**Origination Date:** 8/31/09

**Originator:** LNPAWG

### Change Order Number: NANC 441

**Description:** FCC Order, SOA Indicator

**Functionally Backward Compatible:** Yes

## IMPACT/CHANGE ASSESSMENT

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FRS | IIS | GDMO | ASN.1 | NPAC | SOA | LSMS |
| Y | Y | Y | Y | 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 a method for the NPAC to determine which timer set to use in order to support the one Business Day porting interval for simple ports.

**Description of Change:**

Two new SOA attributes 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 for NANC 440 (Medium Timers Support Indicator). In addition to indicating support of Medium Timers, this new tunable will identify whether or not an SP supports the use of the new SV attributes. This is needed because of the two-stage implementation (nine months for large carriers, and twelve months for small carriers), as well as carriers that may obtain a waiver from the FCC on implementation.

The new SV attributes are:

* New SP Medium Timer Indicator
* Old SP Medium Timer Indicator

If a SOA supports the New SP/Old SP Medium Timer Indicator (based on their Medium Timers Support Indicator setting), the new attribute must be sent up in their SV Create message, if not their message will be rejected. If a SOA does not support the New SP/Old SP Medium Timer Indicator, they must not send the new attribute up in their SV Create message, if they do their message will be rejected. The new attribute is designed for SV Create messages, so any Modify requests that contain the new attribute will be rejected. Both the NPAC Ops GUI and the NPAC LTI GUI will support this feature upon initial rollout.

The NPAC will use the values of the New SP/Old SP Medium Timer Indicators sent in the SV Create messages (or information in the SP Profile if not supported) to determine the usage of the Medium Timers for a given SV. This New SP/Old SP Medium Timer Indicator information 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 send and receive this data (NANC 440, Medium Timers Support Indicator).

When both SPs support the Medium Timers Support Indicators, and in cases where a mismatch of Medium Timer Indicators occur, the value specified by the Old Service Provider will prevail. If necessary, the SV Timer Type will be changed, even though T1 and T2 concurrence timers have expired, because subsequent conflict or cancel functionality will use the value contained in the Timer Type attribute on the SV. This updated Timer Type information will be sent to both the New Service Provider and the Old Service Provider in an Attribute Value Change notification.

These new attributes shall be added to the notification Bulk Data Download file, and be available to a Service Provider’s SOA.

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

All references in the Processing Rules below that refer to “Short” and “Long” relate to the Timer Type settings in the Service Provider’s Profile (Port-In Timer Type, Port-Out Timer Type).

Processing Rules where one or both SPs do **not** support the Medium Timers Support Indicator:

* BAU (Business As Usual)
* Short + Short = Short
* Everything else =Long

Processing Rules where both SPs do support the Medium Timers Support Indicator:

