Wireless Change Order Requirements – 04/24/13/98

The following wireless change orders are documented in detail below:

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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

NANC 205 - Wireless Porting before Due Date
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Downtime Required	Yes	No
Recommendation Explanation		

Installation	Staged	Flash Cut
Recommendation Explanation		

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	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:

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 for this service provider.

Con:

> This approach limits service provider flexibility. One Service Provider can only use one set of timers.

Pro:

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

The NANC T&O group selected solution 2.

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

The NPAC should be developed to support 10 different sets. Initially there would be three sets of timers, short – to support wireless, medium – to support compromises, and long – to support existing wire line. The type of timers being used would be an optional parameter on a create message. For backward compatibility long timers would be the default. Also if a Service Provider did not support the different timers the create message would be rejected from the SP indicating timers other than the default of long. The timer specification on the create notification in the optional field would be integer numbers so as to support backwards compatibility in the future should more unique sets need to be supported.

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*

  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

R5-15.1   Create "Inter-Service Provider Port" Subscription Version - New Service Provider Input Data
- R5-18.1   Create Subscription Version - Field-level Data Validation
- RR5-4   Create "Intra-Service Provider Port" Subscription Version - Current Service Provider Input Data
- RR5-6.1   Create "Intra-Service Provider Port" Subscription Version - Field-level Data Validation

- **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)

- ### 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:

?79 Subscription Version ID
?80 Ported Telephone Number
?81 Location Routing Number (LRN)
?82 New facilities-based Service Provider ID
?83 Activation Time Stamp
?84 Customer Disconnect Date
?85 Class DPC
?86 Class SSN
?87 LIDB DPC
?88 LIDB SSN
?89 CNAM DPC
?90 CNAM SSN
?91 ISVM DPC
?92 ISVM SSN
?93 End-User Location Value
?94 End-User Location Type
?95 Billing Service Provider ID
?96 Local Number Portability Type

?97 Timer Type (for Local SMS's that support Timer Type)

R5-74.3   Query Subscription Version - Output Data
- R5-74.4   Query Subscription Version - Output Data

1. The following aAdditional requirements 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.

2. Appendix C would need to be updated to show each group 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 hsours 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 and LSMS support query timer type over the interface.
• Timer Type	E	X	Timer type supported by the Service Provider: S – Short Timers L – Long Timers

Requirement 4-15 would be modified to add the bold italicized text.

R4-15.2 **Modify restrictions on Service Provider data - NPAC Operations Personnel**

NPAC SMS shall allow NPAC Operations personnel to modify the data in Error: Reference source not found, with the exception of the NPAC Customer ID, *NPAC New Functionality Support and Timer Type.*

~~**Note:** Modifications of timer type would not be allowed after initial subscription version create due to the fact that timers would have been created upon creation of the pending subscription version.~~

GDMO Modifications

1. A GET only attribute ~~conditional Package~~ would need to be added to the subscriptionVersion managed object class.

   Add object creation notification!! ~~-- 20.0 LNP subscription Version Managed Object Class~~

   ~~subscriptionVersion MANAGED OBJECT CLASS~~
   ~~DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 : 1992":top;~~
   ~~CHARACTERIZED BY~~
   ~~SubscriptionVersionPkg,~~
   ~~**TimeTypePkg**;~~
   ~~REGISTERED AS {LNP-OIDS.lnp-objectClass 20};~~

2. 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;
       ~~DEFAULT VALUE LNP-ASN1.LongTimer;~~
       ~~----~~ BEHAVIOUR subscriptionTimerTypeBehavior;
       REGISTERED AS {LNP-OIDS.lnp-attribute ~~63~~??};

   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 medium timers (anticipated use for wireline to wireless)~~
           ~~----~~ 1~~2~~ for short timers (anticipated use for wireless to wireless)

           ~~LongTimers~~ Long timers (0) is ~~the default if no value is specified.~~ set if any of the two service providers

        supports only long timers.
    !;

3. The following package definition needs to be added:

    -- Timer Type Package

    TimerTypePkg PACKAGE
        BEHAVIOUR TimerTypePkgBehavior;
        ATTRIBUTES
            subscriptionTimerType GET-REPLACE;
        REGISTERED AS {LNP-OIDS.lnp-package ?};

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

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

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

        subscriptionTimerType - If this attribute is not specified then
it is defaulted to 0 (long timers). If it is specified and a service
provider does not support variable timers then create message will be
rejected unless long timers are specified.

