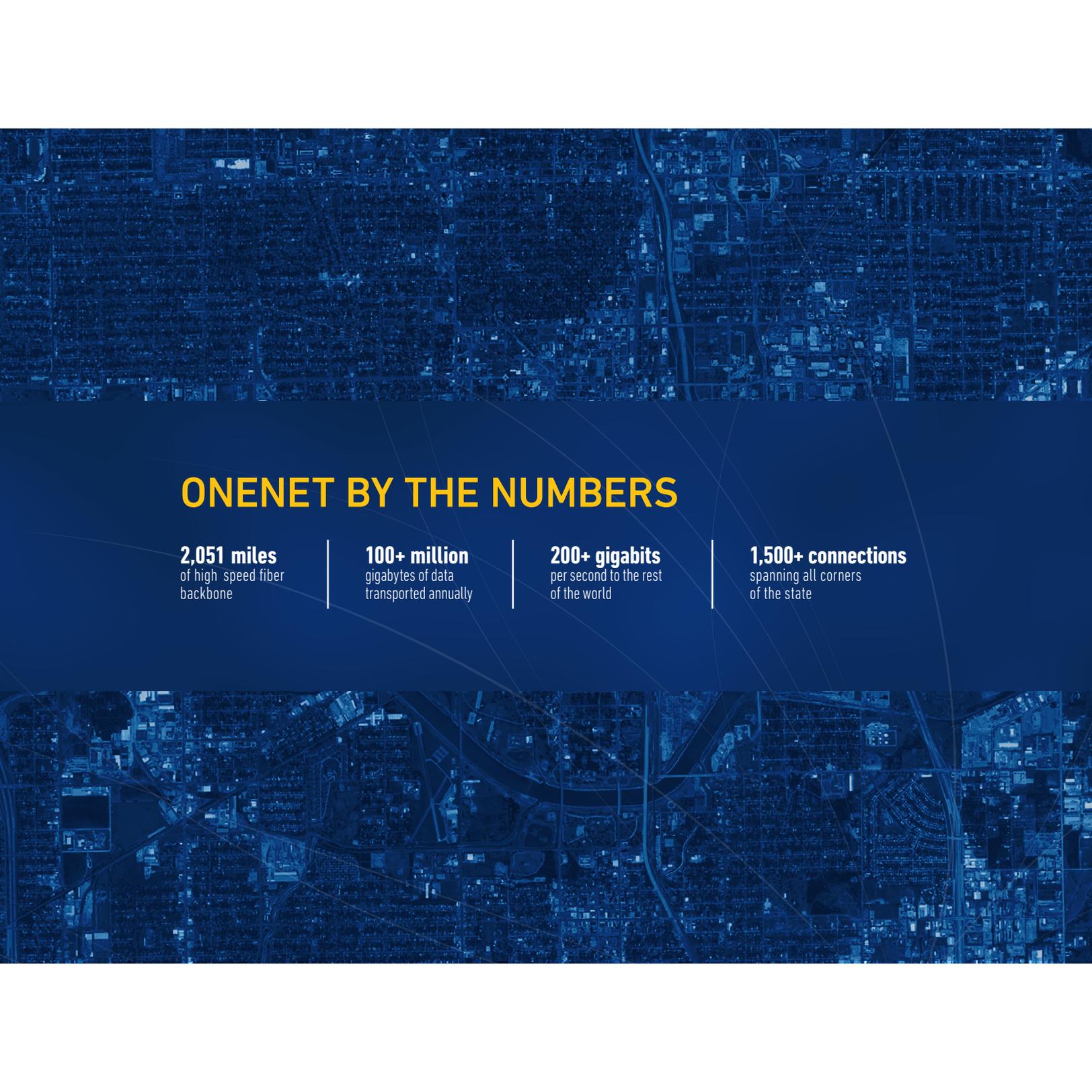


# IMPACT REPORT

CONNECTING OKLAHOMA TO THE GLOBE

***OneNet***<sup>®</sup>

Advancing Technology Across Oklahoma



## ONENET BY THE NUMBERS

**2,051 miles**  
of high speed fiber  
backbone

**100+ million**  
gigabytes of data  
transported annually

**200+ gigabits**  
per second to the rest  
of the world

**1,500+ connections**  
spanning all corners  
of the state



### Traversing the Globe

When OneNet began serving Oklahomans in 1996, few organizations such as schools, libraries and health clinics were connected to the internet. In rural areas, entire communities were not connected. In the last 20 years, OneNet has worked to deliver internet access to all four corners of the state. Today, Oklahomans are connected not only across the state but also around the globe. High-speed internet access has brought the world to Oklahoma. Our state's citizens can travel the globe through a connection at school, a public library or other community organization. Whether it's digital educational resources, telemedicine visits or world-class research initiatives, OneNet's mission to advance technology across Oklahoma is making it possible for Oklahomans to connect in ways once unimaginable.

## Advancing Technology in an Evolving World

As technology changes at a rapid pace, OneNet's network and organization must evolve to meet the growing needs of communities for high-speed connectivity. Over the last year, OneNet has made a number of enhancements – both technical and operational – to better serve our customers.

### Enterprise Enhancements

OneNet has refreshed several applications to improve customer communications and service delivery. We introduced an updated website at the beginning of 2016. The new design is more user-friendly and more accessible for customers. We deployed a new billing system, which improves our billing process and provides new billing options for customers. We also implemented a customer relationship management (CRM) application this year to enhance our circuit provisioning process, provide better access to information for our staff and boost ongoing communications with our customers.

