BCNET 2019

Supporting a New Digital Era in Higher Ed:

BCNET Network Expansion Project

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Trevor Hurst, Ministry of AEST
Toby Wong, BCNET

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- Context
- Progress
- Outcomes

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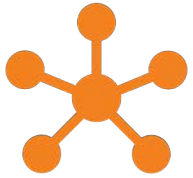
Context – why this project?

What is the Problem?



Disparate network connectivity

Universities

Colleges

Geographic Challenges

Urban

Rural

Funding

Constrained

One-off solutions

Committees

2013: *PLNet Advisory Committee*
Integrated Network Proposal

2014: Proof of Concept Project Funded

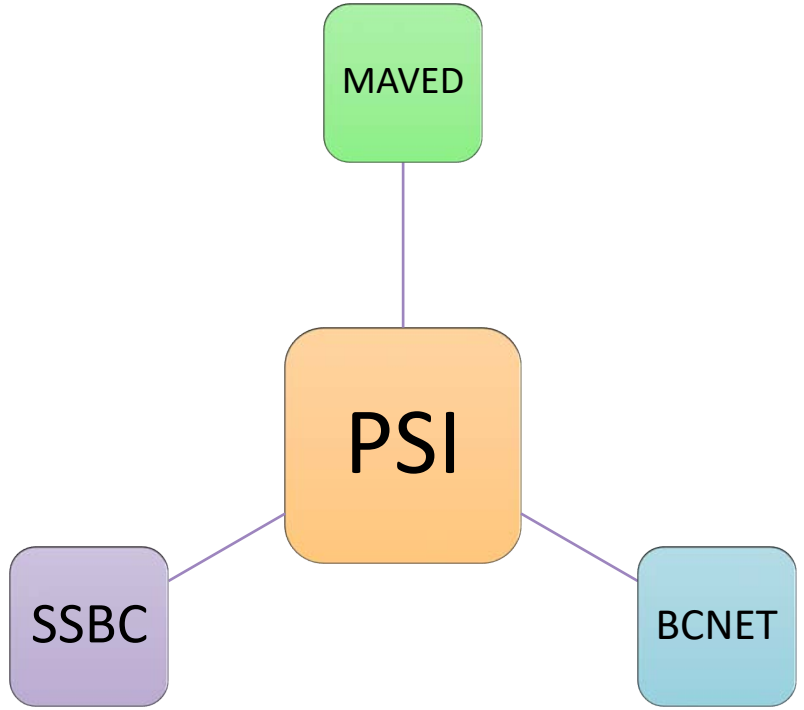
INSAC – *Integrated Network Support Advisory Committee*

2015: Develop Network Funding Model with Government Ministry

2017: *Network Services Committee*
PSI Transitions Project oversight

Collaborative Approach

- Integrated planning
  stakeholders to develop best approach for each institution
- Leveraging resources
  expertise, value, multiple suppliers
- Transparent and Open Process
  10 sector representatives

