DATA SHEET
w24e-S

GOODMILL
Always online

Goodmill Systems w24e-S Managed Multichannel Router

Goodmill w24e-S brings revolutionary wireless broadband connectivity to the reach of public safety and security (PSS) organizations.

Law enforcement agencies, fire departments, and emergency medical service units need increasingly a constant flow of information to perform their duties efficiently.

With Goodmill w24e mobile multi-channel routers, they can create reliable, fast, and secure broadband data connection between the HQ and the mobile units that meet current and future data connectivity demands.

Goodmill Systems Routers are always implemented with the best-in-class remote management system that fulfills the hardest requirement for Over-The-Air (OTA) configurations. You can manage, monitor, and maintain thousands of devices with the same tool.

THE MAIN BENEFITS

Highest possible data connection availability

- Combining the availability of up to four freely selected networks for broadband access

Completely secure

- The connection is always protected by VPN
- Each network connection has an independent VPN, firewall, and traffic priority (QoS)

Cost-efficient

- Subscription costs can be optimized using alternative links
- OTA solution for all needed software upgrades

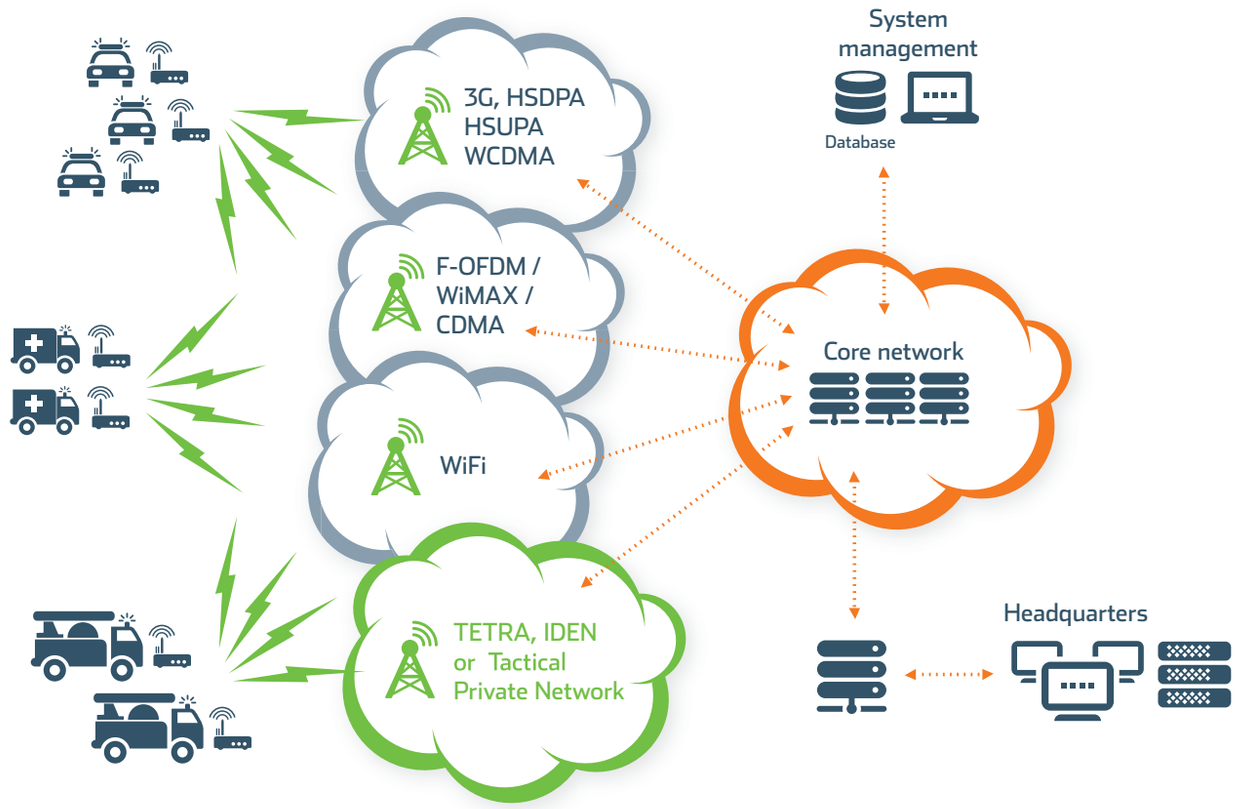
Future proof

- Supports a wide variety of wireless networks and 2G/3G,CDMA, WiMAX, LTE, WLAN and Flash OFDM embedded mobile terminals
- Easy to upgrade for new networks with just mobile terminal change

