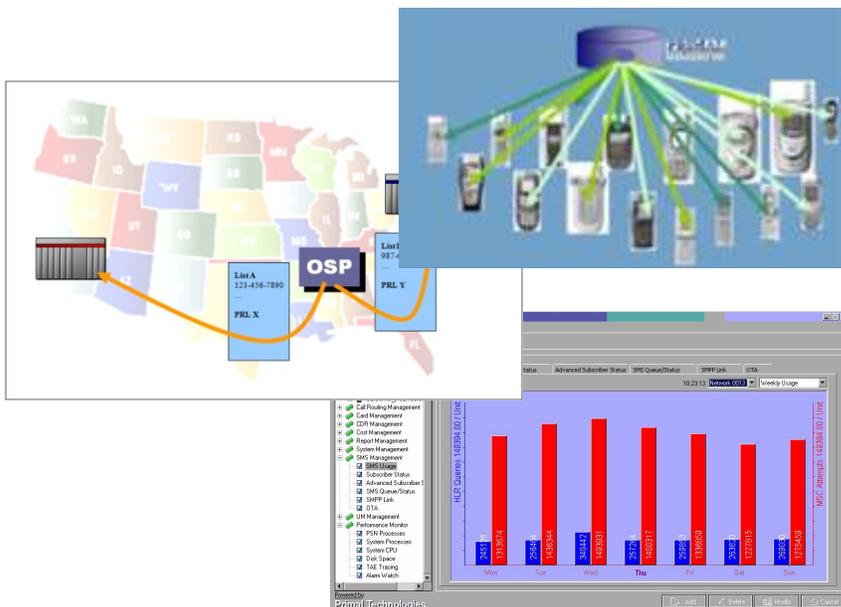


Wireless service providers today are faced with creating more efficient distribution channels and increasing customer satisfaction, while also improving margin and profitability. Industry trends are pushing the sale of handsets further into the retail channel. The cost and effort of provisioning handsets, activating users, and updating handset parameters can be greatly reduced by using over-the-air activation mechanisms. A comprehensive and extensible means for over-the-air provisioning and handset parameter updating is required. EIA/TIA/IS-683 (Over-the-air Service Provisioning of Mobile Stations in Spread Spectrum Systems) specifies how mobile handsets can be remotely programmed to reduce the number of manual steps in programming, and re-programming handsets.

Primal Technologies CDMA- and LTE OTA Platform has assisted numerous operators worldwide to reduce their operational costs, and allow them to seek out non-operator owned distribution channels for their CDMA and LTE handsets. Simultaneously, wireless operators also now have the capability to remotely update their subscribers' PRL lists overnight, in order to optimize their roaming costs as roaming charges between operators in different markets are revised.

With open interfaces to support integration with a network operator's number management platform, Primal Technologies OTA platform provides a key component which greatly simplifies the network operator's subscriber/device management.



### OTA Features

- Comprehensive OTASP and OTAPA functionality (incl. IVR)
- NAM parameter assignment (MIN, MDN, Home SID/NID), Preferred Roaming List (PRL), 3GPP data parameters, lock codes, call timer setup
- Authentication to prevent reprogramming when on other roaming networks (SPASM - Subscriber Parameter Administration Security Mechanism, SPC code authentication)
- MEID Compliant
- SPC Changes
- Handset Info request
- Multi-HLR Support
- Multi-market PRL campaigns to select roaming partners that offer reduced roaming charges
- Tested with large number of handset models
- Flexible inter-working with existing IVRs, and Number Mgmt. servers
- Efficient re-use of T1 voice trunks for OTASP self-activation, prepaid low balance/recharge announcements, voicemail.
- When combined with other Primal Services (e.g. Advance Pay, VM, SMSC, MMS, Data), provisioning can be automated upon subscriber self-activation (\*228) from handset.
- OMA IOTA Device Management, (Firmware Updates, Configuration management)

### Primal Skylight Services

- PRL Updates can be initiated for 1 or 1000's of subscribers
- Schedule/stop/start PRL campaign at any time
- Status of campaign is provided in real-time (x attempts, y successes, of z total)
- Success/failure report is generated
- System Performance Monitoring and Alarming