential Appendix 2.1 - Annotations for Distribution Chart (citations to evidentiary
record)

Appendix 3 - Declaration of Counsel

Appendix 4 - List of Errors in Hearing Transcript

Appendix 5 – Errata Sheet for SED Opening Brief served November 4, 2014

TABLE OF AUTHORITIES

Pages

Cases

<i>Boorstein v. CBS Interactive, Inc.</i> , 222 Cal. App. 4th 456, 461 (Cal. App. 2d Dist. 2013)	103
<i>Donald v. Cafe Royale, Inc.</i> 218 CA3d 168, 180 (1990)	93
<i>Drewry v. Welch</i> 236 CA2d 159, 175-76 (1965).....	93
<i>Greenlining Institute v. Public Utilities Com.</i> , 103 Cal. App. 4th 1324, 1333 (Cal. Ct. App. 2002)	22, 99, 100
<i>Hill v. NCAA</i> , 7 Cal.4th 1, 15-19 (1994)	90, 91, 120
<i>LSSi v. Comcast</i> , 696 F3d 1114, 1119 (11 th Circuit, Sept. 26, 2012),	17
<i>LSSi v. Comcast</i> , 2013 U.S. Dist. LEXIS 188580 (D. Ga., March 4, 2013)	18
<i>People v. Blair</i> (1979) 25 Cal.3d 640, 653-655	91
<i>People v. Chapman</i> (1984) 36 Cal.3d 98, 106-111	90, 91, 92
<i>People v. Garcia</i> , 54 Cal.3d 61, 69 (1975) BAJI (5th ed. 1969).....	88
<i>People v. McKunes</i> (1975) 51 Cal.App.3d 487, 492	91
<i>Watson v. Commonwealth Ins. Co.</i> , 8 C2d 61, 68 (1936)	87
<i>White v. Davis</i> , 13 Cal.3d 757 (1975).....	90
<i>Wilkinson v. Times Mirror Corp.</i> 215 CA3d 1034, 1043 (1989)	91

CPUC Decisions & General Orders

D.85-03-017	91
D.91-01-016	91
D.92-06-065	91
D.97-05-089	88, 93
D.97-09-124	91
D.97-10-063 (<i>Communication Telesystems</i>)	93
D.98-12-075	105
D.99-04-047	91
D.00-10-026	94, 95

D.01-07-032.....	91
D.03-01-087 (<i>Qwest</i>).....	88, 91, 100
D.01-08-019.....	101, passim
D.04-09-062.....	88, 97, passim
D.06-03-013.....	100
D.06-04-048.....	105
D.07-11-037.....	105
D.08-09-038.....	105
General Order (G.O.) 168.....	passim
Resolution L-242	91
Resolution T-16342	79, 112

California Public Utilities Code & State Legislation

§ 233	4, 68, 84
§ 234	4, 68, 84
§ 234 (a).....	84
§ 451	3, passim
§ 583	10
§ 710	21, 81, passim
§ 761	117
§§ 1701-1702 and 2101-2102.....	92
§ 2107	104, 113
§ 2108	9, 12, 113
§ 2111	9, 12, passim
§ 2891	3, 7, passim
§ 2891.1	3, 7, passim

Other California Law

Cal. Const., Art. I, § 13 90, 116
Business & Professions Code § 17200 8, 99, passim
Business and Professions Code § 17500 8, 99, passim
Civil Code § 1798.01 13
Civil Code § 1798.83 13
Evidence Code § 412 89

FCC Decisions

FCC Second Report and Order, *In re Policies and Rules Concerning Local Exchange Carrier Validation and Billing Information*, 8 FCCR 4478, at ¶ 28 (1993) 96
FCC Third Report and Order, *In re Implementation of the Telecommunications Act of 1996: Telecommunications Carriers Use of CPNI and other Customer Information*, 14 FCCR 15550 (1999) 96
FCC Order on Reconsideration, *In re Implementation of the Telecommunications Act of 1996: Telecommunications Carriers Use of CPNI and other Customer Information*, 19 FCCR 18439 (2004) 96

Other Authorities

Federal Trade Commission, “Data Brokers – a Call for Transparency and Accountability” (May 2014) 8, 19
Senate Committee on Commerce, Science and Transportation, “A Review of the Data Broker Industry: Collection Use and Sale of Consumer Data for Marketing Purposes” (December 2013) 8, 19
US General Accounting Office (GAO), “Information Resellers – Consumer Privacy Framework Needs to Reflect Changes in Technology and the Marketplace” (September 2013) 8, 19
Witkin, Cal. Evidence (4th ed. 2000) §35 88

I also have not had my address listed for a number of years for a reason. Yet when signing up with Comcast, my address is all over the internet and in the printed phone book. Due to an abusive relationship and restraining order, my address needs to be unpublished.

Customer on Comcast Help Support Forum (March 27, 2010)²

I have always paid for a non-published number... and they chose to list my non published phone number on their ecolisting website.... The ecolisting website should be shut down until Comcast/Xfinity insures that customers who have paid for non-published service phone numbers are not listed and offer new phone numbers to customers whose privacy rights were violated.

John Doe 8, CAB Complainant (December 31, 2011)³

She said that she is being published in 411 and should not be. Also said that last year she was in the phone book... said that she works with women filing restraining orders and has already been threatened 4 times. Assured customer that I would escalate this ticket for further investigation.

Comcast CR Trouble Ticket (January 15, 2012)⁴

I. INTRODUCTION & SUMMARY OF RECOMMENDATIONS

A. Parties and Authority

Pursuant to Rule 13.11 of the Commission's Rules of Practice and Procedure,⁵ the Safety and Enforcement Division (SED) files its post-hearing Opening Brief in this

² Exhibit SED 1, Staff Report, at 14. **Citation Convention:** SED identifies whether cited evidence is confidential by including a C after the Exhibit number. Thus, were this citation to the confidential Comcast-Targus contract in SED 1, the citation would have been SED 1C, Attachment 11.

³ *Id.*, at 18. Mr. Doe 8 also complained directly to Comcast. See Exhibit SED 2, Prepared Testimony of Rahmon Momoh (Momoh Opening), at Attachment P.8 (Doe 8 Declaration), at ¶ 4. **Citation Convention:** SED will refer to its Prepared Testimony as "Opening Testimony," to Comcast's Direct (opening) Testimony as Direct Testimony, and both parties Rebuttal Testimony as Rebuttal Testimony.

⁴ Exhibit SED 6C, Christo Rebuttal Testimony, at 25, *citing* Attachment Q.9, COMCASTPOST-OII_012523-01212541 (Trouble Ticket CR 276219771 [created 1/15/2012], at COMCASTPOST-OII_012530).

⁵ See also the February 11, 2014 Scoping Memo, and the August 25, 2014 ALJ Ruling Granting Comcast's Motion to Extend, as modified at the October 3, 2014 evidentiary hearing in this matter.

Investigation of Comcast Phone of California, LLC (U-5698-C) and its Related Entities (Collectively "Comcast"), relating to the unauthorized disclosure and publication on the Internet and elsewhere of the names, addresses, and phone numbers of approximately 75,000 California customers who had paid for an unlisted (non-published) number.

B. Summary of Recommendations (Rule 13.11)

The Commission should: (1) explicitly enjoin Comcast from providing non-published or unlisted (hereinafter non-published) numbers to any third party for any purpose other than E911 emergency services; (2) require Comcast to use maximum efforts to remove the names, addresses, and telephone numbers of each of the 75,000 affected customers from known online directories (and hire an independent Special Master to certify that this was done); (3) require Comcast to more fully disclose to consumers the limitations and ramifications of having a non-published number; (4) reform its complaint-monitoring so that future privacy breaches are quickly discovered and remedied, if not prevented; and (5) report for a year or longer period on the success of its new measures. More generally, the Commission should consider opening a rulemaking to address the apparently close relationship of directory listing and data marketing practices. Finally, SED recommends that the Commission fine Comcast \$43.88 million for the pattern of neglect described below.

C. Questions Presented

It is uncontested that Comcast released at least 75,000 Californians' unlisted or non-published ("non-published") telephone numbers onto the Internet, to at least one nationwide directory assistance provider, and to a smaller number of print directories. Also uncontested is that it took Comcast at least 27 months to detect the breach. It then took Comcast another 2 months to put a fix in place, and another month to report the breach to the Commission. The breach was substantially larger than initially reported to the Commission.

From staff's perspective, the primary outstanding factual questions are: (1) how widely were the non-published numbers distributed; (2) how long did the breach

continue; (3) why Comcast did not prevent the breach (and why, in fact, it had in place practices that made the breach more likely); (4) why it took Comcast 27 months to detect the breach; and (5) why it took another 2 months to correct it, and yet another month to report it to its customers and the Commission. Wrapped up in these last two queries is the question whether there were other privacy breaches that should have put (and did put) Comcast on notice that the release of non-published numbers was a likely result of its directory list distribution mechanisms.

The primary legal questions are what laws did Comcast's conduct violate, including whether Comcast violated the California Constitution, the Public Utilities Code, other laws, regulations and Commission orders in releasing the non-published numbers, whether Comcast's standard practices themselves violated Public Utilities Code §§ 451, 2891.1, and other laws, whether a penalty is appropriate and in what amount, and whether specific injunctive relief might help remedy an irreparable breach, and protect against future releases of the personal and confidential data of Comcast customers.

II. BACKGROUND

A. FACTUAL

1. History

As discussed throughout, the main privacy breach occurred, at the latest, on July 1, 2010, and continued until at least December 10, 2012.⁶ While Comcast is vague as to the precise date, it generally concedes that the breach was discovered sometime in October 2012, and that it took another two months to remove the non-published names, addresses and phone numbers from the Ecolisting website.⁷ On January 10, 2013,

⁶ Exhibit COM 103, Donato Direct Testimony, at [15:17] (“Non-Published Listings were removed from Ecolisting by December 10, 2012”).

⁷ *Id.*, at [3:8-10] (“In October 2012 Comcast received two XFINITY Voice customer complaints stating that the customers’ Non-Published directory listing information was appearing in Ecolisting (Comcast’s online directory listing website). Comcast began an investigation ...”). Ecolisting sometimes appears in

(Footnote continued on next page)

Comcast began notifying customers of the improper disclosures.⁸ On January 9, 2013, Comcast counsel Toller and other Comcast representatives met with CPUC staff to inform the CPUC that the breach had occurred.

Comcast initially claimed that the breach began in mid-2011, and involved only about 50,000 customers, and that the non-published numbers had only been released through Comcast's online platform, and to a few isolated directory publishers. It soon became clear that the correct number of affected customers was closer to 75,000, and that the breach had begun in 2010.

2. Comcast's Release of Non-Published Numbers Compromised the Safety and Invaded the Privacy of its Customers.

The discussion of the factual and legal issues below leaves out the most salient reality. During the course of this investigation, SED spoke with and also reviewed many customer records of aggrieved Comcast customers. While some wanted non-published numbers for general privacy reasons, such as avoiding telemarketers,² others had legitimate safety and security concerns that have now been compromised.¹⁰ Some of the victims are current or retired law enforcement officers, judges, prosecutors, who have obvious security issues.¹¹ Others are domestic violence victims, or have vengeful

all lower case, but will be capitalized herein, as it currently is on Comcast's website www.ecolisting.com (service "not available" November 1, 2014).

⁸ *Id.*, at [19:18-19] ("Notice was mailed to the vast majority of 'currently' Affected Customers whom we identified in the first phase in California").

² See e.g., Exhibit SED 2C, Momoh Opening Testimony, at 34-35, *citing* Attachment Z; see also *generally* Attachment Z.

¹⁰ See e.g., Exhibit SED 2C, at 32-34, *citing* Attachment I; see also *generally* Attachment I.

¹¹ See e.g., Exhibit SED 2C, Momoh Opening Testimony, at 32-34, *citing* Attachment I; see also *id.*, Attachment I, p.8 (No. 60, Trouble Ticket ESL 00938429, Comcast_AG_002325-2329 and ESL 00943884, Comcast AG_002335-2343 ["law enforcement officer with a serious issue, a person who has in the past caused physical harm to the customers and their families now has their street address because of this issue"]); see also *id.*, at Attachment P.1 (Declaration of John Doe 1 [FBI agent]) and P.2

(Footnote continued on next page)

ex-spouses, significant others, or stalkers from whom they are hiding for fear of physical harm.¹² Others have less obvious—but no less compelling—circumstances.¹³

Victims also include elderly people and/or those who live alone, and have expressed fear for their personal security.¹⁴ Even in the absence of a specific threat, staff does not discount the fears of individuals who have legitimate reasons to feel vulnerable to criminal activity, scams, or other abuses.¹⁵

In addition to customers with acute safety concerns, other customers reported that their lives changed when their number was published. Many customers noted that they experienced a spike in telemarketing calls after their numbers were published.

(Declaration of Jane Doe 2 [law enforcement]); see also Exhibit SED 3, Momoh Rebuttal Testimony, at 6, *citing* Attachment B (Declaration of Jane Doe 6 [retired police captain]).

¹² See *e.g.*, Exhibit SED 2C, Momoh Opening Testimony, Attachment I, at p.5 (No. 22, Trouble Ticket ESL 00924080, Comcast_AG_001420-1425 [“she did not have much time and seem very agitated. She shared that she is living in her car due to her ex-husband attempting to kill her. She indicated very little money and needed to get back to her job or she could not afford to eat.”] and p.12 (No. 89, Trouble Ticket ESL 00812717, Comcast_AG_003238-3242 [“...has a stalker (life threatening situation) and is very irate about that error. ...Considered closed however sub remains very upset.”]); see also Exhibit SED 2C, Momoh Opening Testimony, Attachment P.11 (Declaration of Jane Doe 11 [stalker, disgruntled tenants, and telemarketers]).

¹³ See *e.g.*, Exhibit SED 2C, Momoh Opening Testimony, **Attachment P.3** (Declaration of Jane Doe 3 [“running a daycare facility, and wanted to shield our children from calls from the broader public”]) and Attachment P.7 (Declaration of Jane Doe 7 [“I moved my real estate office to my home. ...I requested ‘non-published’ and ‘private’ number so that clients or other people with whom I communicated over the phone did not have my home number and home address.”]); see also *id.*, Attachment I, at p.19 (No. 137, Trouble Ticket ESL 00813370, Comcast_AG_004471-4480 [“customer is concerned that her safety has been compromised due to the fact that she is a licensed foster parent, and is concerned those biological parents will come after her.”]); see also, Exhibit SED 3, Momoh Rebuttal Testimony, at 7 and Attachment B (Declaration of Jane Doe 6 [“I chose to have my telephone number private for personal and safety reasons. I have worked for many years reviewing and processing crime victim claims. During those years, I’ve had to deny claims submitted by felons and gang members. For this reason, I did not want any contact information like my telephone number and address publicly listed.”]).

¹⁴ See *e.g.*, Exhibit SED 2C, Momoh Opening Testimony, **Attachment P.5** (Declaration of Jane Doe 5 [“The primary reason for this [non-published number] was safety, as I am a woman living alone, and in the last several years I have become almost completely blind. A secondary reason is my ongoing wish to avoid telemarketing calls.”]).

¹⁵ See *generally* Exhibit SED 2C, Momoh Opening Testimony, confidential **Attachments I, Y, and Z**.

In an effort to educate itself, and the Commission, about the privacy interests at stake in this case, staff turned to a well-known expert in the privacy field, Lee Tien.¹⁶ Mr. Tien is Senior Counsel at the Electronic Frontier Foundation, a group that specializes in privacy and copyright issues online. He has written and spoken on a broad range of privacy related issues.¹⁷ Mr. Tien’s testimony explains how protecting privacy is different than protecting other consumer interests – one does not always know immediately when one’s privacy has been taken away, and it is often very difficult to restore.¹⁸ Mr. Tien also describes the dangers that lurk when personal information, including telephone numbers, is bought and sold in the netherworld of data marketers.¹⁹ He describes how Comcast used two well-known data marketing firms as its “agents” in distributing its directory lists.²⁰

Most of the damage caused by the breach probably cannot be undone. Although the Commission should require Comcast to exert best efforts to remove the listing information from Internet directory sites, the likelihood of completely scrubbing the Internet clean of this information is extremely small. Comcast has inflicted irreparable harm on 75,000 Californians. John Doe 1, an FBI agent, testified about how Comcast’s offer to him did not “put the Genie back in the bottle”:

Their remedy was to credit me back \$1.50 per month for however many months ... that I had had non-published service. I don't remember what that came to, maybe 15 or 20

¹⁶ Exhibit SED 4, Expert Testimony of Lee Tien (Tien Testimony).

¹⁷ Mr Tien’s expertise is briefly summarized at page 1 (lines3-13) of his testimony, Exhibit SED 4. Further information available at <https://www.eff.org/about/staff/lee-tien>. Comcast attacked Mr. Tien for an alleged lack of knowledge about telecommunications law, and at one point threatened to move to strike his testimony, but he is not offered as an expert in telecommunications law.

¹⁸ *Id.*, at 7:8-20.

¹⁹ *Id.*, at 12-16.

²⁰ *Id.*, at 17-33.

bucks. I believe they gave me Starz service for a year, something to that effect. But that doesn't put the Genie back in the bottle. I don't know. It would be hard to say the damage that could be done. Certainly I can take care of myself in most situations. Personally, since I'm an FBI agent, I carry a weapon, I have weapons in the house. If something were drastic to happen, I'm quite certain I can take care of that. Some people aren't that lucky to have that ability to take care of themselves.²¹

Further examples of customers safety and privacy concerns, and Comcast's inadequate response to those concerns, are found in Section IIIG below.

3. Risk to Comcast Non-Published Subscribers Is High Because of the Way Comcast Uses Data Brokers to Distribute its Subscriber Information.

Comcast worked with two large, well-known data brokers, Targus/Neustar and LSSi,²² to distribute and license its subscriber listings to third party directory publishers, assistance providers, and possibly others.²³ Staff contends that Comcast's close ties to this industry exponentially increased the risk that non-published numbers would be leaked not only across the Internet, but also released into the data broker marketplace.

The Federal Trade Commission (FTC), the Senate Commerce Committee, and the General Accounting Office (GAO) have all issued recent reports about the data broker

²¹ Hearing Transcript (**hereinafter HT**) (John Doe 1) at 9:4-20.

²² See section IIIB below; see also Expert Testimony of Lee Tien (Tien Testimony) at 17-31, describing Targus/Neustar and LSSi as data brokers, and explaining what it is they do. As discussed below, Comcast claims that both companies were contractually prohibited from using the Comcast-provided directory listings for data marketing purposes, but Comcast admits it suspects that LSSi did not comply with this contractual provision, but asserts that Targus did comply. Exhibit COM 107, Miller Rebuttal Testimony, at 2:25-3:2, and 9-11.

²³ At least one other prominent data broker (Acxiom) also appears in this context Exhibit SED 5, **Attachment CC**, Declaration of LSSi's Oldach (penultimate page), filed in the *LSSi v. Comcast* litigation in the U.S. District Court for the Northern District of Georgia (email of Acxiom's Schwalbert).

industry.²⁴ In its report “Data Brokers, A Call for Transparency and Accountability,” the FTC states that “Over half of the data brokers reported that they obtain other publicly available information, including telephone and other directories....”²⁵ While subscriber names, addresses and phone numbers – except for those of customers requesting non-published or unlisted status -- have traditionally been publicly available in printed phone books, a combination of digital technology, the deregulation of the telephone industry and directory services in particular in the 1996 Telecommunications Act, and the rise of “big data” has led to new dynamics and realities in the provision of directory listings and directory assistance. The FTC refers to “data brokers that ... obtain information from telephone companies about consumers who have recently created a new landline account.”²⁶ The GAO reports how large data brokers (Acxiom and Experian Marketing are the examples) combine “name, address, telephone number” with other demographic information such as education, occupation, party affiliation, ethnicity, marital status, household purchase behavior, household income, social media activity, hobbies, reading and music preferences, and ailments, *inter alia*, to create a consumer profile.²⁷

The Senate Report describes how large utilities and other corporations can be both the source of data to, and purchasers of the completed data profiles from, the data

²⁴ Senate Committee on Commerce, Science and Transportation, “A Review of the Data Broker Industry: Collection Use and Sale of Consumer Data for Marketing Purposes” (December 2013), at iii. available at http://www.commerce.senate.gov/public/?a=Files.Serve&File_id=bd5dad8b-a9e8-4fe9-a2a7-b17f4798ee5a (Senate Report); Federal Trade Commission, “Data Brokers – a Call for Transparency and Accountability” (May 2014), available at <http://www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf> (FTC Report); and US General Accounting Office (GAO), “Information Resellers – Consumer Privacy Framework Needs to Reflect Changes in Technology and the Marketplace” (September 2013), available at <http://www.gao.gov/assets/660/658151.pdf> (GAO Report).

²⁵ FTC Report, at 13.

²⁶ FTC Report, at 14.

²⁷ GAO Report at Appendix II, “Examples of Data Collected and Used by Information Resellers.”

resellers.²⁸ The utility’s data is combined with other demographic information in a “data append” process:

“Data append” products ... require the data broker’s client to provide some customer information, such as name and address; the client can then select additional information—such as the customers’ telephone number and purchasing habits—that the data broker appends to the client’s data set for the client’s use in direct mail, telemarketing, and email marketing campaigns. Some products help clients fill in gaps that may exist in customer contact information. For example, the client may provide a customer’s name and address, and the data broker could provide the customer’s landline telephone number or email address. Alternatively, the client may provide the customer’s landline telephone number, mobile telephone number, or email address, and the data broker could provide the customer’s name and address ...²⁹

This suggests that there is pressure on telephone providers to make their data available to data marketers, and an interest on the carriers’ side in monetizing the data they have.³⁰ The evidence here suggests that this may have led to the provision by Comcast of both published and non-published account information to Neustar, and that Neustar then used this information to “corroborate” its own large consumer databases. In any event, Comcast’s practice put the personal and confidential customer information of

²⁸ See, e.g., Senate Report at 29 (“who buys the data ... financial institutions, hotel chains, wireless telephone service providers, cable companies, and jewelry stores, as well as other data brokers or Resellers”).

²⁹ FTC Report, at 24.

³⁰ See, e.g., Exhibit SED 5, Christo Opening at 17:12-18:23; see also Section IIIB below. In this sense, the provision of telephone service becomes a “two-sided market” – the carrier sells service to the subscriber, and then sells the subscriber’s data to third parties.

non-published subscribers into the hands of data marketers, even if there were allegedly structural protections in place.³¹

4. Comcast’s Credibility Problem Casts a Pall over this Case, and Creates Doubt about its Explanation of the Breach, its Scope, Results and Ultimate Discovery.

a) Comcast’s Frustration of Discovery

Comcast tried assiduously in this litigation to avoid any connection with the data broker industry, but instead created the impression that it was hiding something, and operating under the “veil of secrecy” that the Senate Commerce Committee found pervasive in the data marketing world.³² There were multiple indicia of this:

- Comcast refused to identify customers who had complained about the release of their non-published numbers, including those who expressed safety concerns, ultimately asserting the Electronic Communications Privacy Act (ECPA) as a defense;³³
- Comcast labeled virtually every document it produced, including sales brochures and customer materials, and

³¹ The structural protections are limitations written into Comcast’s contracts with LSSi and Targus/Neustar, limitations that may or may not have been observed in practice. *See generally* Exhibit COM 107, Miller Rebuttal Testimony, at 2:25-3:2; Exhibit SED 5C, Christo Opening at 26.

³² Senate Report, *supra*, at iii.

³³ On February 1, 2013, before the Commission issued the OII, staff sent data request 1-11 which stated: “For the incident reported to the CPUC on January 9, 2013, please provide a list of customers that filed complaints with Comcast regarding release of unlisted names and phone numbers.” See Staff Report, Exhibit SED 1, Attachment 1, at 15; *see also* Comcast January 2014 (Non-) Response to November 2013 Post-OII DR 2:1, requesting trouble tickets of all affected customers. The long and winding battle over these discovery requests is partially described in SED’s February 11, 2014 Motion to Compel, and SED’s February 21, 2014 Response and opposition to Comcast’s parallel Motion for Protective Order, particularly at 13, and fn. 35; *see also* transcript of May 21, 2014 Pre-Hearing Conference at 81:17 *ff.*, where staff reported that there was a “black hole” in the middle of Comcast’s narrative, i.e., almost no documentation of what had occurred *before* the breach. Transcript at 81:17 *ff.*

communication with third parties, as “Confidential Pursuant to Public Utilities Code 583”;³⁴

- Comcast invoked the alleged confidentiality rights of its third-party data broker business partners, pursuant to confidentiality clauses in its contracts with them, an experience the Senate Commerce Committee also had with the industry;³⁵
- For the better part of a year, Comcast claimed that it had *no way* to search its customer service notes to identify – even anonymously -- those customers who called to complain about the publication of a non-published number, and maintained this position for the first year of the investigation.³⁶ Knowing that this was inconsistent with general industry practice, staff continued to ask about the basis of this statement. Finally, in a March 2014 email, Comcast’s attorneys acknowledged that this statement was untrue, and that its customer account notes could in fact be searched.³⁷

³⁴ See, e.g., Exhibit COM 103C, Donato Direct, at **Attachments A** (Welcome Kit excerpt); B (Privacy Notice and Contract); and I (letters to customers). In the version served on July 18, 2014, these all bore “confidential” designations (see also Exhibit SED 4, at **Attachments A and D**); in the version distributed at the hearing room on October 2, 2014, Comcast had removed the confidentiality designation from Attachments B and I, and removed confidential designations from significant parts of Ms. Donato’s testimony, all without notice. The initial confidential designations, however, had effectively encumbered staff’s treatment of these materials.

³⁵ See, Senate Report at 12-13 (“And provisions in company contracts with customers perpetuate this secrecy by placing restrictions on customer [Comcast] disclosures regarding data sources”).

³⁶ Beginning on July 3, 2013, and continuing in subsequent Comcast objections to SED’s data requests for customer complaint information, Comcast claimed that it could not identify customers who complained about their non-published or non-listed numbers. Exhibit SED 2C, Momoh Opening, at 45:16-46:31, and Confidential Attachment F (Comcast Response to Post-OII Set Two, January 31, 2014, page 4).

³⁷ Momoh Opening, at **Attachment GG** (Email from Suzanne Toller, dated March 25, 2014). Specifically, Comcast informed staff as follows:

We wanted to bring to your attention some information we have recently learned about Comcast’s access to and searching capability of archived customer account notes. In connection with our efforts to retrieve copies of CSG customer account notes going back to July 2010 for our upcoming AG production, we discovered last week that Comcast customer account notes are archived in a third-party database.

(Footnote continued on next page)

- From February 2013 through July 2014, Comcast also denied that the non-published numbers went to any directory assistance providers.³⁸ This had the effect, if not the intent, of directing staff’s attention away from the *LSSi v. Comcast* litigation discussed below, and what it reveals about the trade in subscriber lists (which in the case of Comcast-Targus included non-published numbers). As late as May 1, 2014, Comcast’s attorneys **denied** that Comcast was aware of any “national databases” to which the non-published numbers might have gone.³⁹ These statements were demonstrably false, as shown below, and Comcast and its counsel should have known these statements were false.⁴⁰

Service of Ms. Donato’s July 18, 2014 prepared testimony was the first confirmation that in fact non-published account information also went to kgb.⁴¹ The cumulative effect of

Over the course of the last 7 days we have learned that CSG notes for the period at issue (July 2010 to current) are archived to a database maintained by the Gwynn Group. The Gwynn Group provides Comcast personnel with a tool that allows them to utilize search terms (e.g. “non-pub” or HBO) on notes across multiple accounts. Thus, while it is still accurate that Comcast does not have the ability to undertake word searches in the CSG billing system itself, we have learned today that the company effectively can conduct such word searches through account notes in the archived database using the tool provided by the Gwynn Group.

³⁸ In its very first data response, Comcast flatly declared “No information was provided by Comcast IP or its vendor to third party directory assistance providers.” Comcast February 15, 2013 Response to staff Pre-OII DR 1-5 (at p. 9), found as **Attachment 1** to Staff Report.

³⁹ May 1, 2014 Letter from Comcast Counsel to SED Staff, at pages 4-6 (found as **Attachment D** to Christo Rebuttal, Exhibit SED 6[C]); see particularly page 5 (“To the best of our knowledge, [Ecolisting, Frontier’s 2011 Elk Grove Phone book, Frontier’s 2010 and 2011 Colusa County Phone books, and an electronic address book service used by only a handful of people (Plaxo)] are the only locations where Affected Customers’ non-published listings were published or used”). For good measure, Comcast added that “Targus/Neustar did not provide any Comcast California Listings to any directory assistance providers from 2009-2012”). *Id.* at 7.

⁴⁰ See Exhibit SED 5, Christo Opening Testimony, at 12-19, and specifically opening **Attachment M**, correspondence from Davis Wright & Tremaine’s Sloan demanding hundreds of thousands of dollars for use of Comcast’s directory listings by LSSi. Mr. Sloan was also the author of Comcast’s appellate brief (Exhibit SED 14), and presumably would have reviewed Mr. Miller’s declaration (discussed further below); see also Exhibit SED 6, Christo Rebuttal, at 12-14, and **confidential Attachment S** (email exchange between Mr. Miller and Mr. LiaBraaten, referencing Mr. Sloan).

