Origination Date: 6/5/1998
Change Order Number: NANC 219

Description: NPAC Monitoring of SOA/LSMS Associations

Cumulative SP Priority, Weighted Average: ~~5.33~~

Pure Backwards Compatible: YES

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IMPACT/CHANGE ASSESSMENT

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FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y				High	N/A	N/A

Business Need:

(Revised 8/31/00 to reflect the full scope of this change order.)

Whenever an end-user is ported to a new Service Provider, the new Service Provider notifies other carriers that the end-user's service actually is moved by sending an *activation* message to the NPAC. The NPAC in turn immediately broadcasts routing data for the ported number to these carriers, for their use in properly routing calls to the ported number. However, if a Service Provider's LSMS is off-line at the time of the NPAC's broadcast, that Service Provider's network will not receive correct routing data in a timely manner for the newly ported number and calls from end-users on that Service Provider's network made to the ported number will fail.

This change order allows the NPAC to recognize quickly when an LSMS (or SOA) goes off line, i.e., when its association is aborted, and to issue an alarm. Further, this change order provides for reports of these events, including a monthly report of LSMS Percent Availability by region for every Service Provider's LSMS. Implementation of this change order will reduce the intervals that Service Providers' systems are inadvertently off-line as well as create a foundation for an LSMS Availability requirement. That is, implementation of this change order is expected to reduce LSMS down time and thus improve service to newly ported customers over the long term.

Description of Change:

It has been requested that NPAC Monitoring of SOA and LSMS associations be put into the NPAC SMS at the application (CMIP) layer. The approach suggested by the requestor would be to alarm whenever aborts are received or sent by the NPAC. When these alarms occur then have the NPAC Personnel contact the affected Service Provider (need M&Ps to document this contact procedure) to work to ensure the association is brought back up.

From this point forward, this change order will deal with the alarm abort option. The heartbeat abort option is NANC 299.

Jan 00 mtg, need logging for both loss of an association and bind requests.

July 00 meeting: In the Slow Horse subcommittee meeting it was determined that this change order needed to be amended to include the requirements for two additional reports that are needed for LSMS Percent Availability.

One report will be an Individual LSMS Availability Report that will be produced and distributed to the individual Service Providers/Service Bureaus with an LSMS association on a monthly basis and will contain the following:

- Association Log Report details
- Association Log Report summary
- Individual LSMS "raw" percentage availability
- Calculation used to compute the "raw" percent availability
- Individual LSMS percent availability with adjustment for NPAC unavailability
- Calculation used to compute the percent availability with adjustment for NPAC unavailability

The second report will be a Regional LSMS Availability Report that will contain the following data:

- Raw percentage availability
- Percent availability with adjustment for the NPAC unavailability
- "Appeal" percentage (Service Provider defined)

The Regional LSMS Availability report will be a rolling report that contains data for an 18 month period and will be distributed to the individual Service Providers with a LSMS association and the corresponding regional LLC.

January 2001: During review of this change order the LNPA WG decided to modify how Service Provider availability is treated after NPAC downtime. Since there is a finite period of time need for LSMSs to rebind it was decided that a delta time of 10 minutes would be added to each NPAC SMS downtime interval to allow the LSMSs time to rebind after the NPAC SMS comes back up. Requirement 42.5 has been added to cover this issue.

Requirements:

Association Monitoring & Logging

Req 1   Association Monitoring

NPAC shall monitor the status of all association/function type/channel combinations between the NPAC SMS and each associated Service Provider.

Req 2   Detecting Association Aborts

NPAC SMS shall be capable of generating a unique alarmable error message when an association abort is sent or received by the NPAC SMS.

Req 3   Reporting Association Aborts

NPAC SMS shall be capable of reporting an association abort that is sent or received by the NPAC SMS.

Req 4   Logging Association Aborts Information

NPAC SMS shall log the following information when an association abort is sent/received by the NPAC SMS: date, time, SPID, association function bit mask, initiator of abort, reason for abort when initiated by the NPAC SMS, error-code, error-text.

