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| **Bell South Building** | **Atlanta, GA** | **Host:  Bell South** |

**Tuesday May 14, 2001     1:00 pm – 5:00 pm**

Attendance:

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| **Name** | **Company** | **Name** | **Company** |
| Cindy Sheehan | AT&T Broadband | Brigette Brown | Telecorp |
| Dave Cochran | Bell South | Adam Newman | Telecordia Technologies |
| Ron Steen | BellSouth | John P. Malyar | Telcordia Technologies |
| Marian Hearn | Canadian LNP Consortium | Jean Anthony | Telecom Software Enterprises |
| James Grasser | Cingular Wireless | Charles Ryburn | SBC |
| H.L. Gowda | AT&T | Rick Dressner | Sprint PCS |
| Ron Stutheit | Evolving Systems, Inc. | Dave Garner | Qwest |
| Maggie Lee | Illuminet | Gary Sacra | Verizon |
| Gustavo Hannecke | Neustar | Richard Bell (ph) | Verizon |
| Jeannie Hatchett | COX | Michelle Gimmi | Nuvox |
| Nathan Bond | DSET | Jason Lee | WorldCom |
| Paul Lagattuta | AT&T | Steve Addicks | WorldCom |
| Jill Byers | Bell Canada | Patrick Lockett (ph) | Sprint |
| Rick Jones (ph) | NENA | Jim Alton (ph) | SBC |
| Paul LaGattuta | AT&T |   |   |
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**Review of April Minutes:**

Team reviewed minutes and corrections have been made directly to the minutes which are now marked as final.

**Wireless Number Portability Subcommittee Readout:**

See WOT report below.

**Wireless Operations Team:**

Some items discussed include a) the need for a Wireless Number Pooling document, b) Risk assessment for roaming partners and c) PIM 12. For complete details refer to separate Wireless OPS minutes.

Anne Mardick has resigned, as co-chair and a new co-chair will be chosen next month.

There was a testing Sub-committee review from meeting in Seattle.

**Slow Horse Subcommittee:**

Nothing to report at this time, however this may change after Wed. discussion with Neustar.

**Problem / Issues Management (PIMs):**

PIM location at web site has been updated. Current info should be located at [**www.npac.com**](file:///P%3A%5C4MichaelDoherty%5Cwww.npac.com%5Cindex.html) Under LNPA-WG Tracking Matrix which will include open/closed referred issues.

**PIM-1:   Porting with Resellers.**

OBF Issue 2189, LSOG flows went to initial final closure using option 2. See process flows for additional data. Finalization due in August.

**PIM-5:   Unilateral Back-out of Inadvertent Port.**

This PIM has been accepted by NIIF and will be discussed in detail in the July meeting in Canada.

**PIM-6:   Modify 911 Record Migration Process & End User Move Indicator (EUMI)**

Per Rick Jones no change as of this meeting, NENA still working the issue. Completed error correction process but a slight delay due to staff adjustments has impacted the work, however something should be available within the next month.

**PIM-9:  Inter-Carrier Trouble Reporting**

This PIM will be discussed at the next NIIF in July 23-26, 2002 in Ottawa Canada. US LEC will participate on the next NIIF call for clarification of the issues along with example.

**PIM-10:   Inter-Carrier Billing Problems on Calls to Ported Numbers**

Billing errors have not been provided yet. USLEC will put together examples for those SPs involved to be reviewed for next month.

**PIM 11: Moving Blocks between Switches**

This issue is due for discussion again at CIGRR in July. In addition, LNPA-WG will prepare a letter to forward the PIM to the INC for consideration.

**PIM 12: Operator Service Functionality**

Jim Grasser reviewed the PIM for the team.  Some Operator Service functions will not be properly applied in a Wireless Number Portability environment. Options have been presented and the Message Processing Committee at OBF is working the issue.

There is an open issue at OBF, with discussion around 2 possible solutions. OBF requested the issue and solutions be discussed both here and at WOT and they are looking for a recommendation from the industry.

*Action item: Jim will provide a write up on the options for the next meeting for further discussions*.

*Action item: Individual SPs should review internally and we will discuss at the next meeting.*

**PIM 13:  Premature Disconnects**

OSP removes switch translations on or near due date, and the number has not been ported to the new Service Provider.

