

RR5-12.4 Conflict Resolution New Service Provider Restriction - Tunable Parameter Default

NPAC SMS shall default the Conflict Resolution New Service Provider Restriction tunable parameter to 6 business hours.

RR5-12.5 Conflict Resolution New Service Provider Restriction Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administration to modify the Conflict Resolution New Service Provider Restriction tunable parameter.

RR5-13.1

DELETE

RR5-13.2

DELETE

RR5-14 Conflict Resolution Acknowledgment - Update Conflict Resolution Date and Time Stamp

NPAC SMS shall update the conflict resolution date and time stamp with the current date and time and set the old Service Provider Authorization flag to true when conflict is resolved.

RR5-15.1

DELETE

RR5-15.2

DELETE

RR5-16.1

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RR5-16.2

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RR5-17.1

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RR5-17.2

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RR5-17.3

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RR5-17.4

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RR5-18.1

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RR5-18.2

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RR5-18.3

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RR5-19

DELETE

RR5-20

DELETE

5.1.2.2.4 Subscription Version Activation

This section provides the requirements for the Subscription Version Activation functionality, which is executed upon the NPAC personnel or SOA to NPAC SMS interface user requesting to activate a Subscription Version. Requirements related to activation are contained in requirement R5-23.

R5-51.1 Activate Subscription Version - Version Identification

NPAC SMS shall require the following data from the NPAC personnel or new service provider to identify the Subscription Version to be activated:

Ported Telephone Number

or

Subscription Version ID

R5-51.2 Activate Subscription Version - Broadcast Complete Date and Time Stamp

NPAC SMS shall record the current date and time as the Activation Broadcast Complete Date and Time Stamp, as soon as one Local SMS has successfully acknowledged activating the new Subscription Version.

RR5-21 Activate "porting to original" Subscription Version

NPAC SMS shall proceed with the "immediate" disconnect processing when a "porting to original" Subscription Version is activated.

RR5-22 Activate Subscription Version - Set Activation Received Timestamp

NPAC SMS shall set the Activation Received timestamp to the current date and time upon receiving a Subscription Version activation request.

R5-52 Activate Subscription Version - Invalid Status Notification

NPAC SMS shall send an error message to the originating user if the version status is not pending upon Subscription Version activation.

R5-53.1 Activate Subscription Version - Validation

NPAC SMS shall verify that a Subscription Version is in a valid pending state by checking that a new Service Provider time stamp exists and that the effective date of the NPA-NXX has been reached.

R5-53.2 Activate Subscription Version Validation Error Message

NPAC SMS shall send an error message to the originating user if the Subscription validation fails.

R5-53.3 Activate Subscription Version - Validate Due Date

NPAC SMS shall verify that a pending Subscription Version is eligible for activation by ensuring that the new Service Provider due date is less than or equal to the current date.

R5-54.1

DELETE

R5-54.2

DELETE

R5-55 Activate Subscription Version - Local SMS Identification

NPAC SMS shall determine which Local SMSs to send the Subscription Version to by identifying all Local SMS that are accepting Subscription Version data downloads for the given NPA-NXX.

R5-56

(Duplicate - refer to R5-57.1)

R5-57.1 Activate Subscription Version - Send to Local SMSs

NPAC SMS shall send the activated Subscription Version for an activated Inter or Intra-Service Provider port via the NPAC SMS to Local SMS Interface to the Local SMSs.

R5-57.2 Activate Subscription Version - Set to Sending

NPAC SMS shall set the subscription status to sending upon sending the activated Subscription Version to the Local SMSs.

R5-57.3 Activate Subscription Version - Date and Time Stamp

NPAC SMS shall record the current date and time as the broadcast date and time stamp upon initiating sending the activated subscription to the Local SMSs.

R5-58.1 Local SMS Activation message logging

NPAC SMS shall log the activation responses resulting from the activation requests sent to the Local SMSs.

R5-58.2 Local SMS Activation Log Retention Period - Tunable Parameter

NPAC SMS shall provide a Local SMS Activation Log Retention Period tunable parameter which is defined as the number of calendar days Local SMS activation responses will remain in the log.

R5-58.3 Local SMS Activation Log Retention Period - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Local SMS Activation Log Retention Period tunable parameter.

