

Wireless Change Order Requirements – 05/22~~18~~/98

The following wireless change orders are documented in detail below:

NANC 201 - Unique Sets of Timers

NANC 202 - Unique Sets of Business Days/Hours

NANC 203 - Wireless Addition of WSMSC DPC and SSN Information

NANC 204 - Inter Service Provider Communication Process

Downtime Required	Yes	No
Recommendation Explanation		

Installation	Staged	Flash Cut
Recommendation Explanation		

Business Justification

The T&O LNPA Wire line Wireless Integration Task Force will provide the business justification for the wireless change orders.

Merged Change Order Tracking

Note: This table contains change orders that have been clarifications to previously documented wireless change orders and have been merged in this document as indicated. Merged change orders will not be referenced separately as wireless requirements.

Requirement Retained	Requirement Merged and Removed

Change Order Number: NANC 201

IMPACT/CHANGE ASSESSMENT

FRS	IIS	ASN.1	GDMO	1	SOA	LSMS
Y	Y		Y	Y	Y	

Unique Sets of Timers

Wireless to wireless porting needs tunable values/timers defined that are independent from wire line tunable values/timers by region. It was discussed that to support the wireless need in a generic manner that a unique set of tunable timers be defined.

Two approaches were discussed:

The NANC T&O Group selected SOLUTION 2.

Solution 1 - Maximum Flexibility for Unique Timer Set Support

In this option the service provider would specify the timers to be used on each subscription version port request.

Cons:

Nothing to prevent a Service Provider from using shortened timers inappropriately. If short timers are used inappropriately the port could occur before the other Service Provider has an opportunity to stop it. This could result in customer service issues for call completion/service.

A proposed solution is to force Service Provider concurrence.

Pro:

Maximum Flexibility for selecting timers to be used on a subscription version port.

Solution 2 – Service Provider ID Associated with Timer Type

A service provider profile would specify the set of timers the NPAC SMS would use for subscription version porting (in and out) for this service provider.

Con:

This approach limits service provider flexibility. One Service Provider can only use one set of timers for porting in and porting out.

Pro:

This approach prevents use of inappropriate timers without changes to the business process flows or the NPAC SMS interface.

Timers to be in the unique timer set would include:

Tunable Timer	Long Timer Default	Short Timer Default	Value Range
Create Subscription Version Initial Concurrence Window (T1 Timer)	9 business hours	1 business hour	1-72 business hours
Create Subscription Version Final Concurrence Window (T2 Timer)	9 business hours	1 business hour	1-72 business hours
Conflict Restriction Window	12:00 noon on the business day of the due date	N/A	00:00 – 24:00
Conflict Resolution New Service Provider Restriction	6 business hours	6 business hours	1-72 business hours
Cancellation Initial Concurrence Window	9 business hours	9 business hours	1-72 business hours
Cancellation Final Concurrence Window	9 business hours	9 business hours	1-72 business hours

NOTE: Support of two additional timer types, medium 1 and medium 2 was discussed to potentially support wire line to wireless and wireless to wire line porting. The requirements developed do not include these two timer types due to the fact that the values or these timer sets are not yet defined. The requirements developed do not preclude inclusion of the additional timer types.

Service providers can specify in their profile as defined below the timers to be used for porting in when they are the new service provider or porting out were they are the old service provider. Due to this fact the NPAC will have to use the longer timer of the timers supported by the service provider. (Another option discussed was to reject the message if the timers supported did not match.) This selection of the longer timers by the NPAC SMS may result in longer timers being used when a service provider expects short timers to be used.

The following table illustrates the outcome of timers to be used based on the combinations possible.

OLD Service Provider			
New Service Provider	Timer Type	Port Out- Short	Port Out- Long
	Port In – Short	<p>When both the old and new service providers support short timers for a subscription version port short timers will be used.</p> <p>No action is necessary by either the old or new service provider operations personnel.</p>	<p>When the new service provider supports short timers and the old service providers supports long timers for a subscription version port long timers will be used.</p> <p>The new service provider who supports the short timers will have to recognize that the long timers are being used instead of the expected short timers.</p>
	Port In – Long	<p>When the new service provider supports long timers and the old service providers supports short timers for a subscription version port long timers will be used.</p> <p>The old service provider who supports the short timers will have to recognize that the long timers are being used</p>	<p>When both the old and new service providers support long timers for a subscription version port long timers will be used.</p> <p>No action is necessary by either the old or new service provider operations personnel.</p>

		instead of the expected short timers.	
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[NOTE: Change order NANC 214 should be implemented prior or with this change order. NANC 214 is related to the conflict processing with subscription versions with due dates the same day as the day they are entered into the NPAC SMS.](#)

FRS Modifications

1. The following requirements would need to be updated to add the timer type:

- R4-29 Service Provider subscription query options

R4-29 Service Provider subscription query options

NPAC SMS shall receive the attributes to be searched on for queries regarding Subscription Versions associated with the Service Provider. Allowable attributes are the following data elements from Error: Reference source not found:

- ?1 Subscription Version ID
- ?2 Subscription Version Status
- ?3 Local Number Portability Type
- ?4 Ported Telephone Number
- ?5 Old facilities-based Service Provider Due Date
- ?6 New facilities-based Service Provider Due Date
- ?7 New facilities-based Service Provider ID
- ?8 Authorization from old facilities-based Service Provider
- ?9 Local Routing Number (LRN)
- ?10 Class DPC
- ?11 Class SSN
- ?12 LIDB DPC
- ?13 LIDB SSN
- ?14 CNAM DPC
- ?15 CNAM SSN
- ?16 ISVM DPC
- ?17 ISVM SSN
- ?18 Billing Service Provider ID
- ?19 End User Location Value
- ?20 End User Location Type
- ?21 Customer Disconnect Date
- ?22 Effective Release Date
- ?23 Disconnect Broadcast Complete Time Stamp
- ?24 Conflict Time Stamp
- ?25 Activation Time Stamp
- ?26 Cancellation Time Stamp (Status Modified to Cancel Time Stamp)
- ?27 New Service Provider Creation Time Stamp
- ?28 Old Service Provider Authorization Time Stamp
- ?29 Pre-cancellation Status
- ?30 Old Service Provider Cancellation Time Stamp
- ?31 New Service Provider Cancellation Time Stamp
- ?32 Old Time Stamp (Status Modified to Old Time Stamp)
- ?33 New Service Provider Conflict Resolution Time Stamp
- ?34 Create Time Stamp
- ?35 Modify Time Stamp

?36 Porting To Original
?37 Status Change Cause Code
?38 Timer Type

- **R5-74.3 Query Subscription Version - Output Data**

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:

?39 Subscription Version ID
?40 Subscription Version Status
?41 Local Number Portability Type
?42 Ported Telephone Number
?43 Old facilities-based Service Provider Due Date
?44 New facilities-based Service Provider Due Date
?45 New facilities-based Service Provider ID
?46 Old facilities-based Service Provider ID
?47 Authorization from old facilities-based Service Provider
?48 Status Change Cause Code
?49 Location Routing Number (LRN)
?50 Class DPC
?51 Class SSN
?52 LIDB DPC
?53 LIDB SSN
?54 CNAM DPC
?55 CNAM SSN
?56 ISVM DPC
?57 ISVM SSN
?58 Billing Service Provider ID
?59 End-User Location Value
?60 End User Location Type
?61 Customer Disconnect Date
?62 Effective Release Date
?63 Disconnect Broadcast Complete Time Stamp
?64 Conflict Time Stamp
?65 Activation Time Stamp
?66 Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
?67 New Service Provider Creation Time Stamp
?68 Old Service Provider Authorization Time Stamp
?69 Pre-cancellation Status
?70 Old Service Provider Cancellation Time Stamp
?71 New Service Provider Cancellation Time Stamp
?72 Old Time Stamp (Status Modified to Old Time Stamp)
?73 New Service Provider Conflict Resolution Time Stamp
?74 Create Time Stamp
?75 Modified Time Stamp
?76 Porting to Original
?77 List of all Local SMSs that failed activation, modification, or disconnect.

?78 Timer Type (for SOAs that support Timer Type)

?79

1. The following additional requirement would have to be added to support the timer type validation at subscription version creation:

~~**R5-19.3 Create Subscription Version – Timer Type Validation**~~

~~NPAC SMS shall validate that the old and new Service Provider in the create message support the same timer type.~~

~~Note: This requirement causes the create request to be rejected if the timer types supported do not match.~~

The following requirements support selection of the longer timers:

R5-19.3 Create Subscription Version – Timer Type Selection

NPAC SMS shall if the old and new service provider timer types match set the subscription version timer type to that timer type.