Note: The error-code and error-text are extracted from the NpacAssociationUserInfo structure within each abort. An abort sent by the NPAC SMS may contain an error-code value of "access-denied", "retry-same-host", or "try-other-host". If the NPAC SMS is taken offline, a Local SMS may receive an abort without NpacAssociationUserInfo data. If a Local SMS is taken offline, the NPAC SMS will receive an abort without NpacAssociationUserInfo data. A network problem may initiate a similar abort to both or either end of the interface between a Service Provider and the NPAC SMS.

Req 4.5   Logging Association Bind Information

NPAC SMS shall log the following information when an association bind request (AARQ) is received by the NPAC SMS: date, time, SPID, association function bit mask, recovery mode flag.

Req 4.5.1   Logging Association Bind NPAC SMS Response Information

NPAC SMS shall log the following information when an association bind response (AARE) is sent by the NPAC SMS: date, time, SPID, association function bit mask, error-code, and error-text.

Note: The error-code and error-text are extracted from the NpacAssociationUserInfo structure within each bind response. The error-code value will always be "success" and the error-text value will always be "" for a bind response.

Req 4.6   Logging Recovery Complete Information

NPAC SMS shall log the following information when a recovery complete request is received by the NPAC SMS: date, time, SPID, association function bit mask.

Req 5   Deleted

Association Log Reports

Req 6   Association Log Report via OpGUI

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to generate the Association Log Report on association log data for both types of bind data, recovery complete data and abort data.

Req 7   Association Log Report Request

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to specify time range and requesting SPID option (of either an individual SPID or all SPIDs) when generating the Association Log Report on association log data for types of both bind data, recovery complete data and abort data.

Req 7.5   Association Log Report Request Sort Criteria

NPAC SMS shall use sort criteria of SPID for primary, system type for secondary, and date/time as third when generating the Association Log Report on association log data for both types of bind data, recovery complete data and abort data.

Req 7.6   Association Log Report Display

NPAC SMS shall display the report data with headers indicating SOA or LSMS data.

Req 7.7   Display of System Status in the Association Log Report at Report Start Time

NPAC SMS shall display the status of the each system (SOA or LSMS) at the report start time as the first line in each corresponding section of the Association Log Report.

Req 7.8   Display of System Status in the Association Log Report at Report End Time

NPAC SMS shall display the status of the each system (SOA or LSMS) at the report end time as the last line in each corresponding section of the Association Log Report.

Req 7.9   Valid System Status Values for the Association Log Report

NPAC SMS shall use values of "associated" and "not associated" for the status of each system at the report start and report end times.

Req 8   Association Log Report for Service Providers

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to request the Association Log Report on association log data for both types of bind data, recovery complete data and abort data, for either a single Service Provider or all Service Providers.

Req 9   Association Log Report Format and SPID Selection/Display

NPAC SMS shall be capable of generating the Association Log Report on association log data for both types of bind data, recovery complete data and abort data, specifying the following:
1 – Report Format (detail or summary)
2 – SPID Selection (single Service Provider or all Service Providers)
3 – SPID Display (actual SPID values, or encoding of all SPID values using aliases)

Req 10   Association Log Report for Individual Service Provider via LTI

NPAC SMS shall allow Service Provider Personnel, via the NPAC SOA Low-tech Interface, to request the Association Log Report on association log data for both types of bind data, recovery complete data and abort data, for only their own SPID.

Req 11   Association Log Report in Detail or Summary Format

NPAC SMS shall allow the Association Log Report of association log data for both types of bind data, recovery complete data and abort data, to be generated in either detail or summary format.

NOTE: Detail provides information on each log entry for bind/abort. Summary provides a total number per SPID for each category of log reporting (aborts, association bind requests, association bind responses, recovery completes).

Req 12   Association Log Report in Summary Format for Individual Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to request, on behalf of an individual service provider, the Association Log Report on association log data for both types of bind data, recovery complete data and abort data, in summary format, and shall encode the SPID value for all other Service Providers.