R5-58.4 Local SMS Activation Log Retention Period - Tunable Parameter Default

NPAC SMS shall default the Local SMS Activation Log Retention Period tunable parameter to 90 calendar days.

R5-58.5 Local SMS Activation Message Log - Viewing

NPAC SMS shall allow NPAC personnel to view the Local SMS Activation Message log.

R5-59.1 Activate Subscription Version - Set Status of Current to Active

NPAC SMS shall, upon receiving successful activation acknowledgment from all involved Local SMSs, set the sending Subscription Version status to active.

R5-59.2 Activate Subscription Version - Set Status of Previous to Old

NPAC SMS shall upon receiving successful activation acknowledgment from any involved Local SMSs, set the previous active Subscription Version status to old.

R5-60.1 Subscription Activation Retry Attempts - Tunable Parameter

NPAC SMS shall provide a Subscription Activation Retry Attempts tunable parameter which defines the number of times a new Subscription Version will be sent to a Local SMS which has not acknowledged receipt of the activation request.

R5-60.2 Subscription Activation Retry Interval - Tunable Parameter

NPAC SMS shall provide a Subscription Activation Retry Interval tunable parameter, which defines the delay between sending new Subscription Versions to a Local SMS that has not acknowledged receipt of the activation request.

R5-60.3 Subscription Activation Retry Attempts - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Subscription Activation Retry Attempts tunable parameter.

R5-60.4 Subscription Activation Retry Interval - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Subscription Activation Retry Interval tunable parameter.

R5-60.5 Subscription Activation Retry Attempts - Tunable Parameter Default

NPAC SMS shall default the Subscription Activation Retry Attempts tunable parameter to 3 times.

R5-60.6 Subscription Activation Retry Interval - Tunable Parameter Default

NPAC SMS shall default the Subscription Activation Retry Interval tunable parameter to 2 minutes.

R5-60.7 Subscription Version Activation Failure Retry

NPAC SMS shall resend the activated Subscription Version a Subscription Activation Retry Attempts tunable parameter number of times to a Local SMS that has not acknowledged the receipt of the activation request once the Subscription Activation Retry Interval tunable parameter expires.

R5-60.8 Subscription Version Activation Failure - After Retries

NPAC SMS shall consider the Subscription Version activation for a given Local SMS failed once the applicable Activation Retry tunable parameter number of retries has been exhausted for that Local SMS.

R5-60.9 Subscription Version Activation Failure - Status Sending

NPAC SMS shall retain the status for the Subscription Version being activated as sending until the Subscription Version retry period expires for all Local SMSs, or until all Local SMSs have acknowledged the activation.

R5-60.10 Subscription Version Activation Failure - Local SMS Identification

NPAC SMS shall notify the NPAC SMS Administrator of all Local SMSs where new activation failed, once each Local SMS has successfully responded or failed to respond during the activation retry period.

R5-60.11 Subscription Version Activation Failure - Set Status to Partial Failure

NPAC SMS shall set the Subscription Version status to partial failure if the activation resulting from an subscription version activation request failed in one or more, but not all, of the Local SMSs.

R5-60.12 Subscription Version Partial Activation Failure - Set Status of Previous to Old

NPAC SMS shall set the status of a previous active version to old when a Subscription Version activation succeeds for at least one of the Local SMSs.

R5-61.1 Subscription Version Activation - Set Status to Failure

NPAC SMS shall set the status of the Subscription Version to failed if the Subscription Version fails activation resulting from an subscription version activation request in all the Local SMSs to which it was sent.

R5-61.2 Subscription Version Activation Subscription Version - Failure Notification

NPAC SMS shall notify the NPAC System Administrator when a Subscription Version fails activation at all of the Local SMSs.

R5-61.3 Subscription Version Activation - Resend to Failed Local SMSs

NPAC SMS shall provide NPAC SMS personnel with the functionality to re-send activate Subscription Version requests to all failed Local SMSs.

RR5-22.1 Subscription Version Activation - Failed Local SMS Notification - Both Service Providers

NPAC SMS shall send a list to the Old and New Service Providers of all Local SMSs that failed activation when a Subscription Version is set to failed or partial failure subsequent to Subscription Version activation for an Inter-Service Provider port.