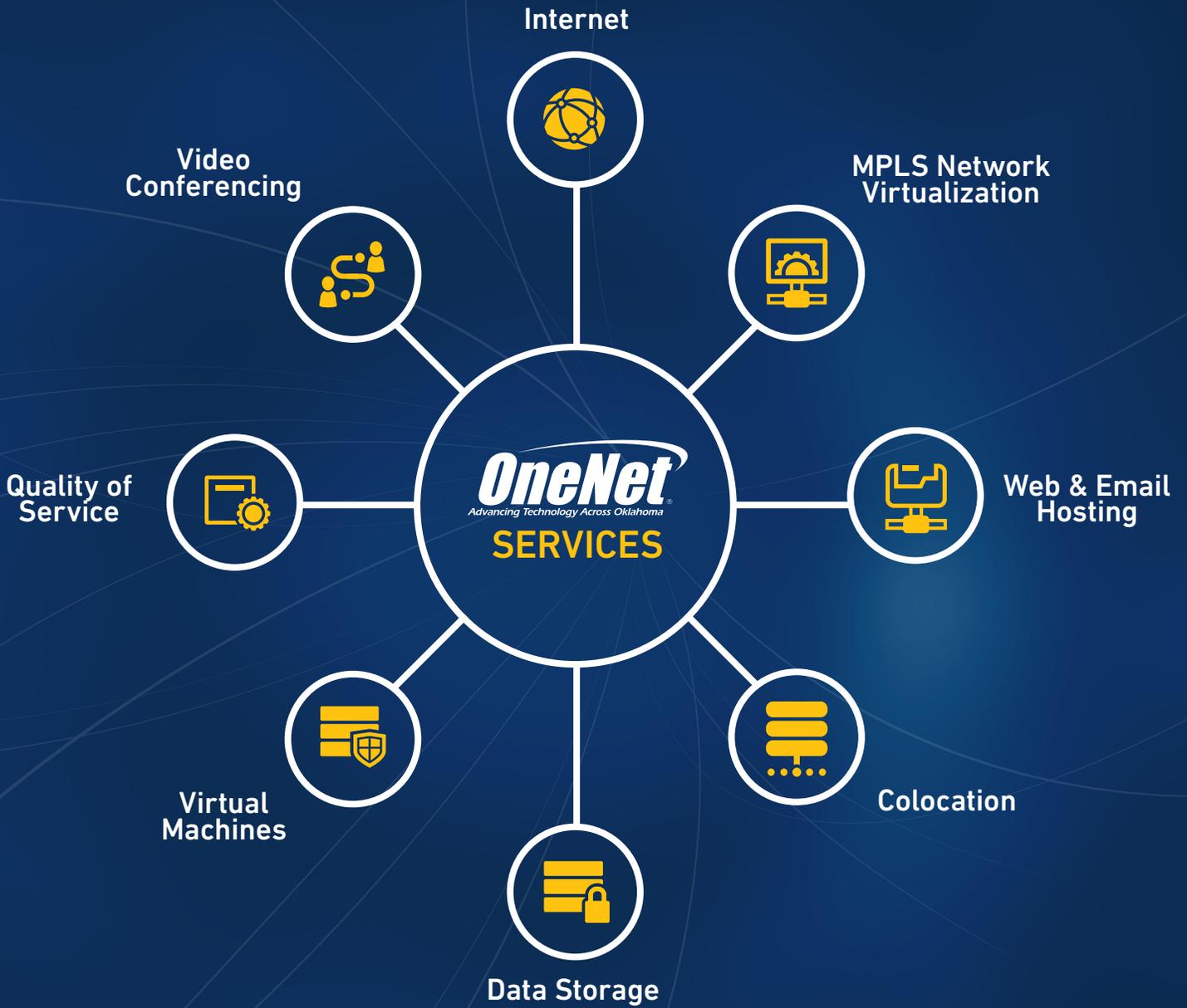
### Data Center Upgrades

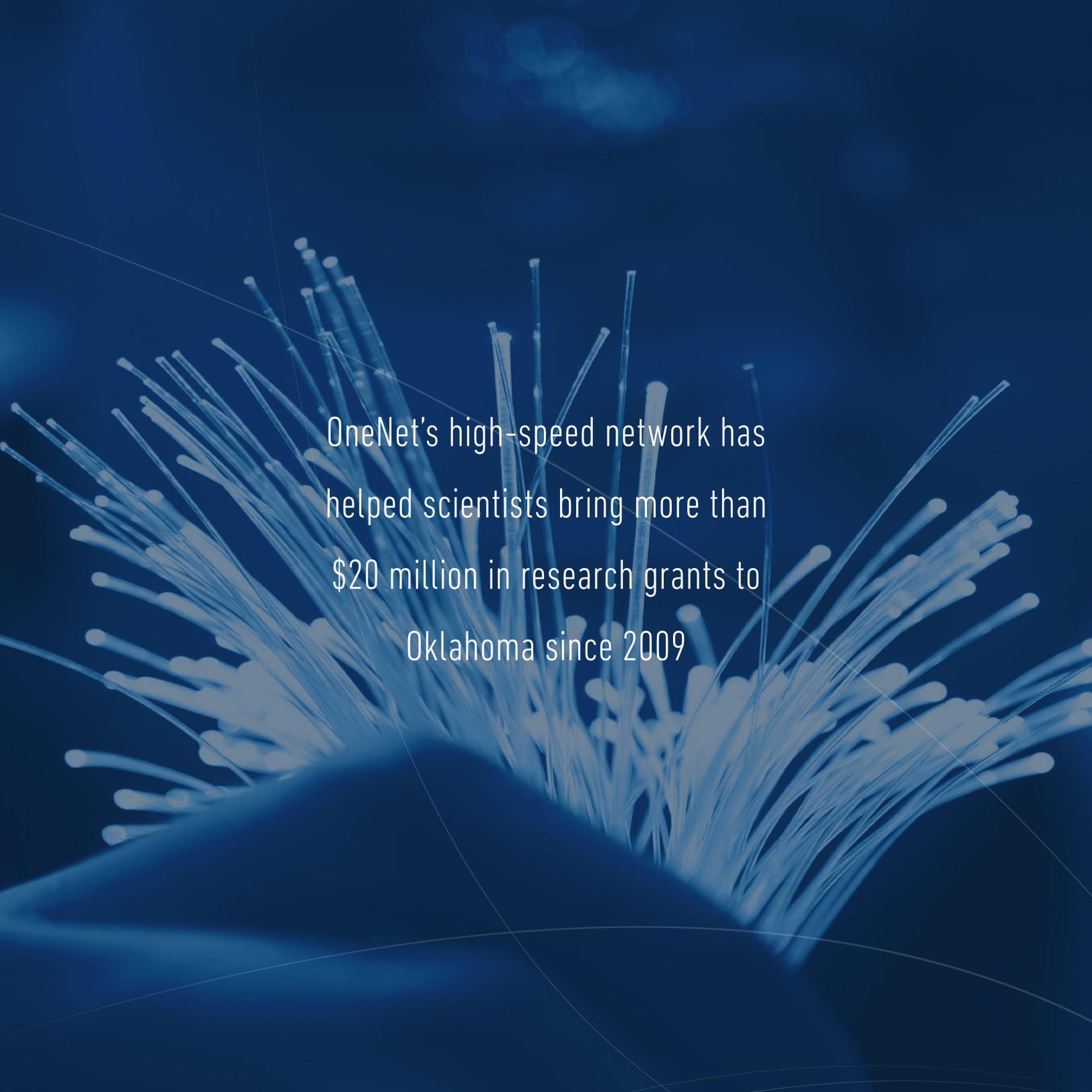
OneNet's data center received two upgrades last year. A new, fully redundant, chilled water system ensures the data center always maintains the cooling needed to protect OneNet and customer equipment. We also deployed a new hot aisle containment system. This system expands available rack space for customers needing colocation services and provides more efficient cooling for the equipment housed in the system.

