



## DESCRIPTION:

A comprehensive client-server middleware and virtual network card that provides wireless network communication solutions to most public and private wireless data networks.

**Networks:** Motorola DataTAC & ASTRO, Dataradio, ESTeem, M/A-COM EDACS & OpenSky, Tait, Mobitex, /PMobileNet, Tetra, Satellite, Switched networks, CDPD, iDEN, GPRS, 1xRTT, EDGE, EV-DO, 802.11, Wi-Max

## BENEFITS:

### Wireless Security

Data security is essential in wireless communications. Radio IP MTG is a Mobile VPN using our patented Optimized TCP/IP encapsulated tunnel. Get two-factor authentication, static IP addressing and AES, 3DES, DES, 256 bit FIPS 140-2 certified encryption technologies. *(For full information, please refer to our Mobile VPN Solution Sheet.)*

### RadioRoam®

With RadioRoam you can use a combination of wireless networks to extend your existing infrastructure. RadioRoam seamlessly integrates multiple TCP/IP networks and private RF networks. *(For full information, please refer to our RadioRoam information sheet.)*

### Continuous Wireless Connectivity

Staying connected on a wireless network can be frustrating. Free your mobile workers with Radio IP MTG session persistence, automatic network reconnect and data buffering in fringe areas giving expanded network coverage.

### Network Performance Improvement

Supercharge your network performance with compression and low data overhead. Radio IP MTG can improve your network's throughput with our patented compression technology, as well as with additional features such as Network Tuning and HTTP Socket Compression.

### Network Management Tools

Radio IP Software understands the challenges that IT personnel have when administering wireless networks. That's why we've integrated powerful wireless network management tools like Mobile DHCP, event logs, and hot standby into Radio IP MTG, putting the administrator in the driver's seat.

### Pocket PC

Connect your mobile workers to your LAN or WAN wirelessly. Now they can access mission critical information, send and receive reports from the field, send and receive email and access the Internet or company Intranet from a mobile computer, Pocket PC or other handheld device. *(For full information, please refer to our Handheld Solutions information sheet.)*

## Radio IP MTG™ (Radio IP Mobile TCP/IP Gateway™)

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### Virtual Network Card

Radio IP MTG is a software solution that looks like hardware to your network. Software solutions offer more flexibility which translates into cost savings. No application modifications needed. LAN, WAN, Intranet, Internet, mainframe, AS400 or any off the shelf product work immediately.

### TCP vs. UDP:

Since Radio IP MTG uses TCP instead of UDP in the transport layer, we insure complete and integral data reception.

### RadioRoam:

RadioRoam now standard with Radio IP MTG for public networks. Roam seamlessly and automatically between an unlimited number of wireless networks!

## FEATURES:

### WIRELESS SECURITY

#### Mobile VPN

- Get the security of a Virtual Private Network with encryption, encapsulation, and user authentication over your entire mobile fleet. Seamless Mobile VPN functionality reduces the technology burden on users, adds additional levels of security and lowers IT support costs.

#### Standard & Two-Factor Authentication

- Radio IP MTG has simple user-password authentication using Windows Active Directory.
- In addition to standard Windows Logon Authentication, users can now be equipped with a token key and software that assigns temporary passwords. Radio IP MTG will communicate with a RADIUS server to confirm the password, providing secure, two-factor authentication.

#### FIPS 140-2 Compliant Encryption

- Radio IP MTG is FIPS (Federal Information Processing Standards) 140-2 compliant. Radio IP MTG is also FIPS 140-1 compliant and uses AES, 3DES, DES, SHA-1, HMAC-SHA-1 AND RSA encryption.
- Data exchanged between the mobile devices is very often confidential or even classified. Our encryption guarantees that it stays that way.

#### Easy to Control Data Access

- Since all wireless communications is centralized at the Radio IP MTG server, it is easy to control data access in both directions by using a firewall. Ex: Internet access is limited to pre-determined sites.

### RADIOROAM

#### Unlimited Network Access

- Whether you only use high-speed networks or combine them with slower networks, RadioRoam will seamlessly and automatically roam between any number of wireless networks.

#### VPN Persistence

- Wireless data network security has never been more important. RadioRoam will maintain your VPN while roaming between networks with authentication, encryption, and encapsulation.

#### Session Persistence

- RadioRoam keeps you connected when roaming between different speeds of networks and makes applications less sensitive to high-latency networks.

#### User Defined Control

- Parameters are key to allow the administrator to control how you roam and to which networks, enabling intelligent and automatic roaming across multiple networks. When adding the Forward & Filtering option, the administrator can better manage the network traffic by defining rules to be used, per network.

### RADIUS 101:

RADIUS (Remote Authentication Dial In User Service) is a client/server-based protocol that enables access servers to validate authentication, authorization and configuration information with a central authentication server which grants or denies access to the requested system or service.