SPs may not be following the process. They are doing the disconnect before the activation resulting in an out of service condition. In addition a majority of the problems seem to occur on weekends and evenings. It was stated that 12-15% have the problem where customer is left without dial tone. Several SPs stated they seek positive confirmation before doing the disconnect to avoid such situations. Some SPs generally do the disconnect only when the activate occurs within their automated systems. Many SPs accept notifications of change until 7 or 8 pm in order to reduce the occurrences of these situations. Several SPs use a Due Date + 1 process so as not to disconnect customers in these situations.

It was discussed that the10-digit trigger may not be the appropriate mechanism. Change in due date may not be enough to stop the port from happening. Some carriers are able to stop the port but not 100% of the time.

Other points identified include:

a)       Possibility could be that it is related to the batch process

b)       Coordinated cuts may decrease the number of occasions this happens

c)       Performance requirements need to be considered in solution discussions

d)       The ‘unlock’ of 911 records are keyed off the disconnect

**Clarification:**We are talking about switch translations. This is specific to where there is no loop reuse or anything that does not use the local loop (fixed wireless, cable telephony). Situation is exacerbated in residential market.

NNPO is currently working this issue. However, if revisions are needed to the NANC flows then they need to be done here. But if there are operational issues that need to be addressed, that should take place at NNPO.  Charles Ryburn will contact NNPO (David Taylor) to verify status, and possibly have them join the PIM discussion via conference call next month.

**NANP Issue Discussion with Neustar (Gary Sacra)**

The need to accommodate code reclamation when an LNP-capable carrier goes out of business and there are working ported TNs was discussed. There are two implications to code reclamation on these working ported TNs.

1.       Translations that occur to remove an NXX from various switches’ routing tables due to reclamation of the NXX

2.       Deletion of the code from the LERG results in calls to a ported TN (with that NXX) failing as soon as the number is dialed.

NANP responded that there is no industry process to prevent a SP from removing a code from the LERG even if there are still assigned customers. Neustar sent a proposal to LLC for a process, but there is an issue with neutrality between NPAC and NANP in that NPAC cannot share information with NANP

All basically agree that reassignment in the LERG does not care for all issues surrounding the situation and coordination is required. Even if an NXX is successfully re-established in another carriers network, and translations are done in all switches to recognize the NXXs new location; there is still a need to show new ownership in the NPAC. Until the ownership table is changed the following problems exist:

1.                          NPAC cannot accept any Create messages that show the new LERG assignee as the “old SP”

2.                          The NPAC snap-back process is broken as there is no longer a carrier to receive the returned number

However, in order to change the NPAC’s ownership table, current processes require that all active SVs be removed. If this occurs the affected or active ported TN will no longer receive terminating traffic.  When there are no longer active TNs in that NXX, the NPAC ownership table can be changed. From this team’s perspective the implementation of NANC 323, which allows alteration of the NPACs SP NXX ownership tables even when active SVs exist, would help alleviate the situation.

Other aspects of code reclamation belong at INC. Gary Sacra will write up all the issues discussed in the meeting.

**Wednesday April 11,  8:30 – 5:00pm**

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| **Name** | **Company** | **Name** | **Company** |
| Cindy Sheehan | AT&T Broadband | Patrick Lockett (ph) | Sprint |
| Dave Cochran | Bell South | Brigette Brown | TeleCorp PCS |
| Ron Steen | BellSouth | Adam Newman | Telcordia Technologies |
| Marian Hearn | Canadian LNP Consortium | John P. Malyar | Telcordia Technologies |
| Jeannie Hatchett | COX | Jean Anthony | Telecom Software Enterprises |
| Monica Dahmen | COX | Nathan Bond | DSET |
| Jim Rooks | Neustar | Steve Addicks | WorldCOM |
| Beth Watkins | AT&T | Gary Sacra | Verizon |
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| Maggie Lee | Illuminet | Sharon Bridges | Verizon |
| Gustavo Hannecke | Neustar | Rick Dressner | Sprint PCS |
| Paul Lagattuta | AT&T | Jason Lee | WorldCom |
| Michelle Gimmi | Nuvox | H.L. Gowda | AT&T |
| Dave Garner | Qwest | John Herman (ph) | AT&T |
| Charles Ryburn | SBC | Josh Pierman (ph) | Williams |
| Rob Koffman | Neustar | Jim Alton (ph) | SBC |
| Richard Scheer | Neustar | Jill Byers (ph) | Bell Canada |
| Dennis Wiles | Bell South | Al Bolden (ph) | Bell South |
| Colleen Collard (ph) | Tekelec | Jim Grasser | Cingular |
|   |   | Steve Addicks | WCOM |