Individual LSMS Availability Report

Req 13   Individual LSMS Availability Report for LSMS Associations

NPAC SMS shall produce a monthly Individual LSMS Availability Report, by region, for each Service Provider with an LSMS associated to the NPAC SMS.

Note: For the purpose of this report a Service Provider can also be a Service Bureau. Reports are not distributed to subtending customers of a Service Bureau because only the Service Bureau is being measured.

Req 14   Relating of Multiple LSMS SPIDs to One Service Provider

NPAC SMS shall have the capability to relate multiple LSMS SPIDs together when these SPIDs belong to the same Service Provider and are updating the same network LNP routing database.

Req 15   SPID Identifier for Service Providers with Multiple LSMS SPIDs

NPAC SMS shall identify a Service Provider with multiple LSMS SPIDs that update the same network LNP routing database with a composite SPID identifier.

**Req 16   Entry Mechanism for Relating Multiple LSMS SPIDs to One Service
                Provider**

NPAC SMS shall provide a mechanism for NPAC Personnel to enter multiple LSMS SPIDs for one Service Provider when these LSMS SPIDs are updating the same network LNP routing database.

**Req 17   Individual LSMS Availability Report for Service Providers with
                Multiple LSMS SPID Associations**

NPAC SMS shall be able to provide a composite Individual LSMS Availability Report for Service Providers that have multiple LSMS SPIDs associated to the NPAC SMS that update the same network LNP routing database.

Req 18   Individual LSMS Availability Report Frequency

NPAC SMS shall automatically produce the Individual LSMS Availability Report on a tunable day of the month for the previous calendar month.

Req 19   Entry Mechanism for Service Provider Maintenance Windows

NPAC SMS shall provide a mechanism for NPAC Personnel to enter the date, start time, and end time of multiple Service Provider Maintenance Windows.

Note: The Service Provider Maintenance Window is the industry approved maintenance windows for Service Providers as described in PIM 2 and approved by the LLCs.

Req 20   Modify Mechanism for Service Provider Maintenance Windows

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the date, start time, and end time of a Service Provider Maintenance Window.

Req 21   Delete Mechanism for Service Provider Maintenance Windows

NPAC SMS shall provide a mechanism for NPAC Personnel to delete the date, start time, and end time of a Service Provider Maintenance Window.

Req 22   Alarm if no Acknowledgement of Service Provider Maintenance Window

NPAC SMS shall send an error message and alarm if there has been no entry of a Service Provider Maintenance Window when the report is run.

Req 23   Entry Mechanism for NPAC SMS Down Time for the Region

NPAC SMS shall provide a mechanism for NPAC Personnel to enter the date, start time, and end time of NPAC SMS down time outside of Service Provider Maintenance Windows that affects the region.

Req 24   Entry Mechanism for NPAC SMS Down Time Affecting a Specific Service Provider

NPAC SMS shall provide a mechanism for NPAC Personnel to enter the date, start time, and end time of NPAC SMS down time outside of Service Provider Maintenance Windows that affects a specific Service Provider.

Req 25   Modify Mechanism for NPAC SMS Down Time

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the date, start time, and end time of NPAC SMS down time outside of Service Provider Maintenance Windows.

Req 26   Delete Mechanism for NPAC SMS Down Time

NPAC SMS shall provide a mechanism for NPAC Personnel to delete the date, start time, and end time of NPAC SMS down time outside of Service Provider Maintenance Windows.

Req 27   Individual LSMS Availability Report Contents

NPAC SMS shall generate the Individual LSMS Availability Report with the following content:

1. Input Criteria

2. Individual LSMS "raw" percent availability, composite for any Service Provider that has multiple LSMS SPIDs associated to the NPAC SMS that update the same network LNP routing database

3. Calculation used to compute the individual LSMS "raw" percent availability. This calculation takes into account Service Providers that have multiple LSMS SPIDs that update the same network LNP routing database.

