

Origination Date: 8/31/09

Originator: LNPAWG

Change Order Number: NANC 440

Description: FCC Order, Medium Timers

Functionally Backward Compatible: Yes

IMPACT/CHANGE ASSESSMENT

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

Business Need:

(As extracted from the LNPAWG “Recommended Plan for Implementation of FCC Order 09-41”, version 3, 9/17/09)

On May 13, 2009, the Federal Communications Commission (FCC) adopted and released FCC Order 09-41, which mandates industry implementation of a one Business Day porting interval for simple ports.

During the development of the recommended requirements in support of FCC Order 09-41, the LNPAWG identified the following Change Orders required for the NPAC to support the shortened porting interval. These changes in the NPAC will also require changes in Service Provider local systems, e.g., SOA, LSMS, Operational Support Systems (OSSs), etc.

It is necessary for the LNPA WG to develop the detailed technical requirements for these Change Orders in order for NPAC, local system vendors, and Service Providers to develop and implement the software changes in time to meet the mandated implementation date. The development and finalization of these technical requirements will begin immediately.

At a high level, two Change Orders have been identified for development:

- A new additional NPAC timer set (called Medium timers) in support of the shortened interval.
- A method for the NPAC to determine which timer set to utilize on a port.

This change order addresses the need for the implementation of Medium Timers in order to support the one Business Day porting interval for simple ports.

Description of Change:

A new set of NPAC timers will be added to support a shortened porting interval for simple ports (wireline, intermodal) as defined in FCC Order 09-41. This will apply to Subscription Versions, but not to Number Pool Blocks.

In the Service Provider Profile, a new support tunable will be added. This indicator will identify whether or not an SP supports the use of the Medium Timers. This is needed because of the two-stage

implementation (nine months for large carriers, and fifteen months for small carriers), as well as carriers that may obtain a waiver from the FCC on implementation.

The Medium Timer set includes the following:

- Medium Initial Concurrence Timer (i.e., T1) – defaulted to three (3) NPAC business hours
- Medium Final Concurrence Timer (i.e., T2) – defaulted to three (3) NPAC business hours
- Medium Conflict Restriction Window – defaulted to 21:00 in the predominate time zone (Mon-Fri, excluding NPAC-defined holidays, adjusted for Standard/Daylight) on the day before the due date (adjusted for Standard/Daylight)
- Medium Conflict Resolution Restriction Window – defaulted two (2) NPAC business hours
- Medium Initial Cancellation Acknowledgement Timer – defaulted to nine (9) NPAC business hours
- Medium Final Cancellation Acknowledgement Timer – defaulted to nine (9) NPAC business hours
- Medium Business Day Start – defaulted to 07:00 in the predominate time zone (Mon-Fri, excluding NPAC-defined holidays, adjusted for Standard/Daylight)
- Medium Business Day Duration – defaulted to 17 clock hours

The Medium Timer set will be used by the NPAC based on a combination of information provided by both SOAs (New SP and Old SP) and SP Profile settings of both SOAs. Timer Type and Business Type will be broadcast to the SOAs upon creation/concurrence of the SV (object creation notification and attribute value change notification), for those SOA associations optioned “on” to receive this data (Timer Type and Business Type).

This new value for the existing attributes shall be added to the notification Bulk Data Download file, and be available to a Service Provider’s SOA (dependent on NANC 416 implementation in NPAC R3.4).

This new value for the existing attributes will be supported across the interface on an opt-in basis only and will be functionally backward compatible.

Open Issues:

1. Should SOAs be allowed to continue to optionally support Timer Type and Business Type, or should this be required to support this change order?

10/19/09 con call, the group agreed to leave the capability for a provider to opt in/out of Timer Type and Business Type separate from the NANC 440 change order.

FRS:

Section 1.2, NPAC SMS Functional Overview

Update section 1.2.11 (Business Days/Hours) and 1.2.12 (Timer Type) to describe the functionality of the Medium Timers

Section 3.1, NPAC SMS Data Models

Add new indicator for the Medium Timers. See below:

NPAC CUSTOMER DATA MODEL			
Attribute Name	Type (Size)	Required	Description
[snip]			
Medium Timers Support Indicator	B	√	A Boolean that indicates whether the NPAC Customer supports Medium Timers in an Object Creation Notification or Attribute Value Change Notification. The default value is False.
[snip]			

Table 3-2 NPAC Customer Data Model

SUBSCRIPTION VERSION DATA MODEL			
Attribute Name	Type (Size)	Required	Description
[snip]			
Timer Type	Integer	√	Timer type used for the subscription version. 0 – Long Timers 1 – Short Timers 2 – Medium Timers
Business Hour Type	Integer	√	Business Hours used for the subscription version. 0 – Short Business Hours/Days 1 – Long Business Hours/Days 2 – Medium Business Hours/Day
[snip]			

Table 3-6 Subscription Version Data Model

R4-8 Service Provider Data Elements

NPAC SMS shall require the following data if there is no existing Service Provider data:

[snip]

Port In Timer Type (can select Short or Long, cannot select Medium)

Port Out Timer Type (can select Short or Long, cannot select Medium)

Business Hours/Days (can select Short or Long, cannot select Medium)

[snip]

Medium Timers Support Indicator

Req 1 –Medium Timers Support Indicator

NPAC SMS shall provide a Medium Timers Support Indicator tunable parameter which defines whether a SOA supports Medium Timers in an Object Creation Notification or Attribute Value Change Notification.

