

Wireless Change Order Requirements – 054/1824/98

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.

~~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 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.

New Service Provider	OLD 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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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

- ~~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:

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

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

•

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 and LSMS support query 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
<u>Port Out Timer Type</u>	<u>E</u>	<u>X</u>	<u>Timer type supported by the Service Provider for porting were they are the Old Service Provider:</u> <u>S – Short Timers</u> <u>L – Long Timers</u>

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.***

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.

~~Add object creation notification!!~~

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

~~-- 7.0 LNP Log Record for the Subscription Version New SP Create Request
-- Notification~~

```

lnpLogNewSP-CreateRequestRecord MANAGED OBJECT CLASS
  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :
  1992":eventLogRecord;
  CHARACTERIZED BY
    lnpLogNewSP-CreateRequestPkg;
  CONDITIONAL PACKAGES
    subscriptionCustomerInformationPkg PRESENT IF
      !the service provider has customer address and contact
      information!;
  REGISTERED AS {LNP-OIDS.lnp-objectClass 7};

lnpLogNewSP-CreateRequestPkg PACKAGE
  BEHAVIOUR
    lnpLogNewSP-CreateRequestDefinition,
    lnpLogNewSP-CreateRequestBehavior;
  ATTRIBUTES
    subscriptionTN GET,
    subscriptionVersionId GET,
    subscriptionOldSP GET,
    subscriptionOldSP-DueDate GET,

```

```
subscriptionOldSP-Authorization GET,  
subscriptionOldSP-AuthorizationTimeStamp GET,  
subscriptionStatusChangeCauseCode GET,  
accessControl GET,  
subscriptionCustomerInformation GET-REPLACE;  
;
```

```
lnpLogNewSP-CreateRequestDefinition BEHAVIOUR  
DEFINED AS !  
The lnpLogNewSP-CreateRequestRecord class is the managed  
object that is used to create log records for the  
subscriptionVersionNewSP-CreateRequest Notification.  
!;
```

```
lnpLogNewSP-CreateRequestBehavior BEHAVIOUR  
DEFINED AS !  
This log record can be used by any CME wanting to log the  
subscriptionVersionNewSP-CreateRequest Notification.  
!;
```

```
-- 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  
subscriptionCustomerInformationPkg subscriptionTimerTypePkg PRESENT  
IF  
!the present if the Old SP SOA supports timer typeservice  
provider has customer address and contact  
information!;  
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  
subscriptionCustomerInformation subscriptionTimerType GET-  
REPLACE;  
;
```

```
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!;
    subscriptionCustomerInformationPkg PRESENT IF
      !the service provider has customer address and contact
information!;
  REGISTERED AS {LNP-OIDS.lnp-objectClass 26};

lnpLogOldSPFinalConcurrenceWindowExpirationPkg PACKAGE
  BEHAVIOUR
    lnpLogOldSPFinalConcurrenceWindowExpirationDefinition,
    lnpLogOldSPFinalConcurrenceWindowExpirationBehavior;
  ATTRIBUTES
    subscriptionTN GET,
    subscriptionVersionId GET,
    accessControl GET,
    subscriptionCustomerInformation subscriptionTimerType GET-
REPLACE;
  ;

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.
  !;

-- 106.0 LNP Subscription Customer Information

subscriptionCustomerInformation ATTRIBUTE
  WITH ATTRIBUTE SYNTAX LNP-ASN1.AddressInformation;
  MATCHES FOR EQUALITY, ORDERING;
  BEHAVIOUR subscriptionCustomerInformationBehavior;
  REGISTERED AS {LNP-OIDS.lnp-attribute 106};

subscriptionCustomerInformationBehavior BEHAVIOUR
  DEFINED AS !
  This attribute is used to specify the new service provider
  originated subscription customer address and contact information.
  !;

-- 27??0 LNP Subscription Customer InformationTimer Type Package

```

```

subscriptionCustomerInformationPkg subscriptionTimerTypePkg PACKAGE
BEHAVIOUR subscriptionTimerTypeCustomerInformationPkgBehavior;
ATTRIBUTES
subscriptionTimerTypeCustomerInformation GETT-REPLACE;
REGISTERED AS {LNP-OIDS.lnp-package 27??};
subscriptionCustomerInformationPkgBehavior BEHAVIOUR
DEFINED AS !
This package provides for conditionally including the
subscriptionCustomerInformation subscriptionTimerType attribute.
!;

