LNPA WORKING GROUP

January 10-11, 2012 Meeting

Final Minutes

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| Scottsdale, Arizona | Host: Telcordia |

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

**TUESDAY 01/10/12**

Tuesday, 01/10/12, Attendance:

| **Name** | **Company** | **Name** | **Company** | | |
| --- | --- | --- | --- | --- | --- |
| Tracey Guidotti | AT&T (phone) | Mubeen Saifullah | | Neustar Clearinghouse |
| Ron Steen | AT&T | Shannon Sevigny | | Neustar Pooling (phone) |
| Teresa Patton | AT&T | Sue Tiffany | | Sprint Nextel (phone) |
| Mark Lancaster | AT&T (phone) | Ken Havens | | Sprint Nextel |
| Lonnie Keck | AT&T Mobility | Rosemary Emmer | | Sprint Nextel |
| Barb Hjelmaa | Brighthouse (phone) | Suzanne Addington | | Sprint Nextel |
| Marian Hearn | Canadian LNP Consortium | Rosalee Pinnock | | Syniverse |
| Jan Doell | CenturyLink | Joel Zamlong | | Telcordia |
| Tim Kagele | Comcast (phone) | Pat White | | Telcordia |
| Brenda Blomke | Comcast (phone) | Lisa Marie Maxson | | Telcordia |
| Linda Peterman | EarthLink Business | John Malyar | | Telcordia |
| Crystal Hanus | GVNW (phone) | George Tsacnaris | | Telcordia |
| Bridget Alexander | John Staurulakis, Inc. (phone) | Kayla Sharbaugh | | Telcordia (phone) |
| Angie Mackey | John Staurulakis, Inc. (phone) | Steven Koch | | Telcordia |
| Eric Monkelien | Level 3 (phone) | Paula Jordan | | T-Mobile |
| Bridget Ketiku | Metro PCS | Luke Sessions | | T-Mobile |
| Jim Rooks | Neustar | Glenn Andrews | | TNS |
| Paul LaGattuta | Neustar | David Lund | | US Cellular |
| Stephen Addicks | Neustar | Gary Sacra | | Verizon |
| John Nakamura | Neustar | Jason Lee | | Verizon (phone) |
| Lavinia Rotaru | Neustar | Deb Tucker | | Verizon Wireless |
| Ed Barker | Neustar (phone) | Imanu Hill | | Vonage |
| Kristen Hamilton | Neustar | Traci Brunner | | Windstream |
| Marcel Champagne | Neustar | Dawn Lawrence | | XO Comm. |
| Dave Garner | Neustar |  | |  |
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NOTE: ALL APT ACTION ITEMS REFERENCED IN THE MINUTES BELOW HAVE BEEN CAPTURED IN THE “JANUARY\_10\_ 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.  4/10/2012 call if necessary. |  |  |
| May |  | 8th-9th | Neustar | Key West, Florida |
| June |  | No meeting.  6/12/2012 call if necessary. |  |  |
| July |  | 10th-11th | Canadian LNP Consortium | Mont Tremblant Quebec, Canada |
| August |  | No meeting.  8/7/2012 call if necessary. |  |  |
| September |  | 11th-12th | CenturyLink & Tekelec | Denver, Colorado |
| October |  | No meeting.  10/9/2012 call if necessary |  |  |
| 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.

November 9, 2011 APT Meeting Minutes Review:

* No changes were made to the DRAFT November 9, 2011 APT meeting 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.

* An interim conference call was held to discuss the SV portion of the vendor interoperability and turn-up test plans.
* On the call the team discussed how we could make the front-end vendor testing more efficient so that providers did not have to do as much testing on the back end.
* Vendor testing is with the CMIP portion and not the full NPAC solution like in SP testing.
* The question we need to answer is do we want the vendors to test with the full NPAC solution.
* It was questioned if we are moving to having vendor testing with the NPAC solution rather than the simulator, why would SPs need to run the same tests.
* A provider asked if we need to decide if vendors need to test with the same full NPAC test bed as the SPs. Neustar responded that that might preclude the industry from doing interop and turn-up testing at the same time. Neustar also said that as long as the software is the same on both test systems, then that should be sufficient.
* A provider asked if we have considered splitting the test cases down the middle and have vendors do half and SPs do half. The answer is we have not progressed that far in the discussion yet. A vendor said that they would be reluctant to rely on SP testing for certain tests.
* Neustar said that the decision to be made is not whether we are going to use the same software version for both, but if we are going to throw away the ITP test plan and rebuild one that utilizes a business flow approach for testing.
* The current ITP test plan cannot be run on the NPAC test bed.
* There was general agreement that we will develop one test plan with a matrix indicating who (vendor or SP) will perform each test. Optionally, each could do any of the tests.
* Today, vendors do surrogate testing on behalf of SPs that do not have test beds.
* A provider asked if the team could consider doing some test cases, like creates, in batch without having an NPAC tester on the line checking each individual create, and then have the NPAC tester go in after they are completed and check to see if they are passed.
* Action Items 051011-16 and 091311-APT-02 will remain open.