**CHANGE ORDER 328**

Reviewed CO briefly, CO accepted as currently written. CMA moving into the accepted list. Questions raised on what happens if WNP starts prior to this CO being implemented? Prior to, timers would only be running Mon-Sat, porting could occur on Sunday but no timers would run.

**RELEASE 3.0 Discussion ‘Backlog of Messages at NPAC’**

Jim Rooks, Neustar, provided a presentation to kick off the discussion. Neustar collected SOA traffic data for 2 regions Northeast & Mid Atlantic between 3/28/01 and 3/30/01 and did a comparison between the two. Total SOA messages ran 317,000 versus 300,000, respectively; traffic to/from incumbent SOA ran 38% versus 40%, respectively. After Release 3.0 a SOA backlog issue appeared to be worse for the ILEC. With the installation of faster hardware at the NPAC, range transactions are processed quicker to the industry. These SOA notifications are significantly overloading the ILEC due to the fact the ILEC is involved with the majority of port transactions.

Two message types -- per-TN SV modification done, and per-TN status change -- represented 68% of the traffic between the NPAC and SOA and appeared due largely to per-TN notifications for SV-modify messages and partial-fail list content changes. Presentation and data previously sent provides more detailed information.

Neustar clearly wants us to understand that the NPAC router is not the problem.

Three approaches to the problem to be considered include:

1. **Reduce quantity of messages to certain SOAs**: (i.e. eliminate intermediate updates to partial fail lists, and/or introduce round-robin capability to reduce load per SOA belonging to a single SP).

2. **Make more efficient the transmission of messages** (fine tune application to tool kit/tool kit to stack throughput at NPAC and at SOAs, change to non-confirmed mode for notifications, establish priorities for various notifications; implement NANC 179 – TN Range Notification).

3. **Increase** **capacity of the NPAC/SOA interface** (increase application to tool kit and tool kit to stack through-put).

*ACTION ITEM: Neustar agrees that a case study needs to be done on the recovery of notifications in the backlog scenarios.*

Other ISSUES and SOLUTIONs or OPTIONS discussed (some in the May & some in June.) Many of these are discussed in further depth below.

1. Partial failed list (elimination of intermediate notifications) - SHORT TERM
2. T1 T2 timer (eliminate based on SPID) -  SHORT TERM
3. Multiple SOA associations - LONG TERM
4. NANC 179 – LONG TERM
5. Partial implementation of NANC 240(no cancel of SV at expiration of T2 timer) – SHORT TERM
6. NANC 240 full implementation - MEDIUM TERM
7. Encryption changes – LONG TERM
8. SP reduce queries - DELETED
9. Prioritization of notifications - MEDIUM
10. Modify status notifies broken down by actual status change (intermediate notifications) – Will require new SOW for data
11. Optimize and Increase the efficiency of the interface (NOT the physical layer) as well as increase the throughput. At the current time it does not appear that the physical layer (Fractional T1 or T1) is the problem. That is not to say it will not be an issue down the road.
12. Evaluate and analyze stack, toolkit or application layer at both NPAC and SOA sides. The team decided the benchmark to be used is “Pending port request for a new SV create with the maximum number of message relay services included.” This should be used to benchmark each of the above-identified layers. *ACTION ITEM: ALL SPs and NPAC evaluate the above and come back with data, ready to discuss for next month meeting.*
13. Proposal – elimination of intermediate notifications i.e. provide initial and final only to old SP
14. Proposal – elimination of intermediate notifications – provide initial and final only to both new and old SP

*The group is interested in data on the volume of intermediate partial-fail status change notifications (relative to first/last partial-fail status change notifications) and in the quantity of modifies done on pending SVs versus active SVs. Neustar explained that collecting such data involves a great deal of work and would require an LLC request to initiate.*