⁴¹ Exhibit COM 103, at 22:19-23:3. Even here, Comcast fudges – “may have included the Non-Published

(Footnote continued on next page)

these objections and misrepresentations was to delay staff's understanding of how 75,000 non-published account records were released, and where they went.

b) Comcast's Misleading Statements Under Oath, and Before this Commission

Comcast's Mr. Miller testified under oath, in a April 29, 2011 Declaration in the U.S. District Court for the Northern District of Georgia, about Comcast's use of kgb, a national directory assistance provider:

Comcast, however does not provide 411 directory assistance or other Subscriber Listing Information related services directly to its customers. Comcast uses a vendor, kgb USA ... to provide 411 service...

Comcast does not provide kgb USA with its Subscriber Listing Information directly. Instead, *kgb USA obtains Comcast Subscriber Listing Information from another Comcast vendor, Targus.*⁴²

This of course is completely at odds with Comcast's multiple statements to staff that no Comcast subscriber information went to directory assistance providers and/or national databases to which the non-published numbers might have gone. It was not until Ms. Donato's July 18, 2014 Direct Testimony, that Comcast admitted that it has "recently discovered" that the non-published numbers may also have gone to kgb/InfoNXX (kgb), where they were used as part of a national directory assistance database.⁴³

The most egregious examples of Comcast's credibility problem, however, are three specific statements that Mr. Miller – by far the most experienced and

Listings." Comcast offers no evidence at all, however, that the Targus-kgb flow did not include the 75,000 non-published listings, which Comcast has conceded went to Targus.

⁴² Third Declaration of Phil Miller in *LSSi v. Comcast*, **Attachment K** to Exhibit SED 5 (Christo Opening), at ¶¶ 3-5 (emphasis added).

⁴³ Exhibit COM 103, Donato Direct Testimony, at 22:22-24.

knowledgeable of Comcast's witnesses at this hearing – made under oath, each of which is misleading if not false:

- “I told [Ms. Donato] that kgb’s source [of Comcast DL data] was LSSi. At the time I told that LSSi was in fact the exclusive source of Comcast’s sourced DL data.”⁴⁴
- “I terminated that [kgb] contract on my own talking through with kgb when I learned in some discussion with them that they weren’t using it for the intended purpose ... they weren’t using our records to support directory assistance calls.”⁴⁵
- “All Directory Publishers that want access to Comcast’s Subscriber Listing Information may purchase it from Targus on the same rates, terms and conditions, including on the same rates, terms and conditions as Comcast provides to itself... The data and information that LSSi would obtain from Targus would be the same data that Comcast’s vendors (acting on behalf of Comcast) use to provide 411 directory assistance ... The manner in which LSSi would obtain and use data from Targus would be the same way that Comcast’s vendors would to provide these services to Comcast.”⁴⁶

Statement to Ms. Donato

When asked by Ms. Donato about kgb’s source of Comcast subscriber data, Mr. Miller apparently did not tell her what he had told the Georgia District Court: “kgb USA obtains Comcast Subscriber Listing Information from another Comcast vendor, Targus.”⁴⁷ Mr. Miller’s Rebuttal Testimony attempts to explain why Mr. Miller could testify under oath in 2011 about kgb’s sources of directory listings, but forget all about this in 2014 (and why no one, including Comcast’s counsel who were percipient

⁴⁴ Exhibit COM 107, Miller Rebuttal, at 13:10-11.

⁴⁵ HT (Miller) at 576:16-577:1.

⁴⁶ Third Declaration of Phil Miller in *LSSi v. Comcast*, **Attachment K** to Exhibit SED 5 (Christo Opening), at ¶¶ 5-6.

⁴⁷ *Id.* at ¶ 4; compare Miller Rebuttal Testimony, Exhibit COM 107, at 13:9-11.

witnesses to it, caught the mistake): “At the time I told her that LSSI was *in fact* the exclusive source of Comcast’s sourced DL data. I did not think to mention that kgb had had an additional source of data in 2011 (Neustar) since I took the inquiry as relating to the current period.”⁴⁸

The problem with this explanation is that Comcast stopped delivering directory listings to LSSI in February 2013,⁴⁹ well before April 2014 when SED began asking about the full extent of Comcast’s directory listing distribution to Targus, kgb and LSSI.⁵⁰

Mr. Miller’s Termination of kgb’s access to Comcast records through Targus/Neustar

Mr. Miller claims to have terminated kgb’s relationship with Targus because they “weren’t using [our customer base] for the intended purpose.”⁵¹ As a threshold matter, this is puzzling because termination of the flow of subscriber list data to kgb through Targus, where Mr. Miller claims to have had some control, thus pushed kgb into the arms of LSSI for the Comcast data, a bad actor by Mr. Miller’s own admission over which

⁴⁸ Miller Rebuttal Testimony, at 13:10-13 (emphasis added).

⁴⁹ HT at 567:21-24 (Mr. Miller’s statement that Comcast stopped delivering data to LSSI in early 2013, “around February”). When asked who was “kgb’s source of Comcast provided directory listings if any after that point,” Mr. Miller responded “I do not know.” *Id.* at 567:28. Mr. Miller then attempts to imply, even though he has stated he does “not know,” that LSSI continued to supply Comcast data to kgb even after Comcast stopped providing data to LSSI. HT 567:28-568:1. This raises interesting questions about the trade in subscriber lists, but the bottom line here is that on cross-examination Mr. Miller stated he did “not know” kgb’s source of Comcast records, but in his testimony he says “I told her that kgb’s source was LSSI.”

⁵⁰ See SED 1, Staff Report, at **Attachment 1**, a list of all pre-OII data requests (none of which concern the licensing of Comcast subscriber lists to third parties). The first post-OII data requests to specifically ask about, or even tangent on, the provision of subscriber lists to kgb were DRs 4-18, propounded in April 2014, which asked Comcast to clarify a statement in a redacted email about what Neustar’s role is with Comcast data as it relates to DA”; in May 30, 2014 Comcast reveals for the first time that the redacted portion of the email stated ***“[REDACTED]”*** Exhibit SED 2C, confidential Attachment G, at pp. 24-24. (See note re confidentiality *****citation convention** ***next page.) Moreover, the “sponsor” of this DR response is not Ms. Donato, but Ms. Cardwell, whom Comcast chose not to produce for testimony.

⁵¹ HT at 576:19-21. “They weren’t misusing it. They weren’t selling it as per our contract.” *Id.* at 576:21-23.

Comcast had no control.⁵² This did not make sense, and was in fact pretextual. Staff asked Comcast for documentation of the termination of kgb, and Comcast produced one document, found at Christo Rebuttal, confidential Attachment S: a September 12, 2011 email correspondence with Targus' Clayton LiaBraaten. In this email chain, Miller asks LiaBraaten to "cancel" the Targus agreement with kgb, and to do so for monetary reasons:

*** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. ***⁵³

On cross examination, Mr. Miller admitted that the email related to "the LSSi litigation going on at the time." HT at 590:1-2. He admitted that the reference to "4/6" is the same \$.04 and \$.06 per listing that Comcast was demanding from LSSi (in June 17 and September 14, 2011 letters from Mr. Sloan to LSSi).⁵⁴ And Mr. Miller admitted that this rate is substantially *more* than the rate which Comcast (through its agent Targus) was charging kgb for use of the same data.⁵⁵

⁵² Miller Rebuttal at 11:6 ("we agree with [Mr. Tien's] assessment of [LSSi]"); HT at 578:21-23 ("my experience with LSSi for over a year was I didn't trust them"); *see also* HT at 585:16-26.

⁵³ Exhibit SED 6C, Christo Rebuttal, at confidential **Attachment S. Citation Convention:** SED designates confidential material in this brief with triple asterisks around such ***material***.

⁵⁴ Confronted with Mr. Sloan's letters to LSSi (at Exhibit SED 105, Christo Opening, **Attachment M**), Mr. Miller admitted "It has to do with the term – injunction that Comcast was under in U.S. District Court ... Under the provision of the communications act [sic] carriers are allowed to charge a rate of 4 or 6 cents for those records." HT 591:5-27.

⁵⁵ Confronted with Mr. Chudleigh's Declaration, at ¶ 11, where he lists the lower rate that Targus was charging kgb (on behalf of Comcast) -- *** [REDACTED] *** per listing --- Mr. Miller conceded that the Targus-kgb rate was "substantially less" than what Comcast demanded (and collected) from LSSi. HT at 593:5-12; compare HT at 592:3 ("They paid us \$662,000").

Mr. Miller's Misleading Statement about Non-Discriminatory Access

Mr. Miller stated under oath to the Georgia District Court that “all directory publishers that want access to Comcast subscriber listing information may purchase it from Targus on the same rates and conditions, including the same rates terms and conditions as Comcast provides to itself.” Mr. Sloan’s appellate brief for Comcast relies on this statement to assert that Targus will distribute Comcast’s “directory data ... on nondiscriminatory terms and conditions.” Exhibit SED 14, at 7. Mr. Miller’s assertions of non-discrimination were misleading or false, and were material to the Eleventh Circuit’s decision in that case (even though the Court did not mention Miller by name). The Eleventh Circuit first notes the injunction entered by the District Court on May 4, 2011:

The District Court granted LSSi's preliminary injunction request, enjoining Comcast "from failing to provide directory assistance listing data directly to LSSi on a complete, accurate, timely, and nondiscriminatory basis."⁵⁶

As a threshold matter, it appears that Comcast did not comply with the Court’s injunction, and continued to provide kgb the Comcast records at a lower rate than it was demanding from LSSi until at least November, 2011, if not January 2012. (See discussion above.) The Circuit Court then identifies rate discrimination, not “agency” as Mr. Miller claimed on cross examination,⁵⁷ as the key issue between the parties:

The real question presented here, then, is not whether Targus is an agent of Comcast, or whether Comcast treated Targus, which is only involved with data aggregation and distribution, differently than LSSi. Instead, it is whether Comcast, as the

⁵⁶ *LSSi v. Comcast*, 696 F3d 1114, 1119 (11th Circuit, Sept. 26, 2012),

⁵⁷ *See, e.g.*, HT (Miller) at 597:23-25 (“At the time of the LSSi litigation, price was not the issue. The issue was agency”).

providing LEC, through Targus, as its agent, discriminates in one of two ways: 1) between requesting LECs and publishers or 2) between those companies and itself. ...

Asking what we understand to be the correct question--whether Comcast through its agent Targus will discriminate between itself and LSSi--we conclude that LSSi has not shown a substantial likelihood of success on the merits. ...⁵⁸

But, as shown above, Comcast *was* discriminating between itself (provision of subscriber list data to its long-time DA provider) and LSSi. Kgb had for many years provided directory assistance service to Comcast, and was getting Comcast's directory assistance records for substantially less than the \$.04/.06 rate that Comcast was demanding from LSSi. Had the Court or LSSi known this, the LSSi litigation may have turned out differently. Comcast has not corrected the record or advised the Court (and LSSi) of the discrepancy between the rates charged to kgb/Targus and LSSi for access to Comcast subscriber lists.⁵⁹

⁵⁸ *LSSi v. Comcast, supra*, 696 F3d at 1123. The Court continued:

To be clear, our review of this record reveals that the potential for unlawful discrimination is present: Comcast, through Targus, may be giving itself and its own directory assistance provider preferential treatment. However, LSSi has not yet established, and the District Court did not find, that LSSi is substantially likely to succeed on a claim that this type of discrimination is present in violation of the Act.

Id. On remand to the District Court, that Court also focused on the discrimination question:

Assume for the moment that Comcast and Targus do not discriminate--i.e., every entity that obtains Comcast DA data (including itself) receives the data on the same terms. If that were true, then LSSi's gripe about not being able to "directly" obtain the data would still fall on deaf ears, because the Eleventh Circuit said the question is whether indirect access through an agent is discriminatory--not whether it is indirect.

LSSi v. Comcast, 2013 U.S. Dist. LEXIS 188580 (D. Ga., March 4, 2013) at *11-12. The Court found – apparently unaware of the lower rate which kgb had enjoyed – that there was an insufficient showing of discrimination, and referred the case to the FCC for a final determination. *Id.* at *17-19, 35-36.

⁵⁹ HT at 599:13-22.

SED argues these facts for several reasons: (1) they demonstrate that the deregulated market for directory listings is a hardball game where subscriber information has substantial value; (2) they go to credibility, and Comcast's apparent indifference to its duty to provide accurate information to this agency, and the United States District and Circuit Courts; and (3) they demonstrate the secrecy and information asymmetry discussed below.

5. Information Asymmetry

As the Senate Committee on Commerce, Science and Transportation reported last year, "data brokers operate behind a veil of secrecy":

Data brokers typically amass data without direct interaction with consumers, and a number of the queried brokers perpetuate this secrecy by contractually limiting customers from disclosing their data sources. Three of the largest companies – Acxiom, Experian, and Epsilon – to date have been similarly secretive with the Committee with respect to their practices, refusing to identify the specific sources of their data or the customers who purchase it.⁶⁰

The obsession with secrecy in the data industry may explain the obfuscation, misdirection, and misinformation described above, and exacerbates a reality present in every Commission case: the utility knows their business better than CPUC staff does. This inherent information asymmetry was aggravated in this case by (a) Comcast's attempt to put much of its operations behind a wall of "confidentiality" and "trade secret"

⁶⁰ Senate Committee on Commerce, Science and Transportation, "A Review of the Data Broker Industry: Collection Use and Sale of Consumer Data for Marketing Purposes" (December 2013), at iii. available at http://www.commerce.senate.gov/public/?a=Files.Serve&File_id=bd5dad8b-a9e8-4fe9-a2a7-b17f4798ee5a; *see also* Federal Trade Commission, "Data Brokers – a Call for Transparency and Accountability" (May 2014), available at <http://www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf>; and US General Accounting Office (GAO), "Information Resellers – Consumer Privacy Framework Needs to Reflect Changes in Technology and the Marketplace (September 2013), available at <http://www.gao.gov/assets/660/658151.pdf>.

redactions; (b) Comcast’s invocation of alleged confidentiality agreements, even between it and its alleged agent, that encumbered and slowed cross-examination;⁶¹ (c) the limitation of key witness testimony, particularly the testimony of Targus/Neustar witness Chudleigh, who appeared only pursuant to a subpoena, and only after staff counsel committed to limiting his examination to one hour;⁶² (d) Comcast’s incomplete, inaccurate, and/or hypertechnical responses to discovery; and even (e) the limitation of evidentiary hearing time to 15 hours, which all parties accepted as an unavoidable circumstance due to Commission resource constraints.

Another issue that implicates both information asymmetry and Comcast’s credibility was the dearth of percipient witnesses. Except for Phil Miller, none of the people who were around when the privacy breach happened were made available for testimony. A number of employees had left the firm. Valerie Cardwell, who oversaw the relationship with Targus/Neustar, was transferred once the investigation began.⁶³ The witnesses who were proffered had no personal experience. This led, for instance, to Ms. Donato having to strike a key portion of her testimony from the witness stand “because I don’t have those specifics.” HT at 429:26-28.

Finally, “information asymmetry” exists not only between regulators and utilities generally, and staff and Comcast particularly, but also between Comcast and its customers. As the Senate Report put it:

[D]ata brokers remain largely invisible to the consumers whose information populates their databases. Consumers have limited means of learning that these companies hold their data, and respondent companies provide consumers

⁶¹ For one example among many, see HT at 266-67.

⁶² Counsel for Neustar and Comcast suggested they would move to quash the subpoena if staff counsel did not so agree.

⁶³ Exhibit SED 5C, Christo Opening, at **Attachment Z**, Cardwell transcript at 61:16-23.

rights of access and control regarding their data that vary widely by companies. Several of the largest respondent companies have been similarly secretive with the Committee, refusing to identify specific sources of their data, and specific customers who purchase it. And provisions in company contracts with customers perpetuate this secrecy by placing restrictions on customer disclosures regarding data sources.⁶⁴

While Comcast can obtain complete profiles of its customers, the customers have little or no idea what Comcast does with their data. This is particularly true of the non-published subscribers, who have an expectation of complete privacy that is at odds with the reality of what little privacy their \$1.50/month actually purchases, even when the system works the way Comcast intended it to work.⁶⁵ Among the remedies staff proposes below are better disclosures to consumers, and a simple one-page/one-screen opt-out of all information sharing (or opt-in to all available privacy products, including Caller ID blocking, CPNI protections, do not call lists, and non-published listings).

B. Procedural

Comcast reported the breach to the Commission less than 8 days after SB1161 (codified primarily at new P.U. Code section 710) became effective. The above-captioned OII was voted out on October 3, 2013.⁶⁶ Comcast immediately moved to dismiss the action under Public Utilities Code § 710 (SB 1161).⁶⁷ As described in the jurisdictional section below, the Assigned ALJ rejected that motion.⁶⁸

⁶⁴ Senate Report, at 12-13.

⁶⁵ Customers uniformly reported to staff that they thought a non-published number meant that no one would see their number except Comcast. See customer declarations at Exhibit SED 2, Momoh Opening, at **Attachments P.2, P.3, P.7** (at ¶ 4), and Exhibit SED 3, Momoh Rebuttal, at **Attachment B**); see also Mr. Tien's discussion of customer expectations at Exhibit SED 4, at 2-7.

⁶⁶ The OII received the unanimous support of five Commissioners on October 3, 2014. The OII was issued/mailed on October 8, 2014.

⁶⁷ November 13, 2013 Motion to Dismiss of Comcast Phone of California, LLC (U-5698-C) and its Related Entities. Comcast claimed that the CPUC's investigation of Comcast's breach of its customers

(Footnote continued on next page)

III. FACTUAL ISSUES

A. The Nature of the Breach/Release (alleged Process Error)

The baseline practice of Comcast in 2009 and 2010 was to send non-published numbers to at least one third party, Targus/Neustar. As discussed further below, this in itself constituted a violation of 2891.1. The breach that affected the 75,000 California non-published customers happened because of this baseline practice -- because the “privacy flag” on the non-published records sent to Targus Neustar was missing, Targus/Neustar treated them *as if* they were published records, and sent them out into the world (to the Internet, to a national directory assistance provider, and to various print publishers – see next section).

1. Comcast’s Story About How the Alleged 2010 Breach Occurred Is Contradictory and Likely Incomplete, and Shows a Callous Disregard of its Non-Published Customers.

An understanding of how the data breach occurred is important for several reasons: (1) it determines how long the breach was extant, and how widely the non-published names, addresses and telephone numbers were disseminated; (2) it is essential to preventing such a data breach in the future; and (3) it again tests Comcast’s credibility.

Comcast admits an error occurred in a “new” and flawed process that it had used to produce and disseminate its subscribers’ listings to Targus/Neustar, its “agent” responsible for licensing and selling Comcast subscriber listings.⁶⁹ According to

privacy was a prohibited “attempt to regulate Voice over Internet Protocol (“VoIP”) services.” *Id.*, at 1. Staff responded by noting that it was the certificated utility affiliate played an essential and necessary role in the acquisition and distribution of Comcast telephone numbers and directory lists. January 13, 2014 Response of SED to Comcast’s Motion to Dismiss. The Utility Reform Network (TURN), the Greenlining Institute, and the Consumer Federation of California also opposed Comcast’s Motion.

⁶⁸ March 11, 2014 ALJ Ruling Denying Comcast’s Motion to Dismiss.

⁶⁹ Exhibit COM 103C, Donato Direct, at 3:8-4:8.

Comcast, the privacy breach started with a state-wide reassignment of account numbers to all California customers in October and December of 2009.⁷⁰ This statewide account number change apparently precipitated the creation of a new and flawed data table (POI Table) in Comcast’s billing system.⁷¹ “The new POI Table began accruing data related to XFINITY Voice work orders associated with the new account numbers only prospectively, and did not include any work order data associated with a given customer’s old account number.”⁷²

At hearing, Comcast was at great pains to point out that the POI Table was not empty. It had billing information in it. “In fact so there was no empty data table to my knowledge. ...[I]t was not an empty table.” HT 394:15-16. So there was data in the POI Table, apparently all the account data *except for* published/non-published status.⁷³ That status marker or data field for published/non-published automatically defaulted to “published,” as Ms. Donato ultimately admitted:

So the POI Table, the process that extracted the data from the POI Table, if there was not a non-published or non-listed service found, did default to published.⁷⁴

As inexplicable as this is, it becomes more baffling when one considers that, at the same time, Comcast had another Table in its billing database, an “account based” table called

⁷⁰ *Id.*, at 10-12.

⁷¹ *Id.*, at 12:8-9 (“As part of this wholesale account number change, a new POI Table was created in the billing system”).

⁷² *Id.*, at 12:9-12.

⁷³ HT at 394:28-395: 3:

Q. So would there have been data in the -- in the POI Table at that point in time?

A. Yes.

We know that at a minimum, there was name, address, and telephone number information in those accounts, because that was what went to Targus, kgb, and the directory publishers.

⁷⁴ *See* colloquy at 518:2-25.

the PAS Table, dedicated to *billing* rather than providing the *non-published service*,⁷⁵ and that table had accurate information on published/non-published. As Comcast tells us, the PAS Table, unlike the POI Table, had the correct account information in it:

The PAS Table includes all of the active XFINITY Voice service and features (including non-published service) associated with a telephone number under a customer's current account number, regardless of whether those services and features were originally ordered under a different account number. Because the PAS Table includes all current account information, it accurately reflects a customer's non-published status.⁷⁶

Reviewing the bidding here, one concludes that, although the account renumbering purported to be the root cause of the "Process Error" and data breach affected the POI Table, it did not affect the PAS Table. No explanation is given. Apparently account information was moved from some Ur-billing database into each of those Tables (as shown in both Comcast and SED's flow-chats),⁷⁷ with one salient difference: the data field for published/non published was correctly transmitted to the PAS Table for billing, while the data field for published/non-published was set to a default of "published" for the POI Table for publishing and directory assistance.

A number of other questions suggest themselves, including this: if this breach was caused by an apparently state-wide account number change, why did the breach not affect

⁷⁵ *Id.*, at 14:22-23 (PAS is "an account-based table . . . , rather than the order-based POI Table"); *see also* Exhibit COM 103, Donato Direct, at 13:16-17 ("the charge for a Non-Published listing is based out of a different data table than the POI Table"); *compare also* Exhibit COM 114 (Ms. Donato's "Corrected SED Christo Rebuttal Attachment C" Chart), and Exhibit SED 15C (SED's revised chart, with annotations as directed by Ms. Donato). A version of SED 15C, without Ms. Donato's correction, is attached hereto as Appendix 2. *All three of these charts* show that PAS Table was used for "customer bills."

⁷⁶ *Id.*, at 14:23-15:3.

⁷⁷ *See* footnote second above.

all customers in California? Ms. Donato fudged her answers, but ultimately admitted that the breach did not affect all of the ***[REDACTED]*** Comcast non-published customers in California, contradicting her written testimony.⁷⁸ This may contradict Comcast’s story that there was one “process error,” rooted in the reassignment of *all* California numbers, that led to the release.⁷⁹ For Comcast’s story to be true, as SED understands it, *all* California non-published customers should have been affected by the breach, but not all were.⁸⁰

There’s also the question of other states. Pursuant to Comcast’s narrative, the Process Error was triggered by a reassignment of *California* numbers, combined with the use of a data table query that did not pick up pre-reassignment orders,⁸¹ and where the default was “publish.”⁸² This requires the factfinder to assume, as one must with the Comcast narrative, that the same sort of number reassignment, combined with the same sort of data table query, was used in other states. The factfinder has no basis on which to

⁷⁸ HT 491:5-8:

Q. But you do know that the 74 to 75,000 is not the entire universe of California non-pub customers, correct?

A. Correct....

See also, Exhibit SED 1C, Staff Report, Attachment 2 Page 13: “As of February 28, 2013, Comcast IP had approximately ***[REDACTED]***

[REDACTED]”; *See also*, discussion of other data breaches, below.

⁷⁹ Exhibit COM 103, Donato Direct, at 10-13.

⁸⁰ *See e.g.*, Exhibit SED 6, Christo Rebuttal, at **Attachment H** (FCC complaint from woman who says she was customer from 2008-2012, and her name and number were published); *compare* Exhibit COM 106, Stephens Rebuttal, at 20:8-9 (“that complaint was not from a customer impacted by the Process Error”). Comcast also denied, although off the record, for example, that Ms. J, the subject of the February 2012 KCBS television news story, was one of the customers affected by the breach.

⁸¹ Exhibit COM 103C, Donato Direct, at 11.

⁸² HT (Donato) at 518.

make such an assumption, *particularly when there is no percipient witness to tell the story.*⁸³

Even assuming Comcast's facts were true and complete, the conclusion to be drawn is that the default setting of "published" for the published/non-published data field in the POI Table meant there was no "privacy flag" on the accounts of approximately 75,000 affected customers, as transmitted to DLODS, Comcast's online repository of information.⁸⁴ From there, they were then distributed Targus/Neustar, from which they were ultimately distributed to Ecolisting, kgb, and several smaller directory publishers.⁸⁵ In light of the risk that non-published account records could be released into the Internet wilds, a risk created by Comcast's decision to work with these data brokers, Comcast's failure to exercise greater care must be considered as callous disregard of its consumers' privacy preferences.

⁸³ Ms. Donato only came on the scene in March of 2012 – a March 27, 2012 email marks her arrival. Exhibit SED 6, Christo Rebuttal, **Attachment F**. All of those closest to the directory listing operation and privacy breach, including Ms. G. (***) (***), Ms. M (***) (***), and Ms. B (***) (***), have left the company; Ms. B (**) only after the breach was discovered, and a third percipient witness, Ms. Cardwell, was not offered as a Comcast representative at hearing. HT (Donato) at 470:11-25; compare many documents and emails from those employees or contractors about problems with directory listings – Exhibit SED 5C, Christo Opening, at **Attachments L** (July 22, 2009 email string including Ms. M and Ms. B); **R** (same); **W** (Sept. 10, 2010 Enterprise Project Initiation request re "Non-Pub Addresses to Targus," apparently authored by Ms. M), **EE** (January 15, 2010 email re Webservice for Directory Listing Features, Ms. B and Ms. M involved); *see also* Exhibit SED 6C, Christo Rebuttal, at **Attachments V** (Nov. 11, 2011 email string with Ms. G and Ms. M, re "LSSi Insert and Pub Flow") and **FF.1** (October 5, 2011 email string re Comcast Director Mr. K, who found his non-published account information on Ecolisting, copy to Ms. Cardwell).

⁸⁴ Donato Direct at 4:11-13 ("The error occurred with the process that was used to identify and flag Non-Published Listings for distribution to Comcast's directory listing vendor (Neustar) and Frontier (in California)").

⁸⁵ *Id.* Listings without the privacy flag were apparently also sent directly to the small LECs like Frontier, or their designated publishers, by the data query "process" – as Ms. Donato puts it. See HT (Donato) at 403-404, and Exhibits SED 15C and COM 114C.

Comcast states that it corrected the flawed POI database query on December 5, 2012, and purportedly removed the non-published listings from Ecolisting.com by December 10, 2012.⁸⁶

2. Was there More than One Breach?

Comcast has from the outset of this case sought to define the release of non-published numbers in terms of a “Process Error,” while staff believes that the error is more accurately described as what it was – a privacy breach. The deeper problem here is that Comcast’s construct ignores, or brackets out of view, the apparently ongoing errors resulting in privacy breaches. It appears that the publication of non-published numbers was an ongoing and chronic problem. For instance, in an email chain from July 2009 (not included in the Appendix 1 Timeline), with the subject line “Do you know if”, an employee asks:

*** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] ... ***⁸⁷

Indeed, another employee on this 2009 “**email chain**” spotted the problem that goes unexplained above, and **suggests reporting that would have prevented or immediately detected the privacy breach:**

*** [REDACTED]
[REDACTED]

⁸⁶ Donato Direct at 15.

⁸⁷ July 27, 2009 email string, re “Do you know if,” confidential **Attachment GG** to Christo Opening, Exhibit SED 5C, at COMCASTPOST-OII_013723 (last page). This document contains no apparent trade secret or business confidential data and should be public, as should most of the confidential documents cited in this brief.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] ***⁸⁸
[REDACTED]

Ironically, the last email in this string (first in the display) talks about “research” that might help “identify root cause of the problem.” It identifies a *** [REDACTED]

[REDACTED]”*** None of these audits have been produced, nor has Comcast produced a witness designated as the Directory List subject matter expert.

As graphically shown in the chart attached as Appendix 1, representing record evidence about the history of trouble tickets and other warnings Comcast received, there were a number of breaches or apparent breaches, from 2009 forward. Comcast can of course claim that these were all from other states, but it is Comcast itself that emphasizes that “national” scale of its operation.⁸⁹ Even during the time of the breach, we have other known breaches – during the period July 1, 2010 through December, 2012, which Comcast has claimed were not part of the process error. Specifically, Ms. Stephens testified that:

Mr. Momoh claims that Comcast opened over 350 trouble tickets “directly related to the problem of a non-published number being listed” in an effort to show that Comcast should have known about the Process Error sooner....Even those tickets specifically relating to publication of non-published listings for those customer who had signed up for that service would not have presented a “warning sign” of the Process Error unless they were opened for customers who were impacted by the Process Error....”⁹⁰

⁸⁸ *Id.*, at 13721 (second page) (emphasis added).