R5-19.4 Create Subscription Version – Timer Type Selection - Mismatch

NPAC SMS shall if the old and new service provider timer types do not match set the subscription version timer type to the longer timer type of the port out type for the old service provider and the port in type of the new service provider.

2. Appendix C would need to be updated to show each type of tunables (the defaults and ranges). The existing tunables would be modified to indicate they are the long timers and new rows would be added for the short tunables. Values would be as specified in the table above.
3. Requirements would need to be developed for the new tunables.

R5-21.1 Initial Concurrence Window - Tunable Parameter

NPAC SMS shall provide a *long and short* Initial Concurrence Window tunable parameters which is defined as the number of business hours subsequent to the time the Subscription Version was initially created by which both Service Providers can authorize transfer of service if this is an Inter-Service Provider port.

R5-21.2 Initial Concurrence Window - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the *long and short* Initial Concurrence Window date tunable parameters.

R5-21.3 Long Initial Concurrence Window - Tunable Parameter Default

NPAC SMS shall default the *long* Initial Concurrence Window date tunable parameter to 9 business hours.

R5-21.4 Short Initial Concurrence Window - Tunable Parameter Default

NPAC SMS shall default the short Initial Concurrence Window date tunable parameter to 1 business hours.

R5-23.1 Final Concurrence Window - Tunable Parameter

NPAC SMS shall provide a *long and short* Final Concurrence Window tunable parameters which is defined as the number of business hours after the concurrence request is sent by the NPAC SMS by which time both Service Providers can authorize transfer of subscription service for an Inter-Service Provider port.

R5-23.2 Final Concurrence Window Tunable - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the *short and long* Final Concurrence Window tunable parameters.

R5-23.3 Long Final Concurrence Window Tunable - Tunable Parameter Default

NPAC SMS shall default the *long* Final Concurrence Window tunable parameter to 9 business hours.

R5-23.4 Short Final Concurrence Window Tunable - Tunable Parameter Default

NPAC SMS shall default the short Final Concurrence Window tunable parameter to 1 business hours.

RR5-42.5 Conflict Subscription Version – Short Timer Usage

NPAC SMS shall not apply the Conflict Restriction Window Tunable to subscription versions being ported using short timers.

RR5-32.1 Cancellation-Initial Concurrence Window - Tunable Parameter

NPAC SMS shall provide a *short and long* Cancellation-Initial Concurrence Window tunable parameters, 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 *short and long* Cancellation-Initial Concurrence Window tunable parameters.

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

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

RR5-32.4 Short Cancellation-Initial Concurrence Window - Tunable Parameter Default

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

RR5-33.1 Cancellation-Final Concurrence Window - Tunable Parameter

NPAC SMS shall provide a *short and long* Cancellation-Final Concurrence Window tunable parameters 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 *short and long* Cancellation-Final Concurrence Window tunable parameters.

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

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

RR5-33.4 Short Cancellation-Final Concurrence Window - Tunable Parameter Default

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

RR5-12.3 Conflict Resolution New Service Provider Restriction Tunable Parameter

NPAC SMS shall provide a *long and short* Conflict Resolution New Service Provider Restriction tunable parameters which is defined as a number of business hours after the subscription version is put into conflict that the NPAC SMS will prevent it from being removed from conflict by the New Service Provider.

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

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

RR5-12.5 Short Conflict Resolution New Service Provider Restriction - Tunable Parameter Default

NPAC SMS shall default the short 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 *long and short* Conflict Resolution New Service Provider Restriction tunable parameters.

4. The service provider profile would be updated as follows:

Table 3-2 would be modified to add:

NPAC New Functionality Support	M	√	Each bit in the mask represents a Boolean indicator is set to true if a service provider does NOT support the functionality defined below. This bit mask is used to support backward compatibility. • Timer Type – True if the SOA support of timer type over the interface.
• Port In Timer Type	E	X	Timer type supported by the Service Provider for porting were they are the New Service Provider: S – Short Timers L – Long Timers
Port Out Timer Type	E	X	Timer type supported by the Service Provider for porting were they are the Old Service Provider: S – Short Timers L – Long Timers

GDMO/ASN.1 Modifications

1. A GET only Timer Type attribute would need to be added to the subscriptionVersion managed object class. A note would be added that it is only returned on SOA queries to service providers that support that information. The behavior would also be updated to note that the attribute would only be emitted on object creation notifications to service providers that support it.
2. The attribute will be added to the T1 and T2 notifications for the SOA's that support the Timer Type attribute.

```
-- 8.0 LNP Log Record for the Subscription Version Old SP Concurrence
Request
--      Notification
```

```
lnpLogOldSP-ConcurrenceRequestRecord MANAGED OBJECT CLASS
  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :
1992":eventLogRecord;
CHARACTERIZED BY
  lnpLogOldSP-ConcurrenceRequestPkg;
CONDITIONAL PACKAGES
subscriptionTimerTypePkg PRESENT IF
  !present if the Old SP SOA supports timer type!;
REGISTERED AS {LNP-OIDS.lnp-objectClass 8};
```

```
lnpLogOldSP-ConcurrenceRequestPkg PACKAGE
BEHAVIOUR
  lnpLogOldSP-ConcurrenceRequestDefinition,
  lnpLogOldSP-ConcurrenceRequestBehavior;
ATTRIBUTES
  subscriptionTN GET,
  subscriptionVersionId GET,
  subscriptionNewCurrentSP GET,
  subscriptionNewSP-DueDate GET,
  subscriptionNewSP-CreationTimeStamp GET,
  accessControl GET
  subscriptionTimerType GET;
;
```

```
lnpLogOldSP-ConcurrenceRequestDefinition BEHAVIOUR
DEFINED AS !
  The lnpLogOldSP-ConcurrenceRequestRecord class is the managed
  object that is used to create log records for the
  subscriptionVersionOldSP-ConcurrenceRequest Notification.
!;
```

```
lnpLogOldSP-ConcurrenceRequestBehavior BEHAVIOUR
DEFINED AS !
  This log record can be used by any CME wanting to log the
  subscriptionVersionOldSP-ConcurrenceRequest Notification.
!;
```

```
-- 26.0 LNP Log Record for the Subscription Version Final Concurrence
-- Timer Expiration
```

```
lnpLogOldSPFinalConcurrenceWindowExpirationRecord MANAGED OBJECT CLASS
  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :
1992":eventLogRecord;
CHARACTERIZED BY
  lnpLogOldSPFinalConcurrenceWindowExpirationPkg;
CONDITIONAL PACKAGES
subscriptionTimerTypePkg PRESENT IF
  !present if the Old SP SOA supports timer type!;
REGISTERED AS {LNP-OIDS.lnp-objectClass 26};
```

```
lnpLogOldSPFinalConcurrenceWindowExpirationPkg PACKAGE
BEHAVIOUR
  lnpLogOldSPFinalConcurrenceWindowExpirationDefinition,
  lnpLogOldSPFinalConcurrenceWindowExpirationBehavior;
ATTRIBUTES
  subscriptionTN GET,
  subscriptionVersionId GET,
```

```

        accessControl GET,
        subscriptionTimerType GET;
    ;

lnpLogOldSPFinalConcurrenceWindowExpirationDefinition BEHAVIOUR
    DEFINED AS !
        The lnpLogOldSPFinalConcurrenceWindowExpirationRecord class is
        the managed object that is used to create log records for the
        subscriptionVersionOldSPFinalConcurrenceWindowExpiration
        Notification.
    !;

lnpLogOldSPFinalConcurrenceWindowExpirationBehavior BEHAVIOUR
    DEFINED AS !
        This log record can be used by any CME wanting to log the
        subscriptionVersionOldSPFinalConcurrenceWindowExpiration
        Notification.
    !;

-- ??.0 LNP Subscription Timer Type Package

subscriptionTimerTypePkg PACKAGE
    BEHAVIOUR subscriptionTimerTypePkgBehavior;
    ATTRIBUTES
        subscriptionTimerType GET;
    REGISTERED AS {LNP-OIDS.lnp-package ??};

subscriptionCustomerInformationPkgBehavior BEHAVIOUR
    DEFINED AS !
        This package provides for conditionally including the
        subscriptionTimerType attribute.
    !;

-- 10.0 LNP Subscription Version Old SP Concurrence Request Notification

subscriptionVersionOldSP-ConcurrenceRequest NOTIFICATION
    BEHAVIOUR subscriptionVersionOldSP-ConcurrenceRequestBehavior;
    WITH INFORMATION SYNTAX LNP-ASN1.VersionOldSP-ConcurrenceRequest
    AND ATTRIBUTE IDS
        tn subscriptionTN,
        version-id subscriptionVersionId,
        service-prov-id subscriptionNewCurrentSP,
        service-prov-due-date subscriptionNewSP-DueDate,
        service-prov-authorization-creation-time-stamp
            subscriptionNewSP-CreationTimeStamp,
        access-control accessControl,
        subscription-timer-type subscriptionTimerType;
    REGISTERED AS {LNP-OIDS.lnp-notification 10};

subscriptionVersionOldSP-ConcurrenceRequestBehavior BEHAVIOUR
    DEFINED AS !
        This notification requests that a old service provider send
        a create request for a subscription version for which
        concurrence for porting the number has not been received.
        The TN, the version id, and the new service provider id,
        authorization flag and creation timestamp values are sent. If
        the old service provider supports timer type, it will be sent.
    !;

-- 12.0 LNP Subscription Version Final Concurrence Timer Expiration