1. Extending the NPAC retry timers: DELETE
2. Switching to non-confirmed mode at the NPAC for notifications: This would result in a GDMO and interface change. Possible LONG TERM
3. Handling of batch requests at NPAC – LONG TERM

***RECAP OF DETAILS OF POTENTIAL SOLUTIONS: (listed in presentation)***

SHORT TERM (3-6 months)

For the first round review of what notifications (and scenarios) are candidates for the SPID-specific filter, only the four major incumbents' needs will be considered to determine which notifications (and sub-categories) should be filtered.  (The notification loads are concentrated on the incumbents' SOAs since they are involved in role of "old SP" in most ports; it is the NPAC to SOA interface that have the problem at today's load levels.) Questions were raised if SOA notification can be delayed or eliminated and what is the impact to SPs. Some of these notifications are linked to other systems and may be required to kick off other activities. Each SP uses notifications in a different manner, and SPs need to look at the dependency on the timers

A) SPID-SPECIFIC NOTIFICATIONS

Software change at the NPAC to make specific notifications optional on a SPID basis. This requires that the providers agree on which notifications should have this option. This can be accomplished in the short term if not too many types of notifications are included while a better design, in the long term, is to include all notifications in this tunable SP approach.

1.  Configurable table on a global basis of the notifications based on ASN names.

2.  Can include all notifications (or some) but if all are included it may delay    development as well as to much granularity will be confusing for SP profile.

3.  Test cases will need to be developed and run.

4.   After completion, individual SPs would be able to identify which notifications can be turned on or off for their specific needs using the SP profile

5.  May be done with out taking down associations.

B) Partial 240 or 240-LIKE

The change order could be implemented as two change orders:one change order to stop current process of automatically canceling a pending SV upon expiration of the t2 timer (when no new SP create received by expiration of t2 timer) -- and another change order to send notification to old SP that t2 timer has expired (to replace today's notification, upon expiration of t2 timer, that auto cancel has occurred).  The first part is a short-term item; the second part is a medium-term item.  This is not really so much an improvement in the SOA load situation, however, it would help the SOA operations groups in their interactions with CLECs who are slow to send up their Create messages.  It also reduces SOA volumes indirectly by avoiding need for the old SP to send its Create message twice for those cases where CLEC fails to send its new SP create messages before the t2 timer expires and the auto cancel thus occurs.

*ACTION ITEM – CMA to will draft a synopsis of NANC 240 changes and flow by end of week (May 25) and distribute.*

*ACTION ITEM – SPs must distribute internally and determine if the P240 would be beneficial. A vote will be taken at the next meeting so SPs MUST do their homework. If the new proposal is accepted a new CO may be drafted.*

C) MINIMIZE/Reduce Digital Signature Encryption

This option is not supported by SPs at this time for security reasons and will be considered in the long term possibility.

*MEDIUM TERM (6-12 months)*

QUERYING – explore how SPs are utilizing the NPAC database; Industry decide to disallow NPAC database to be queried as local user database. Why is there so much querying over the interface rather then SPs using their local databases? This has been DELETED as an option.

 SPs DETERMINE PRIORITY OF NPAC PROCESSING OF NOTIFICATIONS.- After discussion it was determined that this would require the development of requirements  and will be on the agenda for next meeting.

*LONG TERM  ( > 12 MONTHS)*

Implementation of NANC 179 – Software changes that provide range

notification capability. Currently packaged in R 4.0. Some SPs agree that this would have a considerable savings but still considered long term. This CO (change order) consolidates notifications for ranges into a single notification per range. The current approach is one notification for each TN in the range.  Since about 50% of the TNs are ported in ranges  -- though ranges are only about 3-4% of the *Create* operations, this CO would have substantial impact on notification message volume.

Increase the throughput of the SOA interface – this requires major industry changes.  Items that could be looked at include binding with a different OSI address, multiple routers per SPID, and moving to a threaded process.

***ALL ACTION ITEMS RECAPPED:***

Neustar will distribute a document mapping the IIS definition to the notificaion name. This will be distributed by Monday May 21st to the team.