⁸⁹ *See e.g.*, HT (Donato) at 394:8-9 (“the process to extract data listing data is a national process”).

⁹⁰ Exh. COM 106, Stephens Rebuttal Testimony, at 17:14-18.

Ms. Stephens concludes that only approximately 75 of the 350 Trouble Tickets were caused by this Process Error. So were the 275 other customers impacted by a different process error? Comcast does not say.²¹

B. The Full Extent of the Breach – How Far the Non-Published Numbers Traveled -- May Never Be Known, But it Was Substantially Larger than Originally Reported.

Although SED will set out below what it has been able to discover about the dissemination of Comcast directory listings, including those listings that erroneously contained non-published numbers, the truth is that Comcast itself probably does not know how broadly the records were disseminated. As Mr. Miller testified:

I also didn't know at all if they had our – if LSSi was using our records with kgb or anybody else, who they were providing those records to other companies in the United States. [sic]²²

This colloquy with Ms. Donato also reflects this lack of understanding:

Q. So you really don't know what's in or out of DLP; is that correct?

A. No, I don't know for sure what sources they use in their product to input. For what we license and how they use our data, we have gotten their assurances and discussed many times how they use that.²³

Sometimes, the very act of seeking Neustar's "assurances" reveals how little information Comcast had, or pretended to have when deniability was important.

Mr. Miller, Comcast's point man on negotiating contracts for the distribution of Comcast directory lists, not only was clueless when it came to LSSi but also had no idea where

²¹ Ms. Stephens avoids the question by vaguely referring to "benign, unrelated" reasons for opening a Trouble Ticket. *Id.*, at 17:20-21 and fn. 17.

²² HT (Miller) at 578:27-579:3.

²³ HT (Donato) at 430:9-13.

consciously prevaricating, or one that has no idea where its information assets are deployed.

1. Comcast Sent Non-Published Records to Targus/Neustar (aka Localeze and Amacai).

Comcast admits that its non-published listings went to “Comcast’s directory listing vendor (Neustar).”⁹⁶ Neustar was Targus, until Neustar acquired Targus in November 2011. Targus/Neustar also had affiliates or did business under the names of Amacai and Localeze. Comcast had worked with Targus going back to 2006, when the two parties entered into a Commercial Information Services Agreement (CISA), which was a sort of master agreement that was modified through the years. The first agreement related to directory listing licensing and distribution was the CISA Amendment 8, dated November 1, 2009.⁹⁷ Under that agreement, Targus was an “independent contractor.”⁹⁸ On May 15, 2011, Comcast entered into a successor agreement with Targus, a Directory Listing, Licensing and Distribution Agreement (DLLDA), which was the operative agreement for the second half of the privacy breach.⁹⁹ Under this agreement, Targus was Comcast’s “distribution agent.”¹⁰⁰

Ms. Donato testified that the Targus/Neustar was the “conduit by which Comcast distributed its [subscriber] listings during the relevant time period and through which the Non-Published Listings were published on Ecolisting.”¹⁰¹ As shown below, Targus

⁹⁶ Exhibit COM 103, Donato Direct, at 7:17-19

⁹⁷ Exhibit SED 5C, Christo Opening, **Attachment S**.

⁹⁸ Christo Opening, at 24-25.

⁹⁹ Christo Opening, **Attachment T**.

¹⁰⁰ Christo Opening, at 26, citing DLLDA ¶ 2.2.

¹⁰¹ Donato Direct, at 7:17-20.

distributed the Non-Published Listings more broadly. Also as discussed below, Comcast made a conscious choice to send the non-published listings to Targus (and presumably LSSi), and to do so with a “privacy flag,” rather than keep those listings in-house.

Comcast refers to Targus/Neustar as its “Listing Agent,” but Targus and Neustar were much more. Targus was a data broker, and the successor division within Neustar still is. And it was inevitable that Targus/Neustar’s dual roles would meet, if not collide.

Comcast’s Phil Miller described Targus as “a sophisticated data company ... that focuses its business on managing and handling huge amounts of data,” in his May 2011 “Third Declaration” filed with the U.S. District Court in Georgia:¹⁰² Stephen Ainge, Mr. Chudleigh’s colleague at Targus, described Targus as “a commercial aggregator and provider of consumer and business data to third parties,” including but not limited to directory listing publishers.¹⁰³ In fact, expert witness Tien bluntly described Targus/Neustar as a “data broker,” an assertion Comcast did not challenge at the hearing.¹⁰⁴

The point where Targus’ twin roles as directory list licensing agent and data broker meet is in the use of Comcast data in a file called DLP *** [REDACTED] *** which consists of the Comcast data, the data from at least one other large cable company, and a large consumer database referred to as the PCP *** [REDACTED] [REDACTED]***. This process was described by Mr. Chudleigh in hearing testimony, referring to Exhibit SED 7C:

¹⁰² Exhibit SED 5, Christo Opening, at **Attachment K**, at ¶2.

¹⁰³ Exhibit SED 5C, **Attachment N** (Second Declaration of Dennis G. Ainge, in *LSSi v. Comcast* litigation), at ¶ 2.

¹⁰⁴ Exhibit SED 4, Tien Testimony, at 17:13-16. When asked about the evils of data brokers, witness Tien pointed to the need “for people being able to control their information.” HT at 39:19-26. At no point did Comcast counsel challenge Mr. Tien’s characterization of Targus/Neustar as a databroker.

Q So was the Comcast-specific data or Comcast-provided data used in corroboration of the DLP data?

A So the answer is, yes, as described here.

Q Okay.

A It goes into a bucket, and then we find out whether it is proprietary or not proprietary, will determine private or public.

Q Okay. And one of the things that is corroborated there is the file that we previously refer to as the PCP file. That is one of the contents of the --

A Yes; that is correct

Q And the rest of my sentence, or question was, content(s) of the DLP?

A Yes, sir.¹⁰⁵

In the normal course of things prior to October 2012, Targus/Neustar used both published and non-published numbers to corroborate the PCP database:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] ...¹⁰⁶***

Non-published numbers were apparently used in this way to corroborate Targus' consumer database(s).¹⁰⁷ These consumer databases were then sold to third parties:

¹⁰⁵ HT (Chudleigh) 290:15-291:4.

¹⁰⁶ Cross-examination Exhibit 7C, January 25, 2013 Neustar Email to Comcast's Cardwell, re DLP Overview, at Comcast_Post-OII_001293 (emphasis added).

¹⁰⁷ Although the full name of the PCP file was not used at hearing to protect Targus/Neustar's alleged confidentiality [rights], Targus/Neustar is much more expansive on its website. See

(Footnote continued on next page)

[T]he types of companies that will license that [PCP] product are foundational data companies such as credit bureaus, people who are doing fraud prevention. Anybody who has a need for [that] sort of foundational household level consumer file in support of their business activities.¹⁰⁸

Businesses that have “a need for that sort of foundational household level consumer file” are, in addition to credit bureaus and fraud prevention services Mr. Chudleigh identifies, also the debt collectors and telemarketers described in Mr. Tien’s testimony.¹⁰⁹

As a result of Comcast’s decision to work with and send almost 75,000 non-published customer records to Targus/Neustar, the personal information of approximately 75,000 non-published customers whose accounts were not properly flagged was thus either included or used in the building of: (a) a national data assistance database, the DLP; and (b) to multiple databases used by credit bureaus, debt collectors, and telemarketers.

At hearing, Comcast made repeated efforts to muddy the situation, claiming that somehow Comcast-provided records were not fully integrated into the database. But these excerpts from Targus/Neustar’s “DLP” and “DLP Build Process” memoranda (Exhibit SED 7C) show differently:

*** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]:

<http://www.neustar.biz/information/docs/pdfs/solutionsheets/pure-consumer-solution-sheet.pdf>
 (“Enhance Your Direct Marketing Files ... Pure Consumer is built on Neustar’s unique market-proven, consumer insights engine ... Neustar raises the consumer data bar. We have proprietary partnerships with hundreds of data sources that report data numerous times daily. This means we also update our data several times each day. The result, you receive the most comprehensive, freshest consumer information ... Pure Consumer Premium - For data compilers looking for the maximum household coverage”).

¹⁰⁸ HT (Chudleigh) 292:14-20.

¹⁰⁹ Exhibit SED 4, Tien Testimony, at 12-16, 26.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] ***¹¹⁰

And:

*** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. ***¹¹¹

By “participating,” an MSO like Comcast participates in a “corroboration” process which may make for more accurate directory assistance files, but also enhances the data marketing products which Targus/Neustar sells to a broad array of customers (as shown above):

*** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].¹¹² ***

Thus, the non-published account numbers were exposed to the risk that they would be incorporated into some of Targus’ data products designed for credit agencies and other customers. And this appears to be what happened with the 75,000 affected accounts if not all non-published numbers.

¹¹⁰ Exhibit SED 7C, at COMCAST_POST-OII_001295.

¹¹¹ *Id.* at 001293; *see also* Exhibit SEC 6C, Christo Rebuttal, at **Attachment W** (Mr. Chudleigh reports that Comcast data, ***“ [REDACTED] ”***). Emphasis added.

¹¹² *Id.* at 001295.

2. Comcast Non-Pub Records Went to kgb (a national directory assistance company)

Although Comcast denied for almost a year and a half, that Comcast-provided subscriber lists, including the non-published account information at issue here, went to any directory assistance provider, there is clear email evidence that not only Comcast directory listings were going to kgb, a national directory assistance provider, as early as December 2009, but that Comcast made a conscious decision at that time to include non-published numbers in that data stream.¹¹³ (This matter is discussed further in Section F(2) below.) , Comcast now admits that, for at least a year and perhaps considerably longer, Comcast-provided subscriber information with non-published account information in it *may have* flowed from Comcast through Targus to kgb.¹¹⁴ There is little doubt that this occurred. As set forth in the previous section, Targus and Comcast entered into a contract on November 1, 2009 pursuant to which Targus was to license Comcast subscriber listings.¹¹⁵

Targus' affiliate Localeze then entered into a contract with kgb on November 29, 2009, wherein Targus committed to provide kgb with Comcast directory listings.¹¹⁶ Both Mr. Chudleigh and Ms. Donato attempted to claim (after Comcast produced it in this litigation) that this contract had nothing to do with providing Comcast residential directory listings to kgb for use for directory assistance.¹¹⁷ After a long cross-

¹¹³ Exhibit SED 6C, Christo Rebuttal, at 13-14, and **Attachment O**.

¹¹⁴ Exhibit COM 103, at 22:19-23:3. Even here, Comcast fudges – “may have included the Non-Published Listings.” Comcast offers no evidence at all, however, that the Targus-kgb flow did not include the 75,000 non-published listings, which Comcast has conceded went to Targus .

¹¹⁵ Exhibit 5C, Christo Opening, **Attachment S**.

¹¹⁶ Localeze Standard License Agreement, COMCASTPOST-OII_017351_017376, Confidential **Attachment K**. to Christo Rebuttal, Exhibit SED 6C. A more complete version of the Localeze-kgb contract is found at Donato Rebuttal Confidential Attachment E.

¹¹⁷ HT at 264:20-265:4.

examination, Mr. Chudleigh was constrained to admit that the directory information licensed to kgb included *residential* listings from both Comcast and another major cable “multi-system operator” (MSO) that offers telephone service.¹¹⁸ Of course, the much simpler way to get to this conclusion is simply to read Mr. Miller’s Declaration under oath in the Georgia District Court that “kgb USA obtains Comcast Subscriber Listing Information from another Comcast vendor, Targus.”¹¹⁹

Ms. Donato’s Direct Testimony states that “kgb received the data [from Targus/Localeze] in July 2010,¹²⁰ although her Rebuttal Testimony asserts those were only “test files,” with full-rights (?) listing information beginning to flow on November 1, 2012.¹²¹

The transmission of non-published numbers to kgb is significant not only because it is a nationwide directory assistance platform,¹²² but because it also operates an online

¹¹⁸ HT 274:28-275:23, culminating in this exchange:

Q And so back to my question, was this data repository, DLP, the repository of the data that is referred to in the product schedule?

A It was the repository from which the extract was delivered, but they didn't get everything in the repository because they didn't want to license that.

Q Okay. But they did get the Comcast directory listings and the directory listings of this other cable company?

A Yes, that is correct. That was the purpose of this product schedule.

The Product Schedule, found at COMCASTPOST-OII_011216-11220, out of order *after* COMCASTPOST-OII_017376 in Attachment E to Donato Rebuttal. The Product Schedule clearly refers to residential listings.

¹¹⁹ Exhibit SED 5, Christo Opening, at **Attachment K**, ¶ 4.

¹²⁰ Exhibit COM 103, Donato Direct, at 22:22.

¹²¹ Exhibit COM 104, at 8:19-24/. None of these dates are established with contemporaneous documentation, as all of Comcast’s assertions here rely on evidence created in the last several months – the kgb email (Miller Attachment D) and the Chudleigh Declaration.

¹²² Kgb USA (the fuller legal name of the entity) was previously known as INFO NXX. Comcast has used kgb/INFO NXX to provide directory assistance to its customers since 2003. *See* Exhibit SED 5,

(Footnote continued on next page)

peoplefinder website.¹²³ As pointed out below, whether kgb USA uses the Comcast listings in any other way is not something on which Comcast can opine with any certainty, because it does not downstream audits (or, apparently, any other monitoring) of the uses of its subscriber list information.

3. Comcast Non-Published Listings May Also Have Gone from Targus to Unidentified Third Parties

As noted above, Mr. Miller – supposedly in charge of Comcast’s “strategic partners” – was so clueless (he claimed) that he had to send an email to kgb’s Ms. “D,” ***[REDACTED]***, inquiring about whether her company had ever received Comcast directory listings through Targus.¹²⁴

Mr. Miller also testified at his deposition (and at hearing) that Comcast essentially relied on the statements of Targus/Neustar’s counsel that the data was only being used for directory assistance and listings, and never itself audited Targus/Neustar [or Targus’ sub-licensees or other third parties] to see what uses the licensees were actually making of Comcast’s data.¹²⁵

Ms. Donato, although she purported to present the authoritative Comcast version of the scope of subscriber list distribution (including the non-published numbers at issue

Christo Rebuttal, at 10:11- 15:11, and **Attachment J**. This also documents how Ms. Donato had some knowledge of kgb’s role back in 2012, yet still claims that kgb’s part in the data breach was only recently discovered.

¹²³ Exhibit SED 6, Christo Rebuttal, at 9, fn 37 and accompanying text, and **Attachment J** (screenshots from www.kgbpeople.com); *see also* Miller deposition testimony at 97-98:22, at confidential **Attachment E** to Mr. Christo’s Opening Testimony (Exhibit SED 5C).

¹²⁴ Exhibit 107C, Miller Rebuttal, at Confidential Attachment D.

¹²⁵ HT at 602:17-604:7; *see also* Phil Miller Deposition Transcript, at 68:7-69:17, Exhibit SED 5C (Christo Opening) at Confidential **Attachment E**; *see also* HT (Miller) at 604:2-7.

here), had to repeatedly state that she did not know the answers to questions on and related to this topic.¹²⁶

4. Comcast Admits that its Non-Published Records Went to Ecolisting

Comcast admits that the non-published listings of approximately 75,000 customers who had subscribed to (and paid for) Comcast's non-published service were posted on the Comcast branded online directory look-up service for 29 months, from July 1, 2010 through December 10, 2012.

A reality that Comcast has not been eager to talk about is that once posted on the Ecolisting website, the non-published records were susceptible to "screen scraping," i.e., to harvesting by third parties.¹²⁷ Indeed, as Comcast's Privacy Notice discloses in the fine print:

Once our subscribers' names, addresses, and telephone numbers appear in telephone directories or directory assistance, they may be sorted, packaged, repackaged and made available again in different formats by anyone.¹²⁸

This, then, is the irreparable harm that befell the 75,000 affected non-published subscribers, after their names, addresses, and telephone numbers were

¹²⁶ See, e.g., HT at 462:20-23 ("Unfortunately I don't have documentation or a complete summary of the issue," in response to questions about Comcast's distribution of directory listings); HT at 429:27-28 ("I don't have the specifics" about the national directory service provider); see also Ms. Donato's deposition testimony, at 200:16-201:26 (almost complete lack of knowledge re kgb's vendors, national publisher, and database operation).

¹²⁷ Cardwell deposition transcript at 157:19-160:2, found at **Attachment Z** to Christo Opening Testimony, Exhibit SED 5C.

¹²⁸ Exhibit SED 5, Christo Opening, **Attachment A**, Comcast Privacy Notice, at 6; also available at <http://cdn.comcast.com/~Media/Files/Legal/CustomerPrivacy/CustomerPrivacy.pdf?vs=3> (last visited 10/16/14).

released to the Internet ecosystem, harm that may have been replicated on the kgb peoplefinder website.¹²⁹

5. Comcast Admits that its Non-Published Account Listings Went to Other Third Parties

Comcast admits that the non-published data at issue here went through a number of different hands, some of which (Comcast concedes) published the data, others merely had the data in their possession. Comcast's lack of knowledge about where its directory listings were licensed, and its larger lack of knowledge about where the non-published records were to be found online (and to what uses they were put) raises the inference that the non-published records could have leaked from any of these sources into the general data ecosystem. Staff does not here mention Comcast affiliate Plaxo, which also received the non-published numbers.¹³⁰

a) Comcast Non-Published Records Went to Microsoft Fast

Comcast admits that "Neustar distributed the Non-Published Listings to Comcast's vendor (Microsoft FAST) for Comcast's online directory Ecolisting."¹³¹

b) Comcast Non-Published Records Went to Frontier Communications (and its agents Berry Publishing and Datalink).

On May 1, 2014, Comcast admitted that non-published listings had been distributed to "... Frontier's 2011 Elk Grove Phone book, Frontier's 2010 and 2011 Colusa County Phone books."¹³² In a non-confidential chart at page 7 of her Rebuttal

¹²⁹ See www.kgbpeople.com (also at Christo Rebuttal, **Attachment J**).

¹³⁰ Donato Direct, at 3:23-24 ("an even smaller subset of these customer listings were sent (through Comcast's directory listing agent Neustar) to a Comcast affiliate, Plaxo Inc.").

¹³¹ Exhibit COM 104, Donato Rebuttal, at 5:13-15.

¹³² May 1, 2014 Letter from Comcast Counsel to SED Staff, at page 5 (found as **Attachment D** hereto).

Testimony, Ms. Donato concedes that Frontier Telephone, in both Elk Grove and Colusa Counties, received the data.

c) Comcast Non-Published Records Went to Supermedia and Valley Yellow Pages

Comcast reports that Neustar informed it that Neustar “had sent files that included listings for California Affected Customers to ... SuperMedia on January 9, 2012 [and] Valley in January and February 2011.”¹³³

d) Comcast Non-Published Records Went to Relevate

Mr. Miller confirmed in his testimony that a test file of Comcast’s directory listings was sent to “Relevate, a telemarketing company,”¹³⁴ which was apparently sent in error.¹³⁵

e) Comcast Non-Published Records Went to Intelligenx

Comcast also contends that Neustar reported to it (double hearsay) that Neustar had provided test files to a company called ***Intelligenx: a company that Neustar was working with to develop an online directory listing portal for Comcast.¹³⁶ Although these were “test files that were never used or put into production,” Ms. Donato suggested at hearing that Intelligenx is currently providing the search capability to the Ecolisting site.¹³⁷

¹³³ Donato Direct at 21:13-16

¹³⁴ HT at 602:26-28

¹³⁵ Donato Direct, at 22:1-3.

¹³⁶ Donato Direct, at 21:23-27.

¹³⁷ HT 433:14-19.

6. Comcast Records Went to LSSi, although it is Uncertain Whether these Records Included Non-published Accounts.

LSSi had a long-standing relationship with Comcast. In Comcast's telling, the Process Error did not contaminate the flow of listings to LSSi, but evidence uncovered by staff throws doubt on this.¹³⁸ The role of LSSi Comcast's own internal diagrams show a line going from kgb to LSSi,¹³⁹ a fact that Ms. Donato was not able to explain.¹⁴⁰ Evidence suggests that non-published numbers were made public over Volt, an LSSi affiliate.¹⁴¹ As discussed above, the Comcast construct of a "Process Error" may be too narrow to capture the reality of ongoing and recurrent releases of non-published numbers.¹⁴²

B. The Breach Continued for Longer Than Comcast Admits

SED believes that non-published customer information may have been leaked before July 1, 2010, and that non-published information remained in directories (and apparently also on the Internet apart from Ecolisting) long after December 10, 2012.

Comcast admits that a "full data refresh" went to Targus on February 2, 2010, the first "full data refresh" sent after the reassignment of numbers which triggered the Process Error, and the last before the July 1, 2010 Ecolisting launch.¹⁴³ Logically, that

¹³⁸ See discussion below. Comcast's relationship with LSSi Data, aka Volt Data, is described in *LSSi Data v. Comcast Phone, LLC*, 696 F.3d 1114 (Eleventh Circuit, September 2012).

¹³⁹ Exhibit SED 6C, Christo Rebuttal, **Attachment U**.

¹⁴⁰ HT (Donato) at 502:13-27.

¹⁴¹ Exhibit SED 6, Christo Rebuttal, at 16:14-17:10.

¹⁴² See Section IIIA(2) above.

¹⁴³ Donato Direct, at 25:20-21.

full data refresh included non-published numbers. The question is to whom Targus may have sublicensed the data in early 2010. We know that Targus' affiliate Localeze had entered into a contract with kgb in 2009. Donato Rebuttal, Att. E; Appendix 1 Timeline.

As for the end-date, Ms. Donato claims that except for Plaxo all of the directory breaches were remedied by year-end 2012 (see chart at Rebuttal page 8), and specifically states that non-published numbers going to Frontier and its publishers ended in 2011.¹⁴⁴ Jane Doe 10 attaches a 2012-2013 telephone book from Frontier territory that has her non-published name, address and telephone number in it.¹⁴⁵ The only permissible conclusion here is that the data breach continued, for many customers in Frontier territory at least, until well into 2013.

Of course, in many respects, the data breach continues to this day. Witness Jane Doe 11 testified that she still finds her non-published data on the Internet.¹⁴⁶ As noted above, once it hit the Ecolisting website, the non-published data was essentially available to anyone on the Internet.

C. Comcast's Explanation of How it Discovered the Privacy Breach Raises More Questions Than It Answers.

Comcast claims that it was unaware of the breach until Lisa Donato flagged two trouble tickets in October 2012.¹⁴⁷ The key issue here is how these two Tickets differed in any way from the hundreds of Trouble Tickets that went before, as well as the other documented privacy breach incidents that occurred prior to October 2012. This is the flip side of the question that is considered in the next section: why didn't Comcast discover

¹⁴⁴ Exhibit COM 103, Donato Direct at 22:7-8 (“this process ended in 2011”)

¹⁴⁵ Exhibit SED 3, Rahmon Rebuttal at **Attachment B**, Jane Doe 10 Exhibit C (last page of Attachment B).

¹⁴⁶ HT (Jane Doe 11) at 163:5-7; *see also* **Attachment P.11** to Exhibit C107, Declaration of Jane Doe 11.

¹⁴⁷ Exhibit COM 103, Donato Direct at 3:8 *ff.*

the breach sooner? Neither Ms. Donato or anyone else from Comcast has offered an explanation, which calls into question Comcast’s “discovery” story.¹⁴⁸

D. Comcast Offers No Credible Explanation of Why it Took at least 27 Months to Discover the Main Privacy Breach.

The record clearly establishes that Comcast had multiple opportunities to discover the breach in 2010, 2011, and early 2012. These are graphically illustrated in a timeline that staff used at hearing, and which is attached hereto as Appendix 1.¹⁴⁹ These include 74 or 76 “CR” California Trouble Tickets from 2010 through that Comcast admits were related to the “Process Error”;¹⁵⁰ at least 39 pre-October 2012 contacts from the 760 California customers who also had called the customer hotline after the January 2013 notification;¹⁵¹ an estimated 770 total California customers who contacted Comcast before discovery of the breach (whether or not they called the hotline after discovery); at least six Comcast internal emails warning of problems with non-published numbers;¹⁵² and the February 2012 KCBS Sacramento television story on publication of Ms. J’s non-published number.

Not shown on Appendix 1 are all the Internet complaints, including on Comcast’s own website, as well as the 2009 “Do you know if…” email string discussed above.¹⁵³

Comcast attempts to rebut this clear evidence of notice with what SED refers to as the “needle-in-the-haystack” theory, i.e., that only an infinitesimally small number of

¹⁴⁸ HT at 454:9-456:15 (Ms. Donato unable to answer questions on cross-examination about how the two October 2012 Trouble Tickets differed in any way from the many that had gone before).

¹⁴⁹ The timeline is discussed at HT 452-53. The timeline itself is not evidence, but represents evidence that is in the record. SED provides a key, tying each entry on the timeline to specific record evidence is attached at Appendix 1A.

¹⁵⁰ Exhibit COM 106, Stephens Rebuttal Testimony, at 17-18, and **Attachment H**.

¹⁵¹ Momoh Opening Testimony, at **Attachment J**.

¹⁵² The sources for these emails are identified in Appendix 1.1, and include **Attachments DD.1-DD.3**.

¹⁵³ Exhibit SED 1, Staff Report at 13-17; Exhibit SED 5C, **Attachment GG**.

total customer contacts (***) related to the “Process Error,” and that Comcast could not reasonably have been expected to discern from this small sample that at least 84,000 customers suffered a privacy breach nationwide.¹⁵⁴ *If it were true that Comcast had no way to detect a privacy breach affecting 84,000 customers nationwide, 75,000 of them in California, that in itself would show a company operating well below the standard of care that the law requires in handling individual subscribers’ confidential information.*

In service of this theory, Ms. Stephens and Ms. Donato mix and match the many different data sets like a game of Three-card Monte: CSG Notes; CR Trouble Tickets; ESL Trouble Tickets; pre-discovery and post; and possibly California and national.¹⁵⁵ After refusing to provide historical customer service notes, and then providing SED with only the first 100 in each of the three years, Comcast then produced evidence, including surprise surrebuttal Exhibits, that drew on the whole universe of customer service notes and trouble tickets.¹⁵⁶ Such surrebuttal Exhibits were directly contrary to an agreement between counsel.¹⁵⁷

¹⁵⁴ Exhibit COM 106, Stephens Rebuttal Testimony, at 11, and 4-21 generally; *see also* Exhibit COM 103, Donato Direct at 13-17 (describing the discovery of the breach, based on two Trouble Tickets in October 2012); Exhibit COM 104, Donato Rebuttal at 16-20 (“SED is mistaken that there were significant signs of the Process Error that would have given Comcast notice ... before 2012”); HT (Stephens) 530:26-28 (“80 calls out of 20 million”). For nationwide total of affected customers, see HT (Donato) at 398:3-4 (total affected “listings was around 87,000, 78,000 of those were in California”). We know that approximately 75,000 *customers* were affected by the breach, so affected listings appear to be approximately 4% more than affected customers, which would yield about 84,500 affected customers nationwide.

¹⁵⁵ *See, e.g.*, Stephens Rebuttal at 14:2-5 (conflating pre- and post-discovery customer notes).

¹⁵⁶ Exhibit COM 115C; HT (Stephens) at 540:16-19 “If I needed to do and my team who looked at it needed to do any further assessment, we did look at the customer records, the billing records”), and (Toller) at 544:14 *ff* (“You have not received every single ticket...”). This resulted in a manifest unfairness, as Comcast then used these *unproduced* customer service notes to bring new assertions into evidence, which are found in the column of Exhibit 115C, “Comcast Assessment and Reason for Call.” Just on the first page of that Exhibit, the Comcast assessment for Replacement Subscriber nos. 45, 59 and

(Footnote continued on next page)

listed. No exhibit or attachment documenting this comparison to the mysterious “list of Affected Customers” – just Attachment H which shows 74 of the 76 Trouble Tickets *conceded* to have been caused by the Process Error breach.¹⁶⁰

Indeed, from January 2010 through October 2012, Comcast “confirmed that approximately 75 of the 350 [trouble tickets] were affected by the Process Error.’ ”¹⁶¹ Of the 75, most of which had been opened during the 27 month period in which it claims to have been unaware of the breach,¹⁶² and – puzzlingly – almost twenty that had been opened *before* the breach occurred (in Comcast’s narrative).¹⁶³

On Comcast’s own terms, it took only *two* CR trouble tickets for it to discover the breach in October 2012.¹⁶⁴ But Ms. Donato, the woman who investigated the trouble tickets related to these two customer complaints,¹⁶⁵ was unable to explain why these trouble tickets were any different than the hundreds of trouble tickets about non-published issues that had gone before.¹⁶⁶ Any of these trouble tickets would have

¹⁶⁰ See Exh. COM 106C, Stephens Rebuttal Testimony, **Attachment H** (Summary of CR Tickets for Customers Impacted by the Process Error).