```

```

--      Notification

subscriptionVersionOldSPFinalConcurrenceWindowExpiration NOTIFICATION
  BEHAVIOUR
subscriptionVersionOldSPFinalConcurrenceWindowExpirationBehavior;
  WITH INFORMATION SYNTAX
    LNP-ASN1.VersionOldSPFinalConcurrenceWindowExpiration
  AND ATTRIBUTE IDS
    tn subscriptionTN,
    version-id subscriptionVersionId,
    access-control accessControl,
    subscription-timer-type subscriptionTimerType;
  REGISTERED AS {LNP-OIDS.lnp-notification 12};

subscriptionVersionOldSPFinalConcurrenceWindowExpirationBehavior
  BEHAVIOUR
  DEFINED AS !
    This notification will be sent by the NPAC SMS upon expiration of
    the Final Concurrence Timer to the old service provider via the
SOA
    to NPAC SMS interface to inform them of the timer expiration. If
    the old service provider supports timer type, it will be sent.
  !;

VersionCreateConcurrenceRequest ::= SEQUENCE {
  tn PhoneNumber,
  version-id LnpKey,
  service-prov-id ServiceProvId,
  service-prov-due-date GeneralizedTime,
  service-prov-authorization-creation-time-stamp GeneralizedTime,
  access-control LnpAccessControl,
  subscription-timer-type Integer OPTIONAL
}

VersionOldSPFinalConcurrenceWindowExpiration ::= SEQUENCE {
  tn PhoneNumber,
  version-id LnpKey,
  access-control LnpAccessControl,
  subscription-timer-type Integer OPTIONAL
}

```

3. The following attribute needs to be added to the GDMO:

Subscription Version Timer Type

```

subscriptionTimerType ATTRIBUTE
  WITH ATTRIBUTE SYNTAX LNP-ASN1.Integer;
  MATCHES FOR EQUALITY, ORDERING;
  BEHAVIOUR subscriptionTimerTypeBehavior;
  REGISTERED AS {LNP-OIDS.lnp-attribute ??};

subscriptionTimerTypeBehavior BEHAVIOUR
  DEFINED AS !
    This attribute is used to specify the subscription version
    timer type being used to set tunable timers.

```

Current valid values are:
 0 for long timers (used primarily for wireline to wireline)
 1 for short timers (anticipated use for wireless to wireless)

Long timers (0) is set if any of the two service providers supports only long timers.

!;

The NPAC will have to put M&P or functionality in the install processes to set the port in and out timers supported for service providers defined in the NPAC SMS database.

Change Order Number: NANC 202

IMPACT/CHANGE ASSESSMENT

FRS	IIS	ASN.1	GDMO	2	SOA	LSMS
Y	Y		Y	Y	Y	

Unique Sets of Business Days/Hours

Business hours/days for timers is need to support for wireless to wireless porting. Saturday must be added and time must also be increased. Default business hours will be 8:00 to 8:00 CT. The tunable would be configurable by region. NPAC defined Holiday are OK as defined for wireless to wireless.

Tunable	Short Timer Business Hours/Days Default	Long Business Hours/Days Timer Default	Value Range
Business Day Duration	12 calendar hours	12 calendar hours	1 – 24
Business Day Start Time	Determined per Region	8:00- CT <u>Determined per Region</u>	00:00 – 24:00
Holidays	As specified today	As specified today	As specified today
Business Days	M-F	M-Saturday	M-Sunday

Two approaches were discussed:

The NANC T&O Group selected SOLUTION 2.

Solution 1 - Maximum Flexibility for Unique Business Days/Hours Support

In this option the service provider would specify the business days/hours to be used on each subscription version port request.

Cons:

Nothing to prevent a Service Provider from using longer business days/hours inappropriately. If long timers are used inappropriately the port could occur before the other Service Provider has an opportunity to stop it. This could result in customer service issues for call completion/service.

A proposed solution is to force Service Provider concurrence.

Pro:

Maximum Flexibility for selecting business days/hours to be used on a subscription version port.

Solution 2 – Service Provider ID Associated with Business Days/Hours Type

A service provider profile would specify the business days/hours the NPAC SMS would use for subscription version porting for this service provider.

Con:

This approach limits service provider flexibility. One Service Provider can only use one set of business days/hours.

Pro:

This approach prevents use of inappropriate business days/hours without changes to the business process flows or the NPAC SMS interface.

FRS Modifications

1. The following requirements would need to be updated to add the business hours/days type:

- R4-29 Service Provider subscription query options

R4-29 Service Provider subscription query options

NPAC SMS shall receive the attributes to be searched on for queries regarding Subscription Versions associated with the Service Provider. Allowable attributes are the following data elements from Error: Reference source not found:

- ?80 Subscription Version ID
- ?81 Subscription Version Status
- ?82 Local Number Portability Type
- ?83 Ported Telephone Number
- ?84 Old facilities-based Service Provider Due Date
- ?85 New facilities-based Service Provider Due Date
- ?86 New facilities-based Service Provider ID
- ?87 Authorization from old facilities-based Service Provider
- ?88 Local Routing Number (LRN)
- ?89 Class DPC
- ?90 Class SSN
- ?91 LIDB DPC

?92 LIDB SSN
?93 CNAM DPC
?94 CNAM SSN
?95 ISVM DPC
?96 ISVM SSN
?97 Billing Service Provider ID
?98 End User Location Value
?99 End User Location Type
?100Customer Disconnect Date
?101Effective Release Date
?102Disconnect Broadcast Complete Time Stamp
?103Conflict Time Stamp
?104Activation Time Stamp
?105Cancellation Time Stamp (Status Modified to Cancel Time Stamp)
?106New Service Provider Creation Time Stamp
?107Old Service Provider Authorization Time Stamp
?108Pre-cancellation Status
?109Old Service Provider Cancellation Time Stamp
?110New Service Provider Cancellation Time Stamp
?111Old Time Stamp (Status Modified to Old Time Stamp)
?112New Service Provider Conflict Resolution Time Stamp
?113Create Time Stamp
?114Modify Time Stamp
?115Porting To Original
?116Status Change Cause Code
?117Business Hour Type

- R5-74.3 Query Subscription Version - Output Data

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:

?118Subscription Version ID
?119Subscription Version Status
?120Local Number Portability Type
?121Ported Telephone Number
?122Old facilities-based Service Provider Due Date
?123New facilities-based Service Provider Due Date
?124New facilities-based Service Provider ID
?125Old facilities-based Service Provider ID
?126Authorization from old facilities-based Service Provider
?127Status Change Cause Code
?128Location Routing Number (LRN)
?129Class DPC
?130Class SSN
?131LIDB DPC
?132LIDB SSN
?133CNAM DPC
?134CNAM SSN
?135ISVM DPC
?136ISVM SSN
?137Billing Service Provider ID

?138End-User Location Value
?139End User Location Type
?140Customer Disconnect Date
?141Effective Release Date
?142Disconnect Broadcast Complete Time Stamp
?143Conflict Time Stamp
?144Activation Time Stamp
?145Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
?146New Service Provider Creation Time Stamp
?147Old Service Provider Authorization Time Stamp
?148Pre-cancellation Status
?149Old Service Provider Cancellation Time Stamp
?150New Service Provider Cancellation Time Stamp
?151Old Time Stamp (Status Modified to Old Time Stamp)
?152New Service Provider Conflict Resolution Time Stamp
?153Create Time Stamp
?154Modified Time Stamp
?155Porting to Original
?156List of all Local SMSs that failed activation, modification, or disconnect.

