



KLAS TELECOM



VoyagerESR and 3GAP1000
radio node packaged in
Voyager 2 chassis

VOYAGER CELL

COMMUNICATE MORE
CARRY LESS

VoyagerCell extends cellular communications into austere environments while leveraging the routing and switching functionality of the Cisco 5915-based VoyagerESR. This modular solution provides a range of 1km in suburban environments, and up to 2.3km in open terrain with support for up to 16 simultaneous voice and data users.

VoyagerCell supports operation without any backhaul and supports both GOTS and COTS cellular user equipment. Building on the Cisco 5915 ESR capabilities provides integration with Cisco Call Manager, Jabber and Cisco AnyConnect VPN without additional infrastructure.



3GAP1000 radio node providing 1km range



VoyagerCell in Voyager Express transit case with Inmarsat BGAN terminal and laptop

Key Features:

- Integrated GSM, 3G UMTS and 4G LTE core network
- Supports picocells, femtocells and macrocells
- Voice, packet data and SMS support
- Integrates seamlessly with existing IP networks using on-board Cisco IOS router
- Web-based or Cisco CLI-style configuration options
- Interoperable with tactical radio networks using VoyagerLMR, Cisco IPICS and/or Twisted Pair WAVE

Seamless IP integration using Cisco 5915 ESR

VoyagerESR is a mature routing and switching platform based on Cisco 5915 ESR. VoyagerCell is available as a software upgrade to this platform which makes integration of cellular capabilities straightforward and cost-effective.

Specification

Solution overview

- 3G/4G core network on VoyagerESR
- Variety of UMTS/WCDMA radio nodes supported
- May be packaged in any Voyager chassis

VoyagerESR

- Cisco 5915 ESR IOS-based router supporting Call Manager Express 9.0, AES-256 VPN concentrator, WAAS Express WAN Acceleration, Radio Aware Routing
- Klas switch providing 12 10/100 BaseT switch ports, FXS, VIK removable configs, ISDN, cellular and tactical radio uplinks
- Rugged Aluminium construction
- 7.4" W x 6.3" L x 2" H (188 x 160 x 52mm)
- 3.25 lbs / 1.5kg

3G Core network on VoyagerESR

- 3GPP core elements including HLR/AuC, MSC, SMSC, SGSN, GGSN
- Upgradeable to 4G LTE with built-in MME & SGW/PGW
- Converged IMS-like infrastructure with SIP/RTP uplink over satellite if required
- Configurable via Cisco-like CLI or web interface
- Iuh and Iub radio interface support
- Concurrent support for two radio nodes

3GAP1000 Radio Node

- 1km suburban range in Voyager module format
- 2.3km open terrain range in Voyager module format
- Throughput of 14.4Mbps HSDPA, 1.45 Mbps HSUPA
- 1W / 54 dBm output providing 2.3km range in open area degrading to 1km in suburban environment
- N-type external antenna interface
- Air interface secured using IPSec IPEv2 on APSeGw
- Iuh interface
- Supports handover between radio nodes
- Supports 16 simultaneous users on both packet and circuit switched sessions
- Band 1 (Europe) and Band 2/5 (US) variants
- 0-45 C temperature range
- 7.4" W x 6.3" L x 2" H (188 x 160 x 52mm)
- 3.25 lbs / 1.5kg

Certification and Approvals

- Cisco 5915 is FIPS 140-2 Level 1 approved
- VoyagerESR is J1TC approved and STIG compliant
- 3GAP1000 is an operator-verified radio node

Voyager chassis support

- VoyagerESR and 3GAP1000 are in standard Voyager module format
- Interoperable with Voyager 1, 2, 8 or Voyager Express

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