

Trust Harris for LTE



Critical Conditions Require Critical Response

Harris LTE Networks





Critical Conditions Require Critical Response. Trust Harris for LTE.

Public safety agencies are under constant pressure to increase their presence, and at the same time decrease their response times while better understanding situations around them.

Harris 700 MHz LTE networks for Public Safety provide the tools to ensure that mission-critical video, voice and data are available to first responders, whether the operation is routine or a response to a catastrophic incident.

Actionable communication means that first responders have the information to know exactly what is causing the incident, who is responding to the incident, and what resources are available to resolve the incident.

To meet that need, Harris LTE delivers:

- Mission critical video, voice, and data applications to mobile users;
- Secure, private, and prioritized mobile broadband connectivity;
- A communication environment that brings together public safety broadband, cellular carrier and LMR communications on a single infrastructure platform.

Harris LTE networks provide these benefits now, while also meeting FCC requirements for cyber security and critical infrastructure survivability. Further, Harris LTE is designed to meet the evolving technical framework of the FCC's Emergency Response interoperability Center (ERIC), required for integration into the planned national Public Safety Broadband network.

Harris LTE Advantages

Harris LTE Defined

LTE (Long Term Evolution) is a fourth generation (4G) cellular technology providing enhanced data capabilities, secure wireless transmissions, and prioritized access control to manage network resources under high traffic conditions. Harris LTE provides these 4G capabilities in an integrated first responder communications network built to public safety standards. With a private Harris LTE network, first responders get the privacy, security and availability necessary to respond to a crisis, plus the added benefit of a solution built through global technology development.

Harris LTE is backed by the unbeaten capabilities of the Harris team. From using sophisticated radio propagation and network loading tools to ensuring that the wireless coverage supports the agency's mission; to focusing on meeting schedule and budget requirements; to delivering the highest service levels, the Harris team makes sure that the network extends beyond the technology and equipment to meet the needs of the agency.



Harris Knows Public Safety

Harris is focused on the needs of first responders, which means that Harris LTE networks can provide substantial improvements for first responders over other private LTE, private data and commercial cellular networks, including:

Optimized coverage

Harris LTE networks are built to Public Safety coverage requirements. Harris understands that communication networks for first responders have to support incidents anywhere within jurisdictional boundaries.

Cost-effective deployment options

Harris LTE can be deployed as a complete turnkey network or with agency base stations connected to a hosted core infrastructure. This provides agencies with flexible financial models for their capital and operational expenditures. Flexibility in network design allows public safety agencies to pick the level of control, management and investment that makes sense for their deployment.

Application integration and deployment

Harris understands that each public safety agency needs to choose the broadband applications that best support their operations. Harris' network integration resources ensure that applications such as video, situational awareness, data access and VPN can be successfully deployed on the Harris LTE network. Harris also provides device management tools to manage user equipment and applications for each individual subscriber – over-the-air and across the network.



Harris Knows LTE

Each Harris LTE core element includes built-in fault tolerance, with the additional security of optional fully redundant geographically split configurations.

Wide-area roaming

Once regional 700 MHz LTE networks are built into a nationwide Public Safety broadband network, first responders will be able to access their applications throughout that network. With Harris user equipment, however, roaming choices also include commercial cellular networks—extending network coverage beyond regions that have public safety broadband networks.

Self-optimizing network management

Harris LTE networks include industry-leading load management capabilities to automatically balance user demand and access in congested or high-load areas. With these sophisticated network management tools, the Harris LTE network continues to support these mission critical applications, even when first responders congregate to address major incidents.

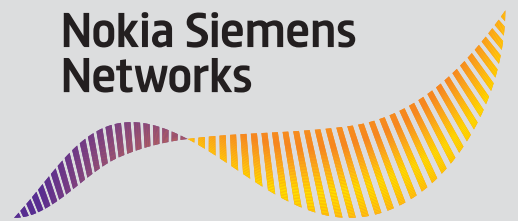
Prioritized access and bandwidth control

With Harris LTE networks, the public safety network administrator controls which users and what communications are most important—a critical feature in high load situations. Because Harris understands public safety, Harris LTE tools simplify the management of prioritization and access control—allowing changes to be made as incidents evolve.

Harris Corporation and Nokia Siemens Networks:

To bring together the unique capabilities of Harris IP-based public safety networks with industry leading 4G/LTE network design, Harris Corporation is teaming with Nokia Siemens Networks to develop LTE networks and applications for public safety communications. Nokia Siemens Networks is a frontrunner in LTE and has a long track record in demonstrating technological leadership, including conducting the world's first LTE call on commercial software and achieving record LTE data speeds with the first call. The Harris LTE network solution will enable public safety agencies to interoperate with the National Public Safety Broadband network and meet FCC cyber security and critical infrastructure survivability requirements, while seamlessly integrating with their existing narrowband LMR systems.

**Nokia Siemens
Networks**



Broadband Applications

Harris LTE simultaneously supports the full breadth of broadband applications, including:

- Video capture, analytics, crowd tracking, and tactical recognition applications;
- Voice communications;
- Chemical, biological and explosive sensor networks;
- Intelligent transportation systems;
- Automatically-generated electronic reporting.

Within the network, individual applications are automatically provisioned with network access and priority levels so that network resources are allocated to support mission profiles.





Harris understands that the power of Public Safety Broadband is in the applications supported by the network.

Unlocking the Power of Video

An increase in the use of tactical video is a key benefit of wireless broadband systems. Harris LTE supports multiple video applications operating simultaneously, enabling video to be pushed to mobile users while allowing agency commanders to monitor video systems from in-car cameras. And in addition to delivering video streams, Harris provides the complete video management solution with FAME® – the Harris full-motion video asset management engine. The FAME solution processes and populates metadata with video in real time so that field personnel, analysts and commanders can search and replay relevant video from any network connected device.

The Harris LTE network also greatly facilitates the deployment of fixed video solutions such as surveillance cameras. Harris LTE provides both the backhaul for fixed video surveillance (where wireline access is inconvenient or unavailable) and can also be the conduit for delivering surveillance video to mobile users.

BeOn Group Communications Suite

The BeOn group communication application takes advantage of the additional bandwidth available with LTE to provide PTT (push-to-talk) voice communication with user location, presence or status information, and acknowledged text communication. With BeOn, team members within a talkgroup can use integrated positional information to know the location of other members at all times. BeOn also enhances the effectiveness of group communication by providing seamless interconnectivity with narrowband LMR systems.

Mobile Data

In-field information and access to public safety databases and web sites is becoming more and more valuable to first responders. Harris LTE provides access to public safety data applications through the use of an in-vehicle data terminal or wireless handheld computer. The Harris LTE core can network directly into an agency's IT infrastructure and, if desired, also provide secure, firewalled access to the Internet. Harris has the network integration capabilities to integrate VPN and multi-protocol 3G/4G connection management applications for turnkey mobile data deployments.

About Harris Corporation

Harris is an international communications and information technology company serving government and commercial markets in more than 150 countries. Headquartered in Melbourne, Florida, the company has approximately \$6 billion of annual revenue and more than 16,000 employees—including nearly 7,000 engineers and scientists. Harris is dedicated to developing best-in-class *assured communications*® products, systems, and services. Additional information about Harris Corporation is available at www.harris.com.

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