¹⁶¹ Exh. COM 106, Stephens Rebuttal Testimony, at 17 (“Comcast also compared the 350 CR tickets to the list of Affected Customers. Based on our review, we have confirmed that approximately 75 of the 350 were affected by the ‘Process Error.’ ”).

¹⁶² Exh. COM 106, Stephens Rebuttal Testimony, at 17-18.

¹⁶³ *Id.* at Attachment H (17 Trouble Tickets between January 1 and July 1, 2010).

¹⁶⁴ See Exh. COM 103, Donato Direct Testimony at 3:9-13 (“In October 2012 Comcast received two XFINITY Voice customer complaints stating that the customers’ Non-Published directory listing information was appearing in Ecolisting (Comcast’s online directory listing website). Comcast began an investigation which ultimately revealed that the root cause of the issue identified by those two customers was a systemic problem that began in 2009 (the “Process Error”).); see also HT (Christina Stephens) at 18:14-21.

¹⁶⁵ Exhibit COM 104, Donato Rebuttal, at 20:2-5.

¹⁶⁶ HT at 456:6-11. Comcast estimated that there were [440] trouble tickets with the words [or code] non-pub in them, a selection of which are found at SED 6C, Christo Rebuttal, at **Attachments Q** and **R**. These are also shown on the timeline at Appendix 1.

triggered Comcast's discovery of the process error had Comcast performed a "root cause analysis".¹⁶⁷

Q. Ms. Stephens, so let's look at the trouble tickets after the process error occurred and the August 8th 2010 trouble tickets. So any of those 7 tickets on page -- after that, page 2-3, any of those relate to the process error?

A. We looked at them. Obviously, all these customers at that point had the process error occur. So I would assume that, yes, they had to do with the process error.

Q. Comcast said that it was two trouble tickets that triggered their awareness of the process error here; isn't that correct?

A. Correct.

Q. So on your Attachment H -- so if Comcast had done a root cause analysis of any 20 of those other trouble tickets, they would have discovered the process error; isn't that correct?

A. Yes.¹⁶⁸

Ms. Stephens testimony demonstrates Comcast's failure to heed the numerous warning signs from customer complaints that certainly would have led Comcast to discover the breach sooner.¹⁶⁹ Indeed, Ms. Stephens admits in her rebuttal testimony:

In hindsight, what the representatives should have done is performed the root cause analysis that Ms. Donato performed for Customers A & B – see Donato Rebuttal Exhibit O (regarding Customer B) ; SED/Momoh Attachment DD regarding Customer A. Although this root cause analysis was not done prior to October 2012, as Ms. Donato explains, the process improvements that we are implementing now require

¹⁶⁷ See Exh. COM 106, Stephens Rebuttal Testimony at 18:12-15 ("what the representatives should have done is performed the root cause analysis that Ms. Donato performed for Customer A and B...").

¹⁶⁸ Hearing Transcript (Christina Stephens) 554:3-23.

¹⁶⁹ Exh. COM 106, Stephens Rebuttal Testimony at 17-18 and **Attachment H**; see also Hearing Transcript (Stephens), at 554:3-23.

such analysis be done in cases where there is a mismatch between Comcast's billing system and the publisher regarding non-publication status.¹⁷⁰

Perhaps the best response to Comcast's "needle in a haystack" argument is the "Do you know if" emails from 2009, recited above, in which an employee talks about the rising numbers of escalations, and another suggests a "root cause" analysis - in 2009. Even when confronted with clear evidence of a breach, Comcast describes it as something else. A good example of this is one of the first emails Ms. Donato received when she moved into working with Targus at the national office, an email which describes how nonpublished numbers become public, and that Comcast "need(s) to address this problem."¹⁷¹ But Ms. Donato sees no evidence of a breach.¹⁷²

E. Comcast's Claims to Have Fixed the Error and Deleted the Non-Published Listings, But Ignores the Long-Term Consequences of its Actions

Comcast wanted a section in the briefing outline about how it had fixed the privacy breach, but any treatment of this topic raises the question whether such a fix was adequate, and whether it could ever completely remedy the privacy breach. SED treats this topic in Section G below, re Comcast's inadequate efforts to remedy the Privacy Breach.

F. Comcast Baseline Policies and Procedures Before (and During) the Breach Neither Protected Consumers Nor Disclosed to them the Reality of Comcast's Practices.

Staff's investigation has revealed two areas of Comcast's standard, baseline practice that are troubling, and – staff believes – violate existing law: Comcast's practice

¹⁷⁰ Exhibit 106, Stephens Rebuttal, at 18:14-21.

¹⁷¹ Exhibit SED 6C, Christo Rebuttal, confidential **Attachment F**, email chain to Ms. Donato which notes (at 2889-NSR) that ***[REDACTED]***.

¹⁷² HT (Donato) at 446:16-448:20.

(now apparently discontinued) of sending non-published numbers to third parties, even if those third parties are characterized as “designated agents”; and Comcast’s failure to fully and meaningfully disclose the reality of non-published service as well as other means for customers to protect their privacy. Because the parties so agreed, SED will discuss these in reverse order.

1. Comcast’s Disclosure of Terms and Conditions Regarding its Nonpublished Service was Confusing and Inadequate.

a) The Reality of Non-Published Service Is Not Adequately Disclosed.

Ms. Donato provides a restatement of what it means to have a non-published number at Page 5 of her testimony:

With non-published listings, the customer’s listing information is not to be provided by Comcast for inclusion in directories – either on-line or print directories – or provided via Directory Assistance.¹⁷³

As Mr. Christo did in his opening testimony, Ms. Donato associates this description with what is stated in Comcast’s “Welcome Kit.”¹⁷⁴ The next paragraph of Ms. Donato’s testimony, however, states that further “terms and conditions and related privacy notice are provided to XFINITY Voice customers upon enrollment in the service,” and adds that “(t)hese materials indicate that there is a potential for error.”¹⁷⁵

This appears to be something of a bait-and-switch tactic. Comcast’s Welcome Kit states that “Non-published directory Service **ensures** that Comcast will not make your phone number available in the phone book, an online directory or through Directory

¹⁷³ Exhibit COM 103, Donato Direct Testimony at 5:6-8; *compare* Christo Testimony at 6:13-15.

¹⁷⁴ Donato Direct at 5:12.

¹⁷⁵ *Id.* at 5:17-19.

Assistance,”¹⁷⁶ while its Privacy Notice takes that assurance away: “We take reasonable precautions to ensure that non-published and unlisted numbers are not included in our telephone directories or directory assistance services, but we cannot guarantee that errors will never occur.”¹⁷⁷

Ms. Donato introduces a third document here, a customer agreement, which she includes, along with the Privacy Notice, as part of her Exhibit B. Although these appear to be two separate documents, she refers to both in the same breath: “Exhibit B is a true and correct copy of the privacy notice and terms and conditions provided to XFINITY Voice customers for the year 2011, which is representative of the privacy notice and terms and conditions for the years 2010 and 2012.”¹⁷⁸ As the customer agreement appears in the same paragraph as Ms. Donato’s warning that Comcast “cannot guarantee that errors will never occur,” it appears that Comcast is implying that customers agree to this limitation in the Privacy Notice by signing off on the customer agreement.

It is unlikely that a customer reads and digests any of this information. While the Welcome Kit with its “ensure” language is relatively large-font and reader-friendly, the Privacy Notice and customer agreement are written in a smaller font, and packed with legal terms and disclaimers. During her deposition Ms. Donato was asked when and if a customer would receive the privacy notice and customer agreement, and her initial response was that she did not know.

Q. And how does in your mind a customer manifest his or her agreement to those terms and conditions?

A. I believe that they accept these terms at the installation or activation of service.

¹⁷⁶ Donato Direct, **Attachment A**; Christo Testimony, **Attachment A** (emphasis added).

¹⁷⁷ Donato Direct, **Attachment B** COMCAST_POST-OII_00079; Christo Testimony at 7:3-7.

¹⁷⁸ Exhibit COM 103, Donato Direct Testimony at 5:19-21.

Q. Do they have to – do they sign something that shows they

A. I'm trying to think. I know that there's -- there may be a statement for instance on the installation work order that this is the acceptance of the terms. But I don't know all the legal ins and outs....

Q. Is it your testimony, Ms. Donato, that the customer Comcast agreement for residential services is always attached to and provided with the privacy notice, if you know?

A. I don't know.¹⁷⁹

Ms. Donato confirmed in her prepared testimony that the Privacy Notice and customer agreement are provided “upon enrollment,”¹⁸⁰ testifying at her deposition that a customer would see the Welcome Kit (which includes the Privacy Notice and customer agreement) “at installation.”¹⁸¹ What that actually means is a little less clear:

[T]he customer does accept the work order in some fashion, which because it's electronic now, they may be signing an electric device.

Q. Right. Or clicking.

A. But the welcome kit for a professional install. Meaning someone comes to the house. Is supposed to be handed to the customer.

Q. Okay.

A. And that would include those documents. The welcome kit itself, it should also include a privacy notice and the agreement in written form. And if they do not get a

¹⁷⁹ Donato Deposition at 207:26-208:14, Exhibit SED 6C, Christo Rebuttal, confidential **Attachment A**.

¹⁸⁰ Donato Testimony at 5:17-19.

¹⁸¹ Donato Deposition at 210:20-2, Christo Rebuttal, confidential **Attachment A**.

professional installation, if they order a self installation, they're provided with these materials in that kit.¹⁸²

From this, staff concludes that the customer is either given the Welcome Kit and included documents when the professional installer arrives, and asked to sign a work order accepting the terms and conditions of sale, or the customer who does a self-install is required to “click through” an acceptance of the terms and conditions prior to receiving the Welcome Kit and necessary equipment. In either case, it seems unlikely to me that a customer would have studied the Privacy Notice in any detail prior to signing the work order or clicking the online acceptance of terms.

It is also important to note that the Welcome Kit has a different look and feel than the Privacy Notice, and appears to be a completely separate document. Ms. Donato testified at her deposition that the Welcome Kit “has these legal documents that, you know, privacy, subscriber agreement, and then it has like product information like a little brochure, and it may have other pieces that I may have in the past talked about signature support or something else. It's a little folder with various inserts.”¹⁸³ The Privacy Notice does not have any place for a customer to sign and acknowledge that they have read the notice. As noted above, Ms. Donato testified that this acknowledgment occurs when the customer signs a work order, or clicks the self-install option online.

¹⁸² *Id.*, at 211:12-212:1.

¹⁸³ *Id.*, at 212:11-18, **Attachment A**.

**b) The Dis-Empowerment of the Consumer:
Comcast's Privacy Disclosures Are
Incomprehensible to Even a Well-Educated
Consumer; Nowhere Is Non-Published
Service [Adequately] Distinguished from
Other Privacy Protections, Nor Are
Consumers Given A Straightforward
Method to Opt for Maximum Privacy.**

Comcast's Privacy Notice covers a number of different things, focusing primarily on Customer Proprietary Network Information (CPNI), Personally Identifiable Information (PII), but also mentioning "non-published and unlisted numbers" and Comcast's own "do not call" list.

(i) Customer Proprietary Network Information (CPNI)

The Privacy Notice defines CPNI as "phone information [about the quantity, technical configuration, type, destination, location, and amount of your use of the phone services, and information contained on your telephone bill concerning the type of phone service and features you receive] when matched to your name, address, and telephone number."¹⁸⁴ The ambiguities here are many and plain to see: are name, address and telephone number themselves CPNI? What sort of "matching" needs to occur? Nor does the Privacy Notice instruct a customer how CPNI differs from Personally Identifying Information (below), how she can opt out of Comcast's collection and use of both, and in what ways that goes beyond the protection afforded by a non-published number. The Privacy Notice states, in large letters:

**WE EXPLAIN BELOW UNDER "HOW DO I GIVE OR
WITHHOLD MY APPROVAL FOR COMCAST TO USE
CPNI TO MARKET ADDITIONAL PRODUCTS AND**

¹⁸⁴ Exhibit SED 5, Christo Opening, **Attachment A**, Comcast Customer Privacy Notice, at COMCAST_AG_000667.

SERVICES TO ME” HOW YOU CAN APPROVE OUR
USE OF CPNI OR WITHDRAW YOUR APPROVAL.¹⁸⁵

Only there is no there (or “below” below). The customer reads in vain to the end of the 9 page Privacy Notice to understand exactly what steps to take to “withdraw your approval” for Comcast’s use of CPNI (or even what that means in practical terms).

At page 7 of the Privacy Notice, a section labeled “How do I give or withhold my approval for Comcast to use CPNI to market additional products and services to me?” holds out the hope of some clear advice on how to opt out of data sharing.

The notice does not clearly explain: whether a telephone number and name (i.e., the Directory or Subscriber List Information) is part of CPNI, or – put differently – whether a non-published number falls under CPNI protection or is an additional protection; how CPNI relates to Personally Identifiable Information (PII); exactly what the difference is between CPNI and PII is; how they relate to non-published numbers; and – most importantly – exactly what the customer has to do to block *all* sharing of CPNI, PII, the customer’s name and telephone number, and all other personal data except what is absolutely necessary to provide the service.¹⁸⁶

(ii) Personally Identifiable Information

Comcast defines PII under the 1984 Cable Act as “information that identifies a particular person.”¹⁸⁷ Comcast does not disclose exactly what PII is used for, or what rights the customers may have, or how PII protections differ from non-published service.

(iii) Non-Published Numbers

The Privacy Notice does not define a non-published number. Comcast’s “Welcome Kit,” which functions as a customer manual has one sentence about non-

¹⁸⁵ Comcast Customer Privacy Notice, at COMCAST_AG_000667.

¹⁸⁶ Comcast Customer Privacy Notice, **Attachment A**, *passim*.

¹⁸⁷ Comcast Customer Privacy Notice, at COMCAST_AG_000667, **Attachment A**.

published numbers under the heading Specialized Directory Listing : “Non-published directory service ensures that Comcast will not make your phone number available in the phone book, an online directory or through Directory Assistance.”¹⁸⁸ Other than this sentence, Comcast does not define a “non-published number” in any other Comcast material that staff has found.¹⁸⁹ Comcast does inform customers in a vague way about what happens to their non-published and published numbers and their data when and if it is published, stating: “Once our subscribers’ name, address, and telephone number appear in telephone directories or directory assistance, they may be sorted packaged, repackaged and made available again in different formats by anyone.”¹⁹⁰

Moreover, Comcast’s Privacy Notice differs from its Welcome Kit in its treatment of “non-published numbers. Where the Welcome Kit says that a non-published “ensures” that the number will not be available in directories and directory assistance or in an online directory, Comcast’s Privacy Notice states “We take reasonable precautions to ensure that non-published and unlisted numbers are not included in our telephone directories or directory assistance services, but we cannot guarantee that errors will never occur.”

(iv) Comcast’s Internal Do Not Call List

The Privacy Notice mentions Comcast’s internal “do not call” list. It does not mention the more widely known “do not call” list on the FTC website.¹⁹¹

(v) Caller ID Blocking

The Privacy Notice does not mention or describe Caller ID blocking. According to Comcast’s “Welcome Kit” Caller ID Blocking is designed to ensure that your name and

¹⁸⁸ Welcome to XFINITY Voice, at COMCAST_AG_000603, **Attachment D.**

¹⁸⁹ Christo Opening, at 6.

¹⁹⁰ Comcast Customer Privacy Notice, at COMCAST_AG_000672, **Attachment A.**

¹⁹¹ <https://www.donotcall.gov/>.

number are marked “Private” or “Anonymous” and Caller ID Blocking is available on a per call basis or can be permanently enabled for every call.¹⁹²

(vi) Federal Trade Commission’s Do Not Call List

The Privacy Notice does not contain any information about the national do not call list. The “Welcome Kit,” however, does. It states: “For additional information about the federal registry, or to register, reregister or revoke registration of your number for free, visit the Federal Trade Commission’s website at donotcall.gov or call 1-888-382-1222.”¹⁹³

(vii) Information on How to Have One’s Address Omitted From Any Publication.

The Privacy Notice does not contain any information about how a customer can have his/her address omitted from any publication. A customer can, however, request that service.¹⁹⁴

None of the distinctions between these services are explained in a manner that a layperson can understand. The Privacy Notice does not state whether or not opting out of CPNI disclosure automatically means that one becomes a non-published customer. Nor does it indicate how the protection of opting out of CPNI disclosure differs from the protection of opting for a non-published number.¹⁹⁵ Nor is there any statement anywhere on Comcast’s website, in the Privacy Notice, or anywhere staff was able to find, of how – if at all – a customer can opt out of sharing any or all of his/her information, except what

¹⁹² Welcome to XFINITY Voice, at COMCAST_AG_000609 **Attachment D.**

¹⁹³ Welcome to XFINITY Voice, at COMCAST_AG_000604 **Attachment D.**

¹⁹⁴ Comcast’s Directory Listing Guidelines found at:<http://customer.comcast.com/help-and-support/phone/directory-listing-guidelines>. **Attachment C.**

¹⁹⁵ See Exhibit SED 5, Christo Opening, at 4-9.

is necessary to receive the Comcast service (see Privacy Notice at 4).¹⁹⁶ Nor is it easy to find the Privacy Notice on Comcast’s website.¹⁹⁷ The link to the Privacy Notice is not located on Comcast’s home page. Instead one must navigate four levels down from the home page to locate the link to the Privacy Notice. There are no references to privacy policies, CPNI, or Non-Pub information on the homepage of the Comcast website. Comcast’s homepage has a link labeled “PRIVACY,” which only leads to the privacy policy for the use of the website, not the phone service. The link labeled “PRIVACY” located on the phone section of the Comcast’s website lead to the same announcement.

The only way staff was able to locate the Privacy Notice on Comcast’s website was to enter the words “Comcast” and “CPNI” into the Google search engine and clicking on the link in the search results. This took the staff analyst to the Privacy Notice,¹⁹⁸ which is four levels down from the Comcast homepage. Staff was unable to find any other document that clearly lays out Comcast’s privacy protections to customers.

2. Comcast Made the Choice to Send Non-Published Numbers to its Directory Distributors/Data Brokers, and Did Not Disclose this Fact to Consumers.

Comcast’s baseline practice before and during the breach was to send the entire non-published record – name, address, and telephone number – over to Targus/Neustar. SED believes that this in itself is a violation of 2891.1, as described below. Thus, even if the non-published record was correctly flagged with a privacy notice, it could be used to “corroborate” consumer information databases that were then sold to third parties for uses other than directory listings.

¹⁹⁶ *Id.*

¹⁹⁷ <http://www.comcast.com>.

¹⁹⁸ <http://www.comcast.com/Corporate/Customers/Policies/CustomerPrivacy.html>.

At hearing, SED asked Comcast's Ms. Donato about an October 29, 2012 Email String, re "Discuss new way of Comcast submitting Non-Pubs to Neustar."¹⁹⁹ The email string is to/from Ms. Cardwell, one of the missing witnesses here. Ms. Cardwell wants to

[REDACTED]
[REDACTED].*** SED asked Ms. Donato this question, and received the following answer:

Q. Prior to the date of this, the October date of this e-mail of 2012, Comcast was sending to Targus the entire record non-pub and non-list name and telephone number, but with a privacy flag, correct?

A. Correct.²⁰⁰

Indeed, a July 17-21 email string in 2009 exposes Comcast's decision to send non-published numbers to kgb directly, which is remarkable both for what it reveals about Comcast's knowledge of kgb well before its suppression in this case, as well as the decisional process at Comcast, and the questionable rationale advanced for sending non-published phone numbers out of the Comcast house at that time.²⁰¹ One of the earliest emails in the string is an email from a kgb employee, ***[REDACTED],*** in which she forwards ***[REDACTED]*** The question, on the last page of the email string (but time-stamped 12 minutes later) is this:

***[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

■ Exhibit SED 6C, Christo Rebuttal, Confidential **Attachment G**.

²⁰⁰ HT 512:27-513:4.

²⁰¹ Exhibit SED 5C, Christo Rebuttal, confidential **Attachment O**, COMCASTPOST-OII_013679-13691.

It is interesting here to note that Ms. M. states that it is kgb that requires the non-published numbers, when the kgb employees indicated that they would just as soon not have the non-published records, and when her own data systems engineer voiced his hesitation about being able to protect personally identifying information. It also reveals that kgb was intended to be (and may indeed have been) a reseller of Comcast data to other DA providers, and that revenue was the driving force.

In the July 22, 2009 email above, Ms. M. adds that Comcast was negotiating with Targus ***[REDACTED]

[REDACTED] ²⁰⁹ As discussed above, an agreement with Targus was reached on November 1, 2009.²¹⁰ In September, 2010, Ms. M. extends the mandate to send non-published numbers to cover Comcast's data feeds to Targus, with a rationale similar but not identical to the seemingly nonsensical rationale advanced above with regard to kgb:

Already established daily Directing Listing feed to Targus sends all listings regardless of DL status (published, non-published, non-listed). Adresses from non-published listings are omitted. All addresses are needed by Targus to allow for its resale of Comcast DL data to Directory Assistance Providers. DA providers require addresses even for non-published listings to confirm accurate search results. Callers requesting non-published listings will be informed that the requested listing is not published.²¹¹

Comcast had a choice: it could either not send the non-published records out of the house at all, as Comcast's software engineer urged, or it could send them to Comcast's directory list licensing agents with a "privacy flag," which was apparently the upshot of

²⁰⁹ *Id.*

²¹⁰ Exhibit SED 5C, Christo Opening, at **Attachment S**.

²¹¹ Exhibit SED 5C, Christo Opening, **Attachment W**, an ***[REDACTED], *** authored by Ms. M.

Ms. M’s plan. Obviously, not sending the records outside the company at all – which was clearly the customers’ expectation²¹² – was the safer way to go, but Comcast chose the other way. Expert witness Tien expressed succinctly the peril to which this exposed Comcast’s non-published customers:

My concern here is that because Targus is in a business of data aggregation and data dissemination, then when – that it can magnify the harm or the exposure of personal information such as the non-published numbers if there is an error or, you know, that leads to them receiving information that they should not – that should not have been given them in the first place.²¹³

Comcast might advance two possible rationales for doing this, neither of which are mentioned in the initial decision emails quoted above. These are: (1) it needed to be able to get the records to emergency service providers; and (2) it wanted to give Neustar the ability to remove non-published records from its “public” files in the DLP database. The October 29, 2014 email string answers point (1): Comcast checking “to ensure that changing the Non-Pub format will have no impact on ENS requests.”²¹⁴ As to point (2), Mr. Chudleigh testified that there are less and less Comcast listings in the public files, as

²¹² See, e.g., Jane Doe 2 Declaration, at ¶ 3 (“It was our understanding that having a non-published telephone number meant that Comcast would not disclose our name, home address, and telephone number to anyone without our consent”); compare HT (Doe 2) at 322 ff.; Declaration of John and Jane Doe 3, at ¶ 4 (“By non-listed and non-published, I understood that nobody could get my number unless I gave it to them”); Jane Doe 7 Declaration, at ¶ 4 (“It was my understanding that having a non-published number meant that Comcast would not disclose my name, home address, and telephone number to anyone without my consent”). These Declarations are found at **Attachments P.2-P.7** of Exhibit SED 2, Momoh Opening Testimony.

²¹³ HT (Tien) at 10-19.

²¹⁴ **Attachment G**, at 2217. Readers may find it helpful to refer to the National Emergency Number Association (NENA) Glossary, found at http://c.ymcdn.com/sites/www.nena.org/resource/collection/625EAB1D-49B3-4694-B037-8E854B43CA16/NENA-ADM-000.17_Master_Glossary_20130909.pdf. ENS, for instance, means Emergency Notification System; MSAG means “Master Street Address Guide,” a database of street names and house number ranges for emergency response purposes; and PSAP means public service answering point.

Comcast transitions from the old ILEC distribution model to using Neustar as its agent, so less and less need to remove non-published from “public” file.²¹⁵ The fact that Comcast made this change (to no non-published name or address to Targus) *after* the breach²¹⁶ was discovered itself indicates that the change could have been made before.

For reasons not at all clear, Comcast’s Ms. M. set through a policy over apparent internal hesitation (if not objection) of sending non-published numbers to third parties. Had Ms. M. not made that decision not have been made, we might not be in this Investigation today.

3. Other Policies & Procedures

a) Comcast’s Complaint Monitoring Process Failed to Alert Comcast to the Breach of 75,000 Customers Non-Published Numbers, Over Two Years. .

Comcast’s essentially claims – in the testimony of Ms. Stephens and Ms. Donato – that it had no way to know that Comcast Directory Listings might be a problem. This is not credible. Comcast had past breaches (see discussion of the “Do you know if” email above in Section IIIA(2) about other breaches), and clearly had detailed complaint

²¹⁵ This colloquy is found at pp. 289:7-22:

Q. The public records come from other sources including the incumbent local exchange carriers, the old legacy system, correct?

A. Yes.

Q. As some of the document[s] state, those are ageing out now that Comcast publicly announced in 2011 it was switching to your company as the licensee, correct?

A. As it relates to the Comcast universe, that is correct.

Q. So the Comcast universe is becoming more and more what you refer to here as the Comcast private?

A. That is correct.

²¹⁶ See Exhibit SED 6C, Christo Rebuttal, confidential **Attachment G**.

escalation procedures in place for non-published customers.²¹⁷ The failure is inexplicable.

G. Comcast’s Efforts to Remedy the Privacy Breach Were Inadequate, and Largely Designed to Protect Itself.

The record demonstrates that Comcast expended a minimum amount of effort to remedy the breach, an effort that appears more calculated to “contain” than “remedy.” The results were ineffective notice to customers, incomplete refunds, and insufficient measures to “undo” the harm.²¹⁸ Comcast’s remedial efforts were, as Jane Doe 11 described, “woefully inadequate.”²¹⁹ What Comcast did was simply refund – apparently without interest -- fees it had collected from a subset of its customers, fees it was not entitled to keep because no service had been rendered. Comcast was able to keep the time value of the over \$2 million that it returned to consumers.

Comcast also kept the fees collected from prior customers (25% of the affected customers) it claims it could not reach.²²⁰ Particularly puzzling is Comcast’s failure to implement its existing “online site removal” process of “removing listings from (non-Ecolisting) online directory listings,”²²¹ or to even attempt to retrieve the printed directories that listed approximately 1,400 affected customers.²²² Finally, Comcast nowhere fully informed customers about the extent of the breach.

²¹⁷ Exhibit COM 106C, Stephens Rebuttal, **Attachment B** (NCAR M&Ps).

²¹⁸ HT (Jane Doe 11) at 159:24-25.

²¹⁹ See e.g., *id.* at 158-163; see also Exh. SED-3, Momoh Rebuttal Testimony, at 1-13.

²²⁰ See Exhibit SED 3, Momoh Rebuttal Testimony, at 7 (19,000, out of 75,000 total, did not receive a refund or credit).

²²¹ Exhibit COM 106, Stephens Rebuttal Testimony, at 9; see also *id.*, at **Attachment B** (NCAR Methods and Procedures for Directory Listing, effective October 29, 2009).

²²² Exhibit COM 103, Donato Direct Testimony, at 22.

1. Efforts Incommensurate with Harm to Consumers

Comcast admits that the “process error” caused 75,000 affected California customers, and thousands more from other states,²²³ to lose their “non-published status” without their knowledge or consent.²²⁴ In other words, non-published customers were converted to Comcast’s default “published status.”²²⁵ This conversion from non-published to published status is significant in that Comcast regularly releases customers with “published status” into an ecosystem where *anyone* can “gobble up” their data.²²⁶ As stated in the small font of Comcast’s Privacy Notice:

- We may publish and distribute, or cause to be published and distributed, telephone directories in print, on the Internet, and on disks. Those telephone directories may include subscriber names, addresses, and telephone numbers, **without restriction to their use.**

²²³ HT (Donato) at 395-396.

²²⁴ Exhibit SED 1C, Staff Report, at 5, *citing* Attachment 5 (Comcast Response to DR-TEL-00-406-5 (6/21/13), Q.6(b), at p. 12 ***“ [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].”***).

²²⁵ *Ibid.*; *see also* discussion above in Section IIIA(1); Exhibit COM 103, Donato Direct Testimony, at 6 (“In order to identify whether a directory listing had non-published status, Comcast developed a query that pulled information from an order-based table called the Phone Order Item or ‘POI’ Table....In order determine if a customer’s listing information was non-published, a customer’s account and telephone number were utilized to poll the POI Table each day for any non-published codes associated with that customer’s account and telephone number. Where a query to the POI Table identified an account number and phone number combination as having a non-published code, the non-published indicator was placed on that directory listing. If a query for a given account and telephone number did not identify a non-published code, a published indicator was placed on that directory listing.”)

²²⁶ HT (Jane Doe 11) at 161:5-14 (“Once you put something on the internet, it is on there forever. The genie is out of the bottle. These data aggregators -- when my information appeared on Ecolisting for God knows how long, that information got gobbled up. And it's out there and it just keeps reappearing. And it's -- my home address and my phone number are forever connected in a public way that can't be undone”).

notice is silent, however, on the fact that Comcast may also make their subscriber list information available to “any commercial entity” beyond directories.²²⁹ Given the known exposure of its non-published customers, Comcast’s efforts to address the breach were incommensurate with the potential and actual harm caused by the breach.

