



OREGON HEALTH NETWORK

- + **CUSTOMER PROFILE**
Provides the network infrastructure, services and best practices to Oregon's healthcare community.
- + **BUSINESS CHALLENGE**
Identifying communications service providers to participate in building a statewide network.
- + **SOLUTION**
Ethernet Services, Private Line, MPLS
- + **BUSINESS OUTCOME**
Oregon's first statewide healthcare network connecting over 2305 hospitals, clinics and education facilities.

PAVING THE HEALTHCARE HIGHWAY TO IMPROVE THE PATIENT EXPERIENCE

Business Challenge

The Oregon Health Network (OHN), an OCHIN organization, was founded in 2007 as part of the Federal Communications (FCC) Rural Health Care Pilot Program. OHN was awarded funds to build a scalable, manageable and robust broadband infrastructure to connect hospitals, clinics and community colleges throughout the state of Oregon. The FCC pilot program recognizes that expanding network access enables information sharing, improves quality of care and reduces costs. Without a single telecom provider offering statewide presence and infrastructure, OHN selected a leased (versus owned) "network of networks" infrastructure model and brought together the diverse stakeholders needed to undertake this ambitious vision and complex task.

"OHN is committed to ensuring Oregonians have access to quality healthcare, regardless of location, through our statewide network infrastructure and services model that is designed to support the next generation of broadband-dependent healthcare delivery," said OHN Executive Director Kim Lamb. By facilitating expansion of robust network infrastructure and availability of affordable high bandwidth service, OHN strives to meet the goals of improved patient experience and performance, improved population health and reduced costs.

Geographically dispersed care providers face a wide array of challenges. Modern medicine demands that they must be able to achieve the meaningful and secured use and exchange electronic health records (EHR) with other healthcare providers to assist in the coordination of care, transmit large volumes of data required by imaging and radiology files and telemedicine, and realize maximal uptime.

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Kim Lamb

Executive Director, Oregon Health Network



Too many healthcare providers/ facilities—especially those located outside metropolitan areas—lack the knowledge, resources and network access that can effectively meet these escalating and challenging requirements.

As a requirement of the FCC pilot program, OHN sought out communications service providers to participate in the building of its statewide network through a rigorous RFP process. The evaluation process revealed that only a few service providers met all the necessary requirements to partner with OHN and/or to serve the needs of OHN's members. Electric Lightwave was part of that select group.

Approach

"Through this process, we learned that many service providers were unable or unwilling to meet our service level agreements or peering arrangement criteria," said Lamb. "Electric Lightwave demonstrated an eagerness to partner with us and to truly understand our business drivers. That created a competitive advantage for them."

OHN connected Electric Lightwave with other selected service providers through a single network to enable easy data exchange amongst OHN's 200+ members. Electric Lightwave is one of the select group that can offer a full complement of carrier-class services directly to OHN's healthcare and education provider members. As a result of the OHN and Electric Lightwave partnership, more healthcare and education facilities across the state have communications services and technology options featuring:

- **Ethernet Services** - Offering scalable, high-speed network access
- **Private Lines** - Delivering secure and guaranteed bandwidth
- **High Speed Internet** - Supporting mission-critical health IT applications
- **Integrated Voice and Data Services** - Saving management effort and lowering expenses

These networking solutions enable information sharing, which in turn streamlines delivery of care, improves patient outcomes, and ultimately reduces costs. As one of the top two FCC pilot program subsidized providers for OHN, Electric Lightwave's on-net locations, fiber density and bandwidth-intensive networking solutions support the vital, state-of-the-art health IT needs of OHN members such as: imaging and video conferencing; backup, storage and recovery; electronic health records; and path-to-mobile health applications. The Oregon Health Network serves clinics, hospitals, community colleges, and data centers throughout Oregon. OHN gives geographically dispersed providers access to state-of-the-art resources previously unavailable due to bandwidth limitations

Leveraging the extensive use of fiber, under-served facilities can now connect to metro-based specialists such as Oregon Health Sciences University (OHSU) to send and receive medical records, imaging results, and other critical data quickly and securely. While these new capabilities bring dramatic improvements to the quality of care in these regions, this is only the beginning. OHN is already focused on future challenges and opportunities that this next generation of broadband-dependent health care will generate.

