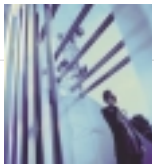




## GSM1x SOLUTIONS



## GSM1x – Flexible Network Implementation



GSM1x is a cost effective solution that takes full advantage of a GSM operator's investment in its existing GSM-MAP network. A GSM operator can now overlay the advanced capabilities of CDMA2000 without disrupting their existing core network. Alternatively, an operator with GSM and CDMA properties can bridge services from two previously disparate networks to create unique service offerings. These could include offering GSM voice services with CDMA2000 1X data capabilities.

### The Building Blocks

GSM-MAP integration and GSM SIM compatibility are key prerequisites for GSM operators to adopt CDMA2000-based networks.

The GSM-MAP network is the foundation of the GSM1x solution. GSM1x provides a seamless integration to the GSM-MAP core network and services by maintaining all existing infrastructure.

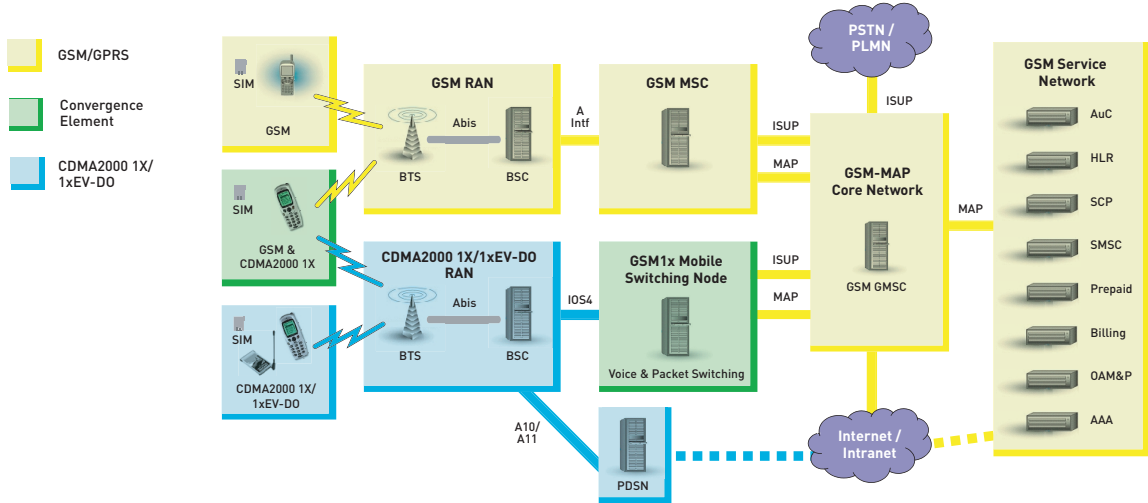
By utilizing commercially available, unmodified CDMA2000 radio access equipment (BTS and BSC), GSM1x will increase a GSM operator's voice and data capacity and provide enhanced data services with peak data rates of up to 2.4 Mbps per sector in a 1.25 MHz channel.

GSM1x uses a standard CDMA2000 handset with an R-UIM interface and software upgrade to accept GSM SIM cards. GSM1x software enables the handset to read a GSM SIM while operating in CDMA2000 mode. Consequently, the phone can interact directly with the GSM-MAP core network. Multimode (GSM+CDMA2000) handsets will meet the diverse needs of subscribers.

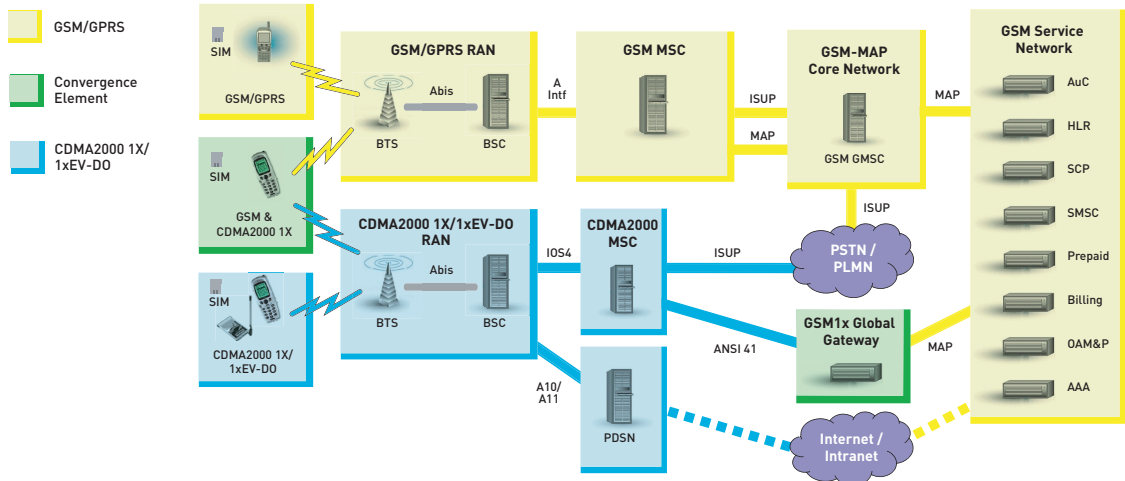
### The 3G Bridge

The flexibility of the GSM1x convergence element allows the unmodified GSM-MAP network to interface with the unmodified CDMA2000 radio network. Two alternative implementations are available: the GSM1x Mobile Switching Node and the GSM1x Global Gateway.

The GSM1x Mobile Switching Node (MSN) enables the overlay of a CDMA2000 radio access network on an existing GSM-MAP core network. The GSM1x MSN operates as a full-featured GSM MSC and provides protocol conversion between CDMA2000 IOS and GSM-MAP. The MSN also provides a full set of GSM features and services to the GSM1x-compatible handsets.



The GSM1x Global Gateway (GGG) enables a clear interface between a CDMA2000 network and a GSM-MAP network. The GGG ensures seamless transfer of GSM authentication and SMS parameters between the GSM-MAP network and GSM1x-compatible handset.



### Combined Benefits: GSM-MAP and CDMA2000

GSM1x combines the feature-rich services and roaming capabilities of GSM with the enhanced data services and spectral efficiency of CDMA2000.

GSM1x makes global roaming possible in GSM and CDMA networks. With a single GSM subscription and a multimode, multiband handset, GSM1x subscribers can register and receive services in both GSM and CDMA2000 networks. The possibilities are endless.



To learn more about how GSM1x can help take your network to the next level, please visit [www.gsm1x.com](http://www.gsm1x.com) and contact your QUALCOMM representative today.