The evidence shows that the non-published subscriber listings were disseminated on the Internet beyond Ecolisting.com, with affected customers also appearing on other online directories such as whitepages.com, yellowpages.com, and radaris.com.²³⁰

Comcast did nothing to address this wider problem:

Q. Ms. Stevens (sic), do you know why Comcast did not try to remove the directory listings for the 75,000 customers?

A. I do. Many of these sites now – well, all of them that we looked at require that you show some type of proof of identity that you’re removing your own information, so we were no longer able to do that.²³¹

Trouble tickets opened after 2013 for affected customers who escalated their complaints belies Ms. Stephens’ contention that Comcast is no longer able to perform online site removal. For instance, one ESL trouble ticket opened for a complaint made on January 30, 2013 states:

My attempts to contact Ms. B[] by phone have been unsuccessful, so I’m closing this ticket due to no response. However, I searched our master spreadsheet to confirm that her information was not printed in the phone books and also

giving out the number, we are working on resolving this issue.” See COMCASTPOST-OII_11692.).

²²⁹ See Exhibit SED 5C, Christo Rebuttal Testimony, **Attachment X** (“TargusInfo may provide LSSi with nationwide access to Comcast’s DL, subject to the fees, terms and conditions established by Comcast for the provision of Comcast’s DL to commercial entities.”).

²³⁰ See Exhibit SED 2C, Momoh Opening Testimony, **Attachment V** and **Attachment P.11** (Declaration of Jane Doe 11); see also e.g., Exhibit SED 2C, Momoh Opening Testimony, **Attachment I**, at p. 8 (No. 60, Trouble Ticket ESL 00938429/00943884, Comcast_AG_002325-2329/2335-2343 [“[I] searched whitepages.com and the information was not listed, however it was listed on anywho.com”]).

²³¹ HT (Stephens) at 534:5-14; see also e.g., Exhibit SED 5C, Christo Rebuttal Testimony, at 38-40.

did various searches online. I found one listing on whitepages.com which I removed on her behalf on 2/12/13.²³²

As explained above, complaints, declarations, and testimony from customers demonstrate that the fundamental relief affected customers were seeking from Comcast was to restore their privacy,²³³ which meant getting their information off of the Internet. This was especially crucial for those with safety concerns.²³⁴ Restitution or further compensation/service credit did not address those concerns.

For instance, one affected customer feared for her family's safety from a man who was recently released from prison. She told Comcast that she "could care less" about the credit it gave her:

She stated she had been non pub for a reason, her sister in law[] was involved with this family where her best friend was murdered (with a knife) by her brother he also killed his mother, and tried to kill his father but didn't hit him enough

²³² See e.g., Exhibit SED 2C, Momoh Opening Testimony, **Attachment I**, at p.2 (No. 12, Trouble Ticket ESL 00825997, Comcast_AG_001192-1197); see also *id.*, **Attachment I**, at p.3 (No. 21, Trouble Ticket ESL 00833720, Comcast_AG_001405-1408 "I informed him that there was a listing w/his name, address & TN on whitepages.com which I removed today. He appreciated me doing this"); see also *id.*, **Attachment I**, at p. 13 (No. 94, Trouble Ticket ESL 928468, Comcast_AG_003338-3346 ["Once a listing appears on this site [ecolisting.com], other websites such as whitepages.com can collect the data to publish on their own site. I personally removed the white pages listing on 5/23/13 at 6:08pm MST."]).

²³³ Mr. Munoz finally admitted, during cross-examination and in response to the ALJ's questions, that a non-published number undeniably provided a privacy protection:

Q So is it your contention that caller ID blocking and enrollment and "Do Not Call" list provide privacy protections?

A They do provide certain aspects of privacy protection.

Q What is the -- and in comparison to a non-pub number, do they provide more privacy protection or less privacy protection?

A Just different.

(ALJ) Q. If not submitting your phone number to the phone book or online directories or directory assistance are not aspects of privacy, what are they?

A. They are an aspect of privacy. I agree with you. They're an aspect of it.

²³⁴ See e.g., Exhibit SED 2C, Momoh Opening Testimony, **Attachment I**.

in the head with the Crowbar he survived as well as the customer's sister in law. I guess in court this person looked right at our (sic) customers sister in law and said I will kill you, one day I will kill you. They got a letter from the courts, He has been released from prison. So [] is furious, just in shock knowing now her number has been listed. She also stated she could care less about this credit we gave her. She is pretty upset.²³⁵

Jane Doe 2, who also works in law enforcement, similarly found Comcast's offer of only credits "unacceptable":

[T]hey say, whoops, we made a mistake. We will credit you for some additional amounts. To me they made a mistake, and we have to call them to correct the mistake? And the mistake they gave us was these \$54 and then additional \$36 which was \$90. That was not acceptable. That is like them coming into my house and repairing something, causing water damage. And when it becomes mold and then saying, here, we will refund you your service fee. Go away. That is not customer service, to me.²³⁶

Other examples can be found in Momoh Opening Testimony, **Attachment I**.

2. Ineffective Notice to Affected Customers

Comcast's notification efforts, consisting only of letters and robo-calls, were both ineffective.²³⁷ The letters did not appear to reach at least 25% of the affected customers²³⁸ and the robo-calls were designed to defer resolution by not allowing

²³⁵ Exhibit SED 2C, Momoh Opening Testimony, **Attachment I**, at p.20 (No. 149, Trouble Ticket ESL 810339, Comcast_AG_004812-004816).

²³⁶ HT (Jane Doe 2) at 328:9-20.

²³⁷ See Exhibit SED 3, Momoh Rebuttal Testimony, at 1-13.

²³⁸ See *id.*, at 2-3. The 25% represents the 19,000 former customers who only received the notification letter and who did not receive a refund from Comcast because they have not contacted Comcast.

customers to reach live customer service representatives.²³⁹ As a result, Comcast has failed to issue refunds to approximately 19,000 affected customers, totaling over \$500,000.²⁴⁰

Comcast's notification efforts differed for customers it identified as "current" and "former,"²⁴¹ with former customers receiving Comcast's least efforts. While Comcast appears to have sent out letters to all affected customers, it only placed automated calls to current customers.²⁴² Both notification methods, however, were unsuccessful in reaching all 75,000 affected customers.²⁴³ Comcast has made no further attempts to notify customers.²⁴⁴ Thus, today, with no press release²⁴⁵ and the most acutely affected customers prohibited from talking about it, explained below, the privacy breach is almost unknown publicly.

a) Letters

Of the 21,000 former customers to whom Comcast sent the notification letter, only approximately 2,000 former customers contacted Comcast to request a refund.²⁴⁶ This extremely low response rate (approximately 10%) demonstrates the ineffectiveness of the

²³⁹ See *id.*, at 8-10.

²⁴⁰ See *id.*, at 7.

²⁴¹ See Exhibit COM 103, Donato Direct Testimony at 19-23; see also Exhibit COM 105, Stephens Direct Testimony at 5-8. Current affected customers, totaling approximately 54,000, were those who still subscribed to any Comcast service on December 5, 2012. Former customers, totaling approximately 21,000, were those who had terminated all Comcast services on or before December 5, 2012.

²⁴² See Exhibit COM 103, Donato Direct Testimony at 19-23; see also Exhibit COM 105, Stephens Direct Testimony at 5-8.

²⁴³ See Exhibit SED 3, Momoh Rebuttal Testimony, at 2-10.

²⁴⁴ See Exhibit SED 3, Momoh Rebuttal Testimony, at 1-11.

²⁴⁵ Exhibit SED 1C, Staff Report at 24; see also *id.*, at Attachment 1 (Comcast Updated Response to DR-TEL-00406-1 (3/26/2013), Q.8, at p. 15).

²⁴⁶ See *e.g.*, Exhibit SED 3, Momoh Rebuttal Testimony, at 3, *citing* Exhibit COM 106C, Stephens Direct Testimony, at 9-10.

notification letters.²⁴⁷ Nineteen thousand (19,000) affected customers did not receive *any* refund, the total of which is over \$500,000.²⁴⁸ This subset of customers represents 25% (19,000/75,000) of the affected customers.

The most plausible reason for this extremely low (10%) response rate from former customers is that they did not receive the notification letter. Comcast sent the notification letter(s) to former customers' last known address on file.²⁴⁹ While Ms. Stephens was concerned about sending refund checks to former customers at their last known addresses because of the "potentially stale address information,"²⁵⁰ neither she nor Ms. Donato expressed any concerns about using that same "out of date"²⁵¹ information when it came to sending the notification letters to former affected customers. Ms. Stephens' testimony also shows a lack of concern over the fact that approximately 19,000 former customers, a "significant number"²⁵² representing a "large percentage of former customers,"²⁵³ "did not receive any refunds"²⁵⁴ at all. She blamed this result on customers' failure to contact Comcast to request a refund:

²⁴⁷ See *ibid.*

²⁴⁸ See *ibid.*

²⁴⁹ Exhibit COM 103, Donato Direct Testimony, at 19:7-12 ("Once we had identified the categories of customers, we needed to determine the amount of refunds that were due for each customer. To that end, I gathered the names and addresses of current customers and the last known mailing addresses for former customers, as well as number of months for which a credit or refund was due, and worked with Ms. Stephen's (sic) team, which implemented the credits for current customers and refunds for former customers. I also worked with a mailing vendor to send notification letters to customers.").

²⁵⁰ Exhibit COM 105C, Stephens Direct Testimony, at 10-11 ("We considered sending former customers checks to their last address on file, but we decided against that option. It is our standard practice is to not proactively send refund checks to former customers with potentially stale address information.").

²⁵¹ *Id.*, at 11.

²⁵² *Id.*, at 10.

²⁵³ *Ibid.*

²⁵⁴ *Id.*, at 9-10 (emphasis in original).

Q. IT APPEARS THAT A SIGNIFICANT NUMBER OF FORMER CUSTOMERS DID NOT GET THE REFUND AMOUNT. WHY NOT?

A. We sent a refund check to every former customer who contacted Comcast and provided a current mailing address. However, a large percentage of former customers did not call the company to request a refund....²⁵⁵

But customers could not be expected to contact Comcast if they were unaware of the breach in the first place. The low response rate (10%) from former affected customers, coupled with the letters being sent to potentially stale addresses, demonstrates that the letter alone was an insufficient notification method. Had Comcast truly wanted to reach all affected subscribers, it could and should have used other methods, such as phone calls and/or a press release.

Comcast did not place calls to former customers, as it did with current customers.²⁵⁶ It contends that “[o]nce a customer cancels all Comcast services (and becomes a former customer) we no longer have a reliable contact telephone number.”²⁵⁷ This argument is misleading because it fails to consider that former customers may have kept the same telephone number even if they had moved, i.e., ported their phone number.²⁵⁸ At least for this population of former customers who ported their phone numbers, Comcast had the ability to reach them through phone calls. That is why SED suggested that Comcast attempt to place calls to these customers from live agents, as it did with the customers affected by the release to Plaxo, rather than simply making robo-

²⁵⁵ *Id.*, at 10:13-16.

²⁵⁶ Exhibit COM 105C, Stephens Direct Testimony, at 6.

²⁵⁷ Exhibit COM 105C, Stephens Direct Testimony, at 6:1-2.

²⁵⁸ See Exhibit SED 3, Momoh Rebuttal Testimony, at 3-4.

calls.²⁵⁹ That method would address Ms. Stephens’ concern of “leaving a message regarding the inadvertent publication of a non-published number on a telephone number that no longer belonged to the customer.”²⁶⁰ Comcast, however, made no attempt to pursue other solutions such as this.

Moreover, consistent with Comcast’s attempts to hide behind a veil of secrecy, it has failed to issue any public statement or press release.²⁶¹ Evidence that at least 19,000 affected customers have not received effective notice of the breach, as well as refunds, four years after its start demands this broader type of notification. Customers need to be fully informed so that they can take appropriate steps to safeguard their privacy and well-being because Comcast has failed to do so.²⁶² While the OII may serve as a type of public notice, it would not be as far-reaching or effective as a press-release or public notice from Comcast. All affected customers are aware of Comcast, but not all of them may be aware of the Commission.

3. Incomplete Refunds for Non-Published Fees

The ineffectiveness of Comcast’s notification efforts naturally resulted in incomplete restitution to the 75,000 affected California customers, with approximately 19,000 former customers receiving none at all. Comcast has retained over \$500,000 of their money for four years and Ms. Stephens’ testimony suggests that these former customers will never receive restitution *unless* “they call the company to request a

²⁵⁹ See Exhibit SED 3, Momoh Rebuttal Testimony, at 3-5.

²⁶⁰ See Exhibit COM 105, Stephens Direct Testimony, at 6:6-8.

²⁶¹ Exhibit SED 1C, Staff Report at 24, *citing* Comcast Updated Response to DR-TEL-00406-1 (3/26/13), Q.8, at p. 15, found at Attachment 1).

²⁶² *See e.g.*, Exh. SED 2, Attachment P (Declaration of John Doe 1) and Hearing Transcript (John Doe 1) at 8-9; Exh. SED 2, Attachment P (Declaration of Jane Doe 11) and Hearing Transcript (Jane Doe 11) at 150-163; *see also e.g.*, Exh. SED 2, Attachment P (Declaration of Jane Doe 2) and Hearing Transcript (Jane Doe 2) at 321-331.

refund.”²⁶³ The only way customers would know to request a refund, however, is if they received *and* read the notification letter from Comcast. The low 10% response rate suggests just the opposite, that these former customers are still unaware of the breach.

Another approximately 1,500 former customers have only received partial refunds.²⁶⁴ Ms. Stephens’ testimony does not specify the total amount that is still due to this smaller subset. In sum, Comcast has only refunded a total of approximately \$70,000 to former customers through the issuance of refund checks.²⁶⁵

Current customers were not issued refund checks. Rather, Comcast credited their Comcast accounts for the non-published charges.²⁶⁶ Approximately 55,000 current customers received credits totaling over \$2,000,000.²⁶⁷

4. Other Relief Provided to Customers, and Relief that Comcast Chose Not to Provide to Customers

While Comcast did provide compensation or service credits beyond restitution to some affected customers who demanded further relief, Comcast’s failure to remedy the most obvious harm to customers – their broad exposure on the Internet²⁶⁸ – further demonstrates the insufficiency of Comcast’s remedial efforts. As explained below, Comcast’s remedial efforts were focused more on minimizing its liability by requiring affected customers who sought remediation beyond Comcast’s “basic set of remedies”²⁶⁹

²⁶³ Exhibit COM 105, Stephens Direct Testimony, at 10:14-15.

²⁶⁴ Exhibit COM 105, Stephens Direct Testimony, at 9.

²⁶⁵ *Id.*, at 10.

²⁶⁶ *Id.*

²⁶⁷ *Id.*

²⁶⁸ *See e.g.*, Exhibit SED 6C, Christo Rebuttal Testimony, at 38-40; see also Exhibit SED 4, Tien Testimony at 11-16.

²⁶⁹ Exhibit COM 105, Stephens Direct Testimony, at 16.

to sign general releases that prohibited customers from discussing their situation publicly.²⁷⁰

a) Comcast’s minimal “package of remedies”

Ms. Stephens touts a “package of remedies” that Comcast purportedly offered to affected customers: (i) a “baseline remedy” (a refund and a new phone number at no charge) for all affected customers,²⁷¹ (ii) “1st Tier” remedies (“additional remedies for customers who called” the toll-free line),²⁷² and (iii) “2nd Tier” remedies (“escalated customers”).²⁷³ While these 1st and 2nd Tier remedies did provide some affected customers with some form of monetary relief, that type of relief is still insufficient because it did not remedy the underlying problem – that customers’ confidential information they paid Comcast to keep private was released onto the Internet where “a

²⁷⁰ See Exhibit SED 2C, Momoh Opening Testimony, **Attachment P.4** (Declaration of Jane Doe 4, Exh. A ***“ [REDACTED] .”***; *see also id.*, at 38-39 and **Attachment Y**).

²⁷¹ Exhibit COM 106, Stephens Rebuttal Testimony, at 25-26 (“Comcast provided refunds to all Affected Customers to cover all charges that the customer paid for non-published service for the duration of the period that their number was published; the amount of the credit was dependent on the number of months the customer had the non-published service...”).

²⁷² *Id.*, at 26. (“Comcast made additional credits and/or service offerings available to any customers who called the toll free line. These additional credits and offerings were not set like Cox’s but instead ranged from \$27 (18 months of additional non-published service credit) to more significant discounts and promotion offerings that could be worth ***[REDACTED]*** dollars depending on the customer’s service package.)

²⁷³ *Id.*, at 26-27 (“...we automatically escalated any customer that expressed a safety concern, and my team was authorized to offer a wide range of options to these customers regardless of their occupation or showing of need. The range of refunds for these customers was ***[REDACTED]*** to more than ***[REDACTED]***, with the average being ***[REDACTED].*** ... Significantly, as well, Comcast made its escalation process available to any customer who was not satisfied with remedies offered by the agents staffing the toll free line. Remedies for non-safety escalated customers ranged from ***\$[REDACTED] [REDACTED]*** and averaged ***\$[REDACTED]***) (Citations omitted).

third party publisher”²⁷⁴ or “anyone”²⁷⁵ could have obtained the information and further disseminated it.²⁷⁶

b) Comcast’s Failure to Provide Online Site Removal.

Ms. Stephens’ testimony makes clear that Comcast did indeed have a remedy to minimize customers’ exposure on the Internet – “Online Site Removal”²⁷⁷ which is a tool used in its complaint resolution process.²⁷⁸ Online Site Removal, found in an internal Comcast document titled “NCAR Method and Procedure for Directory Listing,” directs the Comcast customer service agent to search for a customer’s listing on seven popular websites²⁷⁹ and to remove the listing, if found.²⁸⁰ Comcast regularly employed Online Site Removal since at least October 2009 as part of its process for resolving trouble

²⁷⁴ Exhibit SED 2, Momoh Opening Testimony, **Attachment P.8** (Declaration of John Doe 8, Exh. 1).

²⁷⁵ See Exhibit SED 5, Christo Opening Testimony, **Attachment A** (Comcast Customer Privacy Notice), at p.6 or COMCAST_AG_000672, which can also be found at <http://cdn.comcast.com/~Media/Files/Legal/CustomerPrivacy/CustomerPrivacy.pdf?vs=3> (last visited 10/16/14).

²⁷⁶ See *ibid* (“Once our subscribers’ names, addresses, and telephone numbers appear in telephone directories or directory assistance, they may be sorted, packaged, repackaged and made available again in different formats by anyone.”).

²⁷⁷ See e.g., Exhibit SED 6C, Christo Rebuttal Testimony, at 39, *citing* Attachment P. 2 at COMCAST_POST-OII_000254; Attachments Q.1 through Q.10, *passim*; and Attachment R.

²⁷⁸ See Exhibit SED 6, Christo Rebuttal Testimony, at 38-39; see also Exhibit COM 106, Stephens Rebuttal Testimony, at 8-9, see also *id.*, **Attachment B** (NCAR Methods and Procedure for Directory Listing).

²⁷⁹ The seven websites are: www.whitepages.com, www.anywho.com, www.Yahoo.com, www.yellowbook.com, www.msnwhitepages.com, www.Google.com, and www.Dogpile.com. See Exhibit COM 106, Stephens Rebuttal Testimony, **Attachment B** (NCAR Methods and Procedure for Directory Listing), at p.16 or COMCASTPOST-OII_016225.

²⁸⁰ See Exhibit COM 106, Stephens Rebuttal Testimony, **Attachment B** (NCAR Methods and Procedure for Directory Listing) at p.16-19 or COMCASTPOST-OII_16225-16228.

tickets dealing with non-published numbers being published in directories or directory assistance.²⁸¹

Ms. Stephens describes this trouble ticket complaint resolution process in her testimony:

For complaints about publication in the ILEC phonebook, directory assistance, or other (non-Ecolisting) online directories, the method and procedure provided that NASR²⁸² first looked at Comcast's billing system to determine whether the customer had requested non-published service....If the customer's account reflected that the customer had requested non-published service and claimed they were published in the ILEC book, then the NSAR agent would check the customer's status with the ILEC. If the listing information with the ILEC reflected the customer as "published," the NSAR representative would send a Directory Listing ("DL") order to the ILEC to either delete the listing or designate it as non-published, and notify the customer of the update. The NCAR Method and Procedure also included processes for updating directory assistance and removing listings from (non-Ecolisting) online directory listings.²⁸³

The specific inclusion of the Online Site Removal process in Comcast's complaint procedures indicates that Comcast was well-aware that published listings would end up in other places once they appeared in any directories or directory assistance. Therefore, Ms. Stephens' contention that Comcast is not aware of any "direct correlation" between the inadvertent Release and affected subscribers' listings appearing on other online

²⁸¹ See Exhibit COM 106, Stephens Rebuttal Testimony, at 8-9; *see also id.*, **Attachment B** (NCAR Methods and Procedure for Directory Listing).

²⁸² NASR is a group of customer service agents that handle Comcast customer complaints. NASR used to be called "NCAR". See Exhibit COM 106, Stephens Rebuttal Testimony, at p. 7.

²⁸³ See Exhibit COM 106, Stephens Rebuttal Testimony, at 8-9.

directories such as whitepages.com and yellowpages.com²⁸⁴ is both false and disingenuous. Accordingly, Comcast should have completed the process of Online Site Removal as part of its remedial efforts here because it admitted to customers that their non-published listings were published in its online directory, “through which a third party publisher could have obtained your information.”²⁸⁵ Its failure to do so violated its own procedures and was thus unreasonable.

c) Comcast Did Substantially Less than Cox Did.

Also unreasonable is Comcast’s failure to attempt to retrieve any of the printed directories in which approximately 1,400 affected subscribers had been listed.²⁸⁶ In defending Comcast’s remedies, Ms. Stephens makes comparisons to the remedies Cox provided its 11,455 customers who had their non-published listings included in Pacific Bell’s white page directories,²⁸⁷ contending that Comcast’s remedies were “comparable to (and in many cases, better than)” what Cox offered.²⁸⁸

Ms. Stephens’ testimony focuses on a relatively narrow band of remedies provided, and omits the significant efforts Cox made “to minimize any potential impact of its error on customers,”²⁸⁹ efforts that went substantially beyond what Comcast did here:

²⁸⁴ See Exhibit COM 106, Stephens Rebuttal Testimony, at 28:13-15.

²⁸⁵ Exhibit SED 2, Momoh Opening Testimony, **Attachment P.8** (Declaration of John Doe 8, Exh. 1).

²⁸⁶ Exhibit COM 103, Donato Direct Testimony, at 22.

²⁸⁷ See Resolution T-16342, found at http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/FINAL_RESOLUTION/3390.htm (last visited 11/04/14); see also D.01-11-062.

²⁸⁸ See Exhibit COM 106, Stephens Rebuttal Testimony, at 24-27.

²⁸⁹ Resolution T-16342, Slip Op., at 3.

- Cox developed an extensive program to recover and destroy promptly the tainted directories, and to print new, corrected directories;²⁹⁰
- Cox’s notification letter to customers was sent in a “specially designated envelope” and expressly informed affected customers that they had two options with respect to their telephone numbers:

“Option 1 - Change your Telephone Number at No Charge. If you would like to change your current phone number to a new, unlisted number at no charge to you, simply complete and return the enclosed response form. We will also provide you with 120 minutes worth of prepaid calling cards to contact friends and family who need to know your new telephone number.”

“Option 2 - Keep Your Telephone Number With a Special Privacy Package. If you prefer to keep your current phone number, but are concerned about receiving unwanted telephone calls, we will provide you with a special package of services. This package includes privacy features like Caller ID, Call Waiting ID, Selective Call Acceptance, Selective Call Rejection, Priority Ringing and other benefits at no charge until April 30, 2001. We will also provide you with the equipment necessary for services that display Caller ID information.”²⁹¹

- Cox “consulted an independent panel consisting of law enforcement, domestic violence and privacy experts for purposes of classifying the nature of security concerns and addressing them in a non-discriminatory manner,” and offered four levels of compensation based on the various levels of security concerns.²⁹²

²⁹⁰ *Id.*, at 3; see also D.01-11-062.

²⁹¹ Resolution T-16432, Slip Op., at 3-4.

²⁹² *Id.*, at 4-5.

- Cox did not require customers to execute a waiver and release. Cox would still honor its offers to customers even if the customer declined to execute a waiver and release.²⁹³

All of the aforementioned remedial measures that Comcast could have taken, but chose not to, establish Comcast’s significant failure to remedy the breach.

H. Comcast’s Non-Published Policies and Procedures since Discovery of Release

Comcast again wanted a section in the briefs to address its post-breach policies and procedures. There is little reason to doubt that Comcast has not improved its policies and procedures at least somewhat after the privacy breach. But the factfinder may continue to ask how seriously Comcast’s management has taken to heart what occurred. Comcast has not commissioned any sort of outside or independent expert report on the breach. And even the promised inside report on the breach has not materialized, delayed – we were told – because the litigation team was out in California.²⁹⁴

I. The Factual Record Supports Substantial Penalties Against Comcast

The factual record set forth above supports substantial penalties against Comcast. Comcast took no visible, proactive steps to prevent the release of 75,000 non-published customers’ personal information. It apparently had no procedures in place to detect the breach, i.e., to “connect the dots,” the multiple emails, complaints, and trouble tickets that warned of inadvertent releases of non-published numbers. See Appendix 1 timeline. Nor did it have the simplest of “spot check” procedures in place.

These matters are discussed above, and incorporated herein. Had Comcast heeded any of these earlier warning signs or the various other non-complaint warning signs

²⁹³ *Id.*, at 5.

²⁹⁴ HT at 434:17-26.

discussed above, it would have had sufficient information to detect the process error as early as it began or could have prevented it altogether. The evidence regarding the inadequacy of Comcast's remedial measures with its customers, once it discovered the breach, is also discussed above, and incorporated here. Most notable in that regard is Comcast's failure to utilize the Online Site Removal Process that was already embedded in its procedures for non-published customers whose account information was breached.²⁹⁵

IV. LEGAL ISSUES

A. The Commission Has Jurisdiction over the Subject Matter of this Investigation.

The Administrative Law Judge's March 11, 2014 *Ruling Denying Comcast's Motion to Dismiss* correctly overruled Comcast's objections to jurisdiction based on SB 1161 (codified at Public Utilities Code §§ 239 and 710), California legislation that became effective on January 1, 2013, *after* the privacy breach and its repair, and just days before Comcast reported the privacy breach to the Commission.

The Ruling notes that the provision of non-published service is inextricably the province of the CPCN holder, Comcast Phone, which "entered into the contracts which led to the publication of more than 74,000 unlisted phone numbers."²⁹⁶ The Ruling finds

²⁹⁵ Exhibit COM 106C, Stephens Rebuttal at 7:11-12, and **Attachment B**.

²⁹⁶ Ruling, at 14; see also SED December 6, 2013 Response to Comcast's Motion to Dismiss, at 4-10. The primary contract at issue is the *Directory Listing License and Distribution Agreement* ("DLLDA Contract"), which is found as confidential **Attachment 11** to the Staff Report, Exhibit SED 1C. The Order Instituting Investigation highlights these recitals from the DLLDA Contract:

WHEREAS, Comcast, in its capacity as a LEC, generates DL [directory listing] Information as a result of providing wholesale and retail telecommunications services; and

WHEREAS, Comcast's DL Information is used and useful in creating paper and electronic telephone directories, for providing directory assistance ("DA") services (i.e., 411), and for other purposes; and

(Footnote continued on next page)

that the focus of the OII is on “the conduct of the CPUC licensee Comcast Phone in the release of confidential customer information associated with phone numbers issued to Comcast Phone and the resulting loss of customers’ privacy.”²⁹⁷

The Ruling rejects Comcast’s claim that this Investigation is “outside the Commission’s jurisdiction pursuant to section 710” on the theory that it “relates to the provision of VoIP (Voice Over Internet Protocol) services to customers,”²⁹⁸ holding that the business practices at issue “have nothing to do with the provision of VoIP services for the making and receiving of phone calls by Comcast’s customers as defined by law.”²⁹⁹ The Ruling similarly rejects Comcast’s claim that this investigation involves a “retroactive application of section 710.”³⁰⁰ Section 710 is not implicated here, as this case is about Comcast Phone’s provision of “local exchange services as a CPCN holder,”³⁰¹ which “generates DL [directory listings] Information as a result of providing wholesale and retail telecommunications services.”³⁰²

Given the fact that the breach occurred, in Comcast’s own telling, from July 1, 2010 through December 10, 2014, the Ruling also correctly rejects Comcast’s variously

WHEREAS, as a LEC, Comcast is obligated under Sections 251(b)(3) and 222(e) of the Act to provide DL information to eligible requesting LECs and directory publishers; and

WHEREAS, Targus is a distributor of DL information to LECs, directory publishers, and other users of DL information.