ASN.1 Modifications

NewSP-CreateData ::= SEQUENCE {
    chc1 [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,

2. LongTimers ::= INTEGER(0)

Change Order Number: NANC 202

IMPACT/CHANGE ASSESSMENT

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

Unique Sets of Business Days/Hours

**Business hours need to be defined uniquely 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 is would be configurable by region.
NPAC defined Holiday are OK as defined for wireless to wireless.**

Tunable	Long Timer Default	Short 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	00:00 – 24:00
Holidays	As specified today	As specified today	As specified today

Two approaches were discussed:

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 shortened 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.

The NANC T&O group selected solution 2.

It was discussed that to support this change request that a unique set of tunable business hours/days be defined. The NPAC should be developed to support 10 different sets. Initially there would be two sets, short – to support wireless and long – to support existing wire line. The type of business hours/days being used would be an optional parameter on a create message. For backward compatibility long business hours/days

~~would be the default. Also if a Service Provider did not support the different business hour/days the create message would be rejected from the SP indicating business hours/days other than the default of long. The business hour/day specification on the create notification in the optional field would be integer numbers so as to support backwards compatibility in the future should more unique sets need to be supported.~~

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:

  ?98 Subscription Version ID
  ?99 Subscription Version Status
  ?100 Local Number Portability Type
  ?101 Ported Telephone Number
  ?102 Old facilities-based Service Provider Due Date
  ?103 New facilities-based Service Provider Due Date
  ?104 New facilities-based Service Provider ID
  ?105 Authorization from old facilities-based Service Provider
  ?106 Local Routing Number (LRN)
  ?107 Class DPC
  ?108 Class SSN
  ?109 LIDB DPC
  ?110 LIDB SSN
  ?111 CNAM DPC
  ?112 CNAM SSN
  ?113 ISVM DPC
  ?114 ISVM SSN
  ?115 Billing Service Provider ID
  ?116 End User Location Value
  ?117 End User Location Type
  ?118 Customer Disconnect Date
  ?119 Effective Release Date
  ?120 Disconnect Broadcast Complete Time Stamp
  ?121 Conflict Time Stamp
  ?122 Activation Time Stamp
  ?123 Cancellation Time Stamp (Status Modified to Cancel Time Stamp)
  ?124 New Service Provider Creation Time Stamp
  ?125 Old Service Provider Authorization Time Stamp
  ?126 Pre-cancellation Status
  ?127 Old Service Provider Cancellation Time Stamp
  ?128 New Service Provider Cancellation Time Stamp
  ?129 Old Time Stamp (Status Modified to Old Time Stamp)
  ?130 New Service Provider Conflict Resolution Time Stamp
  ?131 Create Time Stamp
  ?132 Modify Time Stamp
  ?133 Porting To Original
  ?134 Status Change Cause Code

?135Business Hours

• 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:

?136Subscription Version ID
?137Subscription Version Status
?138Local Number Portability Type
?139Ported Telephone Number
?140Old facilities-based Service Provider Due Date
?141New facilities-based Service Provider Due Date
?142New facilities-based Service Provider ID
?143Old facilities-based Service Provider ID
?144Authorization from old facilities-based Service Provider
?145Status Change Cause Code
?146Location Routing Number (LRN)
?147Class DPC
?148Class SSN
?149LIDB DPC
?150LIDB SSN
?151CNAM DPC
?152CNAM SSN
?153ISVM DPC
?154ISVM SSN
?155Billing Service Provider ID
?156End-User Location Value
?157End User Location Type
?158Customer Disconnect Date
?159Effective Release Date
?160Disconnect Broadcast Complete Time Stamp
?161Conflict Time Stamp
?162Activation Time Stamp
?163Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
?164New Service Provider Creation Time Stamp
?165Old Service Provider Authorization Time Stamp
?166Pre-cancellation Status
?167Old Service Provider Cancellation Time Stamp
?168New Service Provider Cancellation Time Stamp
?169Old Time Stamp (Status Modified to Old Time Stamp)
?170New Service Provider Conflict Resolution Time Stamp
?171Create Time Stamp
?172Modified Time Stamp
?173Porting to Original
?174List of all Local SMSs that failed activation, modification, or disconnect.

