The explosion in the use of mobile technologies and aging traditional telephony networks has caused vast changes to the way people expect to communicate and interact with 9-1-1 Emergency Response Centers. According to the National Emergency Number Association (NENA), approximately 240 million calls are made to 9-1-1 in the US each year, 70% of which were wireless calls. In response, Public Safety Answering Points (PSAPs) must deploy more modern technologies that enhance communications capabilities (e.g., video, text) to both increase public access to 9-1-1 and improve public safety.

Public Safety agencies require technology that can:

1) Replace legacy Time Division Multiplexing (TDM) circuits with Internet Protocol (IP)-based networks and equipment;
2) Comply with regulatory mandates for improved reliability and disaster recovery options;
3) Easily interface with a wide range of devices and technologies (e.g., video, text); and
4) Comply with industry standards to enable interoperability among government agencies.

Attempting to accomplish this with a patchwork of custom and localized IP network solutions can inhibit a PSAP’s ability to deliver a consistent, highly reliable 9-1-1 experience; compromise stability; and increase emergency response times. An additional burden is placed upon PSAPs that attempt to deploy and operate their own network infrastructure which can strain financial, management and personnel resources.

PSAPs require a highly secure and reliable network with the capacity and processing power to accelerate the transition from TDM to IP and to realize the benefits of a true Next Generation (or NextGen) 9-1-1 network: flexible disaster response and recovery; the ability to routinely handle widely used means of communication, such as texting; and the ability to anticipate and accommodate other means of communication, such as photos and video transmissions. A robust NextGen 9-1-1 network (also known as an Emergency Services Network, or “ESInet”) should be, standards based, feature high capacity and provide a high level of redundancy and resiliency to ensure operation during local outages.

**AT&T ESInet™: Reliable, Resilient, Adaptable, Highly Secure and Fully Supported**

AT&T has invested substantial resources to deploy AT&T ESInet™: a public safety IP network that was developed using AT&T’s recognized expertise in the designing, building and managing complex highly reliable networks, including NextGen 9-1-1 solutions. AT&T ESInet™ is backed by one of the world’s most advanced and powerful Multi-Protocol Label Switching (MPLS) networks, and built on the innovation of AT&T Labs.

### Potential Benefits

- Helps ensure that PSAPs and their emergency responders can remain connected even during disasters
- Can potentially support passing data and information enabling collaboration between emergency entities beyond a single PSAP
- Helps ensure nearly every call, text or video is routed to the right PSAP, saving precious time by reducing misroutes and call transfers
- Provides a highly secure connection for users to send text messages to PSAPs
- Helps protect the network from cyberattacks and other crippling menaces
- Reduce the distraction of managing a complex solution and free public safety resources to focus on saving lives

### Features

- Nationally geographically distributed and redundant network to provide automatic disaster recovery
- Interoperable with other ESInets and most 9-1-1 call handling solutions
- Uses the 9-1-1 authority’s geospatial data to determine call routing, defaulting to the Emergency Services Number (ESN) if a location can’t be found
- Fully integrated text to 9-1-1 solution delivered over the highly secure AT&T AVPN network
- Security integrated the AT&T MPLS Network
- Single point of accountability for design, delivery and management
Reliable and Resilient
AT&T ESInet is designed with full redundancy provided by a geographically dispersed multi-node architecture, providing extremely high levels of availability and the ability to survive natural or manmade disasters. The solution uses standard and predictable provisioning and implementation processes to easily scale to the needs and timing of the Public Safety Community. AT&T ESInet is also designed to handle twice the current amount of emergency communications traffic.

Adaptable
AT&T ESInet is designed to foster interoperability and to accommodate future technologies by utilizing a common IP-based network architecture over our industry recognized and highly secure AT&T VPN and Ethernet networks, facilitating future application design and development.

AT&T ESInet’s IP MPLS design also promotes flexible disaster recovery options.

Highly Secure
Security controls built into our global IP MPLS network provide expansive visibility into emerging cyber threats, protecting the network from crippling outages and congestion.

Robust Support
AT&T ESInet service includes professional sales support and project management throughout the design, installation and migration periods along with 7x24x365 proactive monitoring and full lifecycle management. We also proactively deploy software updates and upgrades tested by our labs to ensure system stability.

Seconds Count
The promise of NextGen 9-1-1 is to allow PSAPs the ability to better serve their citizens through faster response times and multiple modes of communication including texts, photos and video. AT&T ESInet™ provides PSAPs the ability to prepare for the future and realize the promises of NextGen 9-1-1 quickly and reliably, backed by AT&T. AT&T has been a trusted partner in 9-1-1 services since they were first rolled out nearly fifty years ago.

Learn more about how AT&T ESInet™ can help PSAPs launch into the next generation of 9-1-1 technology, taking emergency response to a whole new level to modernize public safety, visit att.com/publicsafety.