* NSP is Short, OSP is Short, SV is Short regardless of Indicators
* NSP is Short, OSP is Long,
  + NSP is First Create,
    - SOA Indicator on SV Create is F (non-simple), SV uses Long,
      * OSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Long
        + SOA Indicator on SV Create is T (simple), SV switches to Medium
    - SOA Indicator on SV Create is T (simple), SV uses Medium,
      * OSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV switches to Long
        + SOA Indicator on SV Create is T (simple), SV remains Medium
  + OSP is First Create,
    - SOA Indicator on SV Create is F (non-simple), SV uses Long,
      * NSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Long
        + SOA Indicator on SV Create is T (simple), SV remains Long
    - SOA Indicator on SV Create is T (simple), SV uses Medium,
      * NSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Medium
        + SOA Indicator on SV Create is T (simple), SV remains Medium
* NSP is Long , OSP is Short,
  + NSP is First Create,
    - SOA Indicator on SV Create is F (non-simple), SV uses Long,
      * OSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Long
        + SOA Indicator on SV Create is T (simple), SV switches to Medium
    - SOA Indicator on SV Create is T (simple), SV uses Medium,
      * OSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV switches to Long
        + SOA Indicator on SV Create is T (simple), SV remains Medium
  + OSP is First Create,
    - SOA Indicator on SV Create is F (non-simple), SV uses Long,
      * NSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Long
        + SOA Indicator on SV Create is T (simple), SV remains Long
    - SOA Indicator on SV Create is T (simple), SV uses Medium,
      * NSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Medium
        + SOA Indicator on SV Create is T (simple), SV remains Medium
* NSP is Long , OSP is Long,
  + NSP is First Create,
    - SOA Indicator on SV Create is F (non-simple), SV uses Long,
      * OSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Long
        + SOA Indicator on SV Create is T (simple), SV switches to Medium
    - SOA Indicator on SV Create is T (simple), SV uses Medium,
      * OSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV switches to Long
        + SOA Indicator on SV Create is T (simple), SV remains Medium
  + OSP is First Create,
    - SOA Indicator on SV Create is F (non-simple), SV uses Long,
      * NSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Long
        + SOA Indicator on SV Create is T (simple), SV remains Long
    - SOA Indicator on SV Create is T (simple), SV uses Medium,
      * NSP is second Create,
        + SOA Indicator on SV Create is F (non-simple), SV remains Medium
        + SOA Indicator on SV Create is T (simple), SV remains Medium

**Open Issues:**

None.

**FRS:**

Section 3.1, NPAC SMS Data Models

Add new indicators for the SOA SV Medium Timers. See below:

| **Subscription Version Data MODEL** | | | |
| --- | --- | --- | --- |
| **Attribute Name** | **Type (Size)** | **Required** | **Description** | |
| [snip] |  |  |  | |
| New SP Medium Timer Indicator | B | √ | A Boolean that indicates whether the NPAC Customer views this SV as a simple port using Medium Timers when they are the New SP. | |
| Old SP Medium Timer Indicator | B | √ | A Boolean that indicates whether the NPAC Customer views this SV as a simple port using Medium Timers when they are the Old SP. | |
| [snip] |  |  |  | |

Table 3‑6 Subscription Version Data Model

R5‑14 Create Subscription Version - Old Service Provider Input Data

NPAC SMS shall accept the following data from the NPAC personnel or old Service Provider upon Subscription Version creation for an Inter-Service Provider port:

1. [snip]
2. Old SP Medium Timer Indicator – indication that Old SP considers this a simple port using Medium Timers. (if supported by the Service Provider SOA)

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”: (reference NANC 399)

1. [snip]
2. New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers. (if supported by the Service Provider SOA)

R5-15.2 Create “Inter-Service Provider porting to original” 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 “porting to original” port:

1. [snip]
2. New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers. (if supported by the Service Provider SOA)

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 3-6 upon Subscription Version creation for an Inter-Service Provider port:

1. [snip]
2. New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers. (if supported by the Service Provider SOA)
3. Old SP Medium Timer Indicator – indication that Old SP considers this a simple port using Medium Timers. (if supported by the Service Provider SOA)

R5-74.3 Query Subscription Version - Output Data – SOA

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:

1. [snip]
2. New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers. (if supported by the Service Provider SOA)
3. Old SP Medium Timer Indicator – indication that Old SP considers this a simple port using Medium Timers. (if supported by the Service Provider SOA)

Req-1 Create Intra-Service Provider Port – No Medium Timers

NPAC SMS shall reject an intra-service provider Subscription Version Create message from NPAC Personnel or the Current (New) Service Provider, if any of the following attributes are specified:

1. New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers.
2. Old SP Medium Timer Indicator – indication that Old SP considers this a simple port using Medium Timers.

Req-2 Modify Subscription Version – No Medium Timers

NPAC SMS shall reject a Subscription Version Modify message from NPAC Personnel, the New Service Provider, or the Old Service Provider if any of the following attributes are specified:

1. New SP Medium Timer Indicator – indication that New SP considers this a simple port using Medium Timers.
2. Old SP Medium Timer Indicator – indication that Old SP considers this a simple port using Medium Timers.