?175Business Hours (for SOAs that support Business Hours)

• 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:

?176 Subscription Version ID
?177 Ported Telephone Number
?178 Location Routing Number (LRN)
?179 New facilities-based Service Provider ID
?180 Activation Time Stamp
?181 Customer Disconnect Date
?182 Class DPC
?183 Class SSN
?184 LIDB DPC
?185 LIDB SSN
?186 CNAM DPC
?187 CNAM SSN
?188 ISVM DPC
?189 ISVM SSN
?190 End-User Location Value
?191 End-User Location Type
?192 Billing Service Provider ID
?193 Local Number Portability Type

?194 *Business Hours (for Local SMS's that support Business Hours)*

?195 R4-29 Service Provider subscription query options

R5-15.1 Create "Inter-Service Provider Port" Subscription Version - New Service Provider Input Data
R5-18.1 Create Subscription Version - Field-level Data Validation
RR5-4   Create "Intra-Service Provider Port" Subscription Version - Current Service Provider Input Data
RR5-6.1 Create "Intra-Service Provider Port" Subscription Version - Field-level Data Validation
R5-74.3 Query Subscription Version - Output Data
R5-74.4   Query Subscription Version - Output Data

1. The following additional requirements 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.

2. Appendix C would need to be updated to show each ~~group of type of~~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 long business hours/days. New rows would be added to the table for the short business hours/days with values and defaults as indicated in the table above.

3. Requirements would need to be ~~developed~~ 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 -Long

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

RR3-11.2 Business Day Definition -Short

NPAC SMS short 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 Long Business Day Duration - Tunable Parameter Default

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

RR3-12.4 Short Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the short 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 Long Business Day Start Time - Tunable Parameter Default

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

RR3-13.4 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.

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. • Business Hours – True if the SOA and LSMS support query of business days/hours over the interface.
• Business Hour/Days	E	X	Business Hours supported by the Service Provider: S – Short Business Hours L – Long Business Hours

Requirement 4-15 would be modified to add the bold italicized text.

R4-15.2 Modify restrictions on Service Provider data - NPAC Operations Personnel

NPAC SMS shall allow NPAC Operations personnel to modify the data in Error: Reference source not found, with the exception of the NPAC Customer ID, *NPAC New Functionality Support and Business Hours/Days*

~~**Note:** Modifications of timer type would not be allowed after initial subscription version create due to the fact that timers would have been created upon creation of the pending subscription version.~~

GDMO Modifications

1. A ~~conditional Package~~GET only atribute would need to be added to the subscriptionVersion managed object class.

   ~~-- 20.0 LNP subscription Version Managed Object Class~~

   ~~subscriptionVersion MANAGED OBJECT CLASS~~
   ~~DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 : 1992":top;~~
   ~~CHARACTERIZED BY~~

~~SubscriptionVersionPkg,~~
        ~~BusinessTypePkg~~~~;~~
        ~~REGISTERED AS {LNP-OIDS.lnp-objectClass 20};~~<u>Object creation notification</u>

2. 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;
        ~~DEFAULT VALUE LNP-ASN1.LongBusinessType;~~
        BEHAVIOUR subscriptionTimerTypeBehavior;
        REGISTERED AS {LNP-OIDS.lnp-attribute ~~63~~<u>??</u>};

    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 long business hours/days
                (used primarily for wireline to wireline)
            ~~1 for medium business hours/days~~
                ~~(anticipated use for wireline to wireless)~~
            <u>1</u>~~2~~ for short business hours/days
                (anticipated use for wireless to wireless)

            ~~LongBusinessType~~<u>Long business (hours (0)</u>~~is~~<u>is set if any of the two</u>
            <u>service providers supports only long business hours.</u>
    ~~the default if no value is specified.~~
        !;

3. ~~The following package definition needs to be added:~~

    ~~Business Type Package~~

    ~~BusinessTypePkg PACKAGE~~
        ~~BEHAVIOUR BusinessTypePkgBehavior;~~
        ~~ATTRIBUTES~~
            ~~subscriptionBusinessType GET-REPLACE;~~
        ~~REGISTERED AS {LNP-OIDS.lnp-package ?};~~

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

4. ~~The following behavior needs to be modified in the~~
    ~~subscriptionVerionsNewSP Create Action~~

~~The new service provider may optionally specify valid values for the~~

following attributes:

subscriptionBusinessType – If this attribute is not specified then it is defaulted to 0 (long business hours/days). If it is specified and a service provider does not support variable business hours/days then create message will be rejected unless long business hours/days are specified.