4. Individual LSMS percent availability adjusted for NPAC caused unavailability, composite for any Service Provider that has multiple LSMS SPIDs associated to the NPAC SMS that update the same network LNP routing database

5. Calculation used to compute the individual LSMS percent availability adjusted for NPAC caused unavailability

6. Association Log Report Summary for the LSMS for the report month by SPID

7. Association Log Report Detail for the LSMS for the report month by SPID

Example report:

Individual LSMS Availability Report for September

Service Provider Id 1234

Section 1:

Input Parameters:

Service Provider: abcd
Service Provider Maintenance Windows: 09/03/00 6:00 – 18:00
    09/10/00 6:00 – 12:00
    09/17/00 6:00 – 12:00
    09/24/00 6:00 – 12:00
NPAC Downtime Outside of Service Provider Maintenance Windows:
    09/15/00 16:00 – 18:00
    09/25/00 1:00 – 2:00
    09/20/00 8:00 – 8:20

Section 2:

LSMS RAW PERCENT AVAILABILITY = 99.90 %

Section 3:

CALCULATIONS

Total minutes for September = 43,200 minutes (24 hrs * 60 min * 30 days)

Total minutes of Service Provider Maintenance Windows in September = 720+360+360+360 = 1,800 minutes

Total minutes Available for Porting in September = 41,400 minutes (43,200 – 1,800)

LSMS Downtime In Minutes = 41 minutes (from NPAC logs)
    09/01/00 01.33.47 - 09/01/00 01.52.17   8.5 minutes
    .
    .
    .
    09/23/00 11.03.47 - 09/24/00 11.23.17   19.5 minutes

Raw LSMS Availability = 41,359 minutes (41,400 – 41)

LSMS Raw Percent Availability = 99.90% (41359/41400*100)

Section 4

LSMS NPAC ADJUSTED PERCENTAGE AVAILABILITY = 99.90 %

Section 5:

CALCULATIONS

Total minutes in the month = 43,200 minutes (24 hrs * 60 min * 30 days)

Total minutes of Service Provider Maintenance Windows in September = 720+360+360+360 = 1,800 minutes

Total minutes of Downtime for NPAC SMS outside of Service Provider Maintenance Windows: = 200 minutes

Total minutes Available for Porting in September Adjusted for NPAC Downtime = 41,200 minutes (43,200 – 1,800 – 200)

LSMS Downtime In Minutes = 41 minutes (from NPAC logs)

LSMS Availability adjusted for NPAC Downtime = 41,159 minutes (41,200 – 41)

LSMS Percent Availability adjusted for NPAC Downtime = 99.90% (41159/41200*100)

Section 6:

Association Log Report – Summary

System Type	SPID	Total Down Time
LSMS	1234	41 minutes

Section 7:

Association Log Report – Detail

LSMS

SPID	Date & Time	Type of Data	Error Code	Error Text
abcd	09/01/00 00.00.01	Status = Not Associated		
abcd	09/01/00 00.33.47	Bind Request Received	Success	
abcd	09/01/00 00.33.47	Bind Response	Success	
abcd	09/01/00 00.34.48	Recovery Complete	Success	
abcd	09/03/00 18.03.07	Abort Received	Success	
abcd	09/03/00 18.08.42	Bind Request Received	Access denied	Invalid Key
abcd	09/03/00 18.13.37	Bind Request Received	Access denied	Invalid

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abcd	09/30/00 06.21.47	Bind Request Received	Success
abcd	09/30/00 06.21.47	Bind Response	Success
abcd	09/30/00 06.21.47	Recovery Complete	Success
abcd	09/30/00 24.00.00	Status = Associated	

Req 28   "Raw" Percentage LSMS Availability Data Logging

NPAC SMS shall log the "raw" Percentage LSMS availability, region, and SPID from each Individual LSMS Availability Report for use in the Regional LSMS Availability Report.

Req 29   Adjusted Percentage LSMS Availability Data Logging

NPAC SMS shall log the "adjusted" Percentage LSMS availability, region, and SPID from each individual LSMS Availability Report for use in the Regional LSMS Availability Report.