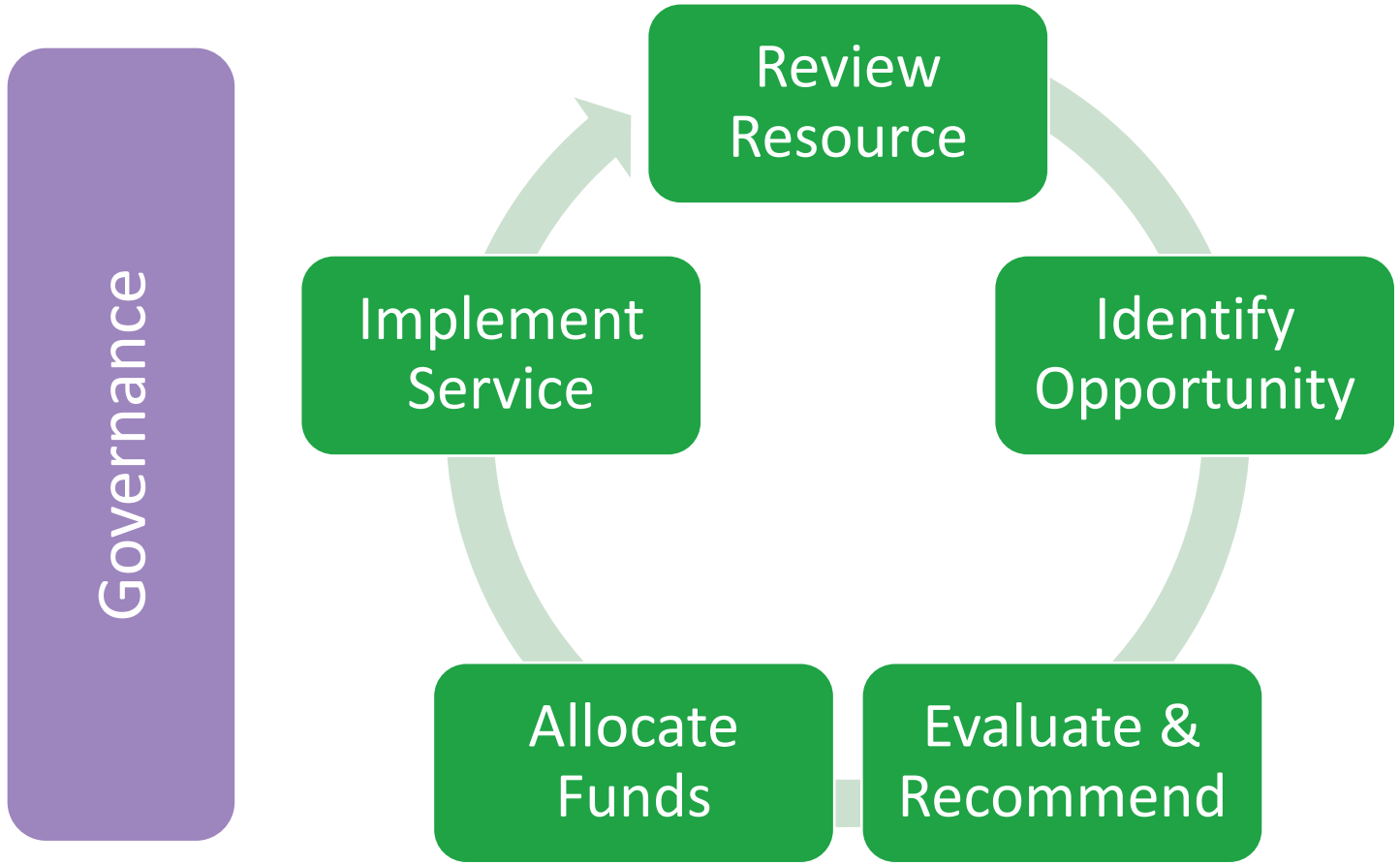


Ministry Expectations

- Be realistic about requested bandwidth
  - geographic location
  - other constraints/opportunities
- Leverage capital
  - lower operating costs
  - matching capital requests, if appropriate
- Creative funding
  - PSI self funding
  - partial Ministry subsidy / other programs
- Other government initiatives participation
  - NetworkBC
- Ministry budget
  - working to increase budget/recovery from other Ministries
  - sustaining operations
- Request prioritization

Network Service Fund Model

ministry fund allocations for network services
to the public post-secondary sector



Thanks to INSAC Members

Chair: Ian McLeod, Douglas College

Members:
Jake Block, Okanagan College
Bradley Bowness, College of New Caledonia
Greg Condon, University of Northern BC
Darren Eveleigh, Vancouver Island University
Marilyn Hay, BCNET
Darrel Hicks, Selkirk College
Trevor Hurst, Advanced Education
George Jones, Justice Institute
Ron Kozsan, University of Victoria
Clarence Lee, BCNET
Stephen O'Connor, Capilano University
Marijan Sajko, Advanced Education
Kevin Walters, North Island College

