

Informal OPUC Call Termination Workshop
Minutes 6-24-2011

Brant Wolf/ Oregon Telephone Association (OTA) made the OTA presentation of call termination issues representing a major issue to both rural local exchange carrier (RLEC) consumers and companies.

Key points:

- Consumers don't understand the issue and blame RLEC companies; changing service to cellular when available
- Calls don't reach RLEC sub-tending tandems or networks
- Least cost routing (LCR) cited as possible cause. Major fluctuations in terminating access minutes for both inter and intra state on wireline and wireless traffic.
- Sites Oregon State statues: ORS 759.280, ORS 759.450 (4) as well as a violation of certificate conditions.
- Requests OPUC action

Brandon Zupancic, VP Network Operations Canby Telephone presented an in-depth routing analysis of terminating toll traffic to Canby's MetaSwitch. Canby uses Telcordia GR-303 for access to local loop; all trunks are time division multiplexing (TDM) as Canby has no Voice over the Internet (VoIP) or Session Initiation Protocol (SIP) trunks.

VoIP compression issue: G.729 codecs compress 64kbps to 8kbps. This compression is detrimental to faxes; even G.711 uncompressed codec experiences transmission issues. Canby uses ITU-T38 fax standards and has no issues with faxes within their local network.

Over the past year, Canby's access line count has remained steady around 10,000 lines. Access line count does not support wide variances recorded in terminating traffic patterns. Some months captured Carriers with no terminating access minutes to Canby.

Canby's analysis of terminating toll and EAS trunks show fluctuations of terminating traffic during certain months and at the beginning of many months. Increases in EAS traffic appears to correlate directly with reciprocal decrease fluctuations of a toll trunk. Other patterns show terminating traffic 'stops' for several months. Huge variations are recorded on certain trunks with rapid spikes of traffic.

Key points:

- Believes analysis points to improper use of LCR practices causing major fluctuations in terminating traffic patterns. Believes LCR and phantom traffic are related as both are used to avoid paying terminating access fees. Not pointing finger at LCR when used properly as a tool to route and terminate calls.
- *Symptoms experienced by Canby consumers:*
 - 1) Calling party hears ringing, called party hears no ringing.
 - 2) Called party's phone rings but hears dead air when they answer.

- 3) Calling party hears continued ringing, voice mail does not pick up; called party does not hear ringing.
 - 4) Extremely poor quality on answerable calls (severe echo, severely garbled, only one way conversation audible).
 - 5) Many cases of no call detail record (CDR) or billing record produced and in some cases, no SS7 record.
 - 6) “Machine gun effect”: call setup repeated fails/re-attempts in rapid succession, so switch call records may show multiple attempts from the same TN to a single TN in rapid succession. Recipient’s phone may never ring or ring once or intermittently.
 - 7) Issues are intermittent and cyclical.
 - 8) Calls stuck in routing loops that never terminate or complete to the called party. Preliminary investigation show majority of these calls do not hit the subtending tandem or the RLEC central office.
- Consumers in the Canby area are experiencing a high rate of long distance terminating fax failures. One customer documented a fax failure rate at 64% of all terminating faxes. Extensive testing shows failure is not in the Canby local network.
 - Significant economic harm to both consumers and carriers. Issue detrimental to consumer’s livelihoods and their ability to connect with loved ones.
 - Typical scenario involves working with carriers to resolve call completion problems, only to have another issue arise later resulting in the ‘break’ of the first solution. A generic example of a solution resulted in the exemption of one customer from the IXC’s LCR matrix. The problem appeared resolved until the next LCR update of the rate table which “override” or broke the temporary fix. ***Past experience implies a general, industry-wide fix is necessary.***
 - Canby has begun to experience both originating and terminating traffic issues.
 - Canby traffic analysis shows 10,023 calls terminated from spoofed or blank originating numbers in one week, representing 3.21% of all total terminating calls.
 - Canby has experienced a machine-gun effect and a high rate of terminating calls from one Portland number belonging to a block assigned to a CLEC. Canby believes the number to be an aggregate point for variety of providers. Terminating traffic from this Portland number to the Regional Bell Operating Company (RBOC) routed along a toll route to Canby looks like a local terminating call, billing no access termination fees. In one week, this number terminated 27,082 calls to Canby. Results pulled from a different week months later registered this number terminating 7,636 calls or 13.7% of the total RBOC toll trunk terminating calls.

Improper call termination practice inhibits service providers from complying with lawful intercept orders (CALEA) in cases where the calling party number (CPN) is incomplete, missing, or spoofed. *This practice constitutes a potential public safety issue.* One 911 test call yielded an announcement “This number is not available for call return. Goodbye.” Number spoofing to 911 could result in incorrectly identifying legitimate distress calls.