**Appendix E – Bulk Data Download File Examples.**

NOTE: If a Service Provider supports New SP Medium Timers Indicator and Old SP Medium Timer Indicator, the format of the Bulk Data Download file will contain delimiters for the parameter.

| **Explanation of the fields in the notification download file** | | |
| --- | --- | --- |
| **Notification** | | |
| **Field Number** | **Field Name** | **Value in Example** |
| SOA Notifications | | |
| subscriptionVersionNewSP-CreateRequest | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeNewSP-CreateRequest (\* if a consecutive list) | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeNewSP-CreateRequest (\* if not a consecutive list) | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionOldSP-ConcurrenceRequest | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeOldSP-ConcurrenceRequest (\* if a consecutive list) | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeOldSP-ConcurrenceRequest (\* if not a consecutive list) | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionNPAC-ObjectCreation | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 888 | Timer Type | (This attribute will be included with the implementation of NANC 416. For NANC 441, a Timer Type value of 2 [Medium Timers] may be sent in the Object Creation Notification) |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeObjectCreation (\* if a consecutive list) | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 888 | Timer Type | (This attribute will be included with the implementation of NANC 416. For NANC 441, a Timer Type value of 2 [Medium Timers] may be sent in the Object Creation Notification) |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeObjectCreation (\* if not a consecutive list) | | |
| 1 | CreationTimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 888 | Timer Type | (This attribute will be included with the implementation of NANC 416. For NANC 441, a Timer Type value of 2 [Medium Timers] may be sent in the Object Creation Notification) |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionNPAC-attributeValueChange | | |
| 1 | Creation TimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 888 | Timer Type | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model.  This attribute is only included when both SPs support the Medium Timers Support Indicators, and in cases where a mismatch of Medium Timer Indicators occur (in which the value specified by the Old Service Provider will prevail). If necessary, the SV Timer Type will be changed, even though T1 and T2 concurrence timers have expired, because subsequent conflict or cancel functionality will use the value contained in the Timer Type attribute on the SV. This updated Timer Type information will be sent to both the New Service Provider and the Old Service Provider in an Attribute Value Change notification. |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeAttributeValueChange (\* if a consecutive list) | | |
| 1 | Creation TimeStamp | For example: 19960101155555 |
| [snip] |  |  |
| 888 | Timer Type | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model.  This attribute is only included when both SPs support the Medium Timers Support Indicators, and in cases where a mismatch of Medium Timer Indicators occur (in which the value specified by the Old Service Provider will prevail). If necessary, the SV Timer Type will be changed, even though T1 and T2 concurrence timers have expired, because subsequent conflict or cancel functionality will use the value contained in the Timer Type attribute on the SV. This updated Timer Type information will be sent to both the New Service Provider and the Old Service Provider in an Attribute Value Change notification. |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| subscriptionVersionRangeAttributeValueChange (\* if not a consecutive list) | | |
| [snip] |  |  |
| 888 | Timer Type | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model.  This attribute is only included when both SPs support the Medium Timers Support Indicators, and in cases where a mismatch of Medium Timer Indicators occur (in which the value specified by the Old Service Provider will prevail). If necessary, the SV Timer Type will be changed, even though T1 and T2 concurrence timers have expired, because subsequent conflict or cancel functionality will use the value contained in the Timer Type attribute on the SV. This updated Timer Type information will be sent to both the New Service Provider and the Old Service Provider in an Attribute Value Change notification. |
| 999 | New SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
| 999 | Old SP Medium Timer Indicator | Not present if SOA does not support the Medium Timers Support Indicator as shown in this example. If it were present the value would be as defined in the SV Data Model. |
|  |  |  |

Table E- 1 -- Explanation of the Fields in The Notification Download File

**IIS:**

Addition to the current IIS flow descriptions that relate to SV attributes.