?157Business Hour Type (for SOAs that support Business Hours)

2. The following additional requirement would have to be added to support the business hours/days type validation at subscription version create.

~~**R5-19.3 — Create Subscription Version — Business Hours and Days Validation**~~

~~NPAC SMS shall validate that the old and new Service Provider in the create message support the same type of business hours and days.~~

~~Note: This requirement causes the create request to be rejected if the timer types supported do not match.~~

The following requirements support selection of the shorter business hours/days timers:

R5-19.53 Create Subscription Version – Business Hours and Days Selection

NPAC SMS shall if the old and new service provider business hours and days match set the subscription version business type to the business type for the business hours and days supported.

R5-19.64 Create Subscription Version – Business Hours and Days Selection - Mismatch

NPAC SMS shall if the old and new service provider business hours and days do not match set the subscription version timer type to the shorter business hours and days.

1. Appendix C would need to be updated to show each long and short business hour/days (the defaults and ranges). The Business Day Duration and Business Day Start Time that exist would be modified to reflect that they are the short

business hours/days. New rows would be added to the table for the long business hours/days with values and defaults as indicated in the table above.

2. Requirements would need to be added/modified for the new business hours/days types:

RR3-10 Business Hours and Days

NPAC SMS shall support definition and processing of *long and short* business hours and days for operations involving business time calculation.

RR3-11.1 Business Day Definition -Short

NPAC SMS *short* business days shall be Monday through Friday excluding NPAC operations-defined holidays.

RR3-11.2 Business Day Definition -Long

NPAC SMS long business days shall be Monday through Saturday excluding NPAC operations-defined holidays.

RR3-12.1 Business Day Duration - Tunable Parameter

NPAC SMS shall provide a *short and long* Business Day Duration tunable parameter, which is defined as the number of hours from the tunable business day start time.

RR3-12.2 Business Day Duration - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the *short and long* Business Day Duration tunable parameter.

RR3-12.3 Short Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the *short* Business Day Duration tunable parameter to 12 hours.

RR3-12.4 Long Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the long Business Day Duration tunable parameter to 12 hours.

RR3-13.1 Business Day Start Time - Tunable Parameter

NPAC SMS shall provide a *short and long* Business Day Start Time tunable parameter, which is defined as the start of the business day in Central Standard Time.

RR3-13.2 Business Day Start Time - Tunable Parameter Modification

NPAC SMS shall default the *short and long* Business Day Start Time tunable parameter to the value specified by the contracting region.

RR3-13.3 Short Business Day Start Time - Tunable Parameter Default

NPAC SMS shall default the *short* Business Day Start Time tunable parameter to 7:00 AM, Central Standard Time

RR3-13.4 Long Business Day Start Time - Tunable Parameter Default

NPAC SMS shall default the *long* Business Day Start Time tunable parameter to 8:00 AM, Central Standard Time.

3. The service provider profile would be updated as follows:

Table 3-2 would be modified to add:

NPAC New Functionality Support	M	√	Each bit in the mask represents a Boolean indicator is set to true if a service provider does NOT support the functionality defined below. This bit mask is used to support backward compatibility. <ul style="list-style-type: none"> Business Hours – True if the SOA supports business days/hours over the interface.
<ul style="list-style-type: none"> Business Hour/Days 	E	X	Business Hours supported by the Service Provider: S – Short Business Hours L – Long Business Hours

GDMO/ASN.1 Modifications

1. 1. A GET only business type attribute would need to be added to the subscriptionVersion managed object class. A note needs to be added that it will be returned on queries only for SOA's that support the business hours/days. The behavior would be updated to note that the attribute would only be emitted on object creation notifications for SOAs that support it.

2. The business type attribute will be added to the T1 and T2 notifications for the SOA's that support the Business Type attribute.

```
-- 8.0 LNP Log Record for the Subscription Version Old SP Concurrence
Request
--      Notification
```

```
lnpLogOldSP-ConcurrenceRequestRecord MANAGED OBJECT CLASS
  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :
```

```

1992":eventLogRecord;
  CHARACTERIZED BY
    lnpLogOldSP-ConcurrenceRequestPkg;
CONDITIONAL PACKAGES
subscriptionBusinessTypePkg PRESENT IF
!present if the Old SP SOA supports business type!;
REGISTERED AS {LNP-OIDS.lnp-objectClass 8};

lnpLogOldSP-ConcurrenceRequestPkg PACKAGE
BEHAVIOUR
  lnpLogOldSP-ConcurrenceRequestDefinition,
  lnpLogOldSP-ConcurrenceRequestBehavior;
ATTRIBUTES
  subscriptionTN GET,
  subscriptionVersionId GET,
  subscriptionNewCurrentSP GET,
  subscriptionNewSP-DueDate GET,
  subscriptionNewSP-CreationTimeStamp GET,
  accessControl GET
subscriptionBusinessType GET;
;

lnpLogOldSP-ConcurrenceRequestDefinition BEHAVIOUR
DEFINED AS !
  The lnpLogOldSP-ConcurrenceRequestRecord class is the managed
  object that is used to create log records for the
  subscriptionVersionOldSP-ConcurrenceRequest Notification.
!;

lnpLogOldSP-ConcurrenceRequestBehavior BEHAVIOUR
DEFINED AS !
  This log record can be used by any CME wanting to log the
  subscriptionVersionOldSP-ConcurrenceRequest Notification.
!;

-- 26.0 LNP Log Record for the Subscription Version Final Concurrence
-- Timer Expiration

lnpLogOldSPFinalConcurrenceWindowExpirationRecord MANAGED OBJECT CLASS
  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :
1992":eventLogRecord;
  CHARACTERIZED BY
    lnpLogOldSPFinalConcurrenceWindowExpirationPkg;
CONDITIONAL PACKAGES
subscriptionBusinessTypePkg PRESENT IF
!present if the Old SP SOA supports business type!;
REGISTERED AS {LNP-OIDS.lnp-objectClass 26};

lnpLogOldSPFinalConcurrenceWindowExpirationPkg PACKAGE
BEHAVIOUR
  lnpLogOldSPFinalConcurrenceWindowExpirationDefinition,
  lnpLogOldSPFinalConcurrenceWindowExpirationBehavior;
ATTRIBUTES
  subscriptionTN GET,
  subscriptionVersionId GET,
  accessControl GET,
subscriptionBusinessType GET;
;

lnpLogOldSPFinalConcurrenceWindowExpirationDefinition BEHAVIOUR
DEFINED AS !
  The lnpLogOldSPFinalConcurrenceWindowExpirationRecord class is
  the managed object that is used to create log records for the

```

```

        subscriptionVersionOldSPFinalConcurrenceWindowExpiration
        Notification.
    !;

lnpLogOldSPFinalConcurrenceWindowExpirationBehavior BEHAVIOUR
    DEFINED AS !
        This log record can be used by any CME wanting to log the
        subscriptionVersionOldSPFinalConcurrenceWindowExpiration
        Notification.
    !;

-- ??.0 LNP Subscription Business Type Package

subscriptionBusinessTypePkg PACKAGE
    BEHAVIOUR subscriptionBusinessTypePkgBehavior;
    ATTRIBUTES
        subscriptionBusinessType GET;
    REGISTERED AS {LNP-OIDS.lnp-package ??};

subscriptionCustomerInformationPkgBehavior BEHAVIOUR
    DEFINED AS !
        This package provides for conditionally including the
        subscriptionBusinessType attribute.
    !;

-- 10.0 LNP Subscription Version Old SP Concurrence Request Notification

subscriptionVersionOldSP-ConcurrenceRequest NOTIFICATION
    BEHAVIOUR subscriptionVersionOldSP-ConcurrenceRequestBehavior;
    WITH INFORMATION SYNTAX LNP-ASN1.VersionOldSP-ConcurrenceRequest
    AND ATTRIBUTE IDS
        tn subscriptionTN,
        version-id subscriptionVersionId,
        service-prov-id subscriptionNewCurrentSP,
        service-prov-due-date subscriptionNewSP-DueDate,
        service-prov-authorization-creation-time-stamp
            subscriptionNewSP-CreationTimeStamp,
        access-control accessControl,
        subscription-business-type subscriptionBusinessType;
    REGISTERED AS {LNP-OIDS.lnp-notification 10};

subscriptionVersionOldSP-ConcurrenceRequestBehavior BEHAVIOUR
    DEFINED AS !
        This notification requests that a old service provider send
        a create request for a subscription version for which
        concurrence for porting the number has not been received.
        The TN, the version id, and the new service provider id,
        authorization flag and creation timestamp values are sent. If
        the old service provider supports business type, it will be sent.
    !;

-- 12.0 LNP Subscription Version Final Concurrence Timer Expiration
-- Notification

subscriptionVersionOldSPFinalConcurrenceWindowExpiration NOTIFICATION
    BEHAVIOUR
    subscriptionVersionOldSPFinalConcurrenceWindowExpirationBehavior;
    WITH INFORMATION SYNTAX
        LNP-ASN1.VersionOldSPFinalConcurrenceWindowExpiration
    AND ATTRIBUTE IDS

