LNPA WORKING GROUP

September 11-12, 2012 Meeting

Final Minutes

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| Denver, Colorado | Host: CenturyLink |

##### LNPA WORKING GROUP ARCHITECTURE PLANNING TEAM (APT) DISCUSSION:

**TUESDAY 09/11/12**

Tuesday, 09/11/12, Attendance:

| **Name** | **Company** | **Name** | **Company** | | |
| --- | --- | --- | --- | --- | --- |
| Ron Steen | AT&T | Paul LaGattuta | | Neustar |
| Tracey Guidotti | AT&T | Stephen Addicks | | Neustar |
| Teresa Patton | AT&T | John Nakamura | | Neustar |
| Mark Lancaster | AT&T (phone) | Marcel Champagne | | Neustar |
| Lonnie Keck | AT&T Mobility | Kristen Hamilton | | Neustar |
| Renee Dillon | AT&T Mobility | Jay Hjellum | | Neustar |
| Susan Johnson | Bandwidth.com | Dave Garner | | Neustar |
| Marian Hearn | Canadian LNP Consortium | Mubeen Saifullah | | Neustar Clearinghouse |
| Jan Doell | CenturyLink | Shannon Sevigny | | Neustar Pooling (phone) |
| Mary Retka | CenturyLink | Suzanne Addington | | Sprint Nextel |
| Carolyn Brown | CenturyLink | Jeff Sonnier | | Sprint Nextel |
| Brenda Bloemke | Comcast | Rosalee Pinnock | | Syniverse |
| Tim Kagele | Comcast | Bob Groff | | Tekelec |
| Sree Nair | Comcast (phone) | Joel Zamlong | | Ericsson/Telcordia (phone) |
| Eric Sunberg | Comcast (phone) | Pat White | | Ericsson/Telcordia |
| Beth O’Donnell | Cox (phone) | Lisa Marie Maxson | | Ericsson/Telcordia (phone) |
| Dena Hunter | Cricket (phone) | John Malyar | | Ericsson/Telcordia |
| Devang Naik | DSET | George Tsacnaris | | Ericsson/Telcordia |
| Robin Rice | DSET | Kayla Sharbaugh | | Ericsson/Telcordia (phone) |
| Linda Peterman | Earthlink Business | Steven Koch | | Ericsson/Telcordia (phone) |
| Crystal Hanus | GVNW (phone) | Paula Jordan | | T-Mobile |
| Kim Isaacs | Integra (phone) | Luke Sessions | | T-Mobile |
| Bridget Alexander | John Staurulakis, Inc. | Jesus Ochoa | | T-Mobile |
| Karen Hoffman | John Staurulakis, Inc. (phone) | Glenn Andrews | | TNS |
| Jason Bach | Level 3 | David Lund | | US Cellular |
| Eric Monkelien | Level 3 | Gary Sacra | | Verizon |
| Lynette Khirallah | NetNumber (phone) | Jason Lee | | Verizon (phone) |
| Ed Barker | Neustar (phone) | Deb Tucker | | Verizon Wireless |
| Lavinia Rotaru | Neustar | Imanu Hill | | Vonage |
| Jim Rooks | Neustar | Traci Brunner | | Windstream |
|  |  | Dawn Lawrence | | XO Communications |
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NOTE: ALL APT ACTION ITEMS REFERENCED IN THE MINUTES BELOW HAVE BEEN CAPTURED IN THE “SEPTEMBER\_11\_ 2012 LNPA WG APT ACTION ITEMS” FILE ISSUED IN A SEPARATE E-MAIL FROM THESE MINUTES AND ATTACHED BELOW.