Optimized operational costs

- Comprehensive OTA remote management, diagnostics, and configuration

GOODMILL SYSTEM OVERVIEW



W24E-S PRODUCT FEATURES

Power supply	10-30V DC	
Power Consumption	Max. 30W	
Temperature Range	-30ºC to 60ºC operative -30ºC to 70ºC operative (with external cooling) -40ºC to 70ºC storage	
LAN interface	**Options to be used** • 2 x FE 10/100 • WLAN	**Connector** RJ-45 SMA-F
Compliance	IEC60950-1:2005 / EN60950-1:2006	
Selectable WAN interfaces	**Options (select max. 4)** • 2G/3G radio modem • CDMA radio modem • 2G/3G/4G radio modem • WLAN 802.11 b/g/n • 10/100 FE • USB connected devices	**Connector** SMA-F SMA-F SMA-F SMA-F RJ-45 USB Type A
WiFi Access point	802.11 b/g	
GPS	Positioning information sent to a location system by using NMEA protocol.	
IP addressing	Fixed or dynamic with DHCP, NAT	
QoS functionality	Hierarchical Token Bucket algorithm applied separately for all priority level connections Absolute bandwidth can be specified, classification by L2-L4 characteristics	

VPN functionality	Supported on all priority level WAN links • IPSec from fixed IP address • IPSec from dynamic IP addresses • VPN GW integrated to MIP server
Mobile IP	Supported by integrated Mobile IP client in router and by Mobile IP server, including VPN GW functionality. Both Mobile Router and FA mode
Firewall	Independently working for all network Interfaces • Stateful inspection • SNAT, DNAT, Port forwarding
Firmware upgrade	Locally or remotely over-the-air online Reversible (Revert to previous stored version)
Network Management	Configuration, monitoring and firmware management of routers • HTTPS protocol for safety and security • Runs always on the active WAN connection
Dimensions	H x W x L: 70 x 210 x 246mm (2,7" x 8,3" x 9,7") Weight < 2kg (<4.4lbs)

OTA MANAGEMENT SYSTEM

Installed devices are constantly sending event and status messages to the management server. The server maintains a status view where service personnel can always monitor the status of the devices. This logged information can also be used to create various reports. For example, device usage and WAN link uptime reports can be created to monitor the total availability of the services.

If there is a fault or malfunction, the maintenance personnel can also find it immediately. A sophisticated remote management tool reduces service outages and unnecessary service visits to the remote sites. Sometimes a new functionality is introduced in an updated embedded software version. With remote management, you can quickly, easily, and securely download the new software to the installed devices without costly site visits.

Goodmill routers always communicate with the OTA management server using a secure HTTPS protocol. This ensures that the data traffic is always protected even when transported over a public network. Management sessions are also protected with individual usernames and passwords. Goodmill routers always initiate the management connection. For this reason, the devices do not need public IP addresses even when located behind a third party firewall.

OTA MANAGER MAIN FEATURES

Creating new devices and configurations is a straightforward process that can be carried out well before the physical installation. Field personnel do not need any skills on routing, firewalls, VPNs, etc. since dedicated specialists have created the necessary configurations in the system database, and they will be automatically transferred to the devices during physical installation.

OTA MANAGER FEATURES

Full OTA configuration capability	• Management channel always on using any WAN link • Networking parameters • Firewall • WAN selection criteria • QoS • VPN parameters
Monitoring	• Status information • Statistics • Trends • Faults
Secure router installation and replacement	Encrypted installation and replacement key
Integration to higher-level management systems	Socket for SNMP queries and traps
Physical Memory	Over 1 Gb RAM
Hard Discs	Mirrored 200 Gb
Protected Power Source	Yes
Linux Software	Ubuntu or Redhat

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