

iCore® 2G GSN

2G GPRS Support Node

The iCore® 2G GSN is a compact, carrier-grade GPRS support node facilitating GPRS and EDGE packet data access. The platform can be deployed as a Serving GPRS Support Node (SGSN), Gateway GPRS Support Node (GGSN) or both. Designed to cost-effectively introduce data services to a 2G network, this node fits into the iCore 2G-3G-4G product portfolio as shown below. This architecture enables operators to evolve to future generations through software plug-ins, increasing flexibility and reducing cost of upgrades.

As with all Tecore products, the GSN is fully compliant with the applicable 3GPP standards, is available on a standalone basis on a range of carrier-grade hardware platforms, and can also be integrated as a blade in a complete iCore network system. The iCore 2G GSN has been deployed in standalone and roaming networks connecting with infrastructure and devices from the industry's leading vendors.

Target Markets

- Rural network operators introducing data services or needing to add packet data support to maintain roaming agreements
- Remote islands, villages, and oil fields
- Operators in developing markets offering data services
- Rapid deployment systems for emergency communications restoration
- Transportable networks including vehicle-mounted, airborne, and maritime systems
- Government and military data applications
- Enterprise and university campuses

FEATURES AND BENEFITS

- ▶ Streamlined architecture that is scalable and combines features of both SGSN and GGSN in the same physical node
- ▶ Interoperable with leading vendors equipment and devices
- ▶ Built on Linux OS

ICORE® 2G GSN Specifications

GENERAL

SGSN Capabilities	<p>Mobility Management</p> <p>HLR Addressing</p> <p>Session Management</p> <p>SMS</p> <p>Charging Functions</p> <p>Authentication and Identity Check</p> <p>Security – GEA1 and GEA2 ciphering</p> <p>Compression – using Van</p>
GGSN Capabilities	<p>Subscriber Session/Data Management - dynamic IP addressing, static IP address allocation, five PDP contexts per MS, with different QoS classes</p> <p>Charging Function</p> <p>Routing</p> <p>RADIUS Accounting</p>
Optional Procedures Supported	<p>Anonymous PDP context activation/deactivation procedures</p> <p>Network-Requested PDP Context activation procedure</p> <p>Combined GPRS/GSM procedures for circuit switched-services</p>
Operating System	Linux-based processing
SGSN Interface	<p>Base Station Subsystem (Gb)</p> <p>HLR (Gr), EIR (Gf), SMS-IWMSC (Gd), MSC/VLR (Gs)</p> <p>Charging Gateway (Ga) – supports GTP over UDP/IP to connect with an external Charging Gateway</p> <p>Other GSN (Gn)</p>
GGSN Interface	<p>External IP networks (Gi) and other GSN (Gn)</p> <p>HLR (Gc)</p> <p>Charging Gateway (Ga)</p>
Configuration and Manageability	<p>Configuration Management – includes system parameter specifications, the addresses of network components, and the configuration parameters of protocol stacks</p> <p>Fault Monitoring – fault monitoring is achieved by generating alarms</p> <p>Status Monitoring – periodic collection and analysis of data related to a GSN node. The GSN allows the periodic collection of statistics and recording thereof in a log file for analysis.</p> <p>SNMP-Based Management</p>