Req 30   Maintenance of Data for Multiple LSMS SPIDs Reported as a Composite that become Independent LSMS SPIDs

NPAC SMS shall maintain data on multiple LSMS SPIDs that were reported as a composite, but become independent, under the composite SPID for the period prior to the LSMS SPIDs becoming independent.

Note: Historical data will not be recalculated.

Req 31   Maintenance of Data for Multiple LSMS SPIDs Reported Independently that become a Composite

NPAC SMS shall maintain data on multiple LSMS SPIDs that were reported independently, but become a composite, under each LSMS SPID for the period prior to the LSMS SPIDs becoming a composite.

Note: Historical data will not be recalculated.

Req 32   Individual LSMS Availability Report Distribution

NPAC SMS shall email the Individual LSMS Availability Report to the appropriate Service Provider or Service Bureau for which the report is generated.

Calculations to be used for the Individual LSMS Percent Availability

Req 33   Calculation of Total Minutes in the Month

NPAC SMS shall determine the number of days in the given month and calculate the Total Minutes of Availability in the month (24 hours/day * 60 minutes/hour * X days a month).

Req 34   Calculation of Total Minutes of Service Provider Maintenance Window in the Month

NPAC SMS shall calculate the Total Minutes of Service Provider Maintenance Window in the month by summing the number of minutes in each Service Provider Maintenance Window interval for the month.

Req 35   Calculation of Maximum Minutes Available for Porting in the Month.

NPAC SMS shall calculate the Total Minutes of Scheduled LSMS Availability in the month by subtracting the Total Minutes of Service Provider Maintenance Window in the month from the Total Minutes of Monthly Availability.

Req 36   Calculation of Total Minutes of LSMS Downtime for each LSMS

NPAC SMS shall calculate the monthly LSMS downtime as the sum of each time difference between each abort and corresponding bind ~~request for an LSMS and then sum the times together for the monthly down time value~~ excluding Service Provider Maintenance Window time intervals and NPAC downtime time intervals.

Note: Downtime is the time between an abort and the following bind request. Subsequent bind requests without corresponding aborts will be excluded from the calculation. Downtime during the Service Provider Maintenance Window time interval is not included in the Availability calculation. Downtime during NPAC downtime time interval is also not included in the Availability calculation. Aborts with an error-code of retry-other-host and retry-same-host are not to be included in the availability calculation because these error codes indicate NPAC SMS unavailability.

Req 37   Calculation of LSMS Availability Time

NPAC SMS shall calculate all LSMS availability times based on the "bind" time.

Req 38   LSMS Unavailability Time

NPAC SMS shall consider the LSMS unavailable between the "abort" time and the "bind" time.

Req 39   Calculation of Down Time for Service Providers with multiple LSMS SPID Associations

NPAC SMS shall treat multiple LSMS SPID associations to the NPAC SMS from the same Service Provider that update the same network LNP routing database as one association for purposes of down time calculations.

Req 40   Calculation of Total Minutes of Availability Time

NPAC SMS shall determine the Total Minutes of LSMS Availability Time by subtracting the Total Minutes of LSMS down time from the Total Minutes of Scheduled LSMS Availability for each LSMS Association.

Req 41   Calculation of "Raw" Percentage for Individual LSMS Availability

NPAC SMS shall calculate the "raw" percent availability for a given LSMS for the given month by dividing the Total Minutes of Availability Time by the Total Minutes of Availability for Porting and multiplying by 100.

Note: "Raw" percent availability means that the percent availability is based on NPAC SMS logging data with adjustment for predefined Service Provider Maintenance Windows only.

Example of the Monthly Analysis:

The following is an example of the monthly analysis for service provider "Sample Telco" in the month of September 2000 with the Service Provider Maintenance Windows occurring every Sunday morning from 6:00 am to 6:00 pm CDT on the 1st Sunday, and 6:00 am to 12:00 noon CDT, i.e., 6 hours a week, the remaining Sundays. "Sample Telco" has a LSMS association to the NPAC SMS.