### Security Initiatives

Cybersecurity is a growing concern for OneNet customers and a top priority for OneNet's leadership. To help our customers manage cybersecurity issues, OneNet's engineering team has developed tactics for DDoS mitigation and other types of cyberattacks. Through customer events, we are educating our users on these techniques and how to prevent and manage attacks.







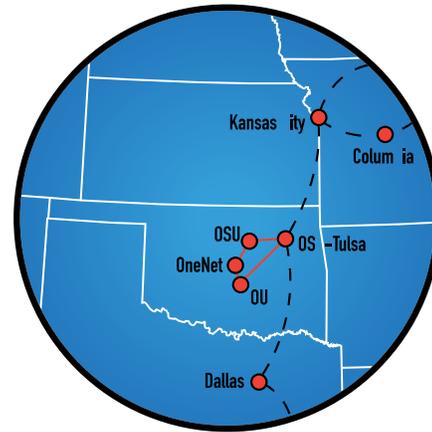
OneNet's high-speed network has helped scientists bring more than \$20 million in research grants to Oklahoma since 2009

## Advancing Oklahoma Research, Powering Big Data Movement Around the Globe

OneNet has a long history of advancing research in Oklahoma. OneNet's high-speed network has helped scientists bring more than \$20 million in research grants to Oklahoma since 2009. Today, OneNet's 100Gbps research ring and connection to Internet2 are expanding possibilities for Oklahoma researchers by increasing the capacity for big data movement. As researchers drive demand for big data movement, OneNet has strategically positioned the state to participate in world-class, global research, including:

- Oklahoma Center for High Energy Physics – Collaborates with 34 countries on the ATLAS project
- University of Oklahoma's Center for Analysis and Prediction of Storms – Conducts storm-scale ensemble forecast with NOAA
- Oklahoma State University's High Performance Computing Center – Requires moving high-volume data across the country for bioinformatics research
- University of Oklahoma's Advanced Radar Research Center – Generates more than 20Tb of data per day for storm prediction research

## 100Gbps Connectivity



OneNet's 100Gbps research ring enables big data movement across the state and around the globe.



OneNet provides exclusive access to Internet2's nationwide 100Gbps research and education network.