ASN.1 Modifications

```
NewSP-CreateData ::= SEQUENCE {
    chc1 [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] LNPType,
    subscription-porting-to-original-sp-switch [18]
        SubscriptionPortingToOriginal-SPSwitch,
    subscription-business-type [19] EXPLICIT INTEGER 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,
```

4. ~~**LongBusinessType::= INTEGER(0)**~~

Change Order Number: NANC 203

IMPACT/CHANGE ASSESSMENT

FRS	IIS	ASN.1	GDMO		5. 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 could be used to indicate which ~~SOA and~~ LSMS systems support the new fields. SOA systems would only need to recompile if they intend to send the WSMSC DPC and SSN information. LSMS systems would only need to recompile if they indicated to the NPAC SMS that they would support downloading of the WSMSC DPC and SSN information.

~~ISSUE: Is the above statement valid? Once wireless porting begins can this routing data just be ignored by SOA and LSMS systems that do not yet support the values?~~

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. ~~The download data file format in the appendix~~

~~would also have to be updated.~~ 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:

?196 Subscriber 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 WSMS DPC
  ?16 *WSMS DPC (for Local SMS's that support WSMSC data)*
  ?17 *WSMS 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
?197 NPA-NXX-Download Data:
  ?26 NPA-NXX ID
  ?27 NPA-NXX Value
  ?28 NPAC Customer ID
  ?29 Effective TimeStamp
  ?30 Download Reason
?198 LRN-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 WSMCS DPC and SSN fields would be added to the end of the file.

?35 The 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:

?199Subscription Version ID
?200Subscription Version Status
?201Local Number Portability Type
?202Ported Telephone Number
?203Old facilities-based Service Provider Due Date
?204New facilities-based Service Provider Due Date
?205New facilities-based Service Provider ID
?206Authorization from old facilities-based Service Provider
?207Local Routing Number (LRN)
?208Class DPC
?209Class SSN
?210LIDB DPC
?211LIDB SSN
?212CNAM DPC
?213CNAM SSN
?214ISVM DPC
?215ISVM SSN
?216*WSMS DPC (for Local SMS's that support WSMSC data)*
?217*WSMS SSN (for Local SMS's that support WSMSC data)*
?218Billing Service Provider ID
?219End User Location Value
?220End User Location Type
?221Customer Disconnect Date
?222Effective Release Date
?223Disconnect Broadcast Complete Time Stamp
?224Conflict Time Stamp
?225Activation Time Stamp
?226Cancellation Time Stamp (Status Modified to Cancel Time Stamp)
?227New Service Provider Creation Time Stamp
?228Old Service Provider Authorization Time Stamp
?229Pre-cancellation Status
?230Old Service Provider Cancellation Time Stamp
?231New Service Provider Cancellation Time Stamp
?232Old Time Stamp (Status Modified to Old Time Stamp)
?233New Service Provider Conflict Resolution Time Stamp
?234Create Time Stamp
?235Modify Time Stamp
?236Porting To Original
?237Status Change Cause Code

- R5-15.1   Create "Inter-Service Provider Port" Subscription Version - New Service Provider Input Data *(SHOULD THIS BE R5-16 Optional? Optional raises some issues with DPC/SSN information.)*

- 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:

?238 LNP Type
?239 Ported TN(s)
?240 Old Service Provider Due Date
?241 New Service Provider Due Date
?242 Old Service Provider ID
?243 New Service Provider ID
?244 Authorization from old facilities-based Service Provider
?245 Status Change Cause Code
?246 LRN
?247 Class DPC
?248 Class SSN
?249 LIDB DPC
?250 LIDB SSN
?251 CNAM DPC
?252 CNAM SSN
?253 ISVM DPC
?254 ISVM SSN
?255 WSMSC DPC
?256 WSMSC SSN
?257 Porting to Original
?258 Billing Service Provider ID
?259 End-User Location – Value
?260 End-User Location - Type