See OII at 6, fn. 25. The DLLDA Contract further states that Targus is the agent of the LEC, which is Comcast Phone. **Attachment 11**, at 2.

²⁹⁷ Ruling at 20.

²⁹⁸ *Id.*, at 2. Section 710 prohibits the Commission’s “exercise [of] regulatory jurisdiction or control over Voice over Internet Protocol and Internet Protocol enabled services,” subject to certain exceptions, including an exception for laws of “general applicability,” as discussed below.

²⁹⁹ Ruling, at 2.

³⁰⁰ Ruling, at 4.

³⁰¹ *Id.*

³⁰² See Exhibit SED 1C, Attachment 11 (*Directory Listing License and Distribution Agreement*, at p. 1).

phrased attempts to give SB 1161 a retroactive application. “[T]he Commission’s current investigation into Comcast Phone’s prior conduct does not involve the retroactive application of section 710.”³⁰³

Finally, the Ruling correctly finds that the California Constitution’s privacy provisions at issue are in fact laws of “general applicability,” and therefore excluded from the regulatory prohibitions of SB 1161 in any event.³⁰⁴

1. The Commission Has *In Personam* Jurisdiction Over Comcast Phone of California, LLC

It is undisputed that the Commission has jurisdiction over Comcast Phone of California.³⁰⁵ Comcast Phone holds a Certificate of Public Convenience and Necessity (CPCN) from this Commission, which authorizes it to provide facilities based and resold local exchange and interexchange telecommunications services in California as a competitive local exchange carrier (CLEC).³⁰⁶ Its provision of telecommunications services in California makes it a telephone corporation pursuant to P.U. Code section 234.³⁰⁷

³⁰³ Ruling, at 15.

³⁰⁴ *Id.*, at 17, *ff.*

³⁰⁵ See Comcast Motion to Dismiss at 17-9.

³⁰⁶ See OII at 4; see also Ruling at 6.

³⁰⁷ The Public Utilities Code defines a *telephone corporation* as “every corporation or person owning, controlling, operating, or managing a telephone line for compensation within this state.” (§ 234(a).) A *telephone line* includes “all conduits, ducts, poles, wires, cables, instruments, and appliances, and all other real estate, fixtures, and personal property owned, controlled, operated, or managed in connection with or to facilitate communication by telephone, whether such communication is had with or without the use of transmission wires.” (§ 233.)

2. The Commission Has Jurisdiction Over the Related Entities, as Comcast Phone, Comcast IP, and Other Comcast Affiliates Operate as One Integrated Business.

Evidence presented by SED, and adduced at hearing, indicates that all of Comcast's various corporate forms operate as one unified entity. Comcast Phone of California operates as a ***[REDACTED]*** subsidiary of Comcast Phone, LLC, which in turn is owned by Comcast Corporation.³⁰⁸ Comcast IP also operates as a subsidiary of Comcast Corporation, but notably Comcast IP is not a subsidiary of Comcast Phone, LLC, which is Comcast Phone of California's parent corporation.³⁰⁹ Comcast IP purports to provide XFINITY Voice, but the telephone bill for XFINITY Voice does not identify Comcast IP, rather there is only one entity name on the bill: "Comcast."³¹⁰

Comcast Phone and Comcast IP have the same officers and principal place of business.³¹¹ Both entities also share some employees, though Comcast cannot clarify the nature and extent of this commonality, stating generally:

***[REDACTED]
[REDACTED]
[REDACTED].***³¹²

The various Comcast entities and personnel appear to operate interchangeably in the delivery of services to the public. For instance, Comcast admits that the *Directory Listing License Distribution Agreement* ("DLLDA") governed the release of the non-published listings by Comcast to its vendor, Targus/Neustar, who in turn licensed the

³⁰⁸ Exh. SED 1C, Staff Report, **Attachment 8** (Comcast Phone of California Corporate Structure).

³⁰⁹ *Id.*, **Attachment 9** (Comcast IP Corporate Structure) *compare* with **Attachment 8**.

³¹⁰ *Id.*, Staff Report, **Attachment 15**.

³¹¹ *Id.*, Staff Report, **Attachment 2**.

³¹² *Id.*, Staff Report, at 6, *citing* **Attachment 2** (Comcast Response to DR-TEL-00406-2 (3/26/13), Q.3, at p.7).

not find clear distinctions between the two entities. For example, Ms. Cardwell inquires in an e-mail about Neustar’s role with Comcast’s data, not Comcast IP’s data.³¹⁸ Neither Mr. Miller nor Ms. Donato could name the legal entity that employs them.³¹⁹ And, of course, the key contracts, with Targus, with Neustar, and with kgb, are all in the name of Comcast Phone, not Comcast IP.³²⁰

Further to the lack of clear internal divisions between affiliates, on examination by the Assigned ALJ, Comcast witness Bob Munoz struggled to articulate the specific services provided by the Comcast entity for which he works.³²¹

a) § 2111 (aiding and abetting)

The Commission has jurisdiction over the Comcast “Related Entities” pursuant to P.U. Code section 2111. Section 2111 states in relevant part:

Every corporation or person, other than a public utility and its officers, agents, and employees, which or who...aids or abets any violation of any provision of the California Constitution relating to public utilities or of this part, or fails to comply with any part of any order, decision, rule...or aids and abets any public utility in the violation or noncompliance in a case in which a penalty has not otherwise been provided for the corporation or person, is subject to a penalty...

The facts recited above demonstrate that these entities aided and abetted Comcast Phone of California in violating the privacy and related rights of California consumers.

³¹⁸ E-mails of February 13, with Subject “RE: Comcast data first sent to MS/Fast” COMCASTPOST-OII_013335_013340, **Attachment W**.

³¹⁹ Donato Deposition at 9:15-23, **Attachment A**; Miller Deposition at 8:14-9:18 **Attachment B**; Ms. Cardwell was not asked this question.

³²⁰ Exhibit SED 6, Christo Rebuttal, at 43.

³²¹ HT (Munoz) at 383:18-385:2.

b) Alter Ego & Other Theories of Vicarious Liability.

The Commission's jurisdiction over the related entities can also be justified under common law theories of vicarious or alter ego liability. The alter ego doctrine is grounded in equity, and said to apply only where two general requirements are met: first, there must be such a unity of interest and ownership that the separate personalities of the corporation and the controlling individuals or companies no longer exist; and, second, a failure to disregard the corporate entity must sanction a fraud or promote injustice. *See, e.g., Watson v. Commonwealth Ins. Co*, 8 C2d 61, 68 (1936). Although the alter ego doctrine is generally applied to affix liability for corporate acts on an individual, as it was in a recent Commission decision (D.14-08-033), it also expresses deeper, common law roots. As a more recent court interpreted the doctrine, application of the alter ego doctrine " will depend on the circumstances of each particular case ... The essence of the alter ego doctrine is that justice be done. . . [L]iability is imposed to reach an equitable result."³²² The integrated nature of Comcast's operation makes the application of this doctrine appropriate.

3. Does section 710 limit the scope of the investigation to the period ending Dec 2012? (See Feb 2014 scoping memo)

As a threshold matter, section 710 does not apply here because as explained above, the alleged privacy violations resulted from Comcast Phone's provision of telecommunications services pursuant to its CPCN. Therefore, it is irrelevant whether the privacy breach occurred before or after December 31, 2012. The Commission would have jurisdiction over events occurring in either time period.

³²² *Greenspan v. LADT LLC*, 191 Cal. App. 4th 486, 510-511 (2d Dist. 2010) (emphasis added) (citations omitted).

Even if this were not true, SB 1161 did not become effective until after the violations here had occurred. The only question left in this regard is whether SB 1161 would inhibit prospective, consumer-facing disclosure remedies. Because, as argued above, staff believes that Comcast's utility operations are fully integrated into a single business enterprise, there is no impediment to ordering consumer disclosure remedies. Such remedies are set forward with specificity below.

B. Evidentiary Standard

As in most Commission enforcement proceedings, SED has the burden of proving the OII allegations by a "preponderance" of the evidence. See *In Re CTS*, D.97-05-089, (1997) 72 CPUC2d 621, 642, Conclusion of Law 1, 2; *In Re Qwest*, D.03-01-087, Slip Op. at pp. 8-9; *In Re Cingular*, D.04-09-062, Slip Op. at 13. "Preponderance of evidence" means "such evidence as, when weighed with that opposed to it, has more convincing force, and from which it results that the greater probability of truth lies therein," and is often compared to a tipping of the scales in one direction or the other. *People v. Garcia*, 54 Cal.3d 61, 69 (1975) BAJI (5th ed. 1969) No. 2.60 ("such evidence as, when weighed with that opposed to it, has more convincing force and the greater probability of truth"); Witkin, *Cal. Evidence* (4th ed. 2000) § 35.

In judging which party has presented the preponderance of evidence, all testimonial assertions are not equal. The Commission's factfinding necessarily entails some assessment of credibility of the witnesses, even where the questions are primarily legal. Evidence of a witness' credibility, honesty or veracity is admissible. California Evidence Code §§ 785-786. Moreover, "[i]f weaker and less satisfactory evidence is offered when it was within the power of the party to produce stronger and more satisfactory evidence, the evidence should be viewed with distrust." Evidence Code § 412. "In determining what inferences to draw from the evidence or facts in the case ..., the trier of fact may consider, among other things, the party's failure to explain or to deny by his testimony such evidence or facts in the case against him, *or his willful suppression*

of evidence relating thereto, if such be the case. Evidence Code § 413 (emphasis added).

The Commission may also draw inferences from what is missing: the “audit reports” about the publication of non-published numbers, as referenced in the 2009 email above; the Comcast internal audit promised September 30, 2014; the lack of *any* outside audit; the lack of any outside audit; the lack of any audit of the use of Comcast subscriber information downstream; the lack of any percipient witness to the breach (Mr. Miller was there, and in a position of power, but was not involved on an operational level). Here, Comcast’s primary witness about the mechanics of the breach had no first-hand knowledge of Comcast’s practice with directory listing and non-published numbers until almost two years after the breach. The most involved employees have left the company. And rather than produce one of the few employees still around, Valerie Cardwell for instance (who *was* employed in Comcast’s national headquarters in 2010), Comcast chose Lisa Donato, who did not start work on these issues until 2012.³²³

C. Violations of Law

1. California Constitution

a) The Strong Protections for Privacy in California

In 1972, California voters adopted a “Privacy Initiative,” which added the words “and privacy” to Article I Section 1 of the California Constitution, so that it now reads:

SECTION 1. All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness, and privacy.³²⁴

³²³ See footnote 83, *supra*.

³²⁴ The history of this Privacy Initiative and Amendment is discussed, *inter alia*, in *Hill v. NCAA*, 7 Cal.4th 1, 15-19 (1994).

Further protection of privacy is found in Article I, § 13 of the California Constitution, which states that the “right of the people to be secure in their persons, houses, papers, and effects against unreasonable seizures and searches may not be violated.”³²⁵

In *White v. Davis*³²⁶ the California Supreme Court explained that “the moving force” behind California’s Privacy Initiative and constitutional right to privacy “was a more focused privacy concern, relating to the accelerating encroachment on personal freedom and security caused by increased surveillance and data collection activity in contemporary society,” and that its “primary purpose is to afford individuals some measure of protection against this most modern threat to personal privacy.”³²⁷

In 1984, the California Supreme Court decided in *Chapman* that a telephone subscriber has a reasonable expectation of privacy in his or her unlisted name, address and telephone number.³²⁸ In 1994, the Supreme Court held in *Hill v. NCAA* that the Constitution’s privacy protections applied to private as well as public intrusion. The Court quoted with approval the rationale of a lower court which also broadly upheld California privacy rights:

Common experience with the ever-increasing use of computers in contemporary society confirms that the [Privacy Initiative] was needed and intended to *safeguard individual privacy from intrusion by both private and governmental action*. That common experience makes it only too evident that personal privacy is threatened by the information-

³²⁵ Cal. Const., Art. I, § 13.

³²⁶ *White v. Davis*, 13 Cal.3d 757 (1975).

³²⁷ *Id.*, at 774.

³²⁸ *People v. Chapman*, 36 Cal.3d 98, 106-111 (1984) (reasonable expectation of privacy in unlisted name, address, and telephone number); *People v. Blair* (1979) 25 Cal.3d 640, 653-655 (hotel guest has reasonable expectation of privacy in hotel telephone records); *People v. McKunes* (1975) 51 Cal.App.3d 487, 492 (telephone company’s customer’s records).

gathering capabilities and activities not just of government, but of private business as well. If the right of privacy is to exist as more than a memory or a dream, the power of both public and private institutions to collect and preserve data about individual citizens must be subject to constitutional control. Any expectations of privacy would indeed be illusory if only the government's collection and retention of data were restricted.³²⁹

This Commission has upheld consumers' privacy rights under both Constitutional provisions.³³⁰ In so doing, the Commission has repeatedly made reference to *Chapman*.³³¹ *Chapman* teaches that:

[D]isclosure of the information to the telephone company is 'not entirely volitional' Doing without a telephone is not a realistic option for most people. '[In] this age and place, it is virtually impossible for an individual or business entity to function in the economic sphere without a telephone' Thus, the customer's expectation of privacy in information gathered by the company during the regular course of its business must be honored as a reasonable one.

Disclosure of her name . . . was a prerequisite to obtaining a telephone. The disclosure was plainly made for the limited purpose of billing. Moreover, by affirmatively requesting and paying an extra service charge to the telephone company to keep her unlisted information confidential, respondent took specific steps to ensure greater privacy than that afforded other telephone customers.³³²

³²⁹ *Hill v. NCAA*, *supra*, 7 Cal.4th at 18-19, quoting *Wilkinson v. Times Mirror Corp.* 215 CA3d 1034, 1043 (1989).

³³⁰ See, e.g., D.01-07-032; Resolution L-242; D.99-04-047.

³³¹ See also D.97-09-124, D.91-01-016, D.85-03-017, D.92-06-065.

³³² *People v. Chapman*, 36 Cal.3d at 108.

Comcast and other carriers abuse the non-volitional provision of information by their customers when they seek to monetize that, and when they fail to maintain systems capable of protecting the customer's privacy, even *vis a vis* downstream agents and the permitted publication of those numbers. The Commission can enforce the California Constitution as a law of general applicability, pursuant to Public Utility Code §§ 1701-1702 and 2101-2102.

2. Comcast Violated the Public Utilities Code

a) Comcast Violated Sections 2891 and 2891.1, which Codify the California Right of Privacy.

Sections 2891 and 2891.1(a) incorporate the principles and values of the California Constitution. Located in a section entitled "Customer Right of Privacy," at Part 2, Chapter 10, Article 3 of the Code, they protect the privacy of telephone customers. While the OII and much of staff's effort in this case have focused on Comcast's violation of section 2891.1, the Scoping Memo appropriately includes 2891 as well.³³³ In some ways, 2891 and 2891.1 are complementary. Both are found in Chapter 10, Article 3 of the Code.

Section 2891 makes it illegal for a carrier to release, without first obtaining the residential subscriber's consent in writing, any "demographic information"; name attached to a street address has been held to be "demographic information."

Section 2891.1(a) addresses the privacy interests implicated when a customer specifically requests an unlisted or non-published phone number, stating in relevant part:

Notwithstanding Section 2891, a telephone corporation selling or licensing lists of residential subscribers shall not

³³³ February 11, 2014 Assigned Commissioner's Scoping Memo and Ruling, at 5.

include the telephone number of any subscriber assigned an unlisted or unpublished access number.

That is precisely what happened here. A telephone corporation, Comcast Phone, licensed its lists of residential subscribers to third parties, using Targus/Neustar as its agent. *Comcast regularly included the name, address and telephone number of unlisted and non-published numbers in the subscriber lists it sent to Targus.* That is violation number one.

Violation number two is Comcast's failure, even within this construct, to properly flag the accounts of non-published numbers with their non-published status. Comcast asserts that this was because of the Process Error, which may or may not be true, but is in any event irrelevant. Violation of a police power statute like this creates strict liability in the utility.³³⁴

Although the statute is clear and unambiguous, Commission decisions have unanimously affirmed a consumer's right of privacy under section 2891.1. *See, e.g.,* D.00-10-026, Slip Op. at [16] ("CLECs shall be required to make available their directory listings to the ILECs for release to third party DA vendors subject only to exclusions for un-published listings and related customer privacy rights.")

³³⁴ Like the consumer protection statutes in the Public Utilities Code, section 2891.1 announces a strict liability rule. Such laws are sometimes referred to as public welfare or police power laws, as they involve protection of the public at large. *Cf. Investigation on the Commission's own motion into ... Communication Telesystems [CTS]*, D.97-10-063 (1997) 1997 Cal. PUC LEXIS 912 at *10-11, *16, and Conclusion of Law 6 (slamming of long distance customers); see also D.97-05-089, 1997 Cal. PUC LEXIS 447 at *39-40; *see also Donald v. Cafe Royale, Inc.* (1990) 218 CA3d 168, 180 (failure to provide wheelchair access in restaurant); *Drewry v. Welch* (1965) 236 CA2d 159, 175-76 (trespass in removing timber), discussed in D.97-10-063, 1997 LEXIS 912 at *11.

b) Comcast Violated Section 451 of the Code by Failing to Provide Just & Reasonable Service, and by Failing to Make Adequate Disclosures to Consumers.

Section 451 has three paragraphs, requiring that rates, service, and business rules (terms and conditions) must be “just and reasonable.” All three were violated here.

(i) Comcast’s imposition of a \$1.50/month charge, for a service the customers were not receiving, was not just and reasonable.

It cannot be just and reasonable to charge a customer *any* rate for a non-published number service they are not receiving. Thus, in addition to being a breach of contract, Comcast’s failure to deliver the non-published service as promised is also a violation of section 451, paragraphs 3 regarding unfair and unjust business rules. It also can be seen as a violation of section 451 paragraph 1, regarding unfair and unjust rates, although this section would be redundant with paragraph 3 in this case, and would raise unnecessary questions about the Commission’s ratemaking authority. The gravamen of the violation here is Comcast’s failure to even do spot checks to assure itself that the charges emanating from the customer billing side of Comcast’s operation (the PAS Table) in fact corresponded to a service actually being delivered (the POI Table).

(ii) Comcast’s Massive Release of Non-Published Account Information Is a Failure to Provide Just and Reasonable Service

Nor can it be adequate service quality to allow a breach like this to occur, and not catch it for two and a half years.

These were utility violations: the provisioning of numbers is governed by Title II of the 1996 Telecommunications Act, 47 USC §§ 201-276, which relates only to telecommunications carriers. This is why Comcast has a CPCN registration.

(iii) The Failure to Protect Consumer Information – Both Non-Published and Published Customers’ Information – By Monitoring and Enforcing Use Restrictions with Downstream Companies Like kgb, Targus, and LSSi, Is Also a Violation.

In a complaint case filed by a customer upset with the carrier's treatment of his directory listings, the Commission noted that

The carrier, moreover, has an *obligation to its customers to protect their rights to privacy and to impose appropriate restrictions on how a customer's subscriber listing information may be disseminated or the purposes for which it may be used*. Carriers may properly impose reasonable restrictions on the manner and purposes for which each of its customers' subscriber listings may be provided or used by other entities.³³⁵

Comcast appears to argue that this duty is trumped by federal law that requires a carrier to provide its directory listings to publishers in a non-discriminatory manner.³³⁶ But the very authorities that Comcast cites require that non-published numbers be kept confidential where state statute requires it and the consumer requests it.³³⁷

³³⁵ D.00-10-026, Slip Op. at 10.

³³⁶ Exhibit 102, Munoz Rebuttal, at 7:13-16 ("the FCC has said that we are required to presume that a requesting directory publisher will use listing information for legitimate purposes if it certifies that it will do so"), and fn. 20.

³³⁷ Thus, in the 1999 FCC decision FCC decision cited by Mr. Munoz at fn. 20, the FCC cites D.00-10-026, and says:

[O]ur rules require that a LEC share the names and addresses of subscribers with unpublished numbers if the LEC provides those names to its own directory assistance operators. *Our rules, however, also prohibit a LEC from providing access to those customers' unlisted telephone numbers, or any other information that the LEC's customers have asked the LEC not to make available.* ... If a LEC, in its provision of directory assistance service to itself, allows its own directory assistance operators to see the names and addresses of subscribers with unlisted information, this information must also be made available to the requesting competitive LEC. If, as in the case of California, no customer information is available to the operator, no access need be given to the competitor.

FCC Third Report and Order, *In re Implementation of the Telecommunications Act of 1996: Telecommunications Carriers Use of CPNI and other Customer Information*, 14 FCCR 15550, ¶¶ 166-67 (1999) Clearly, Comcast *can* do this, because it *has* done this post-October 2012. See Exhibit SED 6C, Christo Rebuttal, Confidential Attachment G ("Discuss new way of Comcast submitting Non-Pubs to Neustar"); HT 512:10-513:9 (after October 2012, Comcast no longer sends non-published name or address to Targus).

And with regard to downstream use generally, although the FCC has established an “innocent until proven guilty” rule requiring a carrier like Comcast to provide non-discriminatory access to its subscriber lists *if* it provides any access at all, none of this blocks the ability of a carrier to audit what downstream users of its carrier lists the publisher or DA provider is actually making.³³⁸ The FCC has also found, as the customer declarations provided by SED demonstrate, that even if customers consent to their billing name and address (BNA) being used for directory purposes, those same customers may not contemplate that their BNA will be used for other commercial purposes:

[W]e concluded that privacy concerns similar to those we have found with CPNI may arise if BNA is used for non-billing purposes. We are not persuaded that our initial conclusion was incorrect. While end users may have no reasonable expectation of privacy regarding disclosure of BNA to telecommunications service providers for billing purposes, *there is substantial evidence in the record that end users do not expect their [billing name and address] information to be released for other purposes.*³³⁹

Comcast failed in its duty to protect both published and non-published customers. While Comcast’s failure to protect the privacy rights of non-published customers is patent, even published customers did not receive from care reasonably calculated to protect their privacy in downstream settings. Comcast sent its directory listings to two well-known data brokers, and then failed to audit or enforce appropriate use restrictions on downstream use.

³³⁸ FCC Third Report and Order, *supra*; see also Order on Reconsideration, *In re Implementation of the Telecommunications Act of 1996: Telecommunications Carriers Use of CPNI and other Customer Information*, 19 FCCR 18439 ¶ 18 carriers may bring a civil action for breach of contract if directory publishers misuse subscriber list information. n65 The prospect of such suits should help deter entities from misusing subscriber list information obtained pursuant to section 222(e)

³³⁹ FCC Second Report and Order, *In re Policies and Rules Concerning Local Exchange Carrier Validation and Billing Information*, 8 FCCR 4478, at ¶ 28 (1993).

(iv) The Disclosures Applicable to Non-Published Service Were Not Just and Reasonable.

In the Cingular investigation, the Commission found that this major wireless carrier had violated section 451 when it made representations to consumers that it knew, or should have known, were at odds with reality.³⁴⁰ Comcast's disclosures of its non-published service are in any event quite limited, and what is most easily accessible to customers – the Welcome Kit -- lulls them into the belief that a non-published number “ensures” that their number will not be placed in a telephone book, online directory, or directory assistance.

Comcast's “Welcome Kit” and “Privacy Notice” offer different stories about Comcast's treatment of “non-published numbers.” Comcast's “Welcome Kit” states that “Non-published directory service *ensures* that Comcast will not make [its subscriber's] phone number available in the phone book, an online directory or through Directory Assistance.”³⁴¹ On the other hand, Comcast's Privacy Notice states: “[w]e take reasonable precautions to ensure that non-published and unlisted numbers are not included in our telephone directories or directory assistance services, but we *cannot guarantee* that errors will never occur.”³⁴² While the language in the Welcome Kit may reasonably lead subscribers to believe that their personal information is secure, it is doubtful that they would reconcile this assuring language with the inapposite qualification buried on the sixth page of Comcast's Privacy Notice. Without a unified and conspicuous statement regarding its Non-published directory service, Comcast has failed to provide subscribers with ‘clear and complete’ information about all material terms and conditions

³⁴⁰ D.04-09-062, Slip Op., at 56 (“Cingular's coverage disclosures were insufficient to permit customers to make informed choices about whether to contract for its service. This failure does not meet the just and reasonable service mandate of § 451 ...”).

³⁴¹ Welcome to XFINITY Voice, at COMCAST_AG_000603, **Attachment D**.

³⁴² Comcast Customer Privacy Notice, at COMCAST_AG_000672, **Attachment A**.

for this service, including its limitations. One example of this is Comcast’s failure (as far as staff is aware) to tell its non-published customers that it was disclosing their numbers to third-party distribution agents, who also happened to be in the data broker business.

3. Additional Violations of Law

The February 11, 2014 Assigned Commissioner’s Scoping Memo and Ruling, in addition to placing the Constitution and Code sections above at issue, also asks whether Comcast’s conduct violated the Commission’s General Orders, California statutes other than the Public Utility Code, or Legislative or Commission Resolutions, directives or other requirements.³⁴³ These matters are considered below.

a) Comcast Violated Consumers’ Rights Under the Commission’s General Order 168.

Comcast violated fundamental consumer rights enumerated in General Order 168 (“GO 168”). The Commission laid out a strong consumer protection foundation with GO 168 by including at its forefront a ‘Consumer Bill of Rights and Freedom of Choice’ (“Bill of Rights”). Among its several recitations, the Bill of Rights states that “[c]onsumers have a right to personal privacy, to have protection from unauthorized use of their personal information and records.”³⁴⁴ It further provides that consumers “have a right to receive clear and complete information about all material terms and conditions, such as material limitations, for i) products and service plans they select or ii) available products and service plans for which they request information.”³⁴⁵ Comcast separately violated both the privacy and disclosure rights provisions of G.O. 168, and did so as to approximately 75,000 customers by failing to prevent the public disclosure of their personal information, and by *misleading* customers that their privacy was “ensured,” and

³⁴³ Ruling, at 5, points c-e.

³⁴⁴ *Consumer Bill of Rights Governing Telecommunications Services*, General Order 168, Part 1.

³⁴⁵ *Id.*

in any event failing to *adequately* disclose the material limitations of the non-published services for which approximately 15% of Comcast’s customers were paying.

b) Comcast may also have violated Business & Professions Code §§ 17200 & 17500 by providing false, misleading, or incomplete information in its “Welcome Kit.”

Comcast has also likely violated the sections of the Business and Professions Code prohibiting unfair competition and untrue, misleading, or fraudulent statements in advertising.³⁴⁶ A statement is false or misleading if members of the public are likely to be deceived.³⁴⁷ The statutory framework imposes strict liability; it is not necessary to show that the defendant intended to injure anyone,³⁴⁸ or that anyone was actually deceived, actually relied upon the fraudulent practice, or actually sustained any damage.”³⁴⁹ While the Commission does not have standing to sue under section 17200, that logic does not obtain with regard to section 17500. While largely cumulative with the disclosure standards developed by the Commission under section 451 and GO 168, the standards developed under §§ 17200 and 17500 can be incorporated into the “just and reasonable” standard of section 451. The Commission has acknowledged that enforcement of these Code Sections lies primarily with the Attorney General and District Attorney,³⁵⁰ however, violation of these sections may be considered by the Commission in

³⁴⁶ False Advertising Act (FAA) (Bus. & Prof. Code § 17500 et seq.) and the Unfair Competition Act (UCA) (Bus. & Prof. Code, § 17200 et seq.). A violation of section 17500 constitutes a per se violation of section 17200 et seq. *Greenlining Institute v. Public Utilities Com.*, 103 Cal. App. 4th 1324, 1333 (Cal. Ct. App. 2002).

³⁴⁷ *Chern v. Bank of America*, 15 Cal. 3d 866, 876 (Cal. 1976).

³⁴⁸ *State Farm Fire & Casualty Co. v. Superior Court*, 45 Cal. App. 4th 1093, 1102 (Cal. App. 2d Dist. 1996).

³⁴⁹ *Prata v. Superior Court*, 91 Cal. App. 4th 1128, 1146 (Cal. Ct. App. 2001).

³⁵⁰ D.06-03-013, p. 42.

determining whether a public utility has violated a Public Utilities Code section, such as § 451.³⁵¹ Here, Comcast's violation of Code §§ 17200 & 17500 undoubtedly supports a violation of § 451.

c) Comcast Violated the Commission's Rule 1.1 with at least Two Separate, Material Misrepresentations to Commission Staff that were Untrue

As noted above, Comcast made two material and untrue statements to Commission staff, both of which substantially impeded this Investigation: (i) Comcast asserted that it had no way to search its customer service notes to identify customers who may have complained about their non-published numbers being made public; and (ii) Comcast asserted that the non-published numbers had not been provided to any directory assistance providers, and then engaged in a series of further artifices and misstatements to defend the original misstatement. Rule 1.1 of the Commission's Rules of Practice and Procedure states:

Any person who signs a pleading or brief, enters an appearance, offers testimony at a hearing, or transacts business with the Commission, by such act represents that he or she is authorized to do so and agrees to comply with the laws of this State; to maintain the respect due to the Commission, members of the Commission and its Administrative Law Judges; and never to mislead the Commission or its staff by an artifice or false statement of fact or law.