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**MEETING MINUTES:**

**2012 LNPA WG Meeting/Call Schedule:**

Following is the current schedule for the 2012 LNPA WG meetings and calls.

| **MONTH**  **(2012)** | NANC MEETING DATES | LNPA WG  **MEETING/CALL**  **DATES** | HOST COMPANY | MEETING LOCATION |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| January |  | 10th-11th | Telcordia | Scottsdale, Arizona |
| February |  | No meeting or call. |  |  |
| March |  | 13th-14th | Comcast | Denver, Colorado |
| April |  | No meeting or call. |  |  |
| May |  | 8th-9th | Neustar | Key West, Florida |
| June |  | No meeting.  6/12/2012 APT call from 11am to 1pm Eastern time, dial-in bridge number is 888-412-7808, pin 23272#. |  |  |
| July |  | 10th-11th | Canadian LNP Consortium | Mont Tremblant Quebec, Canada |
| August |  | No meeting.  8/7/2012 APT call from 11am to 1pm Eastern time, dial-in bridge number is 888-412-7808, pin 23272#. |  |  |
| September |  | 11th-12th | CenturyLink & Tekelec | Denver, Colorado |
| October |  | No meeting.  10/9/2012 APT call from 11am to 1pm Eastern time, dial-in bridge number is 888-412-7808, pin 23272#. |  |  |
| November |  | 6th-7th | Sprint Nextel | Overland Park, Kansas |
| December |  | No meeting.  12/11/2012 call if necessary |  |  |
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* Continuing evaluation during 2012 will determine if interim conference calls are needed or if the decision to meet face-to-face every other month should be revisited.

July 10, 2012 APT Meeting Minutes Review:

* No changes were made to the DRAFT July 10, 2012 APT meeting minutes, and they were approved as FINAL.

August 7, 2012 APT Conference Call Minutes Review:

* No changes were made to the DRAFT August 7, 2012 APT conference call minutes, and they were approved as FINAL.

APT Test Plan Review Team Update – John Nakamura, Neustar:

**Action Item 051011-16:** Neustar and Telcordia will create a list of Vendor (ITP) and Service Provider regression test cases, identify which are Vendor (ITP) and which are regression or which are both, determine which are conditional, and which apply to the following four categories:

1. New Service Provider and New Vendor,
2. New Service Provider and Experienced Vendor,
3. Experienced Service Provider and New Vendor,
4. Experienced Service Provider and Experienced Vendor.

The status of this work effort will be provided on the June 14, 2011 APT conference call and at the APT portion of the July 2011 LNPA WG meeting.

**Action Item 091311-APT-02:** As a part of the effort to review and update the Vendor ITP and Service Provider Turn-up Test Plans, the APT Test Plan Sub-team will identify to the full LNPA WG any functionality that is recommended for consideration to be sunsetted.

* Neustar reported that no conference calls were held since the last LNPA WG meeting. Work is continuing to update the TUT test cases.
* Both Action Item 051011-16 and Action Item 091311-APT-02 remain open.

Discussion of Alternative Interface (NANC Change Order 372) – All:

**Action Item 050812-APT-01:** Regarding the continuing development of the technical requirements for NANC Change Order 372 – Alternative NPAC Interface – Neustar will develop a list of items that need to be completed and a proposed timeline to complete each. This will be reviewed and discussed at the July 2012 APT meeting.



* The attached plan of major NANC 372 tasks and timeline was presented to the group by Neustar, explaining that it is to be considered a guide at this point. The group agreed to use this draft and modify it as necessary as we proceed to continue development of the NANC 372 technical requirements.
* Action Item 050812-APT-01 was closed.

**Action Item 061212-APT-03:** Service Providers will investigate and determine whether or not the Service Provider functionality to CREATE, MODIFY or DELETE Network Data (Service Provider, NPA-NXX, LRN) over the Interface from their LSMS is being utilized in production, for discussion during the July 10-11, 2012 LNPA WG meeting in Mont Tremblant. The functionality in question does not include Query Request of network data to the NPAC, or the receipt of downloaded network data from the NPAC, which are included in the XML flows.

* Verizon Wireless, Verizon Telecom, AT&T Mobility, AT&T Wireline, Sprint Nextel, CenturyLink, and Integra reported that they do not use their LSMS interface for this purpose. No other provider stated that they do. It was agreed that the new interface will not support these functions over the LSMS interface.
* Action Item 061212-APT-03 was closed.