```

6.0 LNP Subscription Version Local SMS Create Action

```

subscriptionVersionLocalSMS-CreateBehavior BEHAVIOUR
DEFINED AS !
Preconditions: This action is issued from an lnpSubscriptions
object specifying the object(s) to be created by
the subscriptionVersionId and the subscriptionTN. All attribute
values required for creation will be supplied.
Postconditions: A successful reply indicates the Local SMS can
decipher the subscription version create action. An error will be
returned to the NPAC SMS if the Local SMS cannot recognize the
action data.
The Local SMS will attempt to create all the specified
subscription
versions. It will return the subscriptionVersionActionResults
notification to the NPAC SMS informing it of the success or
failure of the creation attempts.
If the SP supports customer address information for Inter Service
Provider communication processing, it may be specified in the
create.
!;

```

7.0 LNP Subscription Version Modify Action

```

subscriptionVersionModifyBehavior BEHAVIOUR
DEFINED AS !
Preconditions: This action is issued from an lnpSubscriptions
object specifying the object to be modified by either
the subscriptionVersionId, the subscriptionTN or a range of TNs
and
optionally the status of the subscription version. All attribute
values to be modified shall also be specified.
Postconditions: The service provider has modified the
subscription
version. An error will be returned to the service provider if
there is no version that is modifiable or if the modification
fails
due to authorization of the service provider or data validation.
Service Providers can modify attributes associated with active,
pending or conflict subscription versions.
Old service providers can only modify the following attributes
for pending, cancel-pending, or conflict subscription versions:
subscriptionOldSP-DueDate
subscriptionOldSP-Authorization

```


subscriptionStatusChangeCauseCode

The subscriptionStatusChangeCauseCode is an optional field and is only specified if the subscriptionOldSP-Authorization is false.

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
subscriptionCustomerInformation

Validation will be done for both old and new service provider data that is specified for pending, cancel-pending, or conflict subscription versions.

If validation fails no changes will be made and an error will be returned. If validation passes, the version will be modified and remain in a pending or active state.

New service providers can only modify the following attributes for active subscription versions:

subscriptionLRN
subscriptionCLASS-DPC
subscriptionCLASS-SSN
subscriptionLIDB-DPC
subscriptionLIDB-SSN
subscriptionCNAM-DPC
subscriptionCNAM-SSN
subscriptionISVM-DPC
subscriptionISVM-SSN
subscriptionEndUserLocationValue
subscriptionEndUserLocationType
subscriptionBillingId

If the data specified passes validation, the modified version is immediately activated. The modified subscription version will have

a status of sending and broadcasts will begin. If validation fails,
no changes will be made and an error will be returned in the action
reply.

The subscriptionCustomerInformation field would only be returned in queries that are initiated by the old and new service providers prior to the subscription version activation.

!;

-- 9.0 LNP Subscription Version New SP Create Request Notification

subscriptionVersionNewSP-CreateRequest NOTIFICATION

BEHAVIOUR subscriptionVersionNewSP-CreateRequestBehavior;
WITH INFORMATION SYNTAX LNP-ASN1.VersionNewSP-CreateRequest
AND ATTRIBUTE IDS

tn subscriptionTN,
version-id subscriptionVersionId,
service-prov-id subscriptionOldSP,
service-prov-due-date subscriptionOldSP-DueDate,
service-prov-authorization subscriptionOldSP-Authorization,
service-prov-authorization-creation-time-stamp
subscriptionOldSP-AuthorizationTimeStamp,
status-change-cause-code subscriptionStatusChangeCauseCode,
access-control accessControl,
subscription-customer-information

subscriptionCustomerInformation;

REGISTERED AS {LNP-OIDS.lnp-notification 9};

subscriptionVersionNewSP-CreateRequestBehavior BEHAVIOUR

DEFINED AS !

