

NANC 48 - Support of multiple SPID's per SOA Association

Some Service Providers within the Local Number Portability (LNP) environment have a need for SOA functionality that would allow:

- A single SOA provider to serve multiple LEC or CLEC entities over the same association between the SOA and the Regional NPAC.
- Entities may be from within the same Service Providers' company or another Service Provider that has contracted the SOA's service (service bureau).
- Each entity will have its own SPID.
- Each record, sent to the NPAC by the SOA, will contain the SPID for that record.
- The records containing one entity SPID will be interleaved with records containing a different entity SPID.
- Because the SOA services multiple independent entities, the records coming from a single SOA may be the Old Service Provider on a record and the New Service Provider on that same record. But the Old and the New Service Providers will be distinguished by separate and independent SPID's.

Benefit of single association:

- Less associations to manage at the NPAC and SOA levels.
- Less complication with the use of and exchange of Security Key
- Promotes competition by allowing small Service Providers to automate SOA functions by use of another Service Providers SOA instead of using the Low Tech Interface.

Regional NPAC responsibility:

- The Regional NPAC must be able to recognize the multiple SPID's from the same association and treat them as they would records coming from separate SOA providers.
- All record transactions, updates, alerts, etc., must be returned to the correct SOA provider even when they originate on a single Association.
- The Regional NPAC shall provide billing and reporting on a per SOA basis even though the SOA may provide multiple SPID functions.

SOA responsibility:

- The SOA provider will be responsible for the separation and security of the Service Provider records with in the SOA it operates.
- The SOA provider must be able to manage the receipt of all transactions, updates, alerts, etc., coming from the Regional NPAC for the SPID's that it serves.
- The SOA provider must insure that the correct SPID is placed on the record before it is transmitted to the Regional NPAC.
- If the SOA provider needs billing and reporting separation for the multiple SPID's they serve, the SOA will be responsible for providing this functionality within their system.

Option 2 - Same Service Provider Data over an Association

Change the NPAC such that a SOA can make one association to act on behalf of a list of pre-approved service providers. One key list could be used for the SOA.

Pros:

- No changes to interface for SOA or LSMS systems or NPAC.

- No impact to current implementation. Only those wanting to use the functionality would be affected.

Cons:

- The SOA would have to manage secure access across the association. For instance service provider A might be able to modify service provider B's information if the SOA did not control access properly.

The following would have to be implemented on the NPAC SMS:

The following table would need to be documented in section 3.1.2 NPAC Customer Data:

NPAC CUSTOMER ASSOCIATED SERVICE PROVIDER DATA MODEL			
Attribute Name	Type (Size)	Required	Description
NPAC Customer ID	C (4)	√	An alphanumeric code which uniquely identifies an NPAC Customer.
NPAC Customer Name	C (40)	√	A unique NPAC Customer Name.

The SPID that is in the access control would have to be verified on each of the messages related to the functions defined below to insure it is either the new/current or old SPID or one of there associated service providers is the new/current or old SPID:

- Create new
- Create old
- Modify Active
- Modify Pending
- Activate
- Disconnect
- Conflict
- Cancel
- Audit Requests (The audit requesting SP attribute should be set to the SPID of the actual requestor.)
- SP data modification
- NPA-NXX addition/deletion
- LRN addition/deletion

All SOA notifications for any of the SPIDs associated with a “primary” SPID, would be sent over the appropriate primary SPID association. This would mean that the NPAC would have to do a look up for the SPID in both the primary and associated SPID lists.

ISSUE RAISED: Could an SP be serviced from two other SPID’s at the same time? The assumption above is no.