

LARG*news Spring Update 2015



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Welcome to the first edition of LARG*net news. Every Quarter, LARG*net will put out a newsletter highlighting different events, projects, and other relevant Wide Area Network news, and LARGnet events!

Questions from our members?

As this is the first edition, please give us feedback on what you would like to see in the newsletter going forward. We would like to start a Q&A with the membership so please send us your technical questions and we will answer them in subsequent posts..

Email your questions to support@largnet.ca or tweet @LARGnet!



Upcoming Events

Wednesday, July 22, 2015

LARG*net ITS Golf Tournament at the Forest City National.

Registration desk will be open at 10:30 AM and the BBQ Lunch will be served from 11:30 AM - 1:00 PM. After lunch, you are invited to proceed to the Forest City National practice facility and driving range. The 17th Annual LARG*net / Western ITS Golf Tournament will begin at 1:00 PM with a shotgun start. Dinner is expected to be served at approximately 5:30 PM.



Internet Use

Year over year our consumption of internet transit continues to rapidly expand. LARG*net is currently peaking around 7Gb of Internet Transit across the entire membership!

LARG*net directly connects to TorIX now with a 10Gb port. This direct connection allows for direct peering with many upstream organizations including Microsoft, Google, Akamai, and others.

Current direct peering is typically accounts for about 1-2Gb of all internet traffic. (The more we peer, the lower we can offer our transit pricing).



Network Rollout 2015

In late 2014 LARG*net made a substantial purchase of two new ASR 9001 routers and two new Catalyst 6880 switches. These new devices will allow for the continued growth of Internet Transit from additional 10Gb providers while increasing resiliency in our service delivery.

This next-generation design addresses the following requirements:

- 40Gb in our core network
- 20Gb Internet transit
- Increased resiliency
- High-Availability



On February 15th, our network team rolled out the ASR 9001 devices, replacing our old border routers with no perceived impact to our membership. These devices utilize Cisco's nV technology to simplify network complexity, provide resiliency, and increase overall throughput.

Benefits

Our old border routers, Cisco ASR 1004s, had limitations of 4Gb port channels connecting to our network's core. This presented a failover risk to our members as we scaled up in bandwidth. Our new appliances, ASR 9001s running NV, have multiple 10Gb ports out of the gates for increased resiliency and throughput!

Network Rollout Phase 2: 6880s

Over the next few months LARG*net will roll out Phase 2 of the network project: implementing the Cisco Catalyst 6880 switches.

These new devices will be used to terminate our members in a Virtual Switching System (VSS) cluster that allows for seamless failover in device failure events. Seamless failover applicable only to dual-homed members.

These devices provide greater 10Gb port capacity, simplified management and troubleshooting, and load-balancing than our current configuration.

This will fully evolve the LARG*net network into a hierarchical network model, improving upon the high availability design that members have come to expect.

Timeline

The phase 2 rollout will begin in late spring/early summer 2015 when member traffic volumes are seasonally lower.

These changes will cause brief disruptions in member traffic, but they will be coordinated on a member-by-member basis to minimize impact.

Staffing Changes

Well folks, April 10th will be my last day as Operations Manager at LARG*net. Over the past 7 years it's been my absolute privilege to carry the ball forward with the LARG*net team and its extremely supportive membership.



Since my start in 2008 I've witnessed our growth of Internet transit from 400Mb to 8Gb (~8000Mb); while reducing the cost by 93%! We've connected to the Toronto Internet Exchange, setup direct peering with Akamai, Google, Microsoft, and made an Internet Service both scalable and extremely resilient. We've simplified and improved upon our network and operations, dramatically reducing after hours issues and support. We've embarked upon dark fiber, wireless point-to-point, and network design solutions (for members). The list goes on, but it speaks volumes of the talented people involved—the network team, the Executive Director and the Admin officer.

So thank-you for this wonderful opportunity, and all the best to LARG*net and its membership for the future!

- B. Gray

