

Open Access Architecture for Rural Broadband Networks

Simplify, modernize, and expand your rural broadband network

Close the digital divide by delivering the broadband connectivity your rural customers expect and deserve, providing new ways to learn, innovate, do business, and communicate. Build the foundation to the Internet for the Future in your rural community by accessing nearly \$40 billion in U.S. Government and Federal Communications Commission (FCC) rural broadband funding programs combined with Cisco networking solutions and expertise. Start delivering the smart and connected services and experiences that will transform your rural communities and benefit consumers, businesses, agriculture, education, healthcare, and more.



Cisco's open access approach to a converged Software-Defined Networking (SDN) transport network enables rural broadband providers to connect their communities across any access infrastructure – mobile cell towers, telco/cable fixed line, or wireless last mile. It provides a high-performance, automated, and programmable IP routing and optical transport network across converged access, aggregation, edge, and core networks to achieve Capital Expenditure (CapEx) and Operating Expenditure (OpEx) efficiencies. It is built upon foundational building blocks of Cisco's leadership in Segment Routing technology, security and trust, automation and orchestration, distributed cloud infrastructure, and optics innovation. Rural broadband providers gain an agile network which is simpler to operate, faster to develop and deploy, capable of adapting in real-time to changing requirements, and delivers the quality of service, resiliency, and security your customers expect and deserve at highly efficient cost points.

Cisco's open access architecture for rural broadband enables you to:

- Optimize your architecture by converging your network and deploying common technology across network domains. Converge your wireline and wireless services by combining an open access architecture with a single software-defined transport network.
- Simplify end-to-end network and traffic management to deliver the quality of service consumers expect with a unified control plane based on Segment Routing technology.

- Automate and simplify all aspects of the network services lifecycle with closed-loop network automation and orchestration across network deployment, configuration, provisioning, and operations.
- Accelerate the introduction of new 4G/5G mobile services with a cloud services stack for mobile deployments.
- Secure your network with the visibility, reporting, and authentication you need to enhance the trust posture of your network.

Benefits

- **Protect your network investment** with an elastic infrastructure built to meet increasing rural network bandwidth demands from video, cloud-based applications, 5G, and Internet of Things (IoT).
- **Increase revenue** with an agile network that can more rapidly bring new, connected, and smart experiences and services to your rural communities.
- **Reduce costs** with a single converged routing and optical architecture that delivers access independence across your rural network topology and more efficiently utilizes network resources.
- **Simplify** network planning and management, mitigate risks, and improve network performance and resiliency with better visibility, security, troubleshooting, and automation across the network.

Begin your journey

- Find out more about Cisco solutions for your rural broadband network investments:

[Converged SDN transport](#)

[Network management and automation](#)

[Cisco Cloud Services Stack for Mobile](#)

[Security for converged networks](#)

[Rural Broadband Solutions](#)

- Discover [Cisco Finance](#) options to close the funding gap and expand your rural broadband network with flexible financing.
- Learn about the industry-leading expertise from [Cisco Customer Experience](#) that can help you bridge the talent gap, implement new solutions faster, manage risk, deliver excellence, and differentiate your business.