## **Oklahoma's Partner in Education**

Since 1996, OneNet has operated interdependently with higher education. OneNet's network is built upon the higher education system across the state, with OneNet's network gear housed at 38 higher education campuses. OneNet provides connectivity for the higher education institutions and in return, receives space in the institutions' data centers and support for our equipment. This partnership generates millions in savings each year and enables Oklahoma's students to become globally engaged citizens through reliable connectivity. OneNet internet connectivity saves higher education approximately \$6.4 million annually.

OneNet's partnership with education goes beyond universities and colleges. OneNet serves nearly half of the K-12 school districts across the state, reaching more than half of Oklahoma's students. OneNet also serves most of the state's career technology centers and nearly half of the public libraries. As

a provider for the E-Rate federal funding program since its inception, OneNet's goal has been to expand high-speed broadband services to Oklahoma's rural communities and drive down costs for these services. OneNet remains committed to ensuring that all of Oklahoma's students can participate in today's digital learning initiatives, so they are prepared for work and educational opportunities in our digital world.

## **Connecting 1.8 Million Viewers to Educational Television**

OneNet's commitment to education extends to educational television and the 1.8 million viewers who tune in to the Oklahoma Educational Television Authority (OETA) weekly. In 2016, OneNet connected OETA's towers to a fiber network, improving both reliability and quality of service for OETA's viewers. The project also created significant annual cost savings for the agency.

A blue-tinted photograph of two young women in a classroom. They are sitting at a desk, both smiling and looking at tablets they are holding. In the background, another student is visible, and there are bookshelves and a whiteboard. The overall mood is positive and educational.

Enabling Oklahoma's  
students to become globally  
engaged citizens through  
reliable connectivity



**667** Government Agency Sites



**64** College & University Campuses



**249** K-12 School Districts



**96** Libraries



**33** Career Technology Center Campuses



**31** Hospitals & Clinics



**23** Tribal Agency Sites



**38** Research, Nonprofit, Other Agencies

## Taxpayer Savings

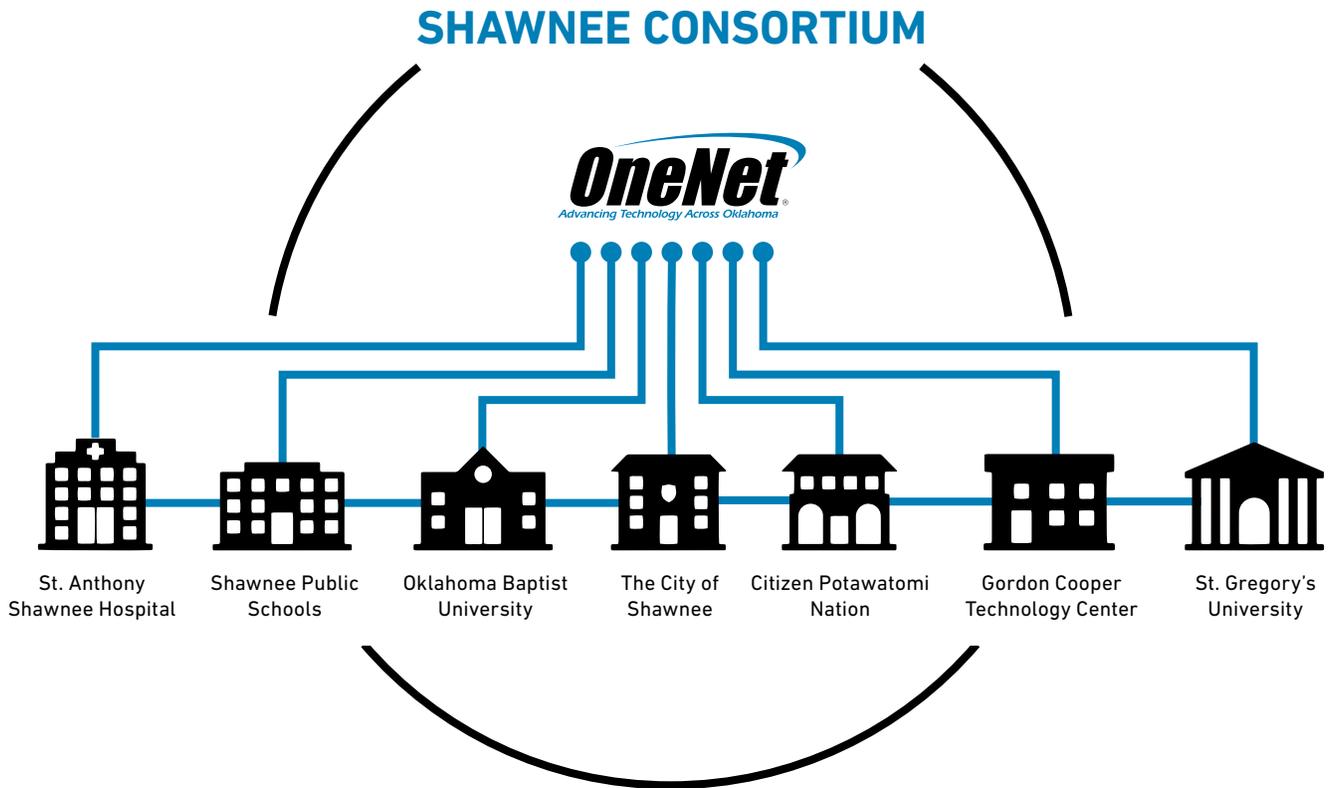
Over the last few years, OneNet has successfully optimized the networks of several state agencies and created significant cost savings for taxpayers.