```

```
tn subscriptionTN,  
version-id subscriptionVersionId,  
access-control accessControl,  
subscription-business-type subscriptionBusinessType;  
REGISTERED AS {LNP-OIDS.lnp-notification 12};
```

```
subscriptionVersionOldSPFinalConcurrenceWindowExpirationBehavior  
BEHAVIOUR
```

```
DEFINED AS !
```

```
SOA  
    This notification will be sent by the NPAC SMS upon expiration of  
    the Final Concurrence Timer to the old service provider via the  
    to NPAC SMS interface to inform them of the timer expiration. If  
    the old service provider supports business type, it will be sent.  
!;
```

```
VersionCreateConcurrenceRequest ::= SEQUENCE {  
    tn PhoneNumber,  
    version-id LnpKey,  
    service-prov-id ServiceProvId,  
    service-prov-due-date GeneralizedTime,  
    service-prov-authorization-creation-time-stamp GeneralizedTime,  
    access-control LnpAccessControl,  
    subscription-business-type Integer OPTIONAL  
}
```

```
VersionOldSPFinalConcurrenceWindowExpiration ::= SEQUENCE {  
    tn PhoneNumber,  
    version-id LnpKey,  
    access-control LnpAccessControl,  
    subscription-business-type Integer OPTIONAL  
}
```

3. The following attribute needs to be added to the GDMO:

Subscription Version Business Type

```
subscriptionBusinessType ATTRIBUTE  
WITH ATTRIBUTE SYNTAX LNP-ASN1.Integer;  
MATCHES FOR EQUALITY, ORDERING;  
BEHAVIOUR subscriptionTimerTypeBehavior;  
REGISTERED AS {LNP-OIDS.lnp-attribute ??};
```

```
subscriptionBusinessTypeBehavior BEHAVIOUR  
DEFINED AS !
```

```
    This attribute is used to specify the subscription version  
    business hours/days type being used to set tunable timers.
```

```
    Current valid values are:
```

```
    0 for short business hours/days  
      (used primarily for wireline to wireline)  
    1 for long business hours/days  
      (anticipated use for wireless to wireless)
```

```
    Short business hours (0) is set if any of the two
```


service providers supports only short business hours.

!;

The NPAC will have to put M&P or functionality in the install processes to set the business hours/days supported for service providers defined in the NPAC SMS database.

Change Order Number: NANC 203

IMPACT/CHANGE ASSESSMENT

FRS	IIS	ASN.1	GDMO	3	SOA	LSMS
Y	Y	Y	Y	Y	Y	Y

Wireless Addition of WSMSC DPC and SSN Information

Wireless Short Message Service Center (WSMSC) needs to be added as a new set of DPC and SSN information that is part of the subscription version received from SOA, stored on the NPAC SMS, and sent to the LSMS for wireless to wireless porting. Validation rules for DPC and SSN information are assumed to be those in place today.

A bit mask in the NPAC SMS will be used to indicate which LSMS and SOA systems support the new fields. SOA systems would need to recompile if they intend to send the WSMSC DPC and SSN information. LSMS systems would need to recompile if they indicated to the NPAC SMS that they would support downloading of the WSMSC DPC and SSN information.

FRS Modifications

1. The following information is needed in the subscription version data table in section 3.1.3.

WSMSC DPC	N (9)		DPC for 10-digit GTT for WSMSC features.
WSMSC SSN	N (3)		WSMSC SSN for the Subscription Version.

1. Requirement R3-8 should be updated to include the WSMSC DPC and SSN information in the download file. It would be noted that this data would only be present if the LSMS supports the WSMSC DPC and SSN data.

R3-8 Off-line batch updates for Local SMS Disaster Recovery

NPAC SMS shall support an off-line batch download (via 4mm DAT tape and FTP file download) to mass update Local SMSs with Subscription Versions and Service Provider Network data.

The contents of the batch download are:

?158Subscriber data:

?1 Version ID
?2 TN
?3 LRN
?4 New Current Service Provider ID
?5 Activation Request Timestamp
?6 Version Status
?7 CLASS DPC
?8 CLASS SSN
?9 LIDB DPC
?10 LIDB SSN
?11 ISVM DPC
?12 ISVM SSN
?13 CNAM DPC
?14 CNAM SSN

?15

?16 WSMSC DPC (for Local SMS's that support WSMSC data)

?17 WSMSC SSN (for Local SMS's that support WSMSC data)

?18 End User Location - Value

?19 End User Location - Type

?20 Billing ID

?21 LNP Type

?22 Download Reason

?23 Network data:

?24 NPAC Customer ID

?25 NPAC Customer name

?159NPA-NXX-Download Data:

?26 NPA-NXX ID

?27 NPA-NXX Value

?28 NPAC Customer ID

?29 Effective TimeStamp

?30 Download Reason

?160LRN-Download Data:

?31 LRN ID

?32 LRN Value

?33 Download Reason

?34 The download data file format in the appendix would also have to be updated. The WSMSC DPC and SSN fields would be added to the end of the line if the Service provider requesting the file supports the data.

?35The following requirements would also need to be updated to add the WSMSC DPC and SSN information:

- R4-29 Service Provider subscription query options

R4-29 Service Provider subscription query options

NPAC SMS shall receive the attributes to be searched on for queries regarding Subscription Versions associated with the Service Provider. Allowable attributes are the following data elements from Error: Reference source not found:

?161Subscription Version ID

?162Subscription Version Status

?163Local Number Portability Type

?164Ported Telephone Number

?165Old facilities-based Service Provider Due Date

?166New facilities-based Service Provider Due Date

?167New facilities-based Service Provider ID
 ?168Authorization from old facilities-based Service Provider
 ?169Local Routing Number (LRN)
 ?170Class DPC
 ?171Class SSN
 ?172LIDB DPC
 ?173LIDB SSN
 ?174CNAM DPC
 ?175CNAM SSN
 ?176ISVM DPC
 ?177ISVM SSN
?178WSMSC DPC
?179WSMSC SSN
 ?180Billing Service Provider ID
 ?181End User Location Value
 ?182End User Location Type
 ?183Customer Disconnect Date
 ?184Effective Release Date
 ?185Disconnect Broadcast Complete Time Stamp
 ?186Conflict Time Stamp
 ?187Activation Time Stamp
 ?188Cancellation Time Stamp (Status Modified to Cancel Time Stamp)
 ?189New Service Provider Creation Time Stamp
 ?190Old Service Provider Authorization Time Stamp
 ?191Pre-cancellation Status
 ?192Old Service Provider Cancellation Time Stamp
 ?193New Service Provider Cancellation Time Stamp
 ?194Old Time Stamp (Status Modified to Old Time Stamp)
 ?195New Service Provider Conflict Resolution Time Stamp
 ?196Create Time Stamp
 ?197Modify Time Stamp
 ?198Porting To Original
 ?199Status Change Cause Code

R5-15.1 Create "Inter-Service Provider Port" Subscription Version - New Service Provider Input Data

R5-15.1 Create "Inter-Service Provider Port" Subscription Version - New Service Provider Input Data

NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider port when **NOT** "porting to original":

- ?200Local Number Portability Type - Port Type. This field must be set to "LSPP" for Inter-Service Provider ports.
- ?201Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes.
- ?202Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur.
- ?203New Facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider.
- ?204Old Facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider.
- ?205Location Routing Number (LRN) - the identifier of the ported-to switch.

?206Class DPC
 ?207Class SSN
 ?208LIDB DPC
 ?209LIDB SSN
 ?210CNAM DPC
 ?211CNAM SSN
 ?212ISVM DPC
 ?213ISVM SSN
?214WSMSC DPC (if supported by the Service Provider SOA)
?215WSMSC SSN (if supported by the Service Provider SOA)
 ?216Porting to Original - flag indicating whether or not this is a “porting to original” port.
 This flag must be set to “FALSE” for this type of Inter-Service Provider port.

