



# Federal Radio Stays Connected With PRTG Network Monitor

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James Ott Jr., Communications System Technician and IT Administrator at Federal Radio

## Critical Communications That Need to Stay Online

Federal Radio provides trunked radio services for a number of government agencies and contractors, many in absolutely critical areas where downtime is not an option. Traditional radio systems use a single radio at a building or tower site, with a base station or repeater. Range is limited by the height of the antenna. In public safety implementations, it is more common to use trunked radio, which is the automatic sharing of multiple radio channels between user groups. Essentially, users buy or lease portable radios and subscribe to a networked radio service, which gives them greater range as well as interoperability, electronic security and greater choice of radio manufacturers.

Their customers use these radio networks for many critical services, including Life Safety, Shelter-in-Place and Emergency Communication, as well as important functions like campus radio and in-building communications. With the importance of government emergency communications, there is no room for network failures or slow performance. James Ott Jr., Communications System Technician and IT Administrator at Federal Radio, knows this all too well, which is why he sought out software that could monitor and ensure the uptime of their network.

Ott needed a tool that could monitor the proprietary networked radio equipment they use to link multiple in-building radio systems together, which run on Linux OS. The system is comprised of networked radio repeaters, switches and routers. Additionally, he needed to monitor cellular network routers along with their customer's sites across the country, linked together with a dedicated VPN. This required a monitoring tool that would be compatible with a variety of proprietary systems, reliable, flexible and easy to use. After considering options from Spiceworks and OPSview, Ott ultimately went with PRTG Network Monitor from Paessler.

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Channel	IP Address	Linux/Unix: Freq	Sensor 1	Sensor 2	Sensor 3	Sensor 4	Sensor 5
VPN Router	192.168.16.1		VPN Router: Ping (10 msec)	VPN Router: System Uptime (111 d)			
Ch 1	192.168.16.11	09A	Ch 1: Ping (21 msec)	Ch 1: Network Buss Traffic (2 kbit/s)	Ch 1: Network Traffic (5 kbit/s)	Ch 1: System Uptime (324 d)	Ch 1: ICOM PS Voltage (13.7 Volts DC)
Ch 2	192.168.16.12	12A	Ch 2: Physical memory (8 %)	Ch 2: ICOM Temperature (41.5 Celcius)	Ch 2: Network Buss Traffic (2 kbit/s)	Ch 2: Network Traffic (3 kbit/s)	Ch 2: System Uptime (324 d)
Ch 3	192.168.16.13	15B	Ch 3: Physical memory (27 %)	Ch 3: ICOM Temperature (42.2 Celcius)	Ch 3: Network Buss Traffic (0.46 kbit/s)	Ch 3: Network Traffic (2 kbit/s)	Ch 3: System Uptime (324 d)
Ch 4	192.168.16.14	04B	Ch 4: Physical memory (29 %)	Ch 4: ICOM Temperature (39.1 Celcius)	Ch 4: Network Buss Traffic (0.46 kbit/s)	Ch 4: Network Traffic (2 kbit/s)	Ch 4: System Uptime (20 324 d)

Federal Radio's device overview

**ABOUT PAESSLER AG**

Paessler AG's award winning PRTG Network Monitor is a powerful, affordable and easy-to-use Unified Monitoring solution. It is a highly flexible and generic software for monitoring IT infrastructure, already in use at enterprises and organizations of all sizes and industries. Over 150,000 IT administrators in more than 170 countries rely on PRTG and gain peace of mind, confidence and convenience. Founded in 1997 and based in Nuremberg, Germany, Paessler AG remains a privately held company that is recognized as both a member of the Cisco Solution Partner Program and a VMware Technology Alliance Partner.

**PRESS CONTACT**

**Paessler AG**  
[press@paessler.com](mailto:press@paessler.com)  
 T: +49 911 93 775-0  
 F: +49 911 93 775-409

**LEWIS**  
[paessler@teamlewis.com](mailto:paessler@teamlewis.com)  
 T: +1 781 761 4500

**PRTG – Peace of Mind for Customers and IT**

Federal Radio's PRTG Network Monitor deployment uses 498 sensors, mainly SNMP but also PING, HTTP, ETH, DNS, Packet Sniffers and System Health. Ott installed the PRTG core in his Network Operations Center and uses it to monitor all customer and internal systems through dedicated VPNs at each site.

Since implementing PRTG Network Monitor, Ott has been able to monitor his infrastructure with greater depth. He took advantage of SNMP monitoring and the ability to create custom sensors through the API to streamline their network devices and gain more insight into what is happening in the field. The ability to configure SNMP scanning with custom sensors greatly reduced downtime.

"With a more in-depth monitoring experience, we have been able to identify problem equipment the moment it starts to fail. In some cases, we have been able to troubleshoot devices before complete failure," Ott said.

While Ott has been able to take advantage of PRTG Network Monitor's flexibility in terms of developing custom sensors, he has also created custom maps. He is now able to provide a live status for customers on their network performance, which gives them insight that they did not previously have, and the peace of mind that comes with it. Federal Radio's complex infrastructure has also been simplified with the QR Code Scanner, which brings up each devices sensors right away, saving their technicians time.

"With PRTG monitoring our network, we can keep track of our devices in the field and keep our customers fully operational," Ott said. "This ensures minimal downtime and maximum performance."

**ABOUT PEGASUS RADIO CORP /DBA FEDERAL RADIO**

Formed in 1993, Pegasus Radio Corp /dba Federal Radio is a customer-focused wireless communications service provider for the federal government, providing trunked radio services to federal government agencies and contractors. Federal Radio is a small business dedicated to providing high quality services with emphasis on attention to details that directly affect the end user of their services and systems while supporting the needs of management.



**Paessler AG**  
[www.paessler.com](http://www.paessler.com)  
[info@paessler.com](mailto:info@paessler.com)