Total minutes in September = (24 hours/day * 60 minutes/hour * 30 days) 43,200 minutes

Total minutes of Service Provider Maintenance Windows in September = 720+360+360+360 = 1,800 minutes

Total minutes Available for Porting in September = (43,200 minutes - 1,800 minutes) = 41,400 minutes

Downtime for Sample Telco LSMS outside the Service Provider Maintenance Windows in September = 41 minutes

Availability time for Sample Telco in September = (41,400 minutes - 41 minutes) = 41,359 minutes

The "Raw" percentage LSMS Availability for Sample Telco in September = (41,359 minutes/41,400 minutes) X 100 = 99.90%

Req 42   Calculation of Total Minutes of NPAC SMS Down Time for the Region

NPAC SMS shall calculate the total minutes of NPAC SMS down time, outside of Service Provider Maintenance Windows, for the region, for the month.

Req 42.5 Delta Time added to NPAC SMS Down Time for LSMS Association

NPAC SMS shall add 10 minutes to each NPAC SMS down time interval to allow the LSMSs time to rebind.

Note: This delta time is not being added to each Service Provider Maintenance window because it is expected that the LSMSs will be associated and ready to do business at the end of the Service Provider Maintenance Window.

Req 43 Calculation of Percent Availability Adjusted for NPAC SMS Unavailability

NPAC SMS shall calculate the percent availability for a given LSMS for the given month, adjusted for NPAC SMS unavailability, by subtracting the total minutes of NPAC SMS down time outside of Service Provider Maintenance Windows from the total minutes of Availability Time and dividing the result by the Total Minutes of Availability for Porting and multiplying by 100.

Example of the Monthly Analysis:

The following is an example of the monthly analysis for service provider "Sample Telco" in the month of September 2000 with the Service Provider Maintenance Windows occurring every Sunday morning from 6:00 am to 6:00 pm CDT on the 1st Sunday, and 6:00 am to 12:00 noon CDT, i.e., 6 hours a week, the remaining Sundays and adjustment for NPAC SMS unavailability. "Sample Telco" has a LSMS association to the NPAC SMS.

Total minutes in September = (24 hours/day * 60 minutes/hour * 30 days) 43,200 minutes

Total minutes of Service Provider Maintenance Windows in September = 720+360+360+360 = 1,800 minutes

NPAC SMS Down Time outside of Service Provider Maintenance Windows in September = 200 minutes

Total minutes Available for Porting adjusted for NPAC SMS Down Time outside of Service Provider Maintenance Windows = (43,200 minutes - 1,800 minutes - 200 minutes) = 41,200 minutes

Downtime for Sample Telco LSMS outside the Service Provider Maintenance Windows in September = 41 minutes

Availability time for Sample Telco in September = (41,200 minutes - 41 minutes = 41,159 minutes

The "adjusted" percentage LSMS Availability for Sample Telco in September = (41,159 minutes/41,200 minutes) X 100 = 99.90%

Regional LSMS Availability Report

Req 44   Regional LSMS Availability Report for Service Providers and LLCs

NPAC SMS shall produce a monthly Regional LSMS Availability Report for each NPAC region to be distributed to each Service Provider that has an LSMS association to the region and to the corresponding regional LLC.

Note: For the purpose of this report a Service Provider can also be a Service Bureau. Reports are not distributed to subtending customers of a Service Bureau because only the Service Bureau is being measured.

Req 45   Regional LSMS Availability Report Frequency

NPAC SMS shall automatically produce the Regional LSMS Availability Report on a tunable day of the month for the previous calendar month.

Req 46   Regional LSMS Availability Report Input Data

NPAC SMS shall use the following input data to create the Regional LSMS Availability Report:

- A key to convert each Service Provider to an alias
- Previous tunable number of months LSMS Percent Availability
- Appeal data from the individual Service Providers

Req 47   Entry Mechanism for Service Provider Appeal Data

NPAC SMS shall provide a mechanism for NPAC Personnel to enter the Appeal Data provided by the Service Provider.

Req 48   Modify Mechanism for Service Provider Appeal Data

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the Appeal Data provided by the Service Provider.