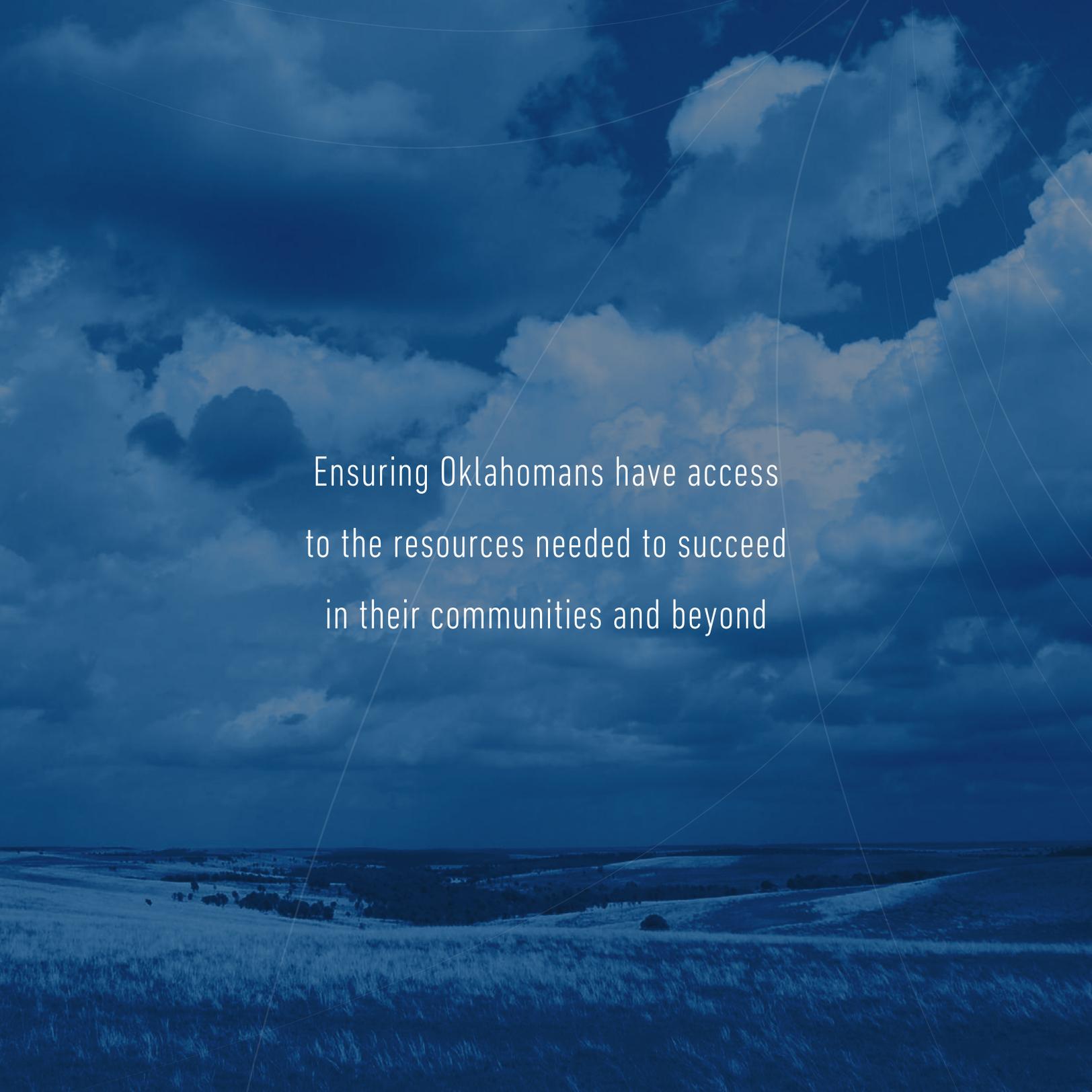


OneNet provides more than 700 connections for state agencies, with approximately 200 more circuits in the queue. Network optimization for these agencies has created a projected total annual savings of \$5 million for the state.

## Connecting Communities

A vital part of OneNet's mission is connecting communities to each other and across the globe. Last year, we had the opportunity to connect eight organizations in Shawnee, Oklahoma, to each other and to the world beyond. The project connected the City of Shawnee, St. Anthony Shawnee Hospital, Shawnee Public Schools, Oklahoma Baptist University, Citizen Potawatomi Nation, Gordon Cooper Technology Center and St. Gregory's University. The new fiber connection increased bandwidth and created cost savings for the project partners. OneNet sees the Shawnee Consortium project as a potential model for other cities and will continue to seek out projects that benefit entire communities and make a difference in the lives of their citizens.



The image features a monochromatic blue color scheme. The background is a landscape of rolling hills and a field of tall grass in the foreground, under a sky filled with large, textured clouds. A series of thin, white, curved lines are overlaid on the image, creating a geometric pattern that resembles a stylized globe or a network of connections. The text is centered in the upper half of the image.

Ensuring Oklahomans have access  
to the resources needed to succeed  
in their communities and beyond

## Connecting Rural Oklahoma



Completed in 2013, the Oklahoma Community Anchor Network (OCAN) connects rural communities in 35 Oklahoma counties to high-speed broadband services. Through management and operation of this 10Gbps network, OneNet provides new options for connectivity for education, health care and public safety institutions in previously underserved communities, so all Oklahomans have access to the resources needed to succeed in their communities and beyond. In addition, through OneNet's partnerships with local telecommunications providers, OCAN services extend to the private sector, creating opportunities for small businesses and advancing economic growth.