John Hoffman, Gervais Telephone gave information by a study that Gervais contracted in 2009 with Time Data Corporation on their DMS-10. Information was gathered throughout the 4th quarter. His data supported Canby's in that 11% of all CLEC and wireless terminating traffic combined, originated from one Portland number. Of all CLEC and wireless terminating minutes, over 40% contained no CIC codes and were classified as unbillable traffic.

Paul Hauer, Beaver Creek Telephone showed a sampling of traffic supporting John Hoffman and Brandon Zupancic's findings regarding one specific Portland number terminating into Beaver Creek.

Discussion/Questions:

Mary Retka, Century Link 303-707-7000 offered her assistance to help test to identify underlying carriers. She stressed some issues are not LCR but underlying routing problems that can be identified and fixed.

APNI (Zone) said RLEC's across the nation are being bypassed for economic conditions.

Sharon Mullins, AT&T urged identification of specific companies involved.

Brant Wolf, OTA advised members working through issues which come back repeatedly; time consuming and expensive. Issues are not in terminating networks.

Gail Long, TDS Telecom wants standards around LCR to be established for Service Quality rules relating to latency, jitter and a TDM-like rule for how long a call is in the system. Discussion ensued over IP packet 'time to live' which relates to number of hops allowed in a packet before it drops.

Mary Conquest, Windstream questioned if consideration was given to weather related events in the US in relation in the study? Brandon Zupancic answered that no consideration was made as intra/interstate had the same proportionate fluctuations coinciding with the beginning of each month. **Mitchell Moore, CCMTC** observed that Force Majeure would not explain the deliberate or inadvertent manipulation of signaling information.

Rick Finnegan, Atty. commented that specific IXC and CLEC Carriers had been contacted and have refused to answer email or voice mail regarding these issues.

Mary Retka, Century Link advised ATTIS is currently working with ILEC's on the next generation of interoperability standards specifically around language surrounding TDM to IP and hop counts in the call process. Standards were discussed. It was agreed that standards can take years to develop. **Mitchell Moore, CCMTC** observed that it does appear that some IP conversions are deliberately or inadvertently stripping billing information.

Stacey, APNI/Zone said that they have assisted with testing to identify Carriers at a tandem level and have found some issues don't reach their tandem. In some cases, this has resulted in certain IXC Carriers being removed from a network.

OPUC Staff has documented complaints starting as early as 2009.

Next Step: OPUC Staff currently has a memo on the July 5 Public Meeting Agenda to request a formal investigation opened on call termination issues in Oregon.

List of attendees attached.

Attendees Call Termination Workshop 6-24-2011

Susan Ackerman	OPUC Commissioner
Renee Willer	Frontier
Bob Williamson	Washington PUC
Bill Wienman	Washington PUC
Brandon Zupancic	Canby Tel
Brant Wolf	OTA
Suzanne Smith	OPUC Staff
Malia Brock	OPUC Staff
Fred Goodwin	OPUC Staff
Bryan Conway	OPUC Staff
Phil Boyle	OPUC Staff
Shelley Jones	OPUC Staff
Mitch Moore	OPUC Staff
Tianna Teeters	OPUC Staff
Valerie Luhr	OPUC Staff
Ron Trullinger	Century Link
John Hoffmann	Gervais Telephone
Kerry Benthin	Mt. Angel Telephone
Joyce Nelson	Roome Telecommunications
Nita Callahan	ColtonTel
Dave Condit	ColtonTel
Paul Hauer	Beaver Creek Cooperative Tel
Betty Buckley	WITA
Gail Long	TDS Telecom
Mitchell Moore	CCMTC
Johanna Nelson	MCC
Jerry Piper	ITA
Mike Dewey	OCTA
Frank Williamson	X5
Lance Eves	Molalla Communications
Don Lawrence	SCTC
Mike Whalen	Pioneer Telephone

Known Attendees on Conference Bridge- AT&T records indicated 34-36 attendees on the bridge.

Jessie Wilcox, JoAnn Norton and Kathy DeHart/Gervais Telephone

Bill Macfarlane/Western Independent Networks(WIN)

Rick Finnegan/OTA

Carolee Hall/Idaho PUC

Laura Norton/Gene Cholon-ANPI Solutions

John Ridgeway-Iowa Commission + 3 Iowa Staff

Kay Fallon/Windstream Communications

Mary Retka-Century Link-303-707-7000

Grace Seaman-Idaho PUC

Jeff Richter-Wisconsin PUC

Marianne Townsend-Ohio PUC

Joe Cowin/Sprint

James Rennard/GVNW

Sharon Mullins/AT&T

John Reynolds-New Mexico PUC

Michelle Elkins/Com Span