



windstream wholesale

# Next Generation ICON Network



Learn the details about why Windstream's next generation ICON network is so unique and beneficial to the market.



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Windstream Wholesale is an innovative optical technology leader who creates deep partnerships with carriers, content and media providers, Federal Government organizations and Fortune 100 companies to deliver flexible, customized solutions.

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by WINDSTREAM

**The Next Generation Network  
Architecture Advancing Smarter  
High-Capacity Optical Services.**

**Q**

The next-generation ICON network launched in June - what response have you seen from wholesale and enterprise customers?

**A**

Because the Windstream Wholesale Business Unit is in the Engineering organization, we can provide customer continuity from ICON Architecture to solution design, to customer acceptance and operational use. This means our customers enjoy fast and flexible service. We've had several key successes since the roll-out including:

- Over 22TB sold in the first half of 2021.
- 37% year-over-year growth of fiber-based products.
- The Hillsboro network sold 4.6TB of services recouping construction investment costs prior to the network's completion, satisfying cloud customers' urgent bandwidth needs.

**Q**

What are Windstream's ICON key features?

**A**

ICON leverages the advantages of its disaggregated architecture with multi-vendor scalability and alien wave support. Some key features of the next-generation ICON network include:

- A flexible infrastructure providing customers with more bandwidth, customer-centric design options, and multi-vendor interop support.
- Alien wave, mixed add/drop capabilities (flexgrid ROADM).
- Cost-effective split switch fabric enables overlaying new technologies seamlessly over existing networks.
- C+L bands, open line systems – scaling 200-400-600-800G line-side.
- SDN orchestration for design-based and intent-based provisioning.

Windstream Wholesale has added other features with our ICONNECT customer portal:

- Wave Circuit Detail, Circuit ID, and birth certificate light level testing data;
- CFA port assignment data and inventory;
- On-demand light level reading from various network transport elements (Ciena, Infinera, etc.);
- Layer Zero Analytics showing Automatic Link Calibration, Automatic Fiber Characterization and other self-diagnostic metrics



**Q**

When it comes to optical technology, how is Windstream taking a leadership position?

**A**

Great question! We're continually working to improve our network and in parallel, we're pushing the industry forward. Windstream's activity with advanced optical technologies puts us in a leadership role as highlighted by some recent projects, including:

- We were the first company to install and operate a commercial 400GbE wavelength service.
- We set a record using Coherent Pluggable technologies for long-haul (1000 km) routes over a real-world network with Acacia and Cisco.
- We successfully conducted intercompany Beta trials with Colt using landline spectrum services with Ciena and Infinera equipment.
- We introduced concept Layer Zero Analytics for network operators.
- We entered game-changing partnership with II-VI Incorporated to streamline 400G services -- significantly reducing costs, power consumption and network complexity.

We worked with our equipment vendors and their chip makers to develop new functionality. Windstream is being recognized as a leader in our industry and we've been invited to be one of the founding members of the Open XR Forum and to participate in the Open ROADM consortium.

**Q**

Windstream Wholesale is engaged in a \$2 billion, multiyear fiber expansion project. What are some of the recent milestones achieved in this project?

**A**

Much of the \$2 billion will be used to deploy fiber and expand 1Gb broadband service to millions of homes and businesses across our Kinetic footprint. We're creating a new engineering and outside plant construction organization to manage our efforts. We will also continue our long-haul expansion programs.



Q

As the Windstream network grows, how has wholesale fiber provision extended into rural areas?

A

Our Kinetic business unit serves tier two and three rural markets and customers with broadband services. Currently, 25 Meg service is available to 70% of our footprint, and 100 Meg service is available to 40%. We're also leveraging state-of-the-art in-home monitoring tools to maximize the broadband experience.

Q

And finally, with these recent advancements in mind, what are Windstream's priorities to year-end?

A

For the remainder of the year, we'll be completing final fiber deployments and redundant systems in our Pacific NW network. Our expansion projects are underway and will include fiber overbuilds connecting the CLS in Jacksonville, FL, to the future CLS in Myrtle Beach, SC to Raleigh, NC. We will also be focusing on similar processes for NYC to Montreal and Tulsa, OK to Little Rock, AR.

Windstream Wholesale will continue to leverage our new Intelligent Converged Optical Network (ICON) with efficiency, speed, and diversity in mind, providing a high-bandwidth infrastructure that will enable the digital transformation and innovation needed for today's rapidly evolving businesses. Customers across the globe will benefit from this fast and flexible network—like no other in the industry!



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