Note: 2017 Member List

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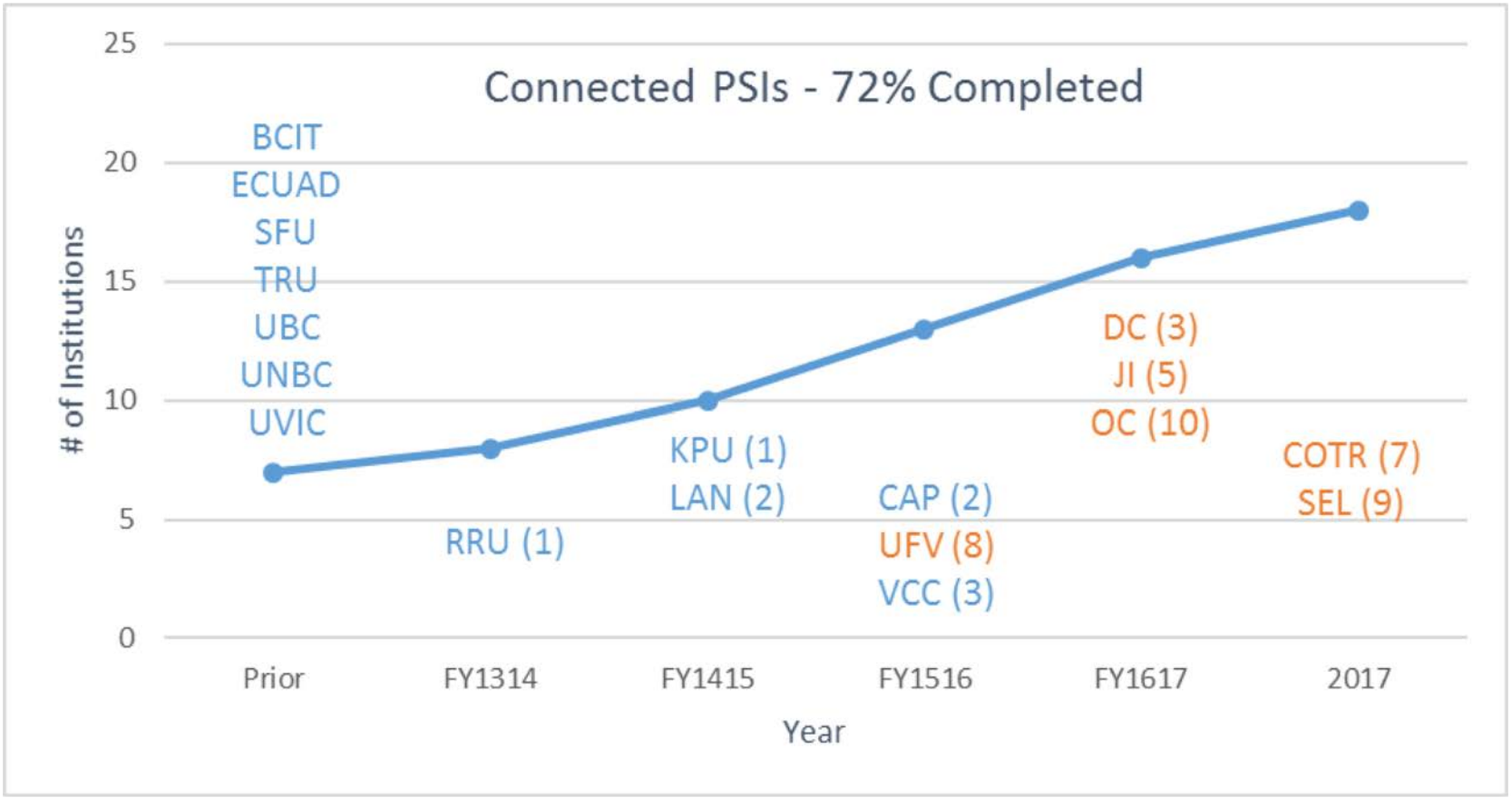
Progress – what was done?