**Action Item 061212-APT-04:** Neustar, Vendors and Service Providers will provide feedback from their individual companies at the July 10-11, 2012 APT meeting regarding the impact of 4-digit neumonics VS spelled out Message and attribute names on bandwidth with a T1 being utilized for communication. They will also come to the meeting prepared to discuss their positions regarding bandwidth VS readability at that time.

* There were no objections to going with the 4-digit mnemonics due to concerns regarding T1 capacity.
* Action Item 061212-APT-04 was closed.

**Action Item 071012-APT-01:** Neustar will make all changes to the NANC 372 documentation agreed to at the July 10, 2012 APT meeting and distribute them to the LNPA WG in preparation of the September 11, 2012 APT meeting.

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* Neustar reviewed the latest changes to the NANC 372 documentation with the group, beginning with the IIS flows revisions. There was a request to put future changes in different colors to distinguish between timeframes. Action Item 071012-APT-01 was closed.
* A Service Provider stated that now is the time to take advantage of any efficiencies when developing the new interface and not replicate everything in CMISE just for the sake of replication.
* Neustar was asked to look into the recovery mechanism for a provider that has been down for more than a day since with the new XML interface, retries of the first message will be sent until successful. Neustar followed up and responded that the current behavior to take a BDD if an SP has been down for more than a day will be maintained.
* Neustar will make all changes to the NANC 372 documentation agreed to at the September 11, 2012 APT meeting and distribute them to the LNPA WG in preparation for the October 9, 2012 APT conference call and November 6, 2012 APT meeting.
* Neustar then reviewed the attached XML schema changes with the group, addressing the following Action Items, all of which were closed during the review. Attached below is Version 12l of the NPAC XML interface schema as both .xsd and .txt files. If you have a schema viewer program it should recognize the .xsd extension. The .txt file can be opened with Notepad:

 

**Action Item 080712-APT-02:** Neustar will review the network data reply messages to verify representation of multiple returned errors is correct.

**Action Item 080712-APT-03:** Neustar will investigate the impacts of not doing the Cancel Audit in the new interface.

**Action Item 080712-APT-04:** Neustar will change the AuditDiscrepancyRpt structure from minOccurs=”0” to minOccurs=”1” (default).

**Action Item 080712-APT-05:** Neustar will review the use of download\_reason in the network data download message structures.

* + Neustar stated that they looked at this and it is correct.

Additionally, the following items have been addressed in this version of the XML Schema:

* Error processing was simplified to report a basic error code enumeration as well as ILL 130 error code and text if supported.
* The following items were changed to reflect that only the first error is returned for any request:
* AuditCancelReplyData
* NpaNxxDeleteReplyData
* LrnDeleteReplyData
* NumberPoolBlockModifyReplyData
* lrn\_value was added to LrnDeleteRequestData to be consistent with other delete requests.
* block\_dash\_x was added to NumberPoolBlockModifyRequestData and querry\_expression was removed to be consistent with other modify requests.
* secondary\_sp\_id was moved from SOAHeader into SOAtoNPAC and NPACtoSOA.
* request\_sp\_id was added to SOAtoNPAC and NPACtoSOA.
* Neustar then teed up a discussion of the following Action Item:

**Action Item 080712-APT-01:** Neustar will investigate the suggestion that a sub-class structure of Modify data for Old and New SPs be created to distinguish differences in action capabilities.

* + - * + This Action Item will stay open for further review.
* The attached slides on how a Service Provider might transition from CMIP to XML were reviewed.



* For transitioning to XML, the NPAC would have a table that allows an XML SOA SPID (e.g., SPID X414) to interact on behalf of that same SP’s CMIP SOA SPID (e.g., SPID 1111). See slide 3. Traffic would not be sent over both. This scenario would be appropriate if the SP did not want to flash cut their SOA to XML. This would be an option for SPs that do not want to flash cut. It was stated that if an SP chooses not to flash cut, this will require an extra layer of testing at the local system level.
* It was stated that we need to investigate how secondary SPIDs affect an XML SOA.
* A Service Provider asked if we would need another separate SOA box to transition to XML. Neustar responded that it should be separate software (CMIP and XML) running on the same box. SPs should discuss this with their SOA vendors.