Thanks to the FCC pilot program, over 2305 individual hospitals, clinics, and community college facilities have been connected to, and are experiencing, the benefits of OHN—as Oregon’s (and one of the country’s) first statewide healthcare networks of its kind. These healthcare and education providers must be ready to treat every patient or train every student they receive. To do so, they need the best available business continuity technologies to keep mission-critical healthcare and education training applications operational and vital patient data available.

“With ‘big data’ on the horizon for the healthcare industry, disaster recovery is a big need,” said Lamb. “Both the industry at large and the communications service providers could, and should, be leveraging statewide networks such as OHN to help address growing unmet needs of this industry, with things like disaster recovery.”

Through this partnership, Electric Lightwave offers OHN members a menu of secure, reliable services to enable their business continuity plan, including:

- **Carrier-class Colocation Services** - Protect mission critical equipment in a secure network-rich environment.
- **Cloud Firewall Service** - Protect against Internet threats to mission-critical applications with next generation firewall service.
- **Ethernet Services** - Optimize network traffic with flexible Quality of Service (QoS) options allowing for efficient utilization of traffic flows and prioritization of application data.

From large hospitals to small medical clinics, Electric Lightwave offers OHN members flexible solutions to secure their data transport and storage. Working together with OHN, Electric Lightwave secures the information being shared by participating members. Patient records remain safe and quality of care is protected.

Results

With the diverse demands of modern medicine, technology proliferation translates to better care for more patients, especially in under-served areas. Healthcare technology requires more than just connectivity. It requires robust, high-performance networking solutions. OHN’s vision and ability to execute, combined with Electric Lightwave’s menu of reliable, flexible, and secure services, have helped empower the people of Oregon with greater access to healthcare technology. Oregon Health Network (OHN) began in 2007 as part of a complex Federal Communications Commission (FCC) Rural Health Care Pilot Program. The program’s charter aimed to fund innovation that helped the FCC improve upon its existing USF-funded Rural Health Care Program in order to better support the integration and coordination of healthcare at a regional, statewide and ultimately national level.

OHN stands out from the rest of the original sixty-two pilot program participants nationwide. The FCC considers Oregon one of the most successful programs, likely a result of OHN’s dedication and unique approach to the challenge.

OHN partnered with providers like Electric Lightwave to deliver communications



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services and infrastructure for the first statewide integrated, coordinated and patient-centered healthcare network in Oregon. These partnerships served OHN's goals of the Triple Aim, a framework developed by the Institute for Healthcare Improvement, which calls on health systems to:

- Improve patient experience and outcomes
- Improve population health
- Reduce costs

OHN's dedication yielded some of the best results in the country:

- High number of member participants per capita
- Continued strong membership growth rate
- Creation of scalable network architecture
- Secure network designed to be shared by all its members statewide

The FCC considers OHN a leader and innovator, as well as an example of how public/private sector partnerships can improve patient outcomes and reduce healthcare-related costs. Electric Lightwave is a key partner in delivering superior healthcare services throughout Oregon, supporting OHNs resounding successes.

BUSINESS SOLUTION

- + Supported access and data exchange amongst OHN members through on-net locations and fiber connections
- + Connected geographically dispersed healthcare providers with metro-based specialists
- + Facilitated improved patient outcomes through streamlining access to critical data
- + Provided reliable high bandwidth to enable access to state-of-the-art healthcare resources

ABOUT ELECTRIC LIGHTWAVE™

Electric Lightwave™, an Integra company, serves as a trusted network infrastructure partner to enterprises, government agencies and carriers in select markets throughout the western United States. We combine dense metro and intercity fiber assets, enterprise-grade network solutions, including Ethernet, Wavelengths and IP, with a highly responsive and easy to do business with approach. Electric Lightwave offers a premium service experience to match our premium network infrastructure solutions.

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