This notification requests that a new service provider send
a create request for a subscription version for which
concurrency for porting the number has not been received.
The TN, the version id and the old service provider id,
authorization flag and authorization timestamp values are sent.

If

the new service provider supports Inter Service Provider
communication processing, customer address information will
also need to be sent.

!;

-- 10.0 LNP Subscription Version Old SP Concurrency Request Notification

subscriptionVersionOldSP-ConcurrencyRequest NOTIFICATION

BEHAVIOUR subscriptionVersionOldSP-ConcurrencyRequestBehavior;
WITH INFORMATION SYNTAX LNP-ASN1.VersionOldSP-ConcurrencyRequest
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-customer-informationtimer-type

subscriptionCustomerInformationsubscriptionTimerType;

REGISTERED AS {LNP-OIDS.lnp-notification 10};

subscriptionVersionOldSP-ConcurrencyRequestBehavior BEHAVIOUR

DEFINED AS !

This notification requests that a old service provider send
a create request for a subscription version for which
concurrency 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 new old service provider supports Inter Service Provider
communication processing, customer address timer type, it will be
sent. information will

also need to be sent.

!;

-- 12.0 LNP Subscription Version Final Concurrency 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-customertimer-information type
subscriptionCustomerInformationsubscriptionTimerType;
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 new old service provider supports Inter Service Provider
communication

processing, customer address information will need to be
sent.timer type, it will be sent.

!;

ModifyAction ::= SEQUENCE {

subscription-version-action [0] EXPLICIT
SubscriptionVersionAction,
version-status [1] VersionStatus OPTIONAL,
data-to-modify [2] SubscriptionModifyData,
subscription-customer-information AddressInformation OPTIONAL
}

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-subscription-customer-informationtimer-type
AddressInformation Integer OPTIONAL
}

VersionNewSP-CreateRequest ::= SEQUENCE {

version-create-request [0] VersionCreateConcurrenceRequest,
service-prov-old-authorization [1] ServiceProvAuthorization,
subscription-status-change-cause-code [2]
SubscriptionStatusChangeCauseCode,
subscription-customer-information [3] AddressInformation OPTIONAL
}

VersionOldSPFinalConcurrenceWindowExpiration ::= SEQUENCE {

tn PhoneNumber,
version-id LnpKey,
access-control LnpAccessControl,
subscription-subscription-customer-information
AddressInformationtimer-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 ~~be defined uniquely~~ 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	Long-Short Timer Default	Short-Long 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

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 ~~shortened~~ 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.

~~The NANC T&O group selected solution 2.~~

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:

?99 Subscription Version ID
?100Subscription Version Status
?101Local Number Portability Type
?102Ported Telephone Number
?103Old facilities-based Service Provider Due Date
?104New facilities-based Service Provider Due Date
?105New facilities-based Service Provider ID
?106Authorization from old facilities-based Service Provider
?107Local Routing Number (LRN)
?108Class DPC
?109Class SSN
?110LIDB DPC
?111LIDB SSN
?112CNAM DPC
?113CNAM SSN
?114ISVM DPC
?115ISVM SSN
?116Billing Service Provider ID
?117End User Location Value
?118End User Location Type
?119Customer Disconnect Date
?120Effective Release Date
?121Disconnect Broadcast Complete Time Stamp
?122Conflict Time Stamp
?123Activation Time Stamp
?124Cancellation Time Stamp (Status Modified to Cancel Time Stamp)
?125New Service Provider Creation Time Stamp
?126Old Service Provider Authorization Time Stamp
?127Pre-cancellation Status
?128Old Service Provider Cancellation Time Stamp
?129New Service Provider Cancellation Time Stamp
?130Old Time Stamp (Status Modified to Old Time Stamp)
?131New Service Provider Conflict Resolution Time Stamp
?132Create Time Stamp
?133Modify Time Stamp
?134Porting To Original
?135Status Change Cause Code
?136*Business Hour Types*

- 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:

?137Subscription Version ID
?138Subscription Version Status

?139Local Number Portability Type
 ?140Ported Telephone Number
 ?141Old facilities-based Service Provider Due Date
 ?142New facilities-based Service Provider Due Date
 ?143New facilities-based Service Provider ID
 ?144Old facilities-based Service Provider ID
 ?145Authorization from old facilities-based Service Provider
 ?146Status Change Cause Code
 ?147Location Routing Number (LRN)
 ?148Class DPC
 ?149Class SSN
 ?150LIDB DPC
 ?151LIDB SSN
 ?152CNAM DPC
 ?153CNAM SSN
 ?154ISVM DPC
 ?155ISVM SSN
 ?156Billing Service Provider ID
 ?157End-User Location Value
 ?158End User Location Type
 ?159Customer Disconnect Date
 ?160Effective Release Date
 ?161Disconnect Broadcast Complete Time Stamp
 ?162Conflict Time Stamp
 ?163Activation Time Stamp
 ?164Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
 ?165New Service Provider Creation Time Stamp
 ?166Old Service Provider Authorization Time Stamp
 ?167Pre-cancellation Status
 ?168Old Service Provider Cancellation Time Stamp
 ?169New Service Provider Cancellation Time Stamp
 ?170Old Time Stamp (Status Modified to Old Time Stamp)
 ?171New Service Provider Conflict Resolution Time Stamp
 ?172Create Time Stamp
 ?173Modified Time Stamp
 ?174Porting to Original
 ?175List of all Local SMSs that failed activation, modification, or disconnect.

?176*Business Hour Types* (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:

?177Subscription Version ID
 ?178Ported Telephone Number
 ?179Location Routing Number (LRN)
 ?180New facilities-based Service Provider ID
 ?181Activation Time Stamp
 ?182Customer Disconnect Date
 ?183Class DPC

?184Class-SSN
?185LHDB-DPC
?186LHDB-SSN
?187CNAM-DPC
?188CNAM-SSN
?189ISVM-DPC
?190ISVM-SSN
?191End-User-Location-Value
?192End-User-Location-Type
?193Billing-Service-Provider-ID
?194Local-Number-Portability-Type

?195Business Hours (for Local SMS's 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:

R5-19.3 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.

R5-19.4 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 **longshort** business hours/days. New rows would be added to the table for the **shortlong** 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 -~~Long~~Short

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

RR3-11.2 Business Day Definition -ShortLong

NPAC SMS shortlong 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 LongShort Business Day Duration - Tunable Parameter Default

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

RR3-12.4 ShortLong Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the shortlong 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 LongShort Business Day Start Time - Tunable Parameter Default

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

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

NPAC SMS shall default the *shortlong* Business Day Start Time tunable parameter to 87:00 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 and LSMS support query of 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

~~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***~~

GDMO/ASN.1 Modifications

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

~~Object creation notification~~

- ~~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.

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

```
-- 7.0 LNP Log Record for the Subscription Version New SP Create
Request
-- Notification

lnpLogNewSP-CreateRequestRecord MANAGED OBJECT CLASS
  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :
1992":eventLogRecord;
  CHARACTERIZED BY
    lnpLogNewSP-CreateRequestPkg;
  CONDITIONAL PACKAGES
    subscriptionCustomerInformationPkg PRESENT IF
    !the service provider has customer address and contact
    information!;
  REGISTERED AS {LNP-OIDS.lnp-objectClass 7};

lnpLogNewSP-CreateRequestPkg PACKAGE
  BEHAVIOUR
    lnpLogNewSP-CreateRequestDefinition,
    lnpLogNewSP-CreateRequestBehavior;
  ATTRIBUTES
    subscriptionTN GET,
    subscriptionVersionId GET,
    subscriptionOldSP GET,
    subscriptionOldSP-DueDate GET,
    subscriptionOldSP-Authorization GET,
    subscriptionOldSP-AuthorizationTimeStamp GET,
    subscriptionStatusChangeCauseCode GET,
    accessControl GET,
    subscriptionCustomerInformation GET-REPLACE;
  ;

lnpLogNewSP-CreateRequestDefinition BEHAVIOUR
  DEFINED AS !
  The lnpLogNewSP-CreateRequestRecord class is the managed
  object that is used to create log records for the
  subscriptionVersionNewSP-CreateRequest Notification.
  !;

lnpLogNewSP-CreateRequestBehavior BEHAVIOUR
  DEFINED AS !
  This log record can be used by any CME wanting to log the
  subscriptionVersionNewSP-CreateRequest Notification.
  !;

-- 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
  subscriptionCustomerInformationPkg subscriptionBusinessTypePkg
PRESENT IF
  !the present if the Old SP SOA supports business typeservice
  provider has customer address and contact
  information!;
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
  subscriptionCustomerInformation subscriptionBusinessType GET-
REPLACE;
  ;

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!;
    subscriptionCustomerInformationPkg PRESENT IF
      !the service provider has customer address and contact
      information!;
  REGISTERED AS {LNP-OIDS.lnp-objectClass 26};

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