-
- R5-18.1 Create Subscription Version - Field-level Data Validation

R5-18.1 Create Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-5 upon Subscription Version creation for an Inter-Service Provider port:

?217LNP Type
 ?218Ported TN(s)
 ?219Old Service Provider Due Date
 ?220New Service Provider Due Date
 ?221Old Service Provider ID
 ?222New Service Provider ID
 ?223Authorization from old facilities-based Service Provider
 ?224Status Change Cause Code
 ?225LRN
 ?226Class DPC
 ?227Class SSN
 ?228LIDB DPC
 ?229LIDB SSN
 ?230CNAM DPC
 ?231CNAM SSN
 ?232ISVM DPC
 ?233ISVM SSN
?234WSMSC DPC
?235WSMSC SSN
 ?236Porting to Original
 ?237Billing Service Provider ID
 ?238End-User Location – Value
 ?239End-User Location - Type

- RR5-4 Create “Intra-Service Provider Port” Subscription Version - Current Service Provider Input Data

RR5-4 Create “Intra-Service Provider Port” Subscription Version - Current Service Provider Input Data

NPAC SMS shall require the following data from the NPAC personnel or the Current (New) Service Provider at the time of Subscription Version Creation for an Intra-Service Provider port:

?240LNP Type - port type This field must be set to “LISP for Intra-Service Provider support.
 ?241Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or group of Subscription Versions that share the same attributes.
 ?242Due Date - date on which Intra-Service Provider port is planned to occur.
 ?243New facilities-based Service Provider ID - current Service Provider within which the Intra-Service Provider port will occur.
 ?244Old facilities-based Service Provider ID - current Service Provider within which the Intra-Service Provider port will occur.
 ?245Location Routing Number (LRN) - identifier of the ported-to switch
 ?246Class DPC
 ?247Class SSN
 ?248LIDB DPC
 ?249LIDB SSN
 ?250CNAM DPC
 ?251CNAM SSN
 ?252ISVM DPC
 ?253ISVM SSN
?254WSMSC DPC (if supported by the Service Provider SOA)
?255WSMSC SSN (if supported by the Service Provider SOA)

- RR5-6.1 Create “Intra-Service Provider Port” Subscription Version - Field-level Data Validation

RR5-6.1 Create “Intra-Service Provider Port” Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-4 upon Subscription Version creation for an Intra-Service Provider port:

?256LNP Type
 ?257Ported TN(s)
 ?258Current Service Provider Due Date
 ?259Old Service Provider ID
 ?260New Service Provider ID
 ?261LRN
 ?262Class DPC
 ?263Class SSN
 ?264LIDB DPC
 ?265LIDB SSN
 ?266CNAM DPC
 ?267CNAM SSN
 ?268ISVM DPC
 ?269ISVM SSN
?270WSMSC DPC
?271WSMSC SSN
 ?272Billing Service Provider ID
 ?273End-User Location - Value
 ?274End-User Location - Type

- R5-27.1 Modify Subscription Version - New Service Provider Data Values

R5-27.1 Modify Subscription Version - New Service Provider Data Values

NPAC SMS shall allow the following data to be modified in a pending or conflict Subscription Version for an Inter-Service Provider or Intra-Service Provider port by the new/current Service Provider or NPAC personnel:

- ?275 Location Routing Number (LRN) - the identifier of the ported to switch.
- ?276 Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is planned to occur.
- ?277 Class DPC
- ?278 Class SSN
- ?279 LIDB DPC
- ?280 LIDB SSN
- ?281 CNAM DPC
- ?282 CNAM SSN
- ?283 ISVM DPC
- ?284 ISVM SSN
- ?285 WSMSC DPC**
- ?286 WSMSC SSN**

?287

- R5-29.1 Modify Subscription Version - Field-level Data Validation

R5-29.1 Modify Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-4 upon Subscription Version modification.

- ?288 LNP Type
- ?289 Ported TN(s)
- ?290 Old Service Provider Due Date
- ?291 New Service Provider Due Date
- ?292 Old Service Provider Authorization
- ?293 Status Change Cause Code
- ?294 Old Service Provider ID
- ?295 New Service Provider ID
- ?296 LRN
- ?297 Class DPC
- ?298 Class SSN
- ?299 LIDB DPC
- ?300 LIDB SSN
- ?301 CNAM DPC
- ?302 CNAM SSN
- ?303 ISVM DPC
- ?304 ISVM SSN
- ?305 WSMSC DPC**
- ?306 WSMSC SSN**
- ?307 Billing Service Provider ID
- ?308 End-User Location - Value
- ?309 End-User Location - Type

- R5-36 Modify Active Subscription Version - Input Data

R5-36 Modify Active Subscription Version - Input Data

NPAC SMS shall allow the following data to be modified for an active Subscription Version:

?310Location Routing Number (LRN) - the identifier of the ported to switch
 ?311Class DPC
 ?312Class SSN
 ?313LIDB DPC
 ?314LIDB SSN
 ?315CNAM DPC
 ?316CNAM SSN
 ?317ISVM DPC
 ?318ISVM SSN
?319WSMSC DPC
?320WSMSC SSN

- R5-38.1 Modify Active Subscription Version - Field-level Data Validation

R5-38.1 Modify Active Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-4 upon Subscription Version modification of an active version:

?321LRN
 ?322Class DPC
 ?323Class SSN
 ?324LIDB DPC
 ?325LIDB SSN
 ?326CNAM DPC
 ?327CNAM SSN
 ?328ISVM DPC
 ?329ISVM SSN
?330WSMSC DPC
?331WSMSC SSN
 ?332Billing Service Provider ID
 ?333End-User Location – Value
 ?334End-User Location - Type

- R5-74.3 Query Subscription Version - Output Data

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:

?335Subscription Version ID
 ?336Subscription Version Status
 ?337Local Number Portability Type
 ?338Ported Telephone Number

?339Old facilities-based Service Provider Due Date
?340New facilities-based Service Provider Due Date
?341New facilities-based Service Provider ID
?342Old facilities-based Service Provider ID
?343Authorization from old facilities-based Service Provider
?344Status Change Cause Code
?345Location Routing Number (LRN)
?346Class DPC
?347Class SSN
?348LIDB DPC
?349LIDB SSN
?350CNAM DPC
?351CNAM SSN
?352ISVM DPC
?353ISVM SSN
?354WSMSC DPC (for SOAs that support WSMSC data)
?355WSMSC SSN (for SOAs that support WSMSC data)
?356Billing Service Provider ID
?357End-User Location Value
?358End User Location Type
?359Customer Disconnect Date
?360Effective Release Date
?361Disconnect Broadcast Complete Time Stamp
?362Conflict Time Stamp
?363Activation Time Stamp
?364Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
?365New Service Provider Creation Time Stamp
?366Old Service Provider Authorization Time Stamp
?367Pre-cancellation Status
?368Old Service Provider Cancellation Time Stamp
?369New Service Provider Cancellation Time Stamp
?370Old Time Stamp (Status Modified to Old Time Stamp)
?371New Service Provider Conflict Resolution Time Stamp
?372Create Time Stamp
?373Modified Time Stamp
?374Porting to Original
?375List of all Local SMSs that failed activation, modification, or disconnect.

- **R5-74.4 Query Subscription Version - Output Data**

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:

?376Subscription Version ID
?377Ported Telephone Number
?378Location Routing Number (LRN)
?379New facilities-based Service Provider ID
?380Activation Time Stamp
?381Customer Disconnect Date
?382Class DPC
?383Class SSN
?384LIDB DPC

?385LIDB SSN
 ?386CNAM DPC
 ?387CNAM SSN
 ?388ISVM DPC
 ?389ISVM SSN
?390WSMSC DPC (for Local SMS's that support WSMSC data)
?391WSMSC SSN (for Local SMS's that support WSMSC data)
 ?392End-User Location Value
 ?393End-User Location Type
 ?394Billing Service Provider ID
 ?395Local Number Portability Type

1. The service provider profile would be updated as follows:

Table 3-2 would be modified to add:

NPAC New Functionality Support	M	√	<p>Each bit in the mask represents a Boolean indicator is set to true if a service provider does NOT support the functionality defined below. This bit mask is used to support backward compatibility.</p> <ul style="list-style-type: none"> • LSMS WSMSC DPC SSN Data – True if the LSMS system does not support WSMSC DPC and SSN Data in subscription versions. • SOA WSMSC DPC SSN Data – True if the SOA system does not support WSMSC DPC and SSN Data in subscription versions.
--------------------------------	---	---	---

