5 Steps to an Intelligent Network for Smart Communities

The Internet of Things (IoT), cloud-based applications and other cutting-edge technologies comprise a smart community. To build a smarter community, state and local governments need an intelligent network infrastructure with a well-thought-out management layer that provides fast, secure, reliable connectivity to applications and resources.

When evaluating your network, follow these steps to help ensure a future-proof solution.

1 IDENTIFY THE PROBLEM YOU WANT TO SOLVE.

Start with citizens in mind — you might be trying to improve quality of life, boost economic development or increase operational efficiencies. Whatever the case, having a specific goal will help you determine the technologies and solutions you need.

TOP 4 REASONS CITIES ARE IMPLEMENTING SMART TECHNOLOGIES:

- Increase citizen satisfaction
- Improve government responsiveness
- Increase collaboration with city departments
- Reduce operation costs[1]

2 BUILD FOR SCALABILITY AND PLAN AHEAD.

While bandwidth may not be an issue now, it might be tomorrow. A scalable network will allow you to start small and grow as your needs evolve.

THERE ARE 8.4 BILLION INTERNET-CONNECTED "THINGS" RIGHT NOW — 20.4 BILLION ARE PROJECTED TO BE ONLINE BY 2020.[2]

3 IDENTIFY DATA SOURCES.

Determine what devices are generating data, where that data will be stored, who truly needs access to the data, whether and how you will analyze that data, and how the network can better support real-time data transmission.

BY 2019, ANNUAL GLOBAL IP TRAFFIC WILL REACH 2 ZETTABYTES.[3]

TODAY, LESS THAN 1% OF ALL DATA IS ANALYZED OR USED.[4]

4 BUILD IN SECURITY FROM THE BEGINNING.

Governments transmit and store sensitive data, including personally identifiable information. It's essential to implement a secure, robust network that can help you protect information as it's captured and transmitted across connected devices and platforms.

IN 2017, UNSECURED IOT DEVICES MAY RESULT IN 10 million DDOS ATTACKS, WITH AN AVERAGE OF 1 ATTACK PER MONTH REACHING 1 TBPS IN SIZE.[5]

5 KEEP LONGEVITY IN MIND.

Look beyond start-up expenses and determine maintenance, repair and management costs before embarking on a smart city initiative.

ENSURING ACCESS TO FINANCIAL RESOURCES OVER TIME IS CITIES' No. 1 Challenge.[6]

The network is the foundation for all smart city initiatives. Regardless of where you are in your journey to becoming a smart community, Ciena and CenturyLink can help build a cohesive, secure, future-proof network.

To learn more, visit: **www.ciena.com/SLED or www.centurylink.com/ges.**

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Endnotes

1. www.gartner.com/newsroom/id/3598917 2. Ibid. 3. www.ibm.com/blogs/internet-of-things/iot-and-really-big-data/ 4. Ibid. 5. www.computerweekly.com/news/450411183/2017-may-be-crisis-year-for-DDoS-attacks-warns-Deloitte 6. 2016 Smart Cities Survey, The United States Conference of Mayors and HIS Market

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