```

```

subscriptionCustomerInformation subscriptionBusinessType GET-
REPLACE;
_____;

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.
_____!;

-- 106.0 LNP Subscription Customer Information

subscriptionCustomerInformation ATTRIBUTE
WITH ATTRIBUTE SYNTAX LNP-ASN1.AddressInformation;
MATCHES FOR EQUALITY, ORDERING;
BEHAVIOUR subscriptionCustomerInformationBehavior;
REGISTERED AS {LNP-OIDS.lnp-attribute 106};

subscriptionCustomerInformationBehavior BEHAVIOUR
DEFINED AS !
_____
_____This attribute is used to specify the new service provider
_____originated subscription customer address and contact
_____information.
_____!;

-- 27???.0 LNP Subscription Customer InformationBusiness Type Package

subscriptionCustomerInformationPkg subscriptionBusinessTypePkg PACKAGE
BEHAVIOUR subscriptionBusinessTypeCustomerInformationPkgBehavior;
ATTRIBUTES
_____subscriptionBusinessTypeCustomerInformation GETT-REPLACE;
REGISTERED AS {LNP-OIDS.lnp-package 27??};

subscriptionCustomerInformationPkgBehavior BEHAVIOUR
DEFINED AS !
_____
_____This package provides for conditionally including the
_____subscriptionCustomerInformation subscriptionBusinessType
_____attribute.
_____!;

6.0 LNP Subscription Version Local SMS Create Action
...
subscriptionVersionLocalSMS-CreateBehavior BEHAVIOUR
DEFINED AS !
_____
_____Preconditions: This action is issued from an lnpSubscriptions
_____object specifying the object(s) to be created by
_____the subscriptionVersionId and the subscriptionTN. All
_____attribute
_____values required for creation will be supplied.
_____
_____Postconditions: A successful reply indicates the Local SMS can

```

decipher the subscription version create action. An error will be returned to the NPAC SMS if the Local SMS cannot recognize the action data.

The Local SMS will attempt to create all the specified subscription versions. It will return the subscriptionVersionActionResults notification to the NPAC SMS informing it of the success or failure of the creation attempts.

If the SP supports customer address information for Inter Service Provider communication processing, it may be specified in the create.

!;

7.0 LNP Subscription Version Modify Action

subscriptionVersionModifyBehavior BEHAVIOUR
DEFINED AS !

Preconditions: This action is issued from an lnpSubscriptions object specifying the object to be modified by either the subscriptionVersionId, the subscriptionTN or a range of TNs and optionally the status of the subscription version. All attribute values to be modified shall also be specified.

Postconditions: The service provider has modified the subscription version. An error will be returned to the service provider if there is no version that is modifiable or if the modification fails due to authorization of the service provider or data validation.

Service Providers can modify attributes associated with active, pending or conflict subscription versions.

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

subscriptionOldSP-DueDate
subscriptionOldSP-Authorization
subscriptionStatusChangeCauseCode

The subscriptionStatusChangeCauseCode is an optional field and is only specified if the subscriptionOldSP-Authorization is false.

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
subscriptionCustomerInformation

Validation will be done for both old and new service provider
data that is specified for pending, cancel-pending, or
conflict
subscription versions.

If validation fails no changes will be made and an error
will be returned. If validation passes, the version will be
modified and remain in a pending or active state.

