Everyone counts

High bandwidth and MTIPS put the US Census online securely

U.S. Census Bureau

census.gov

- Nation's leading provider of data about its people, economy
- Conducts population count every 10 years
- 2020 Census largest in history
- First time to offer online option nationwide

Challenges

- Needed to collect and protect data from tens of millions of people
- Required bandwidth to handle up to 150 million users
- Needed Managed Trusted Internet Protocol Service (MTIPS) for data security

Solutions

- Lumen cloud-based MTIPS solution provides secure access at speeds up to 40+ gbps
- Created a virtual Network Operating Center (NOC) for resiliency and monitoring
- Four 10-gig circuits to create burst capacity

Results

- Launched in mid-March of 2020
- Respondents began securely filling out their forms on the web
- New way of operating that is convenient, easy and secure for all respondents

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Challenge

Efficient, secure collection of data nationwide

Since 1790, according to the US Census Bureau[1], the United States has conducted a population count every 10 years as directed by Article I of the US Constitution. The 2020 Census was the largest in the nation's history and was the first time the entire country was asked to complete the census online. Digitizing the census can help reduce human error and make it more cost efficient by vastly reducing the need for follow-up canvassing by Census personnel.

They needed to prepare the infrastructure for collecting and protecting data from tens of millions. Bandwidth needs would soar compared to normal operations and a new level of security was required to protect personal data entered on a web interface from initial keystrokes all the way through the collection system.

This required a trusted internet connection, Managed Trusted Internet Protocol Service (MTIPS), to scale with the usage of as many as 150 million households.

Solution

MTIPS secures national network

The Census Bureau chose the Lumen® MTIPs Solution along with a cloud-based architecture to expand coverage across the nation.

The MTIPS solution provided secure access at speeds up to 40 gbps and higher. The secure network spans data collection and the cloud-based applications that analyze the census data.

The Lumen cloud-based MTIPS solution alleviated any need for gateway hardware on-premise. Applications hosted by the Bureau's cloud computing provider were available securely to all field offices. In addition, four 10-gig circuits were "lagged" to reduce the need for load-balancing and to create burst capacity.

The Census Bureau operated their own Network Operating Center (NOC). A Lumen NOC was dedicated to the project and the facilities were linked, allowing them to operate as one virtual NOC for resiliency and to help ensure monitoring and escalation of any issues sensed in the network before they propagate.

Results and future plans

Online census underway, strong relationship continues

When the online census went live in mid-March of 2020, many began securely filling out their forms on the web. The Census Bureau, Lumen and other community partners actively promoted its usage. As the relationship continues, the MTIPS solution originally concluded under the Networx contracting vehicle at the General Services Administration (GSA) will shift to the newer Enterprise Infrastructure Solutions (EIS) contracting vehicle.

The census started in 1790, but is moving fully into the 21st century with a new way of operating that is convenient, easy and secure for all respondents.

Lumen Solution Set

- Lumen® Managed Trusted Internet Protocol Services for secure access
- Virtual Network Operating Center (NOC) for resiliency and monitoring
- Four 10-gig circuits to create burst capacity

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1. United States Census Bureau, *U.S. Census Bureau at a Glance*, October 2017.

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