Rule 1.1 is thus like Federal Rule of Civil Procedure 11, which imposes an inquiry duty on attorneys.³⁵² Had counsel adequately inquired, including consultation with their

³⁵¹ *Greenlining Institute v. Public Utilities Com.*, 103 Cal. App. 4th 1324, 1333 (Cal. Ct. App. 2002).

³⁵² The language of FRCP 11 is available online, at http://www.law.cornell.edu/rules/frcp/rule_11, along with the helpful Notes of the Advisory Committee on Rules, regarding the 1983 Amendments which left Rule 11 in its current form:

(Footnote continued on next page)

colleague Mr. Sloan, or with Mr. Miller himself, they should have been apprised of Mr. Miller's three declarations before the Georgia District Court. Similarly, an adequate inquiry would have revealed that Comcast could in fact search its customer service notes; indeed, for a multi-system operator like Comcast *not* to have that ability would be rather stark evidence of failure to bring the technical expertise to the table necessary to run a cable system with millions of customers.

This Commission has taken an arguably harder line with such misrepresentations. In D.01-08-019, the Commission found Sprint PCS in violation of Rule 1 of the Commission's Rules of Practice and Procedure for inadequately responding to staff's request for information, and appropriately ordered a fine:

We conclude that Sprint PCS' conduct harmed the regulatory process by failing to report material information in response to a staff data request. In this instance, the staff was carrying out its regulatory duties to ensure that scarce numbering resources were properly allocated based upon legitimate need. Without true and complete responses to the data request, the staff's ability to properly assess and act upon Sprint PCS' request for codes was undermined.³⁵³

The Commission held that whether Sprint's error was intentional or not went to the weight of the penalty assigned rather than to whether it registered as a violation:

Sprint PCS also argues that it should not be subject to any penalty because its error was not intentional, and that the company did not set out to mislead the staff. However, *the*

The new language stresses the need for some pre-filing inquiry into both the facts and the law to satisfy the affirmative duty imposed by the rule. The standard is one of reasonableness under the circumstances. See *Kinee v. Abraham Lincoln Fed. Sav. & Loan Ass'n*, 365 F.Supp. 975 (E.D.Pa. 1973). This standard is more stringent than the original good-faith formula and thus it is expected that a greater range of circumstances will trigger its violation. See *Nemeroff v. Abelson*, 620 F.2d 339 (2d Cir. 1980).

³⁵³ D.01-08-019, Slip Op., at 16.

extent to which we assume Sprint PCS' violation was not intentional goes to the weight assigned to the size of any penalty--not to whether or not a violation of Commission rules occurred. Even if a violation may not have been willfully intentional, Sprint PCS still should have made a more concerted effort to verify the accuracy and integrity of the data response prior to its release to Commission staff. A carrier should not avoid responsibility for the truthfulness of its representations to the Commission simply by neglecting to verify the completeness of material statements made by its employees or agents before releasing them to staff.

...

The relevant point, however, is that staff must be able to rely upon the representations made to it in response to data requests in order to carry out its duties of protecting the public interest effectively. ...Sprint PCS was required to provide truthful and complete answers to the data requests propounded and to exercise due professional care to ensure the integrity of information transmitted to the Commission and its staff.³⁵⁴

Recent facts have focused the Commission's attention on the integrity of its processes, and the recent Presiding Officers' Decisions in the San Bruno case have responded with a multi-million dollar fine for Rule 1.1 violations of the same sort that are present here.³⁵⁵

d) Comcast Violated the Spirit of California's Information Practices Act and Shine the Light Laws, Cal. Civ. Code § 1798.1-99.

In the wake of the 1972 Privacy Initiative discussed above, the Legislature adopted a broad sequence of statutes that seek to protect citizens' privacy, starting with

³⁵⁴ *Id.*, at 18-19.

³⁵⁵ September 2, 2014 "Penalties" Presiding Officer(s) Decision in Investigations 12-01-007, I.11-02-016, and I.11-11-009; *see also* separate September 2, 2012 POD in Recordkeeping OII, I.11-02-016, explaining the rationale of the Rule 1.1 penalties.

the Information Practices Act of 1977. The Legislature declared that the “right to privacy is being threatened by the indiscriminate collection, maintenance and dissemination of personal information and the lack of effective laws and legal remedies,” and that the “increasing use of computers and other sophisticated information technology has greatly magnified the potential risk to individual privacy that can occur from the maintenance of personal information.”³⁵⁶ California’s “shine the light” law (“STL”) (Cal Civ Code §1798.83) is a disclosure statute that requires businesses that share customers’ personal information with third parties for direct marketing purposes, to disclose upon a customer’s request, the names and addresses of third parties who have received personal information and the categories of personal information revealed.³⁵⁷ Although the bill provides that businesses need not make the disclosures required by section 1798.83(a), if they instead give customers the opportunity to opt in or opt out of the disclosure of their personal information,³⁵⁸ the bill’s broader concept was to provide consumers with the ability to request and receive information from businesses on how and when their information was being used for marketing purposes so that they could “make a rational and informed and personal choice to opt-in, opt-out, or simply take their business elsewhere...”³⁵⁹

Here, Comcast has violated the spirit of the STL law by failing to provide a meaningful way for Comcast customers to learn and control the extent to which their personal information is being disclosed to third parties. Buried in the language of its Privacy Notice, Comcast provides a dense and confusing statement about how a consumer

³⁵⁶ Cal. Civil Code § 1798.1(a) and (b).

³⁵⁷ Cal. Civil Code § 1798.83, subd. (a).

³⁵⁸ § 1798.83, subds. (b), (c); See also, *Boorstein v. CBS Interactive, Inc.*, 222 Cal. App. 4th 456, 461 (Cal. App. 2d Dist. 2013).

³⁵⁹ 2003 Legis. Bill Hist. CA S.B. 27.

might opt-out from routine disclosure of their personal information. This provides Comcast subscribers little insight into Comcast’s behind-the-scenes conduct. As the author of S.B. 27 noted: “Secret direct marketing ‘profiles’ of consumers are being exchanged every hour invisibly and routinely by the companies with which they do business. Not only are consumers powerless to stop such invasions or [sic] privacy, they do not even know whether and to what extent it is taking place...”³⁶⁰ Although Comcast may technically satisfy the letter of this law, there is little chance that Comcast subscribers would read and understand their right to opt-out from automatic third-party disclosure and usage. A conspicuous and coherent statement regarding Comcast’s disclosure policy would more closely resonate with the intent of the STL law and provide subscribers with actual control over their personal information.

D. Penalties Are Required to Address Egregious Conduct and Deter Such Conduct in the Future

1. Penalties Are Appropriate Under Section 2107

Section 2107 provides that:

Any public utility that violates or fails to comply with any provision of the Constitution of this state or of this part , or fails or neglects to comply with any part or provision of any order, decision, decree, rule, direction, demand, or requirement of the commission, in a case in which a penalty has not otherwise been provided, is subject to a penalty of not less than five hundred dollars (\$500), nor more than fifty thousand dollars [\$20,000 through 2011 and \$50,000 beginning in 2012] for each offense.

The Commission has been clear that the primary purpose of a penalty or fine is deterrence: “The purpose of a fine is to go beyond restitution to the victim and to effectively deter further violations by this perpetrator or others.” D.98-12-075, App. A,

³⁶⁰ *Id.*

at Section D (2)(b) (LEXIS *79). “Fines should be set at a level that deters future violations.” D.01-08-019 (*Sprint*), Slip Op. at 20, citing D.98-12-075.

In setting a penalty amount, the Commission most often refers to the seminal decision in D.98-12-075. In recent years, there has been an accretion of new authority on penalties, including *New Century Telecom* (D.06-04-048), *Golden State Water* (D.07-11-037), and finally the 2008 *Edison* decision that assessed a fine of \$30 million for the sort of accounting/semantic/regulatory gamesmanship that we find here (D.08-09-038). Collectively these cases suggest that the following factors are important, in roughly these thematic clusters:

- Severity of the offense
 - the number and scope of violations;
 - Resources of the utility;
 - Economic harm; and
 - Harm to the regulatory process.
- Whether the conduct of the utility mitigates the need for penalties
 - The utility's Actions to Prevent the Violation(s);
 - The utility's actions to detect the violation(s);
 - The utility's actions to disclose; and
 - The utility's actions to rectify the violation(s).
- The public interest
- Precedent

Staff will analyze these items *seriatim* .

a) Severity of the Offense

This is the first privacy breach which the Commission has confronted in the digital age. With the Internet, digital storage and indexing technology, and worldwide reach, the loss of privacy today is fundamentally different than it was even ten years ago. Cases like *Cox*, which involved the release of non-published numbers in a finite number of paper directories, have little relevance to privacy breaches in the digital age.

(i) Number and Scope of Violations

Comcast has stated that approximately 75,000 California consumers had their privacy breached by the error or errors that Comcast admits making. The more salient facts are the scope of the violations. As discussed above, the scope of the violations is measured along two axes: how widely the non-published numbers were distributed; and how long they remained on in the public domain. The personal information of each of the 75,000 victims of Comcast's negligence was exposed throughout the country by a national directory assistance provider, in addition to being spread across the Internet on the Ecolisting website. And although Comcast admits that this situation continued for up to 27 months (potentially less with the directory assistance provider), the truth may never be known, both in term of temporal and geographic scope of the breach.

In addition to the approximately 75,000 non-published subscribers whose names, addresses and telephone numbers were released, there are an untold number of other non-published subscribers whose supposedly non-published numbers were sent – pursuant to Comcast's standard, baseline practice – to a third party, and then likely used to “corroborate” Targus/Neustar's premium consumer databases.

(ii) Resources of the Utility

No matter what the regulatory status of Comcast's residential voice offerings is, the plain fact is that this voice service would be impossible without the telecommunications utility input of Comcast's telephone network - without the transmission facilities, the allocation of telephone numbers, the interconnection and pole attachment agreements that make telephony possible. Comcast's operation of a transmission network for all purposes – telephone, cable, broadband – yielded \$3.5 billion on revenue of over \$9 billion in 2013.³⁶¹ Staff estimates that at least 10% of this revenue

³⁶¹ See Comcast Corp. 10-K, filed February 2014, for year ending December 31, 2013, at 57 (available at <http://files.shareholder.com/downloads/CMCSA/3326715052x0xS1193125-14-47522/1166691/filing.pdf>).

is attributable to California operations, and that substantial amount of California operations are attributable to or fully integrated with the telephone network.

(iii) Economic Harm

As expert witness Lee Tien suggests, the damages resulting from privacy breaches are more difficult to measure than other consumer “torts.” The customer may not even be aware that a breach has occurred.³⁶² And, once occurred, the breach can spread at something approaching the speed of light.³⁶³ Compounding these effects, efforts to reverse the breach are difficult, if not impossible.

The Commission should also consider the lost productivity and monetary value of the thousands of hours that consumers spent on the phone trying to straighten out their publication status.³⁶⁴

(iv) Harm to the Regulatory Process

The Rule 1 violations described above frustrated the goals of this Investigation, which were to understand the scope and dynamics of the privacy breach. Material misrepresentations were made. As the Commission said in Sprint, when confronted with a utility’s misrepresentations in response to staff data requests:

Sprint PCS’ violation of Rule 1, while serious, did not cause any physical or economic harm to others. In addition, there is no evidence that Sprint PCS significantly benefited from its conduct. Yet, although the violation may have affected few, if any, consumers, it had the potential to deprive other

³⁶² Tien testimony at 7:8-14. The value of the information itself, value that at least in some sense belongs to the customer, may be difficult to calculate.

³⁶³ *Id.*, at 7:15-18 (“information – once posted to the Internet – can spread around the globe in a matter of minutes”).

³⁶⁴ Most of the customer declarants presented by SED complained of an unresponsive Comcast customer service operation, and of the hours they spent – often on multiple days and sometimes in multiple years – trying to effect the non-published status for which they had paid. Or to get an explanation for why they had failed to receive that service. Comcast admits that approximately 11,000 customers called its “hotline” *after* notice of the breach, and at least 760 of these called often and persistently enough to be “escalated.”

carriers' customers of numbers. The factor that most clearly indicates the violation should be considered a grave offense, however, is our general policy of according a high level of severity to any violation that harms or undermines the regulatory process.³⁶⁵

In that case, the Commission fined Sprint \$200,000 for incorrect and misleading responses to staff data requests.³⁶⁶

On a substantive level, Comcast violated a cardinal rule of telephony as it was understood throughout the 20th century – a strict separation between a consumers' content and the network on which it runs. To be sure, Comcast was acting pursuant to deregulatory initiatives of the 1996 Telecommunications Act, but the regulatory framework foreseen by this legislation was in no way designed to dismantle the separation between conduit and content. In its cavalier approach to the privacy information of its customers, Comcast has contributed to a general loss of faith in the public communications network.

b) Comcast's Conduct Here Increases Rather than Mitigates the Need for a Penalty in this Case.

Comcast's inexplicable failure to prevent, and then to detect, the violations that occurred here, increases the need for a penalty assessed by the Commission. Its late disclosure and indifferent, self-protective efforts to remedy the situation should not constitute any countervailing mitigation.

(i) The Utility Made a Decision to Put Non-Published Consumers in Harm's Way by Sending their Account Records to a Third Party (Targus)

³⁶⁵ D.01-08-019, Slip Op., at 16.

³⁶⁶ *Id.*, Conclusions of Law 6-9.

As recounted in Section III F(2) above, Comcast made a conscious decision to send non-published numbers to its third-party licensing agent, rather than keep them in-house where any use of those records could be tightly controlled.

(ii) The Utility Took Apparently No Actions to Prevent the Violations.

While Comcast now offers, in the testimony of Lisa Donato, all of the “safeguards” it allegedly had in place, what is missing is any historical evidence about actual practices on the ground in 2009-2012 which could have prevented the privacy breach(es) at issue here. The “safeguards” that Ms. Donato does recite seem like standard business practices that were not designed to check and prevent the release of non-published numbers.³⁶⁷ Obviously, they in fact did not prevent the breach here.

(iii) Comcast Was Unable to Detect the Violations for over Two and One-Half Years.

This, more than any other factor in this case, is not only inexplicable, but also grounds for the Commission to assess a substantial penalty against Comcast. It simply had no mechanisms in place to detect the breach. In aggravation, Comcast was using a new Table (if not an entirely new system) to flag non-published accounts as private, but never checked to see if that new table was working. The one thing that Comcast got right was that it continued to bill these customers for the entire two-and-one-half year duration of the privacy breach.

The Commission can also weigh the fact that Comcast apparently had no system to monitor incoming consumer complaints and escalate those as soon as a pattern

³⁶⁷ Exhibit COM 103, Donato Direct Testimony, at 24-26. Apparently relying on her advocates to spin the story, Ms. Donato has the presumption to cite the very process that allegedly failed – the ***POI Table query*** – as a “safeguard.” *Id.* at [25:6-9.] Ms. Donato otherwise recites standard business practices – the “standard order entry process,” the “full data refreshes” sent to Targus/Neustar, boilerplate contractual provisions, and unspecified uncited “Training” – as “safeguards.” *Id.*, at [25:10 – 26:8]. The poverty of these pre-discovery procedures is underscored by the absence of the most obvious safeguard of all – spotchecks.

established itself. Indeed, quite the opposite was true. Jane Doe 10, for instance, called into Comcast on multiple occasions in 2011 and 2012, two different years, about the same problem, and Comcast still could not figure out that there was a systemic problem.³⁶⁸ Email correspondence attached to Doe 10's Declaration also demonstrates how unresponsive Comcast customer service was. Comcast is very lucky that no one, as far as staff knows, has yet been assaulted or injured after being exposed by Comcast's ineptitude.

(iv) Disclosure Came Slowly -- Even After Discovering in October that it Had a Serious Problem, it Took Comcast another Four Months to Disclose it to the Commission and its Customers.

While Comcast did self-report the incident, staff believes that this was done as part of a containment strategy rather than a desire to work with regulators to thoroughly resolve the problem. As noted above, Comcast initially reported a privacy breach limited to its online platform, Ecolisting, and a few small print directories, and about a month and a half or two after discovering the full dimensions of the problem. The full truth has only come out slowly. As described above, it took over a year to establish that the non-published records had gone to a national directory assistance provider. See further discussion in Factual Background section above.

³⁶⁸ Exhibit SEC 3, Momoh Rebuttal, at **Attachment B**, Doe 10 Declaration at ¶¶4-5.

(v) Comcast's Efforts to Remedy the Situation Were Less than Robust

As discussed above, Comcast's efforts to remediate the effects of the breach were a day late and a dollar short. It failed to do the obvious things, like online site removal. It was more concerned with containing the story, to which end it imposed onerous secrecy clauses on escalated customers who sought [Tier II and higher] increased compensation for particular costs and damages they had suffered.

c) The Public Interest & the Need for Deterrence

In the last ten years, we have entered into the era of "big data." We are at an inflection point in the development of the network, and it is important that the Commission impose a substantial penalty in this case in order to create a deterrent against sloppy data practices in the future.

d) Precedent

In Decision 02-10-073, the Commission addressed an estimated 30,000 to 70,000 SBC and ASI customers who complained about and/or experienced billing errors relating to DSL service. As part of a settlement, SBC agreed to pay a \$27,000,000 penalty (\$35,724,500 adjusted for inflation). Staff believes that this cooperatively reached resolution must be distinguished from this case hallmarked by obstruction rather than cooperation.

In Decision 01-09-058, the Commission imposed a \$25.5 million fine (\$33,601,210 adjusted for inflation) for Pacific Bell's aggressive marketing practices, and its incomplete disclosures regarding Caller ID and other services (including basic service).

Finally, a recent FCC case suggested a \$10 million penalty against TerraCom, Inc. and YourTel America, Inc. for several violations of laws protecting the privacy of phone customers' personal information. TerraCom and YourTel apparently stored Social Security numbers, names, addresses, driver's licenses, and other sensitive information

belonging to 300,000 customers on unprotected Internet servers, exposing them to identity theft and fraud.³⁶⁹

Comcast may argue that the closest precedent is the *Cox* case, and indeed among Commission cases it alone involves a systemic breach of non-published numbers. But that is where the similarity ends. First, *Cox* occurred 14 years ago, and it might well have been a century ago, as there was no Internet involved, “big data” had not entered our vocabulary, and the breach was confined to a few thousand paper directories. Even with that, we had a very cooperative utility, who came immediately to the Commission when it discovered a problem, who sued to get the participation of other actors (compare Comcast’s unwillingness to pursue online site removal),³⁷⁰ and which convened an independent panel of outside experts to help it decide how to handle the privacy ramifications.³⁷¹ In addition, *Cox* discovered its “computer software error” nine months, rather than 27 months, after receiving calls from several affected customers³⁷²;

Here, in contrast to *Cox*, Comcast knew or should have known that the use of an online directory and third party licensing agents vastly increases the stakes of mishandling of non-published records, and should have brought a correspondingly higher level of care to this function. The phone company’s response should have been concomitantly more robust, not less.

³⁶⁹ *In re TerraCom Inc and YourTel America Inc.*, FCC 14-173, Notice of Apparent Liability for Forfeiture, decision available at <http://www.fcc.gov/document/10m-fine-proposed-against-terra-com-and-your-tel-privacy-breaches>.

³⁷⁰ Resolution T-16342, Slip Op. at 2.

³⁷¹ *Id.*, 4-5.

³⁷² *Id.*, at 2-3.

2. Further Specification of Penalty Pursuant to Sections 2108 and 2111

a) Calculating Amount of Penalty Pursuant to § 2108

Section 2108 provides that:

Every violation of the provisions of this part or of any order, decision, decree, rule, direction, demand, or requirement of the commission, by any corporation or person is a separate and distinct offense, **and in case of continuing violation each day's continuance thereof shall be a separate and distinct offense.** (Emphasis added.)

Alternatively, the Commission could consider the release of the non-published records of each of the approximately 75,000 victims to be a separate and distinct offense – it was certainly a separate and distinct breach of contract. At the minimum penalty amount of \$500/violation, this would yield a minimum penalty of \$37.5 million and a maximum penalty one hundred times that amount.

Calculated on a *per diem* basis, pursuant to Comcast's narrative, the privacy breach existed from July 1, 2010 until December 10, 2012, or approximately 892 days. As noted above, SED believes that this period was longer. Given the \$500 to \$50,000 penalty range under § 2107, and accepting Comcast's time frame, this yields a penalty range between \$446,000 and \$44.6 million. SED recommends *per diem* penalty on the high side of the range, \$40,000/violation, in light of the following: (i) SED counts as one violation the act of releasing the personally identifying information of approximately 75,000 customers on July 1, 2010, and one separate violation for each of the succeeding 891 days that this release went undetected, although this conduct simultaneously violated the California Constitution, section 2891.1 (if not 2890 as well), and Public Utilities Code section 451; (ii) the safety implications of exposing vulnerable customers to those who might harm them; and (iii) the utter lack of systems to prevent and detect such a breach. This yields a penalty amount of \$35.68 million.

Additionally, SED seeks a separate penalty for Comcast's apparently standard or baseline practice of releasing names, addresses, and telephone numbers to a third party

“agent,” even though the owners of those accounts had requested and paid for non-published status. As shown above, this violates section 2891.1 and, *a fortiori*, the California Constitution. It is hard to put an exact time frame on this violation, as it preexisted the breach on July 1, 2010 and apparently was terminated or fixed – at least partially – in early October, 2012. Staff has estimated the duration of this breach at 1000 days. More important is a clear declaration that this practice is illegal.

Alternatively, if the Commission decides that Federal law leaves it powerless to police downstream uses of *non-published* account information, it should require that downstream data uses be clearly disclosed and explained both to customers who are paying for non-published service, and those who are not. Disclosures to customers in this complex area should be understandable by the majority of Comcast subscriber, perhaps using the Flesch-Kincaid Grade Level Index to assess readability.³⁷³

SED seeks penalties for another baseline practice, Comcast’s failure to disclose and explain that non-published service does not provide the complete privacy protection that many non-published customers think they are receiving.³⁷⁴ It is important for the Commission to express its dissatisfaction with this low level of consumer information, regardless whether – as Comcast claims – other carriers’ disclosures are no better. Staff views Comcast’s uninformative disclosures, the Privacy Notice foremost among them, as symptomatic of the “veil of secrecy” around data practices, and the information asymmetry between carriers and their customers.

³⁷³ The Flesch-Kincaid Grade Level index is one way to measure how difficult a text is to understand. The formula considers the average number of words per sentence and the average number of syllables per word within a given passage. The results are then converted into a score that roughly equates with a grade level in the United States. See www.readabilityformulas.com/flesch-grade-level-readability-formula.php.

³⁷⁴ See customer declarations at Attachment P to Momoh Opening, and Attachment B to Momoh Rebuttal Testimony, Exhibits SED 2 and 3, respectively. Non-published service does not, for instance, prevent a customer’s name and phone number from being displayed by caller ID technology.

Past Commission decisions have found distinct violations growing out of different and distinct wrongs within the same nucleus of operative fact.³⁷⁵ As discussed above, there are multiple and distinct violations of law associated with Comcast's release of the non-published numbers. Thus, staff also seeks a (relatively modest) penalty under section 451 for Comcast's continued collection of a \$1.50 every month, for up to 29 months, from customers who were receiving no services for their money. As shown in the chart below, staff has sought to avoid double counting, and to recommend only one penalty for each distinct wrong,

Finally, staff seeks penalties for two discrete Rule 1.1 violations associated with misinformation Comcast provided in discovery. Those total penalty sums, and their rationale, are reflected in the following chart.

///
///
///

³⁷⁵ See, e.g., D.04-09-062 (Cingular), at Conclusions of Law 4 and 5.

Law Violated	Factual Basis of Violation	Duration of Violation	Recommended Fine
Cal. Const., Art. I, §§ 1 and 13, P.U. Code §§ 2891 and 2891.1, and P.U. Code § 451	The main privacy breach, or “Process Error” as Comcast describes it, the massive release of non-published numbers onto the Internet and other	892 days	\$35.68 million (\$40,000 per day)
Cal. Const., Art. I, §§ 1 and 13, P.U. Code §§ 2891 and 2891.1, and P.U. Code § 451	The standard, baseline practice of releasing non-published numbers, even if to a third party “agent.”	~1000 days	\$5 million (\$5000 per day)
P.U. Code § 451; GO 168; B&P Code §§ 17200 and 17500	Comcast failed to provide “just and reasonable” service to its customers by not fully disclosing the limits and reality of non-published service, and by inducing consumers to believe that the payment of \$1.50/month would “ensure” the non-publication of their name, address, and telephone number.	~1000 days	\$1 million (\$1000 per day)
P.U. Code § 451; GO 168	Charging for a service that wasn't being provided - entire period of breach -	892 days	\$892,000 (\$1000 per day)
Cal. Const., Art. I, §§ 1 and 13, P.U. Code §§ 2891 and 2891.1, and P.U. Code § 451	Failure to Audit or Enforce Rules on Downstream Providers (Directory Publishers, Directory Assistance providers and others) as to their use of published (and in this case non-published) account information.	Unknown	No recommendation.
Rule 1	Comcast falsely represented to Commission Staff that it lacked word-search capability and therefore could not find complaints related to “non-published” service. July 3, 2013 through March 28, 2014	268 days	\$268,000 (\$1000 per day)
Rule 1	On February 15, 2013, and on multiple occasions thereafter, Comcast falsely represented to Commission Staff that Comcast had never provided non-published account information to directory assistance providers, although its employee[s] Miller [and Donato] had reason to believe that Comcast had provided this information to kgb, a directory assistance provider, from 2010 through late 2011 or January 2012. Miller attempted to excuse the incorrect statement with further misleading testimony. Finally corrected in Ms. Donato’s July 18, 2013 testimony.	518 days	\$1,036,000 (\$2000 per day)
TOTAL			\$43,876,000

b) Liability for Aggregate Comcast Entities Under § 2111

As discussed above, Comcast Phone LLC and the Comcast affiliates that nominally had part in the administration of residential telephone numbers within Comcast, operated as one integrated entity. This is cognizable under Public Utilities Code § 2111, which refers to entities that “procure” or “aid and abet” utility conduct, and under common law theories of vicarious liability. Even Comcast employees did not know what entity they worked for, or – if they did – what that entity actually did.³⁷⁶

E. Restitution and Non-Monetary Remedies

The February 2014 Scoping Memo asks “Should the Commission order the implementation of operational and policy measures designed to prevent release of subscribers’ confidential information pursuant to section 761, inter alia” (Feb 2014 Scoping Memo). SED suggests the following measures, which it believes would help remediate consumers affected by the breach(es) hear at issue, and protect consumers going forward:

1. No Provision of Non-Published Numbers to Third Parties.

The Commission should order Comcast to immediately stop providing non-published names, addresses and/or telephone numbers to any third party, including Comcast’s “agents,” except for Comcast’s direct provision of these numbers to emergency notification systems or emergency service providers. Comcast must agree not to distribute such listing information pertaining to customers paying for unlisted service to any third party, including Comcast’s distribution agents, except for emergency purposes as stated above.

³⁷⁶ See e.g., Miller deposition at 8-9, (Exhibit SED 6C, Christo Rebuttal, Attachment B).

2. Restitution and Cy Pres

The Commission should order Comcast to make good faith efforts to locate, provide notice, and distribute unjustly collected non-published fees to any customers who have not yet received such refunds. There are approximately 19,000 former customers whom Comcast has been unable to reach, with an amount understood to be approximately \$518,000 owed to these customers, apparently not including interest. Any funds that remain undistributed after such efforts, plus all undistributed interest, should be ordered remitted under the *cy pres* doctrine to one or more a non-profit advocacy groups identified by SED, and approved by the Commission.

3. Disclosure and Choice

As it has done with other consumer issues in the past, the Commission should require Comcast to clearly disclose its policies related to privacy, in order to adequately inform consumers about the realities of data sharing in the industry, and of any limitations on the privacy provided by non-published numbers in particular.³⁷⁷ Comcast should provide – in one easily readable document -- a clear explanation of the uses it makes of published and non-published numbers. This document should advise consumers of the various available privacy protection services, and the limits of each of these services. These services include: (a) non-published numbers; (b) CPNI protections; (c) caller ID blocking; (d) address suppression; and (e) “do not call” lists, both federal and Comcast-internal. Comcast must allow consumers the option to opt into all of these protections, and to opt out of any and all data sharing to the full extent provided by law, preferably with one click or check mark or postcard.

³⁷⁷ See D.01-09-058, Ordering Paragraphs 1-9 (requiring various types of disclosures and employee training); D-04-09-062, Ordering Paragraph 6 (utility required to revise corporate policies practices regarding marketing, advertising service initiation). See also, Public Utilities Code 2896(a), requiring utilities to make available to consumers “sufficient information upon which to make informed choices among telecommunications services and providers.”