Note: When this value is set to TRUE, and a SOA supports the Timer Type attribute, a Timer Type value of 2 may be sent in the Object Creation Notification, and the Timer Type attribute will be included in the Attribute Value Change Notification with a Timer Type value of 0 or 2 in cases when the value changed from the initial setting based on a Timer Type mismatch in the New SP and Old SP Create messages.

Req 2 –Medium Timers Support Indicator Default

NPAC SMS shall default the Medium Timers Support Indicator tunable parameter to FALSE.

Req 3 –Medium Timers Support Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Medium Timers Support Indicator tunable parameter.

SUBSCRIPTION TUNABLES

	Tunable Name NANC 440, FCC Order, Medium Timers, (V5 - Final)	Default Value	Units	Valid Range		
<p>Appendix C –</p> <p>Table C- -- Tunables</p>	[snip]				<p>System Tunables</p> <p>Subscription</p>	
	Medium Initial Concurrence Window	3	business hours	1-72		
	The hours subsequent to the time the subscription version was initially created by which both Service Providers are expected to authorize transfer of service if this is an Inter-Service Provider simple port and at least one of the Service Providers uses “Long” timers for non-simple ports. (T1 timer)					
	Medium Final Concurrence Window	3	business hours	1-72		
	The number of hours after the concurrence request is sent by the NPAC SMS by which time both Service Providers are expected to authorize transfer of subscription service for an Inter-Service Provider simple port and at least one of the Service Providers uses “Long” timers for non-simple ports. (T2 timer)					
	Medium Conflict Restriction Window	21:00	HH:MM	00:00-23:59		
	The time on the business day prior to the New Service Provider due date that a simple port Subscription version is no longer allowed to be set to conflict by the Old Service Provider provided that the Create Subscription Version Final Concurrence Window (T2) timer has expired. This time uses the predominate time zone of the NPAC region (adjusted for Standard/Daylight, stored in UTC).					
	Medium Conflict Resolution New Service Provider Restriction	2	business hours	1-72		
	The number of business hours after the simple port subscription version is put into conflict that the NPAC SMS will prevent it from being removed from conflict by the new Service Provider using medium timers.					
	Medium Cancellation-Initial Concurrence Window	9	Business hours	1-72		
	The numbers of hours after the version is set to cancel pending by which both Service Providers using medium timers are expected to acknowledge the pending cancellation.					
	Medium Cancellation-Final Concurrence Window	9	business hours	1-72		
The number of hours after the second cancel pending notification is sent by which both Service Providers using medium timers are expected to acknowledge the pending cancellation.						
Medium Business Day Duration	17	calendar hours	1-24			
The number of hours from the tunable business day start time for medium business days.						

IIS:

No changes required.

GDMO:

-- 21.0 LNP NPAC Subscription Version Managed Object Class

```
subscriptionVersionNPAC MANAGED OBJECT CLASS
  DERIVED FROM subscriptionVersion;
  CHARACTERIZED BY
    subscriptionVersionNPAC-Pkg;
  REGISTERED AS {LNP-OIDS.lnp-objectClass 21};
```

```
subscriptionVersionNPAC-Behavior-2 BEHAVIOUR
  DEFINED AS !
```

When the Medium Timers Support Indicator for the Service Provider is set to TRUE, and a SOA supports the Timer Type attribute, a Timer Type value of 2 may be sent in the Object Creation Notification, and the Timer Type attribute will be included in the Attribute Value Change Notification with a Timer Type value of 0 or 2 in cases when the value changed from the initial setting based on a Timer Type mismatch in the New SP and Old SP Create messages.

-- 107.0 Subscription Version Timer Type

```
subscriptionTimerType ATTRIBUTE
  WITH ATTRIBUTE SYNTAX LNP-ASN1.Integer;
  MATCHES FOR EQUALITY;
  BEHAVIOUR subscriptionTimerTypeBehavior;
  REGISTERED AS {LNP-OIDS.lnp-attribute 107};
```

```
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, and intermodal)

1 for short timers (used primarily for wireless to wireless)

2 for medium timers (used only for simple ports)

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

Short timers (1) is set if both of the two service providers supports short timers (regardless of specification of simple port by either new or old service provider).

Medium timers (2) are set if both service providers support Medium timers and they are currently used for the port.

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-- 108.0 Subscription Version Business Type

```
subscriptionBusinessType ATTRIBUTE
  WITH ATTRIBUTE SYNTAX LNP-ASN1.Integer;
  MATCHES FOR EQUALITY;
  BEHAVIOUR subscriptionTimerTypeBehavior;
  REGISTERED AS {LNP-OIDS.lnp-attribute 108};
```

```
subscriptionBusinessTypeBehavior BEHAVIOUR
  DEFINED AS !
```

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

Current valid values are:

- 0 for short business hours/days
(used primarily for wireline to wireline)
- 1 for long business hours/days
(used primarily for wireless to wireless)
- 2 for medium hours/days
(used only for simple ports)

Short business hours (0) is set if any of the two service providers support only short business hours and Medium timers are not used for the port.

Long business hours (1) is set if both of the two service providers support long business hours and Medium timers are not used for the port.

Medium business hours (2) is set if both service providers support Medium timers and they are used for the port.

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ASN.1:

No changes required.