Flow B.5.1.1 – Subscription Version Create by the Initial SOA (Old Service Provider)

Flow B.5.1.4 – Subscription Version Create by Second SOA (Old Service Provider)

[snip]

The old service provider SOA must specify the following valid attributes:

[snip]

Old SP Medium Timer Indicator– if supported by the Service Provider SOA

Flow B.5.1.2 – Subscription Version Create by the Initial SOA (New Service Provider)

Flow B.5.1.3 – Subscription Version Create by Second SOA (New Service Provider)

[snip]

The new service provider SOA must specify the following valid attributes:

[snip]

New SP Medium Timer Indicator– if supported by the Service Provider SOA

Flow B.5.1.11 – Subscription Version Create for Intra Service Provider Port

[snip]

The request will be rejected for any of the following attributes:

New SP Medium Timer Indicator

Old SP Medium Timer Indicator

Flow B.5.6 – Subscription Version Query

[snip]

The query return data includes:

[snip]

New SP Medium Timer Indicator– if supported by the Service Provider SOA

Old SP Medium Timer Indicator– if supported by the Service Provider SOA

**GDMO:**

-- 21.0 LNP NPAC Subscription Version Managed Object Class

[snip]

subscriptionVersionNPAC-Behavior-2 BEHAVIOUR

DEFINED AS !

[snip]

The SOA attributes are: New SP Medium Timer Indicator and

Old SP Medium Timer Indicator. If a SOA supports the

New SP/Old SP Medium Timer Indicator (based on their Medium

Timers Support Indicator setting), the new attribute must be

sent up in their SV Create message, if not their message will

be rejected. If a SOA does not support the new SP/Old SP

Medium Timer Indicator, they must not send the new attribute

up in their SV Create message, if they do their message will

be rejected. The new attribute is designed for SV Create

messages, so any Modify requests that contain the new

attribute will be rejected.

The NPAC will use the values of the New SP/Old SP Medium Timer

Indicators sent in the SV Create messages (or information in

the SP Profile if not supported) to determine the usage of the

Medium Timers for a given SV. This New SP/Old SP Medium Timer

Indicator information 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 send and receive this data

(Medium Timers Support Indicator).

In cases where a mismatch of Medium Timer Indicators occur,

the value specified by the Old Service Provider will prevail.

If necessary, the SV Timer Type will be changed, even though

T1 and T2 concurrence timers have expired, because subsequent

conflict or cancel functionality will use the value contained

in the Timer Type attribute on the SV.

An intra-service provider port will be rejected if the Medium

Timer attribute is included in the request.

-- 999.0 Subscription Version New SP Medium Timer Indicator

subscriptionNewSPMediumTimerIndicator ATTRIBUTE

WITH ATTRIBUTE SYNTAX LNP-ASN1.SubscriptionNewSPMediumTimerIndicator;

MATCHES FOR EQUALITY;

BEHAVIOUR subscriptionNewSPMediumTimerBehavior;

REGISTERED AS {LNP-OIDS.lnp-attribute 999};

subscriptionNewSPMediumTimerBehavior BEHAVIOUR

DEFINED AS !

This attribute is used to specify the subscription version

New SP Medium Timer indicator on whether or not the port is

a simple port.

!;

-- 999.0 Subscription Version Old SP Medium Timer Indicator

subscriptionOldSPMediumTimerIndicator ATTRIBUTE

WITH ATTRIBUTE SYNTAX LNP-ASN1.SubscriptionOldSPMediumTimerIndicator;

MATCHES FOR EQUALITY;

BEHAVIOUR subscriptionOldSPMediumTimerBehavior;

REGISTERED AS {LNP-OIDS.lnp-attribute 999};

subscriptionOldSPMediumTimerBehavior BEHAVIOUR

DEFINED AS !

This attribute is used to specify the subscription version

Old SP Medium Timer indicator on whether or not the port is

a simple port.

!;

**ASN.1:**

SubscriptionNewSPMediumTimerIndicator ::= BOOLEAN

SubscriptionOldSPMediumTimerIndicator ::= BOOLEAN