GDMO Modifications

1. WSMSC attributes would need to be added to the subscriptionVersion managed object class.

subscriptionWSMSC-DPC GET-REPLACE
subscriptionWSMSC-SSN GET-REPLACE

2. Behavior in the subscriptionVersion NPAC managed object class behavior should be modified to as follows:

New service provider SOAs can only modify the following attributes:

subscriptionLRN
 subscriptionNewSP-DueDate
 subscriptionCLASS-DPC
 subscriptionCLASS-SSN
 subscriptionLIDB-DPC
 subscriptionLIDB-SSN
 subscriptionCNAM-DPC
 subscriptionCNAM-SSN
 subscriptionISVM-DPC

subscriptionISVM-SSN
subscriptionEndUserLocationValue
subscriptionEndUserLocationType
subscriptionBillingId
subscriptionWSMSC-DPC
subscriptionWSMSC-SSN

3. The following attributes need to be added to the GDMO:

Subscription Version WSMSC Destination Point Code

```
subscriptionWSMSC-DPC ATTRIBUTE
  WITH ATTRIBUTE SYNTAX LNP-ASN1.DPC;
  MATCHES FOR EQUALITY, ORDERING;
  BEHAVIOUR subscriptionWSMSC-DPCBehavior;
  REGISTERED AS {LNP-OIDS.lnp-attribute ?};
```

```
subscriptionWSMSC-DPCBehavior BEHAVIOUR
  DEFINED AS !
  This attribute is used to specify the subscription version
  WSMSC Destination Point Code.
```

The data is stored in BCD (e.g. a value of FFF would be displayed as 255.255.255).

!;

LNP Subscription Version WSMSC SSN

```
subscriptionWSMSC-SSN ATTRIBUTE
  WITH ATTRIBUTE SYNTAX LNP-ASN1.SSN;
  MATCHES FOR EQUALITY, ORDERING;
  BEHAVIOUR subscriptionWSMSC-SSN-Behavior;
  REGISTERED AS {LNP-OIDS.lnp-attribute ?};
```

```
subscriptionWSMSC-SSN-Behavior BEHAVIOUR
  DEFINED AS !
  This attribute is used to specify the subscription version
  WSMSC SSN.
```

!;

4. The following behavior needs to be modified in the subscriptionVersionModify action.

New service providers can only modify the following attributes for pending, cancel-pending, or conflict subscription versions:

subscriptionLRN
subscriptionNewSP-DueDate
subscriptionCLASS-DPC
subscriptionCLASS-SSN
subscriptionLIDB-DPC
subscriptionLIDB-SSN

subscriptionCNAM-DPC
subscriptionCNAM-SSN
subscriptionISVM-DPC
subscriptionISVM-SSN
subscriptionEndUserLocationValue
subscriptionEndUserLocationType
subscriptionBillingId
subscriptionWSMCS-DPC
subscriptionWSMCS-SSN

5. The following behavior needs to be modified in the
subscriptionVerionsNewSP-Create Action

The new service provider must specify valid values for the
following attributes:

subscriptionTN or a valid subscriptionVersionTN-Range
subscriptionLRN
subscriptionNewCurrentSP
subscriptionOldSP
subscriptionNewSP-DueDate
subscriptionCLASS-DPC
subscriptionCLASS-SSN
subscriptionLIDB-DPC
subscriptionLIDB-SSN
subscriptionCNAM-DPC
subscriptionCNAM-SSN
subscriptionISVM-DPC
subscriptionISVM-SSN
subscriptionLNPTType
subscriptionPortingToOriginal-SPSwitch
subscriptionWSMCS-DPC
subscriptionWSMCS-SSN

ASN.1 Modifications

```
NewSP-CreateData ::= SEQUENCE {
    chcl [0] EXPLICIT CHOICE {
        subscription-version-tn [0] PhoneNumber,
        subscription-version-tn-range [1] TN-Range
    },
    subscription-lrn [1] LRN OPTIONAL,
    subscription-new-current-sp [2] ServiceProvId,
    subscription-old-sp [3] ServiceProvId,
    subscription-new-sp-due-date [4] GeneralizedTime,
    subscription-class-dpc [6] EXPLICIT DPC OPTIONAL,
    subscription-class-ssn [7] EXPLICIT SSN OPTIONAL,
    subscription-lidb-dpc [8] EXPLICIT DPC OPTIONAL,
    subscription-lidb-ssn [9] EXPLICIT SSN OPTIONAL,
    subscription-isvm-dpc [10] EXPLICIT DPC OPTIONAL,
    subscription-isvm-ssn [11] EXPLICIT SSN OPTIONAL,
    subscription-cnam-dpc [12] EXPLICIT DPC OPTIONAL,
    subscription-cnam-ssn [13] EXPLICIT SSN OPTIONAL,
    subscription-end-user-location-value [14]
        EndUserLocationValue OPTIONAL,
```

```

    subscription-end-user-location-type [15] EndUserLocationType
OPTIONAL,
    subscription-billing-id [16] BillingId OPTIONAL,
    subscription-lnp-type [17] LNPTType,
    subscription-porting-to-original-sp-switch [18]
        SubscriptionPortingToOriginal-SPSwitch,
subscription-wsmc-dpc [19] EXPLICIT DPC OPTIONAL,
subscription-wsmc-ssn [20] EXPLICIT SSN OPTIONAL
}

```

```

NewSP-CreateInvalidData ::= CHOICE {
    subscription-version-tn [0] EXPLICIT PhoneNumber,
    subscription-version-tn-range [1] EXPLICIT TN-Range,
    subscription-lrn [2] EXPLICIT LRN,
    subscription-new-current-sp [3] EXPLICIT ServiceProvId,
    subscription-old-sp [4] EXPLICIT ServiceProvId,
    subscription-new-sp-due-date [5] EXPLICIT GeneralizedTime,
    subscription-class-dpc [6] EXPLICIT DPC,
    subscription-class-ssn [7] EXPLICIT SSN,
    subscription-lidb-dpc [8] EXPLICIT DPC,
    subscription-lidb-ssn [9] EXPLICIT SSN,
    subscription-isvm-dpc [10] EXPLICIT DPC,
    subscription-isvm-ssn [11] EXPLICIT SSN,
    subscription-cnam-dpc [12] EXPLICIT DPC,
    subscription-cnam-ssn [13] EXPLICIT SSN,
    subscription-end-user-location-value [14] EXPLICIT
EndUserLocationValue,
    subscription-end-user-location-type [15] EXPLICIT
EndUserLocationType,
    subscription-billing-id [16] EXPLICIT BillingId,
    subscription-lnp-type [17] EXPLICIT LNPTType,
    subscription-porting-to-original-sp-switch [18]
        EXPLICIT SubscriptionPortingToOriginal-SPSwitch,
subscription-wsmc-dpc [19] EXPLICIT DPC,
subscription-wsmc-ssn [20] EXPLICIT SSN
}

```

```

SubscriptionData ::= SEQUENCE {
    subscription-lrn [1] LRN OPTIONAL,
    subscription-new-current-sp [2] ServiceProvId OPTIONAL,
    subscription-activation-timestamp [3] GeneralizedTime OPTIONAL,
    subscription-class-dpc [4] EXPLICIT DPC,
    subscription-class-ssn [5] EXPLICIT SSN,
    subscription-lidb-dpc [6] EXPLICIT DPC,
    subscription-lidb-ssn [7] EXPLICIT SSN,
    subscription-isvm-dpc [8] EXPLICIT DPC,
    subscription-isvm-ssn [9] EXPLICIT SSN,
    subscription-cnam-dpc [10] EXPLICIT DPC,
    subscription-cnam-ssn [11] EXPLICIT SSN,
    subscription-end-user-location-value [12]
        EndUserLocationValue OPTIONAL,
    subscription-end-user-location-type [13] EndUserLocationType
OPTIONAL,
    subscription-billing-id [14] BillingId OPTIONAL,
    subscription-lnp-type [15] LNPTType,