New service providers can only modify the following attributes
for active subscription versions:

subscriptionLRN
subscriptionCLASS-DPC
subscriptionCLASS-SSN
subscriptionLIDB-DPC
subscriptionLIDB-SSN
subscriptionCNAM-DPC
subscriptionCNAM-SSN
subscriptionISVM-DPC
subscriptionISVM-SSN
subscriptionEndUserLocationValue
subscriptionEndUserLocationType
subscriptionBillingId

If the data specified passes validation, the modified version
is immediately activated. The modified subscription version
will have
a status of sending and broadcasts will begin. If validation
fails,
no changes will be made and an error will be returned in the
action
reply.

The subscriptionCustomerInformation field would only be
returned in
queries that are initiated by the old and new service
providers prior
to the subscription version activation.

!;

-- 9.0 LNP Subscription Version New SP Create Request Notification

subscriptionVersionNewSP-CreateRequest NOTIFICATION
BEHAVIOUR subscriptionVersionNewSP-CreateRequestBehavior;
WITH INFORMATION SYNTAX LNP-ASN1.VersionNewSP-CreateRequest
AND ATTRIBUTE IDS
tn subscriptionTN,
version-id subscriptionVersionId,
service-prov-id subscriptionOldSP,
service-prov-due-date subscriptionOldSP-DueDate,
service-prov-old-authorization subscriptionOldSP-
Authorization,
service-prov-authorization-creation-time-stamp

```

subscriptionOldSP-AuthorizationTimeStamp,
status-change-cause-code subscriptionStatusChangeCauseCode,
access-control accessControl,
subscription-customer-information
subscriptionCustomerInformation;
REGISTERED AS {LNP-OIDS.lnp-notification 9};

subscriptionVersionNewSP-CreateRequestBehavior BEHAVIOUR
DEFINED AS !
This notification requests that a new service provider send
a create request for a subscription version for which
concurrency for porting the number has not been received.
The TN, the version id and the old service provider id,
authorization flag and authorization timestamp values are
sent. If
the new service provider supports Inter Service Provider
communication processing, customer address information will
also need to be sent.
!;

-- 10.0 LNP Subscription Version Old SP Concurrency Request
Notification

subscriptionVersionOldSP-ConcurrencyRequest NOTIFICATION
BEHAVIOUR subscriptionVersionOldSP-ConcurrencyRequestBehavior;
WITH INFORMATION SYNTAX LNP-ASN1.VersionOldSP-ConcurrencyRequest
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-customer-informationbusiness-type
subscriptionCustomerInformationsubscriptionBusinessType;
REGISTERED AS {LNP-OIDS.lnp-notification 10};

subscriptionVersionOldSP-ConcurrencyRequestBehavior BEHAVIOUR
DEFINED AS !
This notification requests that a old service provider send
a create request for a subscription version for which
concurrency 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 new old service provider supports Inter Service Provider
communication processing, customer addressbusiness type, it
will be sent. information will
also need to be sent.
!;

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

subscriptionVersionOldSPFinalConcurrencyWindowExpiration NOTIFICATION
BEHAVIOUR
subscriptionVersionOldSPFinalConcurrencyWindowExpirationBehavior;
WITH INFORMATION SYNTAX
LNP-ASN1.VersionOldSPFinalConcurrencyWindowExpiration
AND ATTRIBUTE IDS
tn subscriptionTN,
version-id subscriptionVersionId,
access-control accessControl,

```



```

subscription-customerbusiness-information type
subscriptionCustomerInformationsubscriptionBusinessType;
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 new old service provider supports Inter Service Provider
communication
processing, customer address information will need to be
sent.business type, it will be sent.
!;

```

ASN.1 Modifications

```

ModifyAction ::= SEQUENCE {
subscription-version-action [0] EXPLICIT
SubscriptionVersionAction,
version-status [1] VersionStatus OPTIONAL,
data-to-modify [2] SubscriptionModifyData,
subscription-customer-information AddressInformation OPTIONAL
}

```

```

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-subscription-customer-informationbusiness-type
AddressInformation Integer OPTIONAL
}

```

```

VersionNewSP-CreateRequest ::= SEQUENCE {
version-create-request [0] VersionCreateConcurrenceRequest,
service-prov-old-authorization [1] ServiceProvAuthorization,
subscription-status-change-cause-code [2]
SubscriptionStatusChangeCauseCode,
subscription-customer-information [3] AddressInformation OPTIONAL
}

```

```

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

```

4. 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~~~~long~~ business hours/days
(used primarily for wireline to wireline)
- 1 for ~~long~~~~short~~ business hours/days
(anticipated use for wireless to wireless)

~~long~~~~Short~~ business hours (0) is set if any of the two service providers supports only ~~long~~~~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 ~~could~~~~will~~ be used to indicate which LSMS and SOA 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.

