

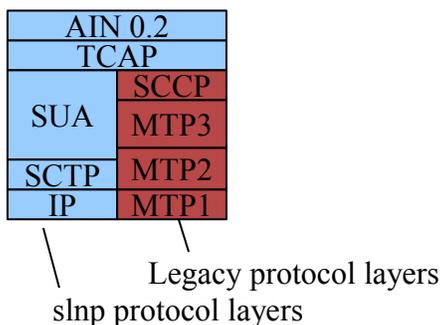


# Local Number Portability White Paper

## Overview

SoftCP creates a number of applications that function as IP enabled Service Control Points (SCP) within the telecommunications network. SoftCP applications use SUA over SCTP to communicate with other SUA enabled network nodes such as signaling gateways and SUA enabled softswitches. SoftCP's LNP application, **slnp**, is an application server process (ASP) as defined by *Signalling Connection Control Part User Adaptation Layer (SUA – RFC 3868)*. The slnp process functions as a gateway between the SUA enabled network element and a repository of LNP information. The initial product implementation assumes that the LNP data source resides on a MySQL server running at the customer site and maintained by the customer.

LNP information is passed through the network using AIN 0.2. An AIN query message is generated at the SSP node. The query message is then packaged within a TCAP layer. A non-SUA enabled SSP will then forward the message to a signaling gateway which will package the TCAP information into an SUA message and send the query to the ASP over SCTP. An SUA enabled SSP will perform this final step itself but may still rely on a signaling gateway for message routing.



Upon message arrival **slnp** extracts the called number from the AIN layer and launches a query toward one of its available MySQL servers. Depending on the result, **slnp** will generate a response message indicating whether the dialed number is ported or non-ported result, and always indicating that an LNP query has occurred. The response message is assembled and returned to the querying node.

One or more slnp processes can run on an application server (AS). The slnp processes connect to a signaling gateway (SG) host server and specifically a signaling gateway process (SGP) that is also communicating with a telecommunications switch, or they may communicate directly with a switch supporting SUA. The SGP will forward requests for LNP information to one of the slnp processes. The slnp process will request number portability information from an external database. Once received, slnp builds an LNP response, and sends the message back to the SG.

### Network Diagram