**Action Item 071012-APT-02:** Service Providers are to provide feedback on the mix of range operations vs. individual TN operations for network migrations that would be part of a 25K TN migration. This will be discussed at the September 11, 2012 APT meeting as part of the NANC 372 discussion.

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* Neustar provided a model that SPs can plug data into to estimate T1 utilization in XML and see if capacity will be an issue. Neustar went through the attached model for the group. SPs are encouraged to use this model to obtain an estimate of their potential T1 utilization in XML based on their specific usage.

**Action Item 080712-APT-06:** Based on the discussion of the LnpKey being changed from an integer with positive and negative representation to a NumberString with only positive number representation, Local System Vendors are to determine if this will be problematic in their respective systems when matching id values from the CMIP interface that can be positive and negative.

* A Local System Vendor asked the value of suggesting this change. Neustar responded that it did not seem correct to represent IDs as a negative number.
* The Local System Vendor stated that with the implementation of NANC 147, the file download comes across as a negative number. NANC 147 gives us the ability to roll over and assign unused IDs.
* Neustar stated that if we ever decided to go with a 64-bit number, we would be limited on what we could do if we kept positive and negative representation.
* A Service Provider said that incrementing a number with a negative does not make sense.
* A Local System Vendor stated that making the change is not a showstopper but would require some additional management since some negative ID numbers have come down. We have not hit anything with a negative number in a BDD, however.
* For now, it was agreed to go with a NumberString with only positive number representation. This is also for BDDs.
* Neustar reviewed the attached FRS changes for NANC 372.



* It was stated that in XML, the batching of messages will require a redefinition of “transaction.” This affects the interface in both directions.
* FRS Section 6.4.5 Application Level Errors – In order to support backward compatibility, it was made optional to support or not support ILL 130. We need to true up the new interface to determine if SPs are required to support ILL 130 Application Level Errors or will it be optional. Today it is optional. Service Providers are to determine if the new interface will require support of ILL 130 Application Level Errors or if it will be optional as it is currently. Currently, approximately 30% of Service Providers do not support ILL 130 Application Level Errors. This will be discussed at the November 6, 2012 APT meeting.
* A Service Provider asked if there was additional overhead in establishing a secure connection in XML. Neustar responded that there is.
* Neustar was asked to produce a red-lined FRS based on these updates. Neustar stated that they will do so.

APT Action Items Not Previously Discussed in Agenda – All:

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Review of July 10, 2012 LNPA WG APT Action Items:

**July 10, 2012 LNPA WG APT Action Items:**

* Item 071012-APT-01: This item has been completed and is Closed.
* Item 071012-APT-02: This item has been completed and is Closed.

**August 7, 2012 LNPA WG APT Action Items:**

* Item 080712-APT-01: This item has been completed and is Closed.
* Item 080712-APT-02: This item has been completed and is Closed.
* Item 080712-APT-03: This item has been completed and is Closed.
* Item 080712-APT-04: This item has been completed and is Closed.
* Item 080712-APT-05: This item has been completed and is Closed.
* Item 080712-APT-06: This item has been completed and is Closed.

**LNPA WG APT Action Items Remaining Open from Previous Meetings:**

* Item 051011-16: This item remains Open.
* Item 091311-APT-02: This item remains Open.
* Item 050812-APT-01: This item has been completed and is Closed.
* Item 061212-APT-03: This item has been completed and is Closed. No Service Providers stated that they use their LSMS interface for this purpose. It was agreed that the new LSMS interface will not support these functions.
* Item 061212-APT-04: This item has been completed and is Closed.

Discussion of Need for Interim APT Call(s) – All:

* Test plan calls will be scheduled separately.
* A full APT call will be held on October 9, 2012 from 11am to 1pm Eastern to continue the NANC 372 discussion. The dial-in bridge number is 888-412-7808, pin 23272#.

***Next APT Call…October 9, 2012 from 11am to 1pm Eastern…Dial-in bridge number is 888-412-7808, pin 23272#***

***Next APT Meeting …Part of the November 6-7, 2012 LNPA WG Meeting…***

***Location…*** ***Overland Park, Kansas …***

***Hosted by Sprint Nextel***