FRS Modifications

- 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.

- 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:

?196Subscriber 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 *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

?197NPA-NXX-Download Data:

- ?26 NPA-NXX ID
- ?27 NPA-NXX Value
- ?28 NPAC Customer ID
- ?29 Effective TimeStamp
- ?30 Download Reason

?198LRN-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 WSMSCS DPC and SSN fields would be added to the end of the [file line if the Service provider requesting the file supports the data.](#)

?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:

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

?238 Local Number Portability Type - Port Type. This field must be set to "LSPP" for Inter-Service Provider ports.

?239 Ported 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.

?240 Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur.

?241 New Facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider.

?242 Old Facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider.

?243 Location Routing Number (LRN) - the identifier of the ported-to switch.

?244 Class DPC

?245 Class SSN

?246 LIDB DPC

?247 LIDB SSN

?248 CNAM DPC

?249 CNAM SSN

?250 ISVM DPC

?251 ISVM SSN

?252 **WSMSC DPC (if supported by the Service Provider SOA)**

?253 **WSMSC SSN (if supported by the Service Provider SOA)**

?254 Porting 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.

?255 ~~(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:

?256 LNP Type

?257 Ported TN(s)

?258 Old Service Provider Due Date

?259 New Service Provider Due Date

?260 Old Service Provider ID

?261 New Service Provider ID

?262 Authorization from old facilities-based Service Provider

?263 Status Change Cause Code

?264 LRN

?265Class DPC
?266Class SSN
?267LIDB DPC
?268LIDB SSN
?269CNAM DPC
?270CNAM SSN
?271ISVM DPC
?272ISVM SSN
?273WSMSC DPC
?274WSMSC SSN
?275Porting to Original
?276Billing Service Provider ID
?277End-User Location – Value
?278End-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.)*

RR5-4 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:

- ?279LNP Type - port type This field must be set to “LISP for Intra-Service Provider support.
- ?280Ported 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.
- ?281Due Date - date on which Intra-Service Provider port is planned to occur.
- ?282New facilities-based Service Provider ID - current Service Provider within which the Intra-Service Provider port will occur.
- ?283Old facilities-based Service Provider ID - current Service Provider within which the Intra-Service Provider port will occur.
- ?284Location Routing Number (LRN) - identifier of the ported-to switch
- ?285Class DPC
- ?286Class SSN
- ?287LIDB DPC
- ?288LIDB SSN
- ?289CNAM DPC
- ?290CNAM SSN
- ?291ISVM DPC
- ?292ISVM SSN
- ?293WSMSC DPC (if supported by the Service Provider SOA)**
- ?294WSMSC 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:

?295LNP Type
?296Ported TN(s)
?297Current Service Provider Due Date
?298Old Service Provider ID
?299New Service Provider ID
?300LRN
?301Class DPC
?302Class SSN
?303LIDB DPC
?304LIDB SSN
?305CNAM DPC
?306CNAM SSN
?307ISVM DPC
?308ISVM SSN
?309WSMSC DPC
?310WSMSC SSN
?311Billing Service Provider ID
?312End-User Location - Value
?313End-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:

?314Location Routing Number (LRN) - the identifier of the ported to switch.
?315Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is planned to occur.
?316Class DPC
?317Class SSN
?318LIDB DPC
?319LIDB SSN
?320CNAM DPC
?321CNAM SSN
?322ISVM DPC
?323ISVM SSN
?324WSMSC DPC
?325WSMSC SSN

?326

- 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.