Review of Change Order to Sunset Non-EDR Support – All**:**

**Action Item 110911-APT-01:** At the November 9, 2011 LNPA WG APT meeting, the group agreed that support for non-EDR would be grandfathered for existing Service Providers until such time that support will be sunsetted at the end of 2Q2012. Neustar will develop a Change Order for the sunsetting of non-EDR support for review at the January 2012 LNPA WG APT meeting.



* Neustar presented the attached proposed Change Order in response to Action Item 110911-APT-01 and explained that when the last LSMS begins to support EDR, the SPID profile will be switched to “yes.”
* This Change Order is for optimizing the NPAC code down the road as opportunities to do so are identified.
* It was agreed that when the time is appropriate, the last LSMS profile flag will be flipped to support EDR, and no LSMS in the future will be allowed to not support EDR.
* Neustar asked if we want to continue to allow non-EDR BDDs for SOA-only providers. It was stated that we already decided to sunset all support of non-EDR by end of 2Q2012.
* Neustar will send a message out over the Cross-Regional distribution list indicating that support of non-EDR will sunset at the end of 2Q2012. In that notification, Neustar will describe the implications, e.g., no pooled SVs in BDDs. Neustar will provide a status at the March 2012 LNPA WG meeting.
* NANC Change Order 448 was accepted. Once we hear any responses to the X-Regional message and if any entity has a problem, we will discuss in the LNPA WG.
* Setting all profiles to indicate EDR support will prevent pooled SVs from being created in BDD files.
* Neustar followed up during the meeting and said that some users are requesting BDDs with pooled SVs.
* Action Item 110911-APT-01 is closed.

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

**Action Item 110911-APT-02:** Neustar will develop a list of key questions to assist Service Providers in their internal discussions of NANC 372 – Alternative Interface – in order to drive future discussions and requirements development. See related Action Item 110911-APT-03.

**Action Item 110911-APT-03:** Service Providers are to come to the January 2012 LNPA WG APT meeting prepared to discuss NANC 372 – Alternative Interface – and provide any available internal feedback on the attached key questions provided by Neustar. See related Action Item 110911-APT-02



* Current working assumptions:

1. SOA and LSMS functionality will be implemented.
2. The interface protocol will be HTTPS and the data encoding will be XML
3. The interface will be non-session based (authentication on each request).
4. The interface will be connection-less.
5. The interface will push messages in real time.
6. Security will be HTTPS where NPAC generated key are distributed to providers.
7. Recovery will be enhanced to deliver messages until successful.

* The group discussed the following questions posed in the attached NANC 372 discussion document pertaining to areas where decisions need to be made by the LNPA WG in the development of technical requirements for an alternative interface. These were considered preliminary responses subject to modification as requirements development further progresses.