## **CONTINUOUS WIRELESS CONNECTIVITY**

### **Application & Session Persistence**

- Radio IP MTG guarantees data and session integrity. During coverage gaps, applications stay alive on both the client and server ends and security remains open, making re-authentication unnecessary.

### **Automatic Network Reconnect**

- Establishes connections to an available network without user intervention. A failed transmission continues from where it left off.

### **Data Buffering**

- When a vehicle is in a fringe coverage area, Radio IP MTG buffers the information while out of coverage, and when back in coverage, continues transmitting from where it left off, providing a larger coverage footprint.

### **Provides Broadcast Functions:**

A message can be sent to the entire fleet. If an application doesn't offer this feature, Radio IP MTG provides it at no extra cost.

## **NETWORK PERFORMANCE IMPROVEMENT**

### **Optimized TCP/IP Protocol**

- Radio IP Software's patented Optimized TCP/IP protocol improves the speed of your wireless network by removing the chattiness associated with TCP/IP, and reduces the header size by a factor of 10.
- Since the protocol uses radio systems acknowledgements instead of using TCP/IP's, the protocol is not chatty.
- The TCP/IP protocol was designed for large bandwidth connections. Radio IP MTG optimizes TCP/IP for narrowband networks, allowing organizations to efficiently extend their corporate networks to the wireless world.

### **Compression**

- Radio IP® compression algorithm improves throughput on your wireless network, insuring an efficient use of the wireless pipe, by compressing all data going through. Average compression on text files are over 90%!
- The aggressive compression algorithm will give organizations a 10:1 data throughput ratio, and will give mobile users a transfer speed that is 3 times faster.
- Using compression, the amount of data transmitted is drastically reduced translating into big cost savings for organizations.

### **HTTP Socket Optimization**

- Radio IP MTG provides a higher compression ratio than ever before through the optimization of the HTTP socket. By keeping an internal socket open at all times, the Radio IP MTG server sends out fewer packets, improving data compression and transmission time when using http-compliant applications such as browsers and email.

### **Network Tuning**

- Modified control settings during installation of Radio IP MTG allows features like compression to be deactivated, resulting in better throughput speeds on high-speed networks. Radio IP MTG now provides this feature on all spread-spectrum networks including 802.11x and Wi-Max.

## **NETWORK MANAGEMENT TOOLS**

### **Mobile DHCP**

- Radio IP Software introduces Mobile DHCP for wireless networks. Standard DHCP is too chatty for use on private wireless networks and adds extra data traffic to public networks. Radio IP Mobile DHCP solves the problem by removing the chattiness of the protocol, and streamlining transmissions, giving administrators of any wireless network the same functionality and simplified management control over IP addresses.

### **Forward and Filtering**

- The Forward & Filtering feature of Radio IP MTG allows administrators to determine over which networks and under which conditions an application may transmit data, giving them unprecedented control.
- Manage the networks that can transmit to destination IP addresses, limit the destination ports that can use certain networks and direct the applications that can communicate over which network. For example, software updates for specific applications could be restricted from transmitting over a narrowband network to prevent overloading.

### **Windows Clustering**

- Radio IP MTG provides a hot standby redundancy solution through the use of Microsoft® Cluster Service. Hot standby systems are used for mission critical applications or in cases where data is changed frequently. Should Radio IP MTG stop working on a particular server, or if the server is brought offline for maintenance purposes, the workload is automatically shifted to another server in order to provide continuous service.

### **Administration & Enhanced Statistics**

- Easy to use GUI provides tools to effectively manage a fleet of mobile devices.
- New statistical and analytical tools give network administrators the ability to rearrange their statistical interface in a way that serves them best. View packets, last access, networks, drivers, applications, IP addresses and other data in real time for faster response and effective troubleshooting.

### **Bubble Messages**

- A centralized message center displays critical errors or network status changes using Bubble Messages. For instance, when a network disconnects or a registration is accomplished a bubble appears to notify the user for more effective troubleshooting.

### **Windows Event Logs**

- Working together with Bubble Help, standard Windows Event Logs improve network troubleshooting. Check the event log to view the detection of critical errors and other relevant information.

### **Simplified Installation**

- Radio IP MTG is automatically installed and configured during the initial software set-up process and requires minimal user intervention. After installation, there's no need to reboot the computer, service starts automatically.

### **DHCP 101:**

Dynamic Host Configuration Protocol simplifies network administration by automatically issuing and centrally managing IP addresses. It attributes a lease to each user connected to the network allowing for static IP addressing. Without DHCP, all IP addresses need to be manually set, which is a labor-intensive process for network administrators.

### **GPS Pass-Through:**

Radio IP MTG server will route location data from GPS equipped mobile units, allowing legacy AVL applications and TCP/IP applications to co-exist on the network.