?327LNP Type
?328Ported TN(s)
?329Old Service Provider Due Date
?330New Service Provider Due Date
?331Old Service Provider Authorization
?332Status Change Cause Code
?333Old Service Provider ID
?334New Service Provider ID
?335LRN
?336Class DPC
?337Class SSN
?338LIDB DPC
?339LIDB SSN
?340CNAM DPC
?341CNAM SSN
?342ISVM DPC
?343ISVM SSN
?344WSMSC DPC
?345WSMSC SSN
?346Billing Service Provider ID
?347End-User Location - Value
?348End-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:

?349Location Routing Number (LRN) - the identifier of the ported to switch
?350Class DPC
?351Class SSN
?352LIDB DPC
?353LIDB SSN
?354CNAM DPC
?355CNAM SSN
?356ISVM DPC
?357ISVM SSN
?358WSMSC DPC
?359WSMSC 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:

?360LRN
?361Class DPC
?362Class SSN
?363LIDB DPC
?364LIDB SSN
?365CNAM DPC
?366CNAM SSN
?367ISVM DPC
?368ISVM SSN
?369WSMSC DPC
?370WSMSC SSN
?371Billing Service Provider ID
?372End-User Location – Value
?373End-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:

?374Subscription Version ID
?375Subscription Version Status
?376Local Number Portability Type
?377Ported Telephone Number
?378Old facilities-based Service Provider Due Date
?379New facilities-based Service Provider Due Date
?380New facilities-based Service Provider ID
?381Old facilities-based Service Provider ID
?382Authorization from old facilities-based Service Provider
?383Status Change Cause Code
?384Location Routing Number (LRN)
?385Class DPC
?386Class SSN
?387LIDB DPC
?388LIDB SSN
?389CNAM DPC
?390CNAM SSN
?391ISVM DPC
?392ISVM SSN
?393WSMSC DPC (for SOAs that support WSMSC data)
?394WSMSC SSN (for SOAs that support WSMSC data)
?395Billing Service Provider ID
?396End-User Location Value
?397End User Location Type
?398Customer Disconnect Date
?399Effective Release Date

- ?400Disconnect Broadcast Complete Time Stamp
- ?401Conflict Time Stamp
- ?402Activation Time Stamp
- ?403Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
- ?404New Service Provider Creation Time Stamp
- ?405Old Service Provider Authorization Time Stamp
- ?406Pre-cancellation Status
- ?407Old Service Provider Cancellation Time Stamp
- ?408New Service Provider Cancellation Time Stamp
- ?409Old Time Stamp (Status Modified to Old Time Stamp)
- ?410New Service Provider Conflict Resolution Time Stamp
- ?411Create Time Stamp
- ?412Modified Time Stamp
- ?413Porting to Original
- ?414List 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:

- ?415Subscription Version ID
- ?416Ported Telephone Number
- ?417Location Routing Number (LRN)
- ?418New facilities-based Service Provider ID
- ?419Activation Time Stamp
- ?420Customer Disconnect Date
- ?421Class DPC
- ?422Class SSN
- ?423LIDB DPC
- ?424LIDB SSN
- ?425CNAM DPC
- ?426CNAM SSN
- ?427ISVM DPC
- ?428ISVM SSN
- ?429WSMSC DPC (for Local SMS's that support WSMSC data)**
- ?430WSMSC SSN (for Local SMS's that support WSMSC data)**
- ?431End-User Location Value
- ?432End-User Location Type
- ?433Billing Service Provider ID
- ?434Local 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.
--------------------------------	---	---	---

			<ul style="list-style-type: none"> • LSMS WSMSC DPC SSN Data – True if the LSMS and SOA systems 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.
--	--	--	--

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~~ [WSMSC attributes](#) 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!;
— subscriptionWSMSC-DPC GET-REPLACE
— subscriptionWSMSC-SSN GET-REPLACE — 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 ?};
```

```
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 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
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-wsmcs-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 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-wsmc-dpc [17] EXPLICIT DPC OPTIONAL,
subscription-wsmc-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-wsmc-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-wsmc-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:

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

?436 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:

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

?438 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 -- 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
  }
}
```


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 Concurrency Window (T1 Timer), Create Subscription Version Final Concurrency 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. <i>Query is still an issue for the SOA and LSMS.</i>
NANC 204 – Inter Service Provider Communication	TBD	