- RR5-4   Create "Intra-Service Provider Port" Subscription Version - Current Service Provider Input Data *(SHOULD THIS BE RR5-4 Optional? Optional raises some issues with DPC/SSN information.)*

- 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:

?261 LNP Type
?262 Ported TN(s)
?263 Current Service Provider Due Date
?264 Old Service Provider ID
?265 New Service Provider ID
?266 LRN
?267 Class DPC
?268 Class SSN
?269 LIDB DPC
?270 LIDB SSN
?271 CNAM DPC

?272CNAM SSN
?273ISVM DPC
?274ISVM SSN
?275WSMSC DPC
?276WSMSC SSN
?277Billing Service Provider ID
?278End-User Location - Value
?279End-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:

?280Location Routing Number (LRN) - the identifier of the ported to switch.
?281Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is planned to occur.
?282Class DPC
?283Class SSN
?284LIDB DPC
?285LIDB SSN
?286CNAM DPC
?287CNAM SSN
?288ISVM DPC
?289ISVM SSN
?290WSMSC DPC
?291WSMSC SSN

?292

- 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.

?293LNP Type
?294Ported TN(s)
?295Old Service Provider Due Date
?296New Service Provider Due Date
?297Old Service Provider Authorization
?298Status Change Cause Code
?299Old Service Provider ID
?300New Service Provider ID
?301LRN
?302Class DPC
?303Class SSN

?304LIDB DPC
?305LIDB SSN
?306CNAM DPC
?307CNAM SSN
?308ISVM DPC
?309ISVM SSN
?310WSMSC DPC
?311WSMSC SSN
?312Billing Service Provider ID
?313End-User Location - Value
?314End-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:

?315Location Routing Number (LRN) - the identifier of the ported to switch
?316Class DPC
?317Class SSN
?318LIDB DPC
?319LIDB SSN
?320CNAM DPC
?321CNAM SSN
?322ISVM DPC
?323ISVM SSN
?324WSMSC DPC
?325WSMS 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:

?326LRN
?327Class DPC
?328Class SSN
?329LIDB DPC
?330LIDB SSN
?331CNAM DPC
?332CNAM SSN
?333ISVM DPC
?334ISVM SSN
?335WSMSC DPC
?336WSMSC SSN
?337Billing Service Provider ID
?338End-User Location – Value

?339 End-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:

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

?381 Subscription Version ID
?382 Ported Telephone Number
?383 Location Routing Number (LRN)
?384 New facilities-based Service Provider ID
?385 Activation Time Stamp
?386 Customer Disconnect Date
?387 Class DPC
?388 Class SSN
?389 LIDB DPC
?390 LIDB SSN
?391 CNAM DPC
?392 CNAM SSN
?393 ISVM DPC
?394 ISVM SSN
?395 *WSMSC DPC (for Local SMS's that support WSMSC data)*
?396 *WSMSC SSN (for Local SMS's that support WSMSC data)*
?397 End-User Location Value
?398 End-User Location Type
?399 Billing Service Provider ID
?400 Local 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	√	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. • WSMSC DPC SSN Data – True if the LSMS and SOA systems do not support WSMSC DPC and SSN Data in subscription versions.

Requirement 4-15 would be modified to add the bold italicized text.

R4-15.2   Modify restrictions on Service Provider data - NPAC Operations Personnel

NPAC SMS shall allow NPAC Operations personnel to modify the data in Error: Reference source not found, with the exception of the NPAC Customer ID *and NPAC New Functionality Support.*

ISSUE: Should the SOA get the WSMSC information on query? I think the SOA needs the support flag for this information.