1. Should the interface protocol be SOAP or HTTPS?
   * + Neustar stated that in their experience, HTTPS is much more efficient without SOAP. HTTPS is lower level and can operate with or without SOAP.
     + Neustar stated that they would prefer discussing security as a separate agenda item for the alternate interface.
     + T-Mobile prefers HTTPS. Sprint Nextel, CenturyLink, and Verizon agreed.
     + It was agreed that Assumption No. 2 above will apply for HTTPS.
2. Should the interface data encoding be XML or JSON?
   * + Verizon stated that the typical SOAP-based interface is XML-based. JSON is lighter weight and perhaps quicker. XML has more overhead. Verizon stated that if we had to choose at this point, JSON would be their preference. AT&T agreed.
     + CenturyLink stated a preference for XML because of the industry’s experience level with that protocol. They are also concerned with the interaction with back office systems that are currently using SOAP/XML. It was stated that vendors would have to support that translation.
     + T-Mobile stated that they prefer XML because it is more flexible and efficient. Sprint Nextel agreed. Sprint Nextel asked about security risks of JSON.
     + Telcordia stated that the specialized type of messaging that we do with porting is better suited for JSON. Telcordia said that the JSON spec is stable.
     + Question remains open.
     + Neustar stated that it is more important to make a decision rather than the choice being XML or JSON.
     + Vendors in attendance agreed that they would have to keep the interfaces between back office systems and SOAs/LSMSs the same if their customers require that.
3. Should the interface be connection oriented or connection-less?
   * + Connection-less means a connection is established and closed with each message. It is typically HTTPS. The association would be on and off, one message per connection.
     + CenturyLink asked for a pro/con analysis. Verizon agreed.
     + Connection-less means you could have a pool of resources in a round-robin fashion to respond to requests. Connection means that you have to have a dedicated resource for the entire duration.
     + Connection-less does have some higher overhead to establish connections but would not need to constantly ping (heartbeat).
     + It was agreed that for now, we will assume connection-less for the purpose of moving forward with requirements development. During the discussion of requirements, a natural byproduct of that will be discussion of pros/cons and if we need to revisit the assumptions we will.
4. Should the interface be session based (like the CMIP interface) or single request (like most web traffic)?
   * + An example of accessing your bank account as being session-based was discussed. Requests can be made back and forth for a period of time without re-authenticating. For single requests, you would have to provide login and password for every message in the bank example.
     + T-Mobile prefers non-session single requests. These are asynchronous requests (data is only going in one direction).
     + Neustar said that the interface would be somewhat more complicated for session-based in order to understand that a session is open.
     + It was agreed that we will assume single request for now.
5. Should this be a push interface (like the CMIP interface) or should it be a pull/poll interface where providers ask the NPAC if there are any new transactions/messages for them?
   * + Verizon stated that a pull interface has some firewall advantages, but expressed concerns about DBs being out of synch. When would we declare Partial Failures?
     + It was agreed that we need to draw out how things are done today vs. a push/pull in the new paradigm.
     + Comcast asked if any of these decisions will have an impact on throughput. Neustar said that we still have SLRs that will need to be met.
     + Partial Failures would still be declared after a certain established interval.
     + In a pull environment, users could pull at varying intervals to accommodate those users that don’t need updates in near-real time.
     + Comcast asked if the pull method introduces an additional point of failure, i.e., a server on the far end. Neustar responded that it doesn’t introduce additional risk, it is just a different way of doing things.
     + T-Mobile stated that they believe pull is more resource intensive. They are also concerned about data integrity. Neustar responded that with messaging today, you should get a response either way. Neustar doesn’t think in today’s environment, we would get many empty responses with a pull.
     + With pull, you don’t need to have a server on your side, or open up your firewall.
     + It was agreed we will wait to discuss further before we decide.
6. Should the interface security be a digital signature (like CMIP) or HTTPS where the entire message is encrypted including client authentication?
   * + Verizon stated they felt it should be HTTPS. HTTPS is 128-bit.
     + We will discuss further at the March 2012 LNPA WG meeting.
7. Should recovery of missed data be SWIM based (like CMIP) or should the NPAC constantly attempt to send until successful delivery?
   * + This is impacted by our decision on push or pull.
     + To be discussed further at the March 2012 LNPA WG meeting.
8. How can create/modify/delete notifications be enhanced to make them more efficient?
   * + To be discussed further at the March 2012 LNPA WG meeting.

* Action Item 110911-APT-02 is closed. Action Item 110911-APT-03 remains open.
* Neustar will expand the text in NANC 372 – Alternative Interface – based on current working assumptions agreed to at the January 2012 LNPA WG meeting for review and discussion at the March 2012 LNPA WG meeting.
* It was agreed that we need to eventually answer what timeframe this will be implemented and when CMIP might be sunsetted.

Discussion of NPAC Support of IPv6 (NANC 447) – All:



* No timeline is currently associated with Change Order 447.
* No changes have been made to NANC 447 since it was last reviewed by the LNPA WG.
* NANC 447 will be on the agenda for the March 2012 LNPA WG meeting.

APT Action Items Not Previously Discussed in Agenda – All:

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Review of November 9, 2011 LNPA WG APT Action Items:

**November 9, 2011 LNPA WG APT Action Items:**

* Item 110911-APT-01: This item has been completed and is Closed.
* Item 110911-APT-02: This item has been completed and is Closed.
* Item 110911-APT-03: This item remains Open.

**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.

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

* Test plan calls will be scheduled separately.
* No full APT calls will be scheduled prior to the March 2012 face-to-face meeting.

***Next APT Meeting …Part of the March 13-14, 2012 LNPA WG Meeting: Location…Denver, Colorado…***

***Hosted by Comcast***