ILECs need to review the notifications (concentrating on the two heavy hitters previously identified) and individual impact to their own systems and determine which notifications they can filter out. SPs should focus not only on notifications that can be filtered out but also on notifications they can live without realizing that it may take up to two hours to receive.

Neustar agrees that a case study needs to be done on the recovery of notifications in the backlog scenarios

 CMA will draft a synopsis of NANC 240 and flow by end of week (May 25) and distribute.

SPs must distribute P240 synopsis internally and determine if the P240 would be beneficial. A vote will be taken at the next meeting so SPs MUST do their homework. If the new proposal is accepted a new CO may be drafted.

 ALL SPs and NPAC evaluate the above and come back with data, ready to discuss for next month meeting.

**OTHER ISSUES**

Questions were raised about impact of these notifications etc. on wireless porting. Over time, feeling is that this could affect other SPs in addition to the ILECs.

**OVERALL ISSUE RESPONSIBILITY**

The LNPA-WG's Slow Horse subcommittee appears to be appropriate venue to discuss the approaches to mitigate the impact of release 3.0's increased NPAC/SOA message transmission rates and to discuss it in more general terms of "SOA Performance."  But for short term fix items, the discussion will remain in LNPA-WG.

**NEXT MEETING**

A conference call will be held June 4th to discuss further the NANC 240-like change order's impact and to hear the incumbents report on what notification scenarios each can live without in connection with development of the SPID-specific notification filters. Details of the conference call will be distributed shortly.

**Thursday April 12, 2001, 8:00 – 12:00 pm**

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| --- | --- | --- | --- |
| **Name** | **Company** | **Name** | **Company** |
| Cindy Sheehan | AT&T Broadband | Brigette Brown | TeleCorp PCS |
| Dave Cochran | Bell South | H.L. Gowda | AT&T |
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| Jeannie Hatchett (ph) | Cox | Gary Sacra | Verizon |
| Ron Stutheit | Evolving Systems, Inc. | Richard Bell | Verizon |
| Maggie Lee | Illuminet | Charles Ryburn | SBC |
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| Gustavo Hannecke | Neustar | Jason Lee | WorldCom |
| Richard Sheer | Neustar | Jim Grasser | Cingular |
| Rob Coffman | Neustar | Nathan Bond | DSET |
| Dave Garner | Qwest | Steve Addicks | WCOM |
| Michelle Gimmi | Nuvox |   |   |

**New Business:**

            **1)**  **Future Meeting Situation**

There maybe a need for swapping out the New Orleans November meeting with either the October or December sites depending on availability. Neustar will determine and provide information next month.

            **2)**  **CO-Chair Vacancies**

This was discussed at the NANC and the results are that Charles will remain as meeting administrator etc. Gary Sacra would be NANC attendee. This arrangement was approved as an interim condition. NANC still wants a CLEC and wireless company as co-chairs.

**NPAC 3.0 Conversion Plan - Backout**

Rob Coffman reviewed the backout conversion document.  It discussed a variety of ways to recover data or a combination of data, etc. Plan had been distributed and this issue will be discussed at next meeting

**NANC Report:**

No NANC report this month. Charles will send details to be posted to web site.

**MINIMAL CONNNECTIVITY Requirements**

Lines of communication will be left open. SPs can still refer questions/concerns directly to Randy Buffenbarger.  Each SP must let their LLC member know their individual companies’ ability to support these new requirements.

**RELEASE 3.0 UPDATE**

For Point Release 3.0.7.0 Neustar reported failover tests were run and a new schedule will be sent for regression testing and rollout. That will be distributed as soon as schedule is nailed down.

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***Next Meetings …******June 12 - 14***

***Sprint Campus***

***6360 Sprint Parkway***

***Overland Park, Kansas******66251***

***Building 5 – ask security for room number***

***2001 meeting schedule:***

LNPA WG:                                Host:                                                    NANC Meetings:

June 12 – 14                              Sprint, Kansas City                                June 18 - 19

July 10 – 12                               Canadian Consortium, Ottawa

August 14 - 16                           AT&T, Seattle

September 11 - 13                     Verizon, Baltimore

October 9 – 11                           SBC, San Antonio

November 13 - 15                       Neustar, New Orleans

December 11 – 13                      Qwest, Phoenix

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