GDMO Modifications

```
1. Conditional Packages would need to be added to the
     subscriptionVersion managed object class.
```

```
-- 20.0 LNP subscription Version Managed Object Class

subscriptionVersion MANAGED OBJECT CLASS
    DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :
1992":top;
    CHARACTERIZED BY
      subscriptionVersionPkg;
    CONDITIONAL PACKAGES
        WSMSC-DPC-Pkg PRESENT IF
            !the WSMCS DPC is present in the new SP Create!,
        WSMSC-SSN-Pkg PRESENT IF
            !the WSMCS SSN is present in the new SP Create!;
    REGISTERED AS {LNP-OIDS.lnp-objectClass 20};
```

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 ?63};

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 ?64};

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

4. The following package definitions need to be added:

```
-- WSMCS DPC Package

WSMCS-DPC-Pkg PACKAGE
    BEHAVIOUR WSMCS-DPC-PkgBehavior;
    ATTRIBUTES
        WSMCS-DPC GET-REPLACE;
    REGISTERED AS {LNP-OIDS.lnp-package ?};

WSMCS-DPC-PkgBehavior BEHAVIOUR
    DEFINED AS !
        This package provides for conditionally including the
        WSMCS-DPC attribute.
    !;

-- WSMCS SSN Package

WSMCS-SSN-Pkg PACKAGE
    BEHAVIOUR WSMCS-SSN-PkgBehavior;
    ATTRIBUTES
        WSMCS-SSN GET-REPLACE;
    REGISTERED AS {LNP-OIDS.lnp-package ?};

WSMCS-SSN-PkgBehavior BEHAVIOUR
    DEFINED AS !
        This package provides for conditionally including the
        WSMCS-SSN attribute.
    !;
```

5. 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
```

6. 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
         subscriptionLNPType
         subscriptionPortingToOriginal-SPSwitch
         subscriptionWSMCS-DPC
         subscriptionWSMCS-SSN
```

<u>ASN.1 Modifications</u>

```
NewSP-CreateData ::= SEQUENCE {
    chc1 [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] LNPType,
        subscription-porting-to-original-sp-switch [18]
            SubscriptionPortingToOriginal-SPSwitch,
        subscription-wsmsc-dpc [19] EXPLICIT DPC OPTIONAL,
        subscription-wsmcs-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 LNPType,
        subscription-porting-to-original-sp-switch [18]
            EXPLICIT SubscriptionPortingToOriginal-SPSwitch,
        subscription-wsmsc-dpc [19] EXPLICIT DPC,
        subscription-wsmcs-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] LNPType,
    subscription-download-reason [16] DownloadReason,
    subscription-wsmsc-dpc [17] EXPLICIT DPC OPTIONAL,
    subscription-wsmcs-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-wsmsc-dpc [19] EXPLICIT DPC OPTIONAL,
    subscription-wsmcs-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-wsmsc-dpc [16] EXPLICIT DPC OPTIONAL,
    subscription-wsmcs-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:

?401 Specific Service provider network **or** ALL Service Providers networks
?402 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:

?403 Specific Service Provider network **or** ALL Service Providers networks.
?404 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,
        wsmsc-data BOOLEAN OPTIONAL   -- I used optional
                                      -- for backward
compatibilityOPTIONAL 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-subscriptionLNPType LNPType,
    npac-subscriptionLNPType LNPType
} 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	6.	SOA	LSMS
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)T1, and Create Subscription Version Final Concurrence Window (T2 Timer)T2, and object creation notifications to service providers that support Inter Service Provider processing. The object creation notification (initial creation notification) will also need the information added. Other notifications need to be analyzed. 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	Name — 40 character
Address Line 1	Address Line 1 — 40 character
Address Line 2	Address Line 2 — 40 character
City	City — 20 character
State	State — 2 character
Zip	Zip — 9 digitscharacter
Country	Country — 20 character
Province	Province — 2 character

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

~~*This change order is considered to be a Phase 2 business requirement. It was suggested that a front-end solution be considered where new FOC/LSR type information is sent in messages prior to the create process. The group is investigating other options.*~~

~~*Change Order Number: NANC 205*~~

~~*IMPACT/CHANGE ASSESSMENT*~~

~~Wireless Porting before Due Date~~

~~Wireless Service providers in wireless to wireless porting wish to be able to port once concurrence is received from both Old in New Service Providers. This will allow the port to occur prior to the due date and time.~~

~~Support of a new LNP Type was suggested as a. The LNP Type could then be used by the NPAC for the edit on when an activate could occur.~~

~~Today if both SP's concur and the due date specified on the SV is today then the activate could occur immediately. This may eliminate the need for change order NANC 201.~~

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. ***Query is still an issue for the SOA and LSMS.***
NANC 204 – Inter Service Provider Communication	TBD	