INTERWAVE

WAVE.GSN

GPRS Support Node (GSN)

interWAVE's WAVE.GSN (GPRS Support Node) is a key component for supporting the General Packet Radio Service (GPRS) and ideally suited for small size GSM/GPRS networks. WAVE.GSN is standard compliant, fully manageable and a cost-effective platform engineered to facilitate easy deployment in community and enterprise GPRS networks. The system is run time configurable to function as a Serving GPRS Support Node (SGSN), a Gateway GPRS Support Node (GGSN) or a combined GSN (SGSN + GGSN)

Features	Specifications
WAVE.GSN Configuration Options	Combined GSN (WAVE.GSN) SGSN (WAVE.SGSN) GGSN (WAVE.GGSN)
WAVE.GSN (SGSN) Interconnections	Base Station Subsystem/PCU (Gb) HLR/EIR (Gr and Gf) MSC/VLR (Gs) SMS Gateway (Gd) Charging Gateway (Ga) Other GSN (Gn and Gp)
WAVE.GSN (SGSN) Supported Features	GPRS Mobility Management (GMM) Session Management (SM) Short Message Service (SMS) Sub-Network Dependent Convergence Protocol(SNDCP): compression, S-CDR Standard GPRS ciphering Quality of Service (QoS) Restart and recovery procedures
WAVE.GSN (GGSN) Interconnections	Internet (Gi) HLR (Gc) Charging Gateway (Ga) Other GSN (Gn and Gp)
WAVE.GSN (GGSN) Supported Features	Dynamic IP addressing using DHCP Authentication using external RADIUS Network initiated PDP context activation Restart and recovery procedures
WAVE.GSN Management	GUI based local manager Remote management with an SNMP agent Statistics reporting Configuration management Alarms Status User Action
WAVE.GSN Major Interfaces	Gb over ITU-T Frame Relay or IPv4. Gr, Gs, Gd over ITU SS7 or IETF SIGTRAN suit Ga, Gn, Gp, Gc, Gi over IP (Ethernet) Remote GSN admin via SNMP agent over IP Physical I/F: 4-8 E1 ports and 2 Ethernet ports

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Features	Specifications
WAVE.GSN Hardware Platform	Industrial grade PC platform 2.0GHz P4 processor with 1.0GB RAM 20GB disk (1 drive) Network cards (10/100BT Ethernet) CD Reader/Writer 19" rack mount with a 2u form factor Monitor and a key board for local manager 1-2 ADAX HDC card (4 E1 ports) for FR and SS7 depending on configuration/capacity. RedHat Linux 7.2 (preload)
WAVE.GSN Capacity (R6.5)*	WAVE.GSN 300: 300 attached users and 500 PDP contexts. WAVE.GSN 1000: 1000 attached users and 1500 PDP contexts. WAVE.GSN 3000: 3000 attached users and 4500 PDP contexts. WAVE.GSN 5000: 5000 attached users and 7500 PDP contexts.

Conformance to standards:

- ETSI TS 101 299, GPRS BSS-SGSN Interface; Network Service (GSM 08.16 version 7.1.0 Release 1998)
- ETSI TS 101 343, GPRS BSS-SGSN; BSS GPRS Protocol (BSSGP) (GSM 08.18 version7.1.0 Release 1998)
- Draft ETSI EN 300 940, Digital cellular telecommunications system (Phase 2+); Mobile radio interface signaling layer 3 specification (GSM 04.08 version 7.4.0 Release 1998)
- ETSI TS 101 345, Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS);Serving GPRS Support Node (SGSN) – Visitors Location Register (VLR); Gs interface network service specification (GSM 09.16 version 7.0.1 Release 1998)
- Draft ETSI EN 301 347, Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); GPRS Tunneling Protocol (GTP) across the Gn and Gp Interface (GSM 09.60 version 7.3.0 Release 1998)
- ETSI TS 101 297, Digital cellular telecommunicationssystem (Phase 2+); General Packet Radio Service (GPRS); Mobile Station (MS) – Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP) (GSM 04.65 version 7.1.1 Release 1998)
- ETSI TS 101 351, Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Mobile Station – Serving GPRS Support Node (MS-SGSN) Logical Link Control (LLC) layer specification (GSM 04.64 version 7.1.1 Release 1998)
- ETSI TS 100 974 V7.1.0 (1999-08) Technical Specification Digital cellular telecommunications system (Phase 2+); Mobile Application Part (MAP) specification (GSM 09.02 version 7.1.0 Release 1998)
- SS7 TCAP specification ITU-T Q.771 – Q774, ETSI ETS 300 134, ETS 300 287, ANSI T1.114

* Higher capacity levels can be supported via multiple GSNs to form a distributed network. Higher capacity single GSN system will be available after R6.5.

Specifications subject to change without notice.

This product is designed for professional installation only.

See www.iwv.com for the latest version of this data sheet.

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