**1,005 MILES OF HIGH-SPEED FIBER**

---

**75 COMMUNITY ANCHOR INSTITUTIONS**

---

**35 OKLAHOMA COUNTIES**

## **Public-Private Partnerships**

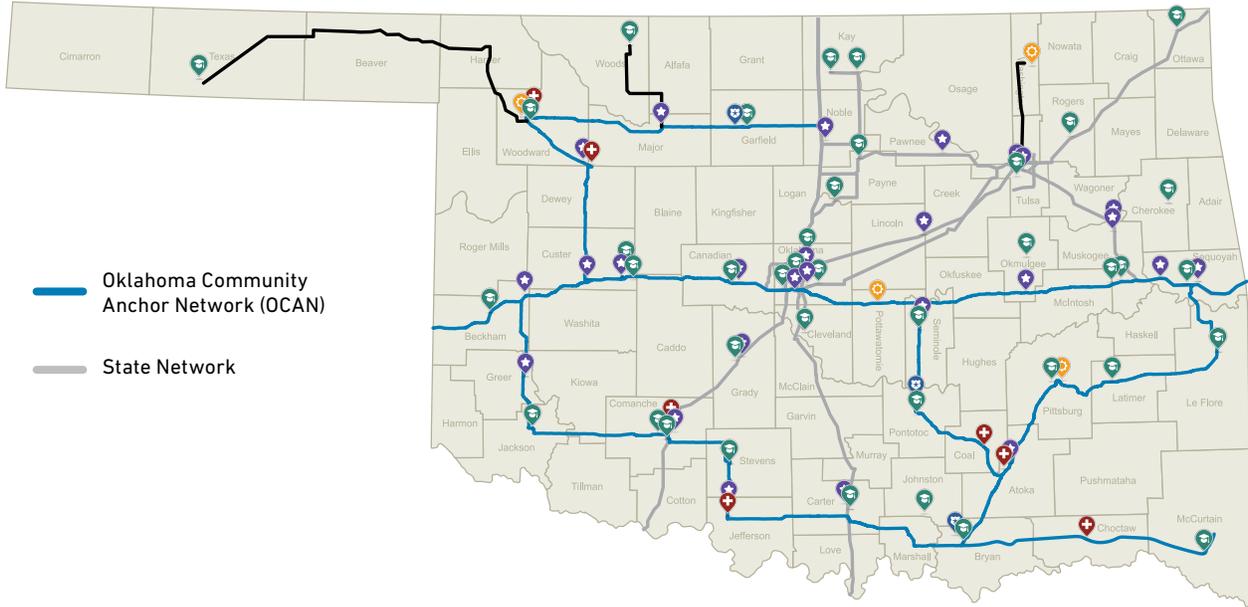
Since its inception, OneNet has partnered with local telecommunications and cable providers to deliver broadband services to customers across the state. This partnership assists those we serve in finding affordable broadband options, while returning most of the customer fees to the local community. OneNet is a middle-mile internet service provider. This means we operate a network that connects communities across the state. We depend on local telecommunications and cable companies to provide the connection from our network to the customer's site, which is called the last-mile connection. OneNet greatly values the local companies who partner with us to provide last-mile services. Last year, OneNet paid last-mile providers \$12.3 million to connect customers to our network. These customer fees are returned to the community to support local broadband services.

A man wearing a white hard hat and safety glasses is working on a network switch in a server room. He is looking at the switch with a focused expression. The background shows other server racks and equipment. The entire image has a blue tint.

OneNet reinvested \$12.3 million  
statewide last year through  
public-private partnerships

The Oklahoma State Regents for Higher Education, in compliance with Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990 and other federal laws and regulations, do not discriminate on the basis of race, color, national origin, sex, age, religion, handicap or status as a veteran in any of its policies, practices or procedures. This includes, but is not limited to, admissions, employment, financial aid and educational services. This publication, printed by Southwestern Printing, is issued by the Oklahoma State Regents for Higher Education, as authorized by 70 O.S. 2001, Section 3206. 500 copies have been printed at a cost of approximately \$2,822. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries. This publication was produced in January 2017.

# OneNet Network



- Oklahoma Community Anchor Network (OCAN)
- State Network

## OneNet Points of Presence



Higher Education  
Campuses



Career Technology  
Centers



Hospitals



Public Safety  
Agencies



Other



655 Research Parkway, Suite 200  
Oklahoma City, OK 73104  
info@onenet.net

**Vonley Royal**  
OneNet Executive Director &  
Higher Education Chief Information Officer

(405) 225-9444  
[www.OneNet.net](http://www.OneNet.net)