

# Next Generation 9-1-1

South Dakota advances public safety statewide with NG9-1-1 network and services

## South Dakota

sd.gov

- Population near 1 million with annual rate of growth at 1.17%, one of the fastest-growing states in the USA
- 17<sup>th</sup> largest state by geographic area with terrain ranging from plains to the Black Hills
- The state's geography and limited urbanization have not supported large population centers



### Challenges

- Needed to upgrade 28 PSAPs across state
- Required tight deployment schedule

### Solutions

- Lumen NG9-1-1 Services
- Intrado call-handling software
- Lumen MPLS backbone

### Results

- Statewide PSAPs upgraded to NG9-1-1
- All PSAP staff trained
- Foundation for video and text enhancements



**28**

Public Safety Answering Points (PSAPs) + two backup facilities

**1**

Simplified to a single vendor, Lumen, which successfully helped them achieve their mission

**3**

key results: Statewide PSAPs upgraded to NG9-1-1, enabling correct call routing by location and enhanced call management to handle more data types

## Challenge

### Complete an end-to-end NG9-1-1 upgrade for 28 PSAPs statewide

South Dakota has close to a million residents spread across a large state with varying terrain, from the Great Plains to the Black Hills where Mt. Rushmore receives millions of visitors a year. The public safety system is anchored by 28 Public Safety Answering Points (PSAPs) where calls are received and first responders dispatched.

The statewide upgrade to next generation digital technology (called NG9-1-1) involved a major effort coordinating technology, people, logistics and funding. Some PSAPs had technologies approaching end of life, creating deadline pressures since the whole system had to be upgraded at once. The harsh South Dakota winter also loomed as a complicating factor once all the administrative pieces fell into place.

"We were laying the track, and the train was coming at the same time," said Maria King, the state's 9-1-1 coordinator. "We needed a one-stop shop who could do it all to help us meet our goals and deadlines."

## Solution

### A nimble team delivers NG9-1-1 technologies

Working with the South Dakota team, an end-to-end solution was created. A Lumen MPLS backbone connects all 28 PSAPs, plus two backup facilities. The intelligence in the network routes calls to the right PSAP based on location.

Within the PSAPs, an Intrado call-handling system now enables call management for PSAP staff. With the IP based network, the PSAPs will be able to handle more data types in the future.

The combined team worked almost around the clock to keep the project on track, cooperating on the logistics of installation, at times carrying equipment in personal cars to PSAP locations.

"We developed a comfort level with the Lumen team as we all worked together, to achieve a common goal to enhance 9-1-1 services statewide" King said.

The Lumen NG9-1-1 solution builds security into the network by integrating cloud-delivered security services.

Customers are enabled to sense more with Lumen Adaptive Threat Intelligence stop more with Lumen DDoS Mitigation Service.

### Lumen Solution Set

- Lumen NG9-1-1 Services
- Lumen® MPLS IP VPN
- Intrado call-handling system
- Lumen Security Solutions

“ Every state is working on the implementation of NG9-1-1. I'm proud of the platform we built and hope our experience can benefit other states.”

— **Maria King**  
South Dakota State 911 Coordinator

### Results and Future Plans

#### Upgraded to PSAPs and a path to more public safety data

King is in close contact with staff across the state who believe the upgrade enhances public safety.

"The feedback is they are happy with the service, and everything functions well," King said.

With the system proven out, King is planning to roll out more services as they become available.

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