Program Progress to 2017



12 self funded

Six funded by the Integrated Network PSI Transition Project

Current trend to complete end of 2019

Accelerate progress to meet Government and Ministry requirements

Accelerated in 2017

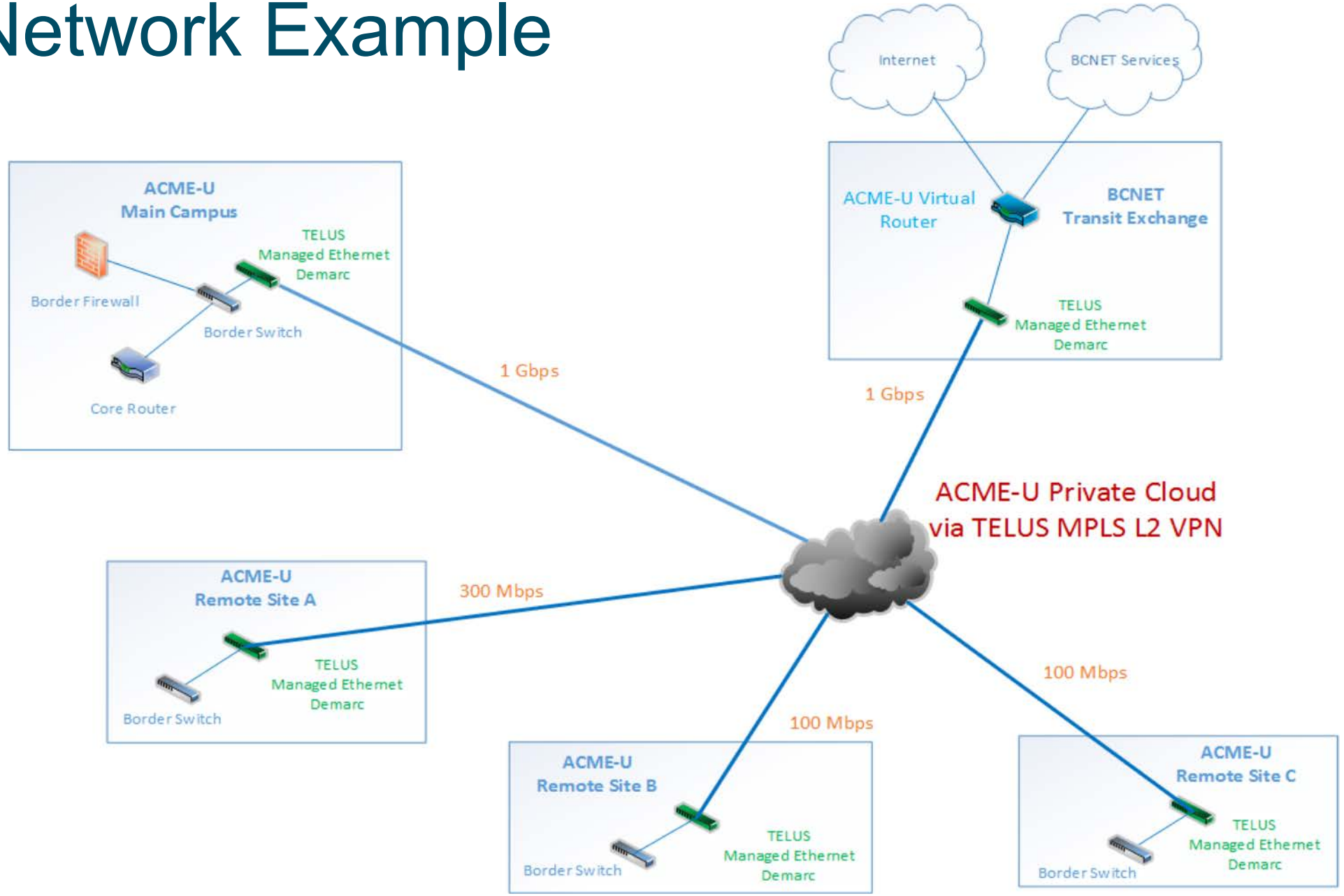
- ✓ Consolidated market tender for remaining institutions
  50+ circuits
- ✓ Dedicated BCNET Project Manager
- ✓ New target to complete transitions off PLNet circuits by September 2018

Highlights of Network Circuit Tender

- Single RFEOI conducted in 2017 by BCNETSource for 50+ circuits
- 6 vendor proposals
- Telus chosen as the primary circuit provider for 46 campuses
- 3 sites had no proposed solution: contracted NorthWesTel
  NLC campuses Atlin, Dease Lake, Fort St. John
- Savings of 23% under