RR5-22.2 Subscription Version Activation - Failed Local SMS Notification - Current Service Provider

NPAC SMS shall send a list to the current Service Provider of all Local SMSs that failed activation when a Subscription Version is set to failed or partial failure subsequent to Subscription Version activation for an Intra-Service Provider port.

5.1.2.2.5 Subscription Version Disconnect

This section provides the requirements for the Subscription Version Disconnect functionality, which is executed upon the NPAC personnel or SOA to NPAC SMS interface user requesting to have a Subscription Version disconnected.

R5-62 Disconnect Subscription Version - Version Identification

NPAC SMS shall receive the following data from the NPAC personnel or current Service Provider to identify an active Subscription Version to be disconnected:

Ported Telephone Numbers (or a specified range of numbers)

or

Subscription Version ID

RR5-23.1 Disconnect Subscription Version - Required Input Data

NPAC SMS shall require the following input data upon a Subscription Version disconnect:

- Customer Disconnect Date - Date upon which the customer's service is disconnected.

RR5-23.2 Disconnect Subscription Version - Optional Input Data

NPAC SMS shall accept the following optional input data upon a Subscription Version disconnect:

- Effective Release Date - Future date upon which the disconnect should be broadcast to all Local SMSs.

R5-23.3 Old Service Provider Final Concurrence Timer Expiration Notification

NPAC SMS shall upon expiration of the Final Concurrence Timer send a notification to the old service provider via the SOA to NPAC SMS interface to inform them of the timer expiration.

RN5-10 Disconnect Subscription Version - Invocation by Current Service Provider

NPAC SMS shall allow only NPAC personnel or the Current Service Provider to invoke the functionality to disconnect a Subscription Version.

R5-63 Disconnect Subscription Version - Invalid Status Notification

NPAC SMS shall send an appropriate error message to the originating user that the Subscription Version is not active in the network and cannot be disconnected or set to disconnect pending if there is no Subscription Version with a status of active.

R5-64.1 Disconnect Subscription Version - Cancel Other Version Notification

NPAC SMS shall notify the originating user that the active Subscription Version cannot be disconnected if a version of that subscription version with a status other than canceled or old exists.

R5-64.2

DELETE

R5-65.4 Disconnect Subscription Version - Broadcast Interface Message to Local SMSs

NPAC SMS shall broadcast the disconnect Subscription Version message to the Local SMSs that are accepting Subscription Version data downloads for the given NPA-NXX via the NPAC SMS to Local SMS Interface.

R5-65.5 Disconnect Subscription Version - Disconnect Broadcast Date and Time Stamp

NPAC SMS shall record the current date and time as the disconnect broadcast date and time stamp upon sending of disconnect messages to the Local SMSs.

R5-65.6 Disconnect Subscription Version - Set to Sending

NPAC SMS shall set a Subscription Version status to sending upon sending the disconnect messages to the Local SMSs.

R5-66.1

DELETE

R5-66.2 Disconnect Subscription Version Complete - Set Disconnect Broadcast Complete Date

NPAC SMS shall set the Disconnect Broadcast Complete timestamp to the current date in the previously active, now old, Subscription Version upon a successful disconnect from one Local SMS.

R5-66.3 Disconnect Subscription Version Complete - Set Disconnect to Old

NPAC SMS shall set the sending disconnect Subscription Version to old upon a successful disconnect in all Local SMSs.

R5-67.1 Disconnect Subscription Version - Set Status to Active

NPAC SMS shall set the status of the disconnect Subscription Version to active if the disconnect fails in all the Local SMSs to which it was sent.

R5-67.2 Disconnect Pending Subscription Version - Failure Notification

NPAC SMS shall notify the NPAC SMS System Administrator when a disconnect Subscription Version fails in all of the Local SMSs.

R5-67.3 Disconnect Subscription Version - Resend Disconnect Requests to All Local SMSs

NPAC SMS shall provide authorized NPAC SMS personnel with the functionality to resend all failed disconnect requests to the Local SMSs.