4. Reform of Complaint/Monitoring Process

The Commission should order Comcast to present a written account of the procedures it has instituted to ensure that events such as the “process error” at the heart of this matter do not recur. Those should include something akin to the audit practices referenced in the 2009 “Do you know if?” email string discussed above.³⁷⁸ Although Comcast may require the participation of business partners such as Neustar in its efforts to prevent another such event, Comcast cannot delegate its responsibility to business partners. In particular, the Commission should require that:

- When a customer believes there has been a breach of his/her stated preference for an unlisted number, Comcast have a procedure similar to that used when a customer complains of issues that may indicate a CPNI breach. This should be a transparent complaint process, that the customer can monitor and comment on at appropriate points in the process, and this should be clearly explained to the customer in the Welcome Kit, or other document.
- Comcast monitor customer complaints so that patterns of complaints that may indicate systemic problems are detected. Comcast should propose a methodology to be incorporated into a reform plan approved by the Commission.
- Employees involved in handling customer complaints regarding listing preference should be trained in the procedures outlined above, and records of such training should be maintained.
- This process of handling and monitoring complaints regarding privacy should be audited on a regular basis, and such audits provided to the Commission for a period of five years. This includes records of employees involved in this process, and training records for such employees.
- Comcast should publicize the procedures for handling directory listing trouble tickets spelled out in discovery documents AG 20482-87, and make that information available to non-published subscribers.

³⁷⁸ July 27, 2009 email string, re “Do you know if,” confidential **Attachment GG** to Christo Opening, Exhibit SED 5C.

5. The Commission Should Require Comcast to Perform Online Site Removal for the Affected Customers

Although the harm to customers may be irreparable in that their non-published names, addresses, and telephone numbers have been released to the Internet ecosystem, the Commission should order Comcast to attempt at least to remove that information from sources where it is known to have traveled. Comcast should be ordered to contact Internet based directory services such as whitepages.com, where Comcast knows or has reason to believe that the affected non-published numbers are now listed, to effect removal of listing information for affected Comcast customers. Alternatively, or to the extent that there are questions about the feasibility and scope of such removal, the Commission could require Comcast to hire a Special Master acceptable to staff, who will have full access to Comcast documents and personnel related to this issue, and who will be tasked with overseeing maximum removal of the personally identifying information from the Internet.

6. The Commission Should Require Downstream Audits

The Commission should require Comcast to audit the licensees of its customer listing information as currently provided in Comcast's contracts with such licensees, and must agree to be responsible for ensuring that the audits are conducted in such a manner as to provide reasonable assurance that the terms of the license are complied with. The records of such audits must be maintained by Comcast, and should be kept for a period of at least five years after the audit.

7. The Commission Should Require Comcast to Issue Some Form of Public Notice, and Should Release Customers from the Secrecy Provisions of the Release that Were Imposed on Them

As noted above, Comcast required each of the escalated complainants to sign a Release with a confidentiality clause, in order to receive any compensation beyond the refund of non-published fees. This language had a chilling effect on consumers,

preventing them from talking freely about their experiences with Comcast, and in at least two instances inhibiting the testimony of customer witnesses and requiring the intervention of the ALJ to secure that testimony in this case.³⁷⁹ It appears to be part of a concerted Comcast campaign to bottle up news of the breach, and prevent any reporting on the true scope of the breach.

Although the policy around whether to issue a press release, and the timing of such a release may be debated, the fact of the matter is that there was no national or local coverage of *the* main privacy breach, and no understanding among the 75,000 victims that they were part of a much larger class of affected customers.³⁸⁰ Staff believes that the appropriate way for Comcast to have handled this would have been for it first to have notified individual customers, then used all powers at its disposal to remove their names, addresses and telephone numbers from the Internet, and then to notify customers more broadly about what had happened, by a press release and other mechanisms commonly used in such situations.³⁸¹

The confidentiality clauses in the releases on which Comcast insisted should be declared void as against public policy. *Cariveau v. Halferty*, 83 CA4th 126, 132-33 (2000) (refusing to enforce a confidentiality clause which inhibited discussion of illegal conduct). Here, the violated privacy rights belong to the customer, not to Comcast. Comcast's conduct violated the California Constitution, section 2891.1, and it violated the public policy embedded in those statutes and others like the Shine the Light Law. In fact, the latter requires an entity responsible for a breach of personal information to broadly notify customers.

³⁷⁹ See, e.g., HT at 152:16-157:27 (lengthy colloquy, ALJ extracts promise from Comcast not to enforce confidentiality clause).

³⁸⁰ HT (Tien) at 14:10-15:18.

³⁸¹ Christo Rebuttal, at 20:6-20, discussing *inter alia* Target's issuance of a press release after its recent privacy breach (caused by outside malefactors, not internal incompetence).

The Commission should order Comcast to not enforce the confidentiality provisions of the releases signed by customers who settled their claims with Comcast because of the process error, and to not include confidentiality clauses in any future settlements with customers regarding the process error. Additionally, Comcast should inform consumers that the confidentiality provisions of these contracts are no longer enforceable.

V. CONCLUSION

Staff's investigation of Comcast's release of non-published numbers has revealed how -- in a digital age where information is the coin of the realm -- consumers have lost control over their personal and identifying information. Even when the system works as it is supposed to, consumers have little say in, or knowledge about, where their information goes. And when they do attempt to exercise some small modicum of control, by asking for a non-published listing, they are met with indifference and ineptitude. At least that is what happened here.

Comcast has violated the trust of its non-published customers. It accepted the leakage of its non-published account listings into "the wild," i.e., into the Internet ecosystem, as a normal even in its network operations.³⁸² Its violations were exacerbated by the intentional choices it made with regard to non-published numbers, an apparent callous disregard for the privacy choices of its non-published customers. The Commission must respond to these facts with a substantial penalty, and injunctive relief

³⁸² This is tellingly revealed in internal correspondence between Comcast executives after one of their own Directors had his non-published number released against his wishes. The response in a follow-up email was the equivalent of a shrug of the shoulders: *** [REDACTED]

[REDACTED] *** October 5, 2011 Email re "Ecolistings project – customer experience," Christo Rebuttal, confidential **Attachment FF.1** (a follow-up to **Attachment FF** in his Opening Testimony), Exhibit SED 6C.

that will remedy the breach as effectively as possible, and protect and empower consumers going forward.

Respectfully submitted,

CHRISTOPHER WITTEMAN
HIEN VO WINTER

/s/ CHRISTOPHER WITTEMAN

CHRISTOPHER WITTEMAN

Attorneys
For Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Phone (415) 355-5524
Fax: (415) 703-2262

November 7, 2014

(CONFIDENTIAL)

APPENDIX 1

Timeline

APPENDIX 1.1

Sources for Timeline in Evidentiary Record

Events Admitted by Comcast

March 2009 (LSSi): Donato Rebuttal at 8:2

September 2009 (Comcast sends initial data load to Targus): Donato Rebuttal at 6:7;
Donato Direct at 25:19-20

October 2009 (Comcast rennumbers accounts): Donato Direct at 12:6-7

November 2009 (CISA Amendment 8): Christo Opening, Attachment S

November 2009 (Targus/KGB): Christo Rebuttal, Attachment K

December 2009 (Comcast rennumbers accounts): Donato Direct at 12:6-7

February 2010 (Comcast data refresh): Donato Direct at 25:20-24

July 2010 (Targus test files to KGB): Donato Rebuttal at 8:21

July 2010 (Ecolisting goes live): Donato Rebuttal at 6:13

July 2010 (Comcast claims the release began): Donato Direct at 10:17-19

September 2010 (or July 2010) (First full file from Targus to KGB): Donato Direct at 21-
22

May 2011 (DLDA Comcast/Targus updates CISA 8): Donato Rebuttal, Attachment D,
Section 3

November 2011 (Targus/kgb terminated): Christo Rebuttal, Attachment M

January 2012 (Alleged last delivery to kgb): Donato Rebuttal at 8:23

February 2012 (LSSi continues to deliver to kgb): Deposition of Lisa Donato 57:20-58-1,
found at Christo Rebuttal, Attachment A

September 2012 (Injunction lifted): Miller Rebuttal at 10:10-11

October 2012 (Two “Triggering” CR Trouble tickets) Donato Direct at 13:25-28

December 2012 (Comcast alleges violation is fixed): Donato Direct at 15:12-15

January 2013 (SB1161 goes into effect): OII at 18.

January 2013 (Comcast reports breach to Commission): Staff Report at 2:11

February 2013 (Comcast stops sending to LSSi): Miller Rebuttal at 10:12-13

Consumer complaints an internal Comcast e-mails showing non-pub information being published

January 2009 (E-mail): Christo Opening, Attachment DD.1

March 2009 (E-mail): Christo Opening, Attachment DD.2

March 2009 (E-mail): Christo Opening, Attachment DD.3 (Potential DL Glitch)

Trouble Ticket (“TT”) May 2009: Momoh Opening, Attachment J, at 1

July 2009 (E-mail): Christo Opening, Attachment GG

TT January 2010: Christo Rebuttal, Attachment Q.1

TT February 2010 Q.2: Christo Rebuttal. Attachment Q.2

TT March 2010: Christo Rebuttal, Attachment R

TT April 2010: Christo Rebuttal, Attachment Q.3

TT January 2011: Christo Rebuttal, Attachment Q.4

TT February 2011: Christo Rebuttal, Attachment Q.5

TT March 2011: Christo Rebuttal, Attachment Q.6

TT April 2011: Christo Rebuttal, Attachment R

October 2011(E-mail): Christo Opening, Attachment FF and Christo Rebuttal, Attachment FF.1

February 2012 (KCBS Interview): Christo Rebuttal, at 22:6-9

March 2012 (E-mail): Christo Rebuttal, Attachment F

(CONFIDENTIAL)

APPENDIX 2

DISTRIBUTION CHART

(Annotated version found in Record as Exhibit SED 15C)

(CONFIDENTIAL)

APPENDIX 2.1

Sources for Distribution Chart In Evidentiary Record

APPENDIX 3

Declaration Of Counsel Re Pre-Hearing Agreements On Surrebuttal Exhibits

DECLARATION OF COUNSEL RE PRE-HEARING AGREEMENTS ON SURREBUTTAL EXHIBITS

(See Hearing Transcript at 551:11-13, and generally 540-551.)

I, Christopher Witteman, declare:

1. I have been counsel to the Safety and Enforcement Division of the Commission for the better part of the above-captioned Investigation. I know the following facts to be true of my own experience.
2. Counsel engaged in multiple pre-hearing meet and confer sessions in preparation for the October 1-3, 2014 evidentiary hearings in this matter.
3. One concern SED had throughout these negotiations was surprise. We did not want to see new “direct” evidence at hearing (as opposed to cross-examination or impeachment exhibits, which we did not oppose). In a September 23, 2014 email to Comcast counsel, I stated

Comcast’s estimate ... suggests to SED that Comcast needs time to introduce written surrebuttal materials (as opposed to the cross-examination exhibits I thought we were discussing on the phone). While it is not unknown CPUC practice to ask a witness if she has any response to the other party’s rebuttal testimony, *it is something different again to present written surrebuttal materials*. We ask for Comcast’s clarification on this matter.

September 23-24, 2014 email string (emphasis added), the relevant portion – page one – is attached hereto as **Exhibit A**.

4. We then had further discussion with Comcast about this. I clearly remember that counsel agreed not to submit “surprise” written surrebuttal materials, and that any such materials would be governed by the 15 hour rule (see below). In a September 24, 2014 email response to my question above, Ms. Whang confirmed this agreement: “***Comcast does not intend to present written surrebuttal testimony.***” See **Exhibit A** (emphasis added).
5. In the parties’ September 29, 2014 email to ALJ Burcham (which was negotiated, but which I sent), we reported this agreement as follows:

Audio Visual Materials: The parties have agreed that the 15 hour rule would not apply to enlargements of Exhibits or Attachments that are already “in the record”, i.e., have been served on the opposing party, as part of prepared testimony.

The 15 hour rule would apply to new materials and/or summary posters, charts, powerpoints or other projected materials.

September 29, 2014 email (emphasis added), the relevant portion – pages one and two – is attached hereto as **Exhibit B**. My understanding of the term “new materials,” based on counsel’s oral agreement and Ms. Whang’s statement above, was that it included the sort of surrebuttal direct materials that are found in Exhibits 115C-118.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

/s/ CHRISTOPHER WITTEMAN

Christopher Witteman

Witteman, Chris

From: Whang, Jane <JaneWhang@dwt.com>
Sent: Wednesday, September 24, 2014 12:59 PM
To: Witteman, Chris; Vo, Hien
Cc: Toller, Suzanne; Parks, Garrett; Quinn, Christie; Sloan, Michael; LMehta@turn.org; bnusbaum@turn.org; pgoodman@greenlining.org
Subject: RE: ALJ Pre-Hearing Inquiry - meet and confer

Chris –

With regard to point 2 below, Comcast does not intend to present written surrebuttal testimony. The 2 hours that we are allocating for our witnesses would include re-direct and surrebuttal.

We will try to get you any powerpoint or poster boards that we may present ahead of time, but are unsure at this point how far in advance they will be available.

Your draft email to the ALJ is fine as long as you redact or remove witness names and all PII.

Thanks.

From: Witteman, Chris [mailto:chris.witteman@cpuc.ca.gov]
Sent: Tuesday, September 23, 2014 11:58 PM
To: Whang, Jane; Vo, Hien
Cc: Toller, Suzanne; Parks, Garrett; Quinn, Christie; Sloan, Michael; LMehta@turn.org; bnusbaum@turn.org; pgoodman@greenlining.org
Subject: RE: ALJ Pre-Hearing Inquiry - meet and confer

Counsel:

Below is SED's synthesis of the matters proposed in Ms. Whang's 11:44 a.m. email today, responding (among other things) to the evidentiary issues suggested by SED in its September 11, 2014 email to you. As I predicted, seeing your proposed evidentiary issues in print for the first time triggered a further iteration of our own. In addition, we find that your proposed evidentiary issues 1, 3 and 4 to be irrelevant, as you found our issue 3 to be. I have noted that both parties reserve their evidentiary objections.

If you feel that the fuller list below requires adjustment of Comcast's issues, please let us know soonest. Hopefully, this iterative process can yield a final result by the end of the day tomorrow. I have also attempted to include and fairly summarize matters discussed during intervening telephone conferences. I added a couple things which I thought were best practices, like suggesting the opportunity of a final telephone conference with the ALJ, and some embellishments to our discussion of Exhibit numbering and related.

The more significant issues I see are these:

- Chudleigh deposition – whether to flag for the ALJ the possibility of a Neustar motion to quash;
- Comcast's estimate of 2 hours for its own witnesses, which suggests to SED that Comcast needs the time to introduce written surrebuttal materials (as opposed to the cross-examination exhibits I thought we were discussing on the phone). While it is not unknown CPUC practice to ask a witness if she has any response to the other party's rebuttal testimony, it is something different again to present written surrebuttal materials. We ask for Comcast's clarification on this matter.

- Audio-visual aides – Comcast had mentioned the possibility of using Powerpoint slides; SED may also have such materials and/or foamboard blow-ups. I think it would helpful to stipulate to exchanging these in advance of their use.

Finally, although their participation may be limited, I understand that TURN and Greenlining will attend the hearings, so I am copying them on this email. Please let us know if you would like to discuss these tomorrow Wednesday.

Chris Witteman
SED/Staff Counsel

ALJ Burcham:

The parties have met and conferred regarding pre-hearing issues, as you requested us to do. Below is our joint response to your questions. Where the parties disagreed on the response to your questions, we have provided separate responses or otherwise indicated the disagreement. While the parties have agreed on most issues, some remain. The parties collectively ask to present you with a list of any final unresolved issues (including confidentiality issues around the rebuttal testimony) by 10 a.m., Monday September 29. We would be at your disposal if you wish to schedule a telephone conference on Monday or Tuesday prior to the hearing in order to finally resolve these issues.

- 1) **CONFIDENTIALITY** - How the confidential treatment of documents will be addressed, both on the physical documents, and in terms of referring to the documents and their contents without disclosing confidential information during the hearing. For example, will you refer to "Customer #1", "Customer #2", etc. or some other consistent but anonymous method of identification? Also, I urge the parties to utilize restraint in asserting confidentiality unless absolutely necessary, and then, in as limited a form as necessary to protect customer or other proprietary information.
 - a. ***Hearing Room Convention:*** We agreed that we would assign and refer to customers as either "Jane Doe #1," or the CPUC or FCC Complaint #, or "Customer A" (with regard to the October 2012 trouble ticket). Comcast will provide a key that will associate customer names with the anonymous references for SED, the ALJ, and Comcast witnesses. SED agrees to this in principle, but has not yet seen the key and so reserves its rights to object.
 - b. ***Redaction in testimony:*** Regarding confidential topics/issues in testimony, the parties have agreed on issues related to the opening testimony. See agreement of the parties, referenced in August 18, 2014 email from Ms. Whang. Regarding confidentiality issues in the rebuttal testimony, the parties agreed to review each other's rebuttal testimony and have done so. The parties are in the process of distilling and negotiating the remaining issues presented by the rebuttal testimony. The parties have agreed to notify Your Honor of any outstanding issues by 10 a.m., Monday, September 29, 2014.
- 2) **DOCUMENT AND EXHIBIT NUMBERING** - All documents and exhibits must be pre-marked and numbered in the order they are expected to be presented (to the extent possible) and formatted and bound pursuant to the Commission's Rules of Practice and Procedure. Many documents I have received so far in this proceeding are followed by corrected and/or amended versions. At the hearing I want clean copies of all documents submitted to keep the record clear and not have them tied, in whole or in part to one or more corrected/amended versions. If for some reason that cannot be done, then a properly structured errata page should be included for each document or exhibit that does not stand on its own, clearly identifying the portions of each document on which the party intends to rely.

Witteman, Chris

From: Witteman, Chris
Sent: Monday, September 29, 2014 1:12 AM
To: Burcham, Dan; Vo, Hien; dhilla@consumercal.org; bnusbaum@turn.org; suzannetoller@dwt.com; paulg@greenlining.org; janewhang@dwt.com; dwtcpudockets@dwt.com; jesus.g.roman@verizon.com; esther.northrup@cox.com; Brown, Lindsay M.; LMehta@turn.org; rcosta@turn.org; marg@tobiaslo.com; john_gutierrez@cable.comcast.com; rl@comrl.com; Podolinsky, Elizabeth; Kasmar, Jeff; Woods, Linda J.; Christo, Nathan; Bawa, Niki; Momoh, Rahmon O.
Subject: RE: I.13-10-003 (Comcast OII) - further pre-hearing meet & confer

ALJ Burcham:

Comcast and SED have met and conferred further on the issues you raised in your Thursday and Friday emails to the parties. The two hi-lited lines below reflect late additions by SED to which it was unable to obtain a Comcast response this evening; SED counsel have an out-of-office meeting tomorrow a.m. Otherwise, the following represents the fruits of multiple meet & confer conferences among the parties:

1. Evidence relating to penalty issues under Pub. Util. Code sections 2107 and 2108: Comcast and SED agree that most of the constituent parts of a penalty analysis are contained in the evidentiary issues identified by the parties, and facts placed into the record. Once these facts have been determined, the analysis is primarily legal.
2. Exhibit Numbering: The parties wanted to confirm that you are ok with their pre-numbering Exhibits that they are certain to introduce – staff report, prepared testimony, and the like. SED’s staff report and prepared testimony would be SED 1-6; Comcast’s would be COM 1-7.
3. Examination estimates: the parties have looked again at their cross-examination and hearing time estimates, and have confirmed that they are 7 hours apiece:
 - i. *SED: 1.0 hours for the direct testimony of its own witnesses; 1.0 hour for cross-examination of Mr. Chudleigh; and the following cross-examination time for Comcast’s witnesses: Munoz - .5 hour; Donato 1.5 hour; Stephens 1.0 hour; Miller 1.5 hour); and .5 hour for the possible presentation of a rebuttal witness (most likely Mr. Christo). SED has agreed that any intervenor cross would come out of its time.*
 - ii. *Comcast: 1.5 hours total for its own witnesses; Momoh (1.5 hr), Tien (1 hr), Christo (1.5 hr), 0.5 hours for Chudleigh; 0.5 hr for consumer witnesses. 0.5 for possible presentation of a sur-rebuttal witness.*

Parties agreed that they may need to re-allocate time on the fly (e.g., Comcast may want to do friendly cross with Mr. Chudleigh, or SED may reduce or eliminate its time allocated for rebuttal).

4. Opening Statements. Your Honor has stated that “[a]ny opening statements, if permitted, would be on the record, and accordingly reduce the time available for the examination of witnesses. In the interest of time, I am inclined to prefer short written statements the day before hearing, but am willing to consider a short discussion of this issue if Comcast feels strongly about the need for opening statements.”

SED would be prepared to present a short concurrent (400 word limit?) opening statements by email on Tuesday, the day before the hearing, at (say) 4 pm. Additionally, SED worries about the element of surprise if new issues are first introduced orally on the day of the hearing.

Comcast would prefer to present short oral opening statements (10 minutes each side) to provide Your Honor with the opportunity to hear each party's distillation of the facts given that Your Honor already has a substantial amount of documents to review. In addition, if it would be helpful to Your Honor, Comcast would also be happy to provide a short written opening statement (no greater than 5 double-spaced pages) the day before the hearing (by 4 pm).

5. Audio Visual Materials: The parties have agreed that the 15 hour rule would not apply to enlargements of Exhibits or Attachments that are already "in the record", i.e., have been served on the opposing party as part of prepared testimony. The 15 hour rule would apply to new materials and/or summary posters, charts, powerpoints or other projected materials.
6. Confidentiality Issues: As a threshold matter, Your Honor is correct that the reference in the parties original email to their confidentiality agreements should have cited Ms. Whang's email of August 15, time stamp 7:51 p.m., rather than August 18. The parties have met and conferred about further confidentiality issues raised by the prepared rebuttal testimony served on the parties, and on a list of terms or entities that can be referred to on the hearing record without regard to previous positions on confidentiality. Taking those seriatim:
 - a. Issues from rebuttal testimony: the parties have narrowed their disputes to the following:
 - i. Relevate – a telemarketer which inadvertently received a test file – this was addressed in 8/15 agreement, and Comcast noted that it objected to disclosure of Relevate, due to a third party nondisclosure agreement that Neustar has with Relevate. Although Comcast attempted to find out whether Neustar objected and Neustar has not responded yet. SED has also attempted to obtain Neustar's position on this subject, without success, and believes that the specifics of Relevate's identity are important to the public record.
 - ii. References to privacy breaches in states other than CA, but which may have included CA, and the approximate total number of affected subscribers in these other states (see, e.g., Christo rebuttal at 7 and fn. 24, and at fn. 168, etc.) – Comcast states that this is competitively sensitive information because it potentially reflects the number of non-published customers that Comcast had in a highly competitive market and customers who may have at one time been with other providers; SED does not understand how the number of customers affected by a privacy breach leads to total number of non-published customers, and generally disagrees that disclosure could constitute a business advantage..
 - iii. References to websites ... e.g., www.whitepages.com, www.yellowbook.com (e.g., Christo Rebuttal at 39) – where Comcast customer service reps would go to perform "online site removal" – Comcast claims this covered by earlier agreement in that the process by which Comcast customer reps address or resolve customer issues, including going to those websites, is an internal Comcast-specific business process that the parties agreed to keep confidential. The disclosure of such information is competitively sensitive, and if revealed, could place Comcast at a business disadvantage. SED believes these sites are widely known, and their mere inclusion in a Comcast business process does not make them confidential. SED believes their identity is important to the record, to affected customers, and to crafting a possible remedy herein.
 - iv. Numbers on page 14 of Stephens Rebuttal – those numbers will be subject of cross-examination, as SED believes they are incorrect. Counsel need to be able to refer to general orders of magnitude.
 - b. The parties are preparing cross-examination in a way that, for the most part, avoids the need to refer to confidential data in documents so marked, but some terms recur frequently enough to justify an exception to this rule. The parties have agreed that the following terms may be referenced on public record (SED understands this as a list that may be added to as the hearing progresses).
 - i. POI Table
 - ii. PAS Table

APPENDIX 4

TRANSCRIPT CORRECTIONS

- **Errors in the I.13-10-003 Evidentiary Hearing Transcript**
- (October 1-3, 2014)
- **Errors in transcript (Day One)**
 - 4:11 (and pp. 77, 78, and 321) - Rahmon misspelled (without the “h”)
 - 4:27 – “Joan” Doe should be “John” Doe
 - 78:27 - “as indicated” should read “and edited”
 - 82:3 - “statute” should be “search”
 - 99:1 - “55” should be “5,500”
 - 99:19 - “say” should be “said”
 - 101:25 - “say” should be “said”
 - 109:17 - “if” should be “in”
 - 122:14 - : “low” should be “known”
 - 139: 11 - “gone” should be “got”
 - 139:11 - “why the customer got escalated” should be “are the customers who got escalated”
- **Errors in transcript (Day Two)**
 - 256:10 – “voice” should read “voice wasn’t loud”
 - 277:19 - “inscription” should read “encryption”
 - 285:16-17 – “directory sentence” should be “directory assistance”
 - 289:12 – “document” should be “documents”
 - 290:3 and 291:13 – “bill” should be “build”
 - 314:9 - “personal” should be “Bernal”
- **Errors in transcript (Day Three)**
 - 417, 418, 426, 428 and 435 - “Wit awe men” should be “Witteman”.
 - 432:27 – “our” should be “your”
 - 446:16 – Insert “MR. WITTEMAN” (questioner)
 - 444, 476, 477, 480, 481, and 520 - Ms. Jason’s name should be changed to Ms. J.
 - 457:16 – “affect the class” should be “affected class”
 - 461:27 “Mr. Christo” should be changed to “Mr. Sloan.”
 - 491:7 – “California in non-pub customers” should be “California non-pub customers”
 - 526, 527, 529, 530, 531, 616 --“Mohammed” should be changed to “Momoh.”
 - 567:25 – “whose” should be “who’s”
 - 571:16 and 573:11-12 – “kgb sourced” should be “kgb’s source”
 - 593:23 - “lake” should be changed to “like”

APPENDIX 5

Errata Sheet

SED Confidential Opening Brief

Served November 4, 2014

(Comcast OII)

Errata Sheet
SED Confidential Opening Brief Served November 4, 2014
(Comcast OII)

<u>Page</u>	<u>Correction</u>
3	“include” in first line of first full paragraph should be “including.”
13	Add “(emphasis added)” at end of fn 42.
20	6 th line of regular text from bottom, “proffered” should be “proffered.”; in fn. 63, “Caldwell” should be “Cardwell.”
22	First paragraph, “into world” should be “into the world.”
25	In fn 78, delete redundant “see also”; in fn. 80, delete “[Discovery Responses?]”
27	Penultimate line of first quotation should read “they were repaying.”
28	2d line of first quote block, “they re” should be “they are.” Penultimate line before quote at bottom, delete “-- during the period July 1, 2010 through December, 2012.”
30	In second line, replace “the day” with “a week.” In fn. 95, replace “a week” with “after his”; replace kgb employee’s name with “Ms. D.”
32	“Neustare” should be “Neustar.”
36	Last line regular text, delete redundant “residential.”
37	Last line of regular text, delete second “it.”
39	Sentence beginning “This, then...” should not be part of block quote.
41	Text accompanying fn. 133 changed to reflect a wording change in Ms. Donato’s Testimony as provided at hearing and entered into evidence.
43	2d line, add “with kgb in 2009. Donato Rebuttal, Att. E; Appendix 1 Timeline.”
47	In fn. 163, add “)” after “2010”; delete “There was also a.”
49	3d line of regular text, “analysis. In 2009” should be “analysis – in 2009.” In third line of section E, insert “remedy the privacy breach” after “completely.”
51	Last full paragraph, 1 st line: “Is it” should be “It is.” Same line: delete “I don’t think so.”
54	The seven sections under “b),” beginning with CPNI, should be renumbered (i)-(vii) and indented.

- 60 In last line of regular text, “oblgiations” should be “obligations.”
- 63 “Comcast’non-published” should be “Comcast’s non-published.”
- 64 In fn. 215, delete redundant “as” from second question.
- 65 Last paragraph should begin with “Comcast also” instead of “It also.”
In fn. 217, “104C, Donato Rebuttal, Attachment M (NASR M&Ps)” should be
106C, Stephens Rebuttal, Attachment B, (NCAR M&Ps).”
- 67 Insert “(emphasis added)” in footnote 227.
- 76 In fn. 273, “*Ibid.*” should read “*Id.* at 26-27.”
- 82 In first line of last paragraph, “unlicensed” should be “non-published.”
- 95 “2 and a half” should be “two and a half.”
“§§ 201-25x” should be “§§ 201-276.”
- 96 In first line, insert “customer” between “a” and “upset.”
- 97 In second line, delete “requires.”
- 108 In first line of first full paragraph, “resulting privacy” should be “resulting
from privacy.”
In fn. 364, “xx, xxx” should be “approximately 11,000.”
- 109 In first full paragraph, “20th history” should be “20th century.”
- 113 In 3d line of first full paragraph, “[10]” should be “14.”
- 117 In table on page 117, “No recommend’n” in middle of right column should be
“no recommendation.”
- 121 In middle of first paragraph, delete redundant “internet.”
- 123 At 4th line from bottom, “normal even” should be “normal event.”
- passim* Non-substantive punctuation, format, and citation corrections throughout.