```

```

subscription-download-reason [16] DownloadReason,
subscription-wsmcsc-dpc [17] EXPLICIT DPC OPTIONAL,
subscription-wsmcsc-ssn [18] EXPLICIT SSN OPTIONAL
}

SubscriptionModifyData ::= SEQUENCE {
subscription-lrn [0] LRN OPTIONAL,
subscription-new-sp-due-date [1] GeneralizedTime OPTIONAL,
subscription-old-sp-due-date [2] GeneralizedTime OPTIONAL,
subscription-old-sp-authorization [3] ServiceProvAuthorization
OPTIONAL,
subscription-class-dpc [4] EXPLICIT DPC OPTIONAL,
subscription-class-ssn [5] EXPLICIT SSN OPTIONAL,
subscription-lidb-dpc [6] EXPLICIT DPC OPTIONAL,
subscription-lidb-ssn [7] EXPLICIT SSN OPTIONAL,
subscription-isvm-dpc [8] EXPLICIT DPC OPTIONAL,
subscription-isvm-ssn [9] EXPLICIT SSN OPTIONAL,
subscription-cnam-dpc [10] EXPLICIT DPC OPTIONAL,
subscription-cnam-ssn [11] EXPLICIT SSN OPTIONAL,
subscription-end-user-location-value [12] EndUserLocationValue
OPTIONAL,
subscription-end-user-location-type [13] EndUserLocationType
OPTIONAL,
subscription-billing-id [14] BillingId OPTIONAL,
subscription-status-change-cause-code [15]
SubscriptionStatusChangeCauseCode OPTIONAL,
subscription-wsmcsc-dpc [19] EXPLICIT DPC OPTIONAL,
subscription-wsmcsc-ssn [20] EXPLICIT SSN OPTIONAL
}

SubscriptionModifyInvalidData ::= CHOICE {
subscription-lrn [0] EXPLICIT LRN,
subscription-new-sp-due-date [1] EXPLICIT GeneralizedTime,
subscription-old-sp-due-date [2] EXPLICIT GeneralizedTime,
subscription-old-sp-authorization [3] EXPLICIT
ServiceProvAuthorization,
subscription-class-dpc [4] EXPLICIT DPC,
subscription-class-ssn [5] EXPLICIT SSN,
subscription-lidb-dpc [6] EXPLICIT DPC,
subscription-lidb-ssn [7] EXPLICIT SSN,
subscription-isvm-dpc [8] EXPLICIT DPC,
subscription-isvm-ssn [9] EXPLICIT SSN,
subscription-cnam-dpc [10] EXPLICIT DPC,
subscription-cnam-ssn [11] EXPLICIT SSN,
subscription-end-user-location-value [12] EXPLICIT
EndUserLocationValue,
subscription-end-user-location-type [13] EXPLICIT
EndUserLocationType,
subscription-billing-id [14] EXPLICIT BillingId,
subscription-status-change-cause-code [15]
EXPLICIT SubscriptionStatusChangeCauseCode,
subscription-wsmcsc-dpc [16] EXPLICIT DPC OPTIONAL,
subscription-wsmcsc-ssn [17] EXPLICIT SSN OPTIONAL
}

```

Auditing of new DPC and SSN Values

R8-3 Service Providers Specify Audit Scope

NPAC SMS shall allow Service Providers to specify the scope of an audit by specifying one or more of the following parameters:

?396 Specific Service provider network **or** ALL Service Providers networks

?397 Full audit for all LNP attributes **or** a partial audit where the Service Provider can specify one or more of the following LNP attributes:

?36 LIDB data

?37 CLASS data

?38 LRN data

?39 CNAM data

?40 ISVM data

?41 WSMSC data (only Service Provider Local SMS systems that support this attribute will be audited on this attribute)

Default: Full audit

R8-9 NPAC Personnel Specify Audit Scope

NPAC SMS shall allow NPAC SMS Personnel to specify the scope of an audit by specifying one or more of the following parameters:

?398 Specific Service Provider network **or** ALL Service Providers networks.

?399 Full audit for all LNP attributes **or** a partial audit where the Service Provider can specify one or more of the following LNP attributes:

?42 LIDB data

?43 CLASS data

?44 LRN data

?45 CNAM data

?46 ISVM data

?47 WSMSC data

Default: Full audit

```
AuditAttributes ::= CHOICE {
    specific-audit [0] SEQUENCE {
        lidb-data BOOLEAN,
        class-data BOOLEAN,
        cnam-data BOOLEAN,
        isvm-data BOOLEAN,
        lrn-data BOOLEAN,
        wsmc-data BOOLEAN OPTIONAL -- OPTIONAL for backward
        compatibility
    },
    all-data [1] NULL
}
```

```
MismatchAttributes ::= SEQUENCE {
    seq0 [0] SEQUENCE {
        lsms-subscriptionLRN LRN,
        npac-subscriptionLRN LRN
    } OPTIONAL,
    seq1 [1] SEQUENCE {
        lsms-subscriptionNewCurrentSP ServiceProvId,
```

```

    npac-subscriptionNewCurrentSP ServiceProvId
} OPTIONAL,
seq2 [2] SEQUENCE {
    lsms-subscriptionActivationTimeStamp GeneralizedTime,
    npac-subscriptionActivationTimeStamp GeneralizedTime
} OPTIONAL,
seq3 [3] SEQUENCE {
    lsms-subscriptionCLASS-DPC DPC,
    npac-subscriptionCLASS-DPC DPC
} OPTIONAL,
seq4 [4] SEQUENCE {
    lsms-subscriptionCLASS-SSN SSN,
    npac-subscriptionCLASS-SSN SSN
} OPTIONAL,
seq5 [5] SEQUENCE {
    lsms-subscriptionLIDB-DPC DPC,
    npac-subscriptionLIDB-DPC DPC
} OPTIONAL,
seq6 [6] SEQUENCE {
    lsms-subscriptionLIDB-SSN SSN,
    npac-subscriptionLIDB-SSN SSN
} OPTIONAL,
seq7 [7] SEQUENCE {
    lsms-subscriptionISVM-DPC DPC,
    npac-subscriptionISVM-DPC DPC
} OPTIONAL,
seq8 [8] SEQUENCE {
    lsms-subscriptionISVM-SSN SSN,
    npac-subscriptionISVM-SSN SSN
} OPTIONAL,
seq9 [9] SEQUENCE {
    lsms-subscriptionCNAM-DPC DPC,
    npac-subscriptionCNAM-DPC DPC
} OPTIONAL,
seq10 [10] SEQUENCE {
    lsms-subscriptionCNAM-SSN SSN,
    npac-subscriptionCNAM-SSN SSN
} OPTIONAL,
seq11 [11] SEQUENCE {
    lsms-subscriptionEndUserLocationValue EndUserLocationValue,
    npac-subscriptionEndUserLocationValue EndUserLocationValue
} OPTIONAL,
seq12 [12] SEQUENCE {
    lsms-subscriptionEndUserLocationType EndUserLocationType,
    npac-subscriptionEndUserLocationType EndUserLocationType
} OPTIONAL,
seq13 [13] SEQUENCE {
    lsms-subscriptionBillingId BillingId,
    npac-subscriptionBillingId BillingId
} OPTIONAL,
seq14 [14] SEQUENCE {
    lsms-subscriptionLNPTType LNPTType,
    npac-subscriptionLNPTType LNPTType
} OPTIONAL,
seq15 [10] SEQUENCE {
    lsms-subscriptionWSMCS-DPC DPC,
    npac-subscriptionWSMCS-DPC DPC

```

```

} OPTIONAL,
seq16 [10] SEQUENCE {
    lsms-subscriptionWSMCS-SSN SSN,
    npac-subscriptionWSMCS-SSN SSN
} OPTIONAL
}

```

Change Order Number: NANC 204

IMPACT/CHANGE ASSESSMENT

FRS	IIS	ASN.1	GDMO		4	SOA	LSMS
TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Inter Service Provider Communication Process

Subscriber Name, Address, City, State, Zip have been requested as information to be exchanged between old and new SP's when creating a pending port. This information originates from the new service provider only. This data would not remain in the NPAC SMS after the port has been activated or cancelled. Data would be needed in the Create Subscription Version Initial Concurrence Window (T1 Timer), Create Subscription Version Final Concurrence Window (T2 Timer), and object creation notifications to service providers that support Inter Service Provider processing. It is believed at this time that the address information definition in the NANC IIS for the NPAC SMS customer contact data is sufficient for wireless use. The current definition is as follows:

Field	Size/Type
Name	40 character
Address Line 1	40 character
Address Line 2	40 character
City	20 character
State	2 character
Zip	9 character
Country	20 character
Province	2 character

Issue: A question was raised as to whether social security number and tax ids were also needed in this information.

Backward Compatibility

The following table indicates if a change order is Backward Compatible (BC) and gives further detail if the change order is not backwards compatible or if there is a question about backwards compatibility.

Change Order Description	BC?	Notes
NANC 201- Unique Sets of Timers	TBD	
NANC 202- Unique Sets of Business Days/Hours	TBD	
NANC 203- Wireless Addition of WSMSC DPC and SSN Information	TBD	If a SOA does not send this information it will not be impacted. If an LSMS does not indicate to the NPAC SMS that it does not want to receive the information then it will not receive it in subscription version downloads, in the download files or in audit processing.
NANC 204 – Inter Service Provider Communication	TBD	