R5-68.1 Disconnect Subscription Version - Subscription Disconnect Retry Attempts - Tunable Parameter

NPAC SMS shall allow the NPAC SMS Administrator to modify the Subscription Disconnect Retry Attempts tunable parameter, which is defined as the number of times the NPAC SMS will resend a disconnect message to an unresponsive Local SMS.

R5-68.2 Disconnect Pending Subscription Version - Subscription Disconnect Retry Attempts - Tunable Parameter Default

NPAC SMS shall default the Subscription Disconnect Retry Attempts tunable parameter to 3 times.

R5-68.3 Disconnect Subscription Version - Subscription Disconnect Retry Interval - Tunable Parameter

NPAC SMS shall allow the NPAC SMS Administrator to modify the Subscription Disconnect Retry Interval tunable parameter, which is defined as the amount of time that shall elapse between disconnect retries.

R5-68.4 Disconnect Subscription Version - Subscription Disconnect Retry Interval - Tunable Parameter Default

NPAC SMS shall default the Subscription Disconnect Retry Interval tunable parameter to 2 minutes.

R5-68.5 Disconnect Subscription Version - Retry Processing

NPAC SMS shall resend a Subscription Version disconnect message a Subscription Disconnect Retry Attempts tunable parameter number of times to a Local SMS that has not acknowledged the receipt of a disconnect once the Subscription Disconnect Retry Interval tunable parameter expires.

R5-68.6 Disconnect Subscription Version - Sending Status during Retries

NPAC SMS shall retain the status for the Subscription Version being disconnected as sending until the Subscription Disconnect Retry Attempts tunable parameter period expires for all Local SMSs, or until all Local SMSs have acknowledged the disconnect.

R5-68.7 Disconnect Subscription Version - Retry Failed

NPAC SMS shall consider the disconnect Subscription Version request to have failed at a specific Local SMS after the Subscription Disconnect Retry Attempts tunable parameter count for the specific Local SMS has been exhausted.

R5-68.8 Disconnect Subscription Version - Failure Notification after Retries Complete

NPAC SMS shall send a list of the Local SMSs where the disconnect request failed to the NPAC SMS System Administrator after every local SMS has either succeeded or failed with the disconnect.

R5-68.9 Disconnect Subscription Version - Set to Old

NPAC SMS shall set the disconnect Subscription Version status to old if the disconnect request failed at one or more, but not all, of the Local SMSs.

R5-68.10 Disconnect Subscription Version - Resend Disconnect Requests to Failed Local SMSs

NPAC SMS shall provide authorized NPAC SMS personnel with the functionality to resend disconnect requests to all Local SMSs that failed to register the disconnect request.

5.1.2.2.6 Subscription Version Cancellation

This section provides the requirements for the Subscription Version Cancellation functionality, which is executed upon the NPAC personnel or SOA to NPAC SMS interface user requesting to cancel a Subscription Version.

RR5-26.1 Cancel Subscription Version - Inform Both Service Providers of Cancel Pending Status

NPAC SMS shall inform both old and new Service Providers when the status of a Subscription Version is set to cancel pending for an Inter-Service Provider port.

RR5-26.2

DELETE

R5-69 Cancel Subscription Version - Version Identification

NPAC SMS shall receive the following data from the NPAC personnel to identify a Subscription Version to be canceled:

Ported Telephone Number (or a specified range of numbers)

or

Subscription Version ID

R5-70 Cancel Subscription Version - Invalid Status Notification

NPAC SMS shall send an appropriate error message to the originating user if the status is not pending, conflict, or disconnect pending.

RR5-27 Cancel Subscription Version - Validate Service Provider

NPAC SMS shall send an appropriate error message to the originating user if the originating user is neither the New nor the Old Service Provider in the existing Subscription Version upon Subscription Version cancellation.

R5-71.1 Cancel Subscription Version - Set to Canceled.

(Superseded - refer to RR5-28)

R5-71.2 Cancel Subscription Version - Set Cancellation Date and Time Stamp

NPAC SMS shall set the Subscription Version cancellation date and time to current upon setting the Subscription Version status to canceled.

R5-71.3 Cancel Subscription Version- Set to Cancel Old Service Provider only

NPAC SMS shall set the subscription version status to cancel upon receiving a cancellation from the old Service Provider if the New Service Provider has not sent a subscription version create.

R5-71.4 Cancel Subscription Version- Set to Cancel New Service Provider only

NPAC SMS shall set the subscription version status to cancel upon receiving a cancellation from the New Service Provider if the Old Service Provider has not sent an subscription version create.

R5-71.5 Cancel Subscription version- Error on Cancellation

NPAC SMS shall return an error if a Service Provider sends a cancellation for a subscription version that has not been created by that Service Provider.

R5-71.6 Cancel Subscription Version- Set Pending subscription version to Cancel Pending Status Inter-Service Provider port

NPAC SMS shall set the subscription version status to Cancel Pending upon receiving a cancellation from either the Old or New Service Provider for a subscription version with a pending status (both Service Providers have done a create) for an Inter-Service Provider or Port to original port.

R5-71.7

DELETE

R5-71.8 Cancel Subscription Version- Set Conflict Subscription to Cancel New Service Provider only

NPAC SMS shall set the subscription version status to cancel upon receiving a cancellation from the new Service Provider on a subscription in conflict that was previously in cancel pending and for which only the old service provider has sent a cancellation acknowledgment.

R5-71.9 Cancel Subscription Version - Rejection of Old Service Provider Conflict Cancellation

NPAC SMS shall return an error to the Old Service Provider if they attempt to cancel a Subscription Version that is in conflict due to lack of New Service Provider cancellation concurrence on a subscription version that was previously in cancel pending state.

R5-71.10 Cancel Subscription Version- Set Disconnect Pending subscription version to Active

NPAC SMS shall set the subscription version status to Active upon receiving a cancellation for a subscription version with a status of disconnect pending.

RR5-71.11 Cancel Subscription Version- Set to Cancel Status - Intra-Service Provider port

NPAC SMS shall set the subscription version status to cancel upon receiving a cancellation from the current Service Provider for an Intra-Service Provider port.

RR5-28.1 Cancel Subscription Version - Set to Cancel After Service Provider Acknowledge

NPAC SMS shall set the Subscription Version status to cancel upon receiving cancellation pending acknowledgment from the Service Provider that did not initiate the cancellation for an Inter-Service Provider port.

RR5-28.2

DELETE

RR5-29.1 Cancel Subscription Version - Inform Both Service Providers of Cancel Status

NPAC SMS shall notify both old and new Service Providers after a Subscription Version's status is set to canceled for an Inter-Service Provider port.

RR5-29.2 Cancel Subscription Version - Inform Current Service Provider of Cancel Status

NPAC SMS shall notify the current Service Provider after a Subscription Version's status is set to canceled for an Intra-Service Provider port.

RR5-30 Cancel Subscription Version Acknowledgment - Update Old Service Provider Date and Time Stamp

NPAC SMS shall update the old Service Provider cancellation date and time stamp with the current date and time when the cancellation acknowledgment is received from the old Service Provider.

RR5-31 Cancel Subscription Version Acknowledgment - Update New Service Provider Date and Time Stamp

NPAC SMS shall update the new Service Provider cancellation date and time stamp with the current date and time when the cancellation acknowledgment is received from the new Service Provider.

RR5-32.1 Cancellation-Initial Concurrence Window - Tunable Parameter

NPAC SMS shall provide a Cancellation-Initial Concurrence Window tunable parameter, which is defined as the number of business hours after the version is set to Cancel Pending by which the non-originating Service Provider is expected to acknowledge the pending cancellation.

RR5-32.2 Cancellation-Initial Concurrence Window - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Cancellation-Initial Concurrence Window tunable parameter.

RR5-32.3 Cancellation-Initial Concurrence Window - Tunable Parameter Default

NPAC SMS shall default the Cancellation-Initial Concurrence Window tunable parameter to 9 business hours.

RR5-33.1 Cancellation-Final Concurrence Window - Tunable Parameter

NPAC SMS shall provide a Cancellation-Final Concurrence Window tunable parameter which is defined as the number of business hours after the second cancel pending notification is sent by which both Service Providers are expected to acknowledge the pending cancellation.

RR5-33.2 Cancellation-Final Concurrence Window Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Cancellation-Final Concurrence Window tunable parameter.

RR5-33.3 Cancellation-Final Concurrence Window - Tunable Parameter Default

NPAC SMS shall default the Cancellation-Final Concurrence Window tunable parameter to 9 business hours.

RR5-34 Cancellation-Initial Concurrence Window - Tunable Parameter Expiration

NPAC SMS shall send a notification to the Service Provider (new or old) who has not yet acknowledged the cancel pending status when the Cancellation-Initial Concurrence Window tunable parameter expires.

RR5-35.1 Cancellation-Final Concurrence Window - Tunable Parameter Expiration New Service Provider

NPAC SMS shall set the Subscription Version status to conflict when the NPAC SMS has not received the cancellation acknowledgment from the new Service Provider and the Cancellation-Final Concurrence Window tunable parameter has expired.

RR5-35.2 Cancellation-Final Concurrence Window - Tunable Parameter Expiration Old Service Provider

NPAC SMS shall set the Subscription Version status to cancel and set the cause code to "NPAC SMS automatic cancellation" when the NPAC SMS has not received the cancellation acknowledgment from the Old Service Provider and the Cancellation-Final Concurrence Window tunable parameter has expired.

RR5-36 Cancel Subscription Version - Inform Service Providers of Conflict Status

NPAC SMS shall notify the old and new Service Providers upon setting a Subscription Version to conflict.

5.1.2.2.7 Subscription Version Resend

This section provides the requirements for the Subscription Version resend functionality, which is executed upon the NPAC personnel requesting to resend a Subscription Version.

RR5-38.1 Resend Subscription Version - Identify Subscription Version

NPAC SMS shall receive the following data from NPAC personnel to identify a failed or partial failure version to be resent:

Ported Telephone Number

or

Subscription Version ID

RR5-38.2 Resend Subscription Version - Input Data

NPAC SMS shall require the following input data from NPAC personnel upon a Subscription Version resend:

- List of "failed" Local SMSs to resend to.

RR5-38.3 Resend Subscription Version - Error Message

NPAC SMS shall send an error message to the originating user upon Subscription Version resend if the version does not have a list of failed LSMSs associated with the subscription's last operation..

RR5-38.4 Resend Subscription Version - Activation Request

NPAC SMS shall resend a Subscription Version activation request, if either the Subscription Version previously failed activation or an active Subscription Version previously failed modification, to the designated list of failed Local SMSs via the NPAC SMS to Local SMS Interface upon a Subscription Version resend request.

RR5-38.5 Resend Subscription Version - Disconnect Request

NPAC SMS shall resend a Subscription Version disconnect request, if the Subscription Version failed disconnect, to the designated list of failed Local SMSs upon a Subscription Version resend request.

RR5-38.6 Resend Subscription Version - Failed or Partial Failure

NPAC SMS shall set a failed or partial failure Subscription Version to sending subsequent to resending to the Local SMSs.

RR5-38.7 Resend Subscription Version - Standard Activation Processing

NPAC SMS shall proceed with the standard activation processing subsequent to resending a Subscription Version activation request to the Local SMSs.

RR5-38.8 Resend Subscription Version - Standard Disconnect Processing

NPAC SMS shall proceed with the standard disconnect processing subsequent to resending a Subscription Version disconnect request to the Local SMSs.

5.1.3 Subscription Queries

This section provides the requirements for the Subscription Version Query functionality, which is executed upon the user requesting a query of a Subscription Version (R5-13).

5.1.3.1 User Functionality

R5-72 Query Subscription Version - Request

NPAC SMS shall allow NPAC personnel, SOA to NPAC SMS interface users, and NPAC SMS to Local SMS interface users to query data maintained by the NPAC SMS for a Subscription and all its Versions.

5.1.3.2 System Functionality

The following requirements specify the NPAC SMS query functionality defined above.

R5-73 Query Subscription Version - Version Identification

NPAC SMS shall receive the following data to identify a Subscription Version to be queried:

Ported Telephone Numbers and status (optional)

or

Subscription Version ID

R5-74.1 Query Subscription Version - Status Supplied

NPAC SMS shall only retrieve Subscription Versions with a specific status when the user supplies a specific Subscription Version status as part of the query criteria.

R5-74.2 Query Subscription Version - Return All Subscription Versions for Ported TN

NPAC SMS shall return all Subscription Versions associated with a ported TN that the requester is eligible to view if the originating user has not provided a Subscription Version status as part of the query criteria.

R5-74.3 Query Subscription Version - Output Data

NPAC SMS shall return the following output data for a Subscription Version query request initiated by NPAC personnel or a SOA to NPAC SMS interface user:

- Subscription Version ID
- Subscription Version Status
- Local Number Portability Type
- Ported Telephone Number
- Old facilities-based Service Provider Due Date
- New facilities-based Service Provider Due Date
- New facilities-based Service Provider ID
- Old facilities-based Service Provider ID

- Authorization from old facilities-based Service Provider
- Status Change Cause Code
- Location Routing Number (LRN)
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- Billing Service Provider ID
- End-User Location Value
- End User Location Type
- Customer Disconnect Date
- Effective Release Date
- Disconnect Broadcast Complete Time Stamp
- Conflict Time Stamp
- Activation Time Stamp
- Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
- New Service Provider Creation Time Stamp
- Old Service Provider Authorization Time Stamp
- Pre-cancellation Status
- Old Service Provider Cancellation Time Stamp
- New Service Provider Cancellation Time Stamp
- Old Time Stamp (Status Modified to Old Time Stamp)
- New Service Provider Conflict Resolution Time Stamp
- Create Time Stamp
- Modified Time Stamp
- Porting to Original
- List of all Local SMSs that failed activation, modification, or disconnect.

R5-74.4 Query Subscription Version - Output Data

NPAC SMS shall return the following output data for a Subscription Version query request initiated over the NPAC SMS to Local SMS interface:

- Subscription Version ID
- Ported Telephone Number
- Location Routing Number (LRN)
- New facilities-based Service Provider ID
- Activation Time Stamp
- Customer Disconnect Date
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- End-User Location Value

- End-User Location Type
- Billing Service Provider ID
- Local Number Portability Type

R5-75 Query Subscription Version -No Data Found

NPAC SMS shall send the originating user an appropriate message indicating that there was no data found if no Subscription Versions were found for a query.

RN5-4 Query Subscription Version - Retrieve Data, Modification Not Allowed

NPAC SMS shall allow NPAC personnel or SOA to NPAC SMS interface users to retrieve subscription data that they cannot modify.

RN5-5 Query Subscription Version - Retrieve Data Based on Single Ported TN Only

NPAC SMS shall allow authorized NPAC personnel, SOA to NPAC SMS interface users, or NPAC SMS to Local SMS interface users to submit query requests for Subscription Version data based on a single ported TN only.

RN5-6 Query Subscription Version - View for Any Ported TN

NPAC SMS shall allow old and new Service Providers or NPAC personnel to view a Subscription Version for any ported TN.

RR5-39 Query Subscription Version - View Old or Active Only

NPAC SMS shall allow NPAC Customers who are neither the old nor the new Service Provider to view only those Subscription Versions for a ported TN with a status of active, canceled, or old.

RR5-40 Query Subscription Version - Online Records Only

NPAC SMS shall only allow Subscription Version queries of online subscription Versions that have not been archived.

6. NPAC SMS Interfaces

Two CMIP-based, mechanized interfaces to the NPAC SMS were defined in the Illinois NPAC RSMS RFP. One interface supports the Service Provider's Service Order Administration (SOA) systems. This interface is referred to as the SOA to NPAC SMS interface. The second interface supports the Service Providers Local Service Management System (LSMS). This interface is referred to as the NPAC SMS to LSMS interface. Both of the interfaces support two-way communications.

6.1 SOA to NPAC SMS Interface

R6-1

DELETE

R6-2.1

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R6-2.2

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R6-3

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R6-4.1

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R6-4.2

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R6-4.3

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R6-5.1

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R6-5.2

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R6-6.1

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R6-6.2

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R6-7.1

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R6-7.2

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R6-8.1

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R6-8.2

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R6-9.1

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R6-9.2

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R6-9.3

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R6-10.1

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R6-10.2

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R6-10.3

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R6-11

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R6-12

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6.2 NPAC SMS to Local SMS Interface

R6-13

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R6-14.1

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R6-14.2

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R6-15.1

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R6-15.2

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R6-15.3

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R6-16.1

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R6-16.2

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R6-17.1
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R6-17.2
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R6-17.3
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R6-18.1
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R6-18.2
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R6-18.3
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R6-19
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R6-20.1
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R6-20.2
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6-20.3
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R6-21
DELETE

6.3 Interface Transactions

The CMIP protocol provides for six types of transactions over the interface (Reference: ISO 9595 and 9596). They are:

- Create
- Delete
- Set
- Get
- M-Action
- Event Report

R6-22 Manager-agent relationship of interface transactions

NPAC SMS Interoperable Interface shall be designed in terms of CMIP transactions in a manager-agent relationship.

6.4 Interface and Protocol Requirements

While it is expected that dedicated links will be used for the interfaces, switched connections should also be supported. Reliability and availability of the links will be essential and high capacity performance will be needed.

R6-23 Open interfaces

The SOA to NPAC SMS Interface and the NPAC SMS to Local SMS Interface shall be open, non-proprietary interfaces and will not become the property of any entity.

6.4.1 Protocol Requirements

R6-24 Interface protocol stack

Both of the NPAC SMS interfaces, as defined above, shall be implemented via the following protocol stack:

INTERFACE PROTOCOL STACK	
Application	CMISE, ACSE, ROSE
Presentation	ANSI T1.224
Session:	ANSI T1.224
Transport:	TCP, RFC1006
Network:	IP

INTERFACE PROTOCOL STACK	
Link	PPP, MAC, Frame Relay, ATM (IEEE 802.3)
Physical	DS1, DS-0 x n, V.34

Table 0-1 Interface Protocol Stack

R6-25 Multiple application associations

NPAC SMS shall support multiple application associations per Service Provider.

6.4.2 Interface Performance Requirements**R6-26 Interface availability**

Both the SOA to NPAC SMS and the NPAC SMS to Local SMS interfaces shall be available on a 24 by 7 basis, consistent with other availability requirements in this specification.

R6-27 Interface reliability

A 99.9 % reliability rate shall be maintained for both the SOA to NPAC SMS and NPAC SMS to Local SMS interfaces.

AR6-1 Range Activations

A range activate will contain an average of 20 TNs.

AR6-2 Percent of Range Activations

20% of all downloads as specified in R6-28.1, R6-28.2, R6-29.1 and R6-29.2 will be processed via range activations.

R6-28.1 SOA to NPAC SMS interface transaction rates - sustained

A transaction rate of 2 CMIP transactions (sustained) per second shall be supported by each SOA to NPAC SMS interface association.

R6-28.2 SOA to NPAC SMS interface transaction rates - peak

NPAC SMS shall support a rate of 5.2 CMIP operations per second (peak) over a single SOA to NPAC SMS interface association.

R6-29.1 NPAC SMS to Local SMS interface transaction rates

A transaction rate of 25 TN downloads per second shall be supported by each NPAC SMS to Local SMS interface.

R6-29.2 NPAC SMS to Local SMS interface transaction rates - sustainable

NPAC SMS shall, given a transaction rate of 25 TN downloads per second and the assumptions concerning range activations expressed above, support a rate of 5.2 CMIP operations per second (sustainable for 5 minutes) over each NPAC SMS to Local SMS interface association.

6.4.3 Interface Performance Requirements

R6-30.1 Interface specification

The interoperable interface model defining both the NPAC to Local SMS and the SOA to NPAC SMS shall be specified in terms of ISO 10165-4, "Guideline for the Definition of Managed Objects (GDMO)".

R6-30.2 Interface specification identification

The interface specification shall be referred to as the "NPAC SMS Interoperable Interface Specification" (NPAC SMS IIS).

R6-30.3

DELETE

R6-31

DELETE

R6-32

DELETE

R6-33

DELETE

R6-34

DELETE

R6-35 NPAC SMS Interoperable Interface Specification extensibility

The interface specified shall be capable of extension to account for evolution of the interface requirements.

RR6-1 Acknowledgment of a Cancel Pending for a Subscription Version

NPAC SMS shall acknowledge receiving a cancel pending request for a Subscription Version via the SOA to NPAC SMS Interface.