Req 49   Delete Mechanism for Service Provider Appeal Data

NPAC SMS shall provide a mechanism for NPAC Personnel to delete the Appeal Data provided by the Service Provider.

Req 50   Regional LSMS Availability Report Content

NPAC SMS shall be capable of generating the Regional LSMS Availability Report with the following data:

1. Tunable number of months data, with a one month lag, on all LSMSs that have an association to the region (i.e.: latest data displayed in the June 1st report would be for the month of April)

2. "Raw" LSMS percent availability for each month for each LSMS associated to the region

3. LSMS percent availability with adjustment for NPAC SMS unavailability for each month for each LSMS associated to the region

4. Appeals percentages as provided by the individual Service Providers or Service Bureaus for each month for each LSMS associated to the region

5. SPID alias in place of a SPID for each LSMS associated to the region

Note 1: A Service Provider alias is used for confidentiality. Each Service Provider will receive a key for his own alias and corresponding regional LLCs will receive the conversion keys for all Service Providers in their region.

Note 2: Data will be composite for the Service Providers that have multiple LSMS SPIDs associated to the NPAC SMS that update the same network LNP routing database.

Req 51   Regional LSMS Availability Report Delivery Format

NPAC SMS shall deliver the Regional LSMS Availability Report in a comma separated format, which can be imported into an Excel spreadsheet.

Example Report:

The following is a representation of what the Regional LSMS Availability Report would look like when imported into the Excel spreadsheet.

Regional LSMS Availability Report for February 1999 – July 2000

Midwest Region

SPID	February 1999 Raw % Avail	February 1999 Adj % Avail	February 1999 Appeal % Avail	March 1999 Raw % Avail	March 1999 Adj % Avail	March 1999 Appeal % Avail	... Raw % Avail	... Adj % Avail	... Appeal % Avail	July 2000 Raw % Avail	July 2000 Adj % Avail	July 2000 Appeal % Avail
abcd	99.90			98.59						100.00		
		99.95			99.00						100.00	
			100.00			99.50						100.00
defg	98.99			98.47						94.00		
		99.05			99.00						95.00	
			99.50			99.00						96.06
.												
.												
.												
wxyz	97.95			100.00						89.56		
		98.25			100.00						90.00	
			98.50			100.00						91.00

Req 52   Regional LSMS Availability Report Distribution

NPAC SMS shall email the Regional LSMS Availability Report to each Service Provider and Service Bureau that has an LSMS association to the NPAC region and to the corresponding regional LLCs.

Tunables

Req 53   LSMS Availability Report Tunable Parameter

NPAC SMS shall provide an LSMS Availability Report tunable parameter that defines the day of the month that the Individual and Regional LSMS Availability Reports will be produced.

Req 54   LSMS Availability Report Tunable Parameter Usage

NPAC SMS shall use the same tunable value for both the Individual LSMS Availability Report and the Regional LSMS Availability Report each month.

Req 55   LSMS Availability Report Tunable Parameter Default

NPAC SMS shall default the LSMS Availability Report tunable parameter to one, representing the first day of the month.

Req 56   LSMS Availability Report Tunable Parameter Valid Values

NPAC SMS shall use the values of 1 to 31 as valid values for the LSMS Availability Report tunable parameter.

Req 57   LSMS Availability Data Storage Tunable Parameter

NPAC SMS shall provide an LSMS Availability Data Storage tunable parameter that defines the number of months that the LSMS Availability Data (raw, adjusted, and appealed) will be kept.

Req 58   LSMS Availability Data Storage Tunable Parameter Default

NPAC SMS shall default the LSMS Availability Data Storage tunable parameter to eighteen, representing eighteen months.

Req 59   LSMS Availability Data Storage Tunable Parameter Valid Values

NPAC SMS shall use the values of 1 to 24 as valid values for the Individual LSMS Availability Data Storage tunable parameter.

IIS:

No change required.

GDMO:

No change required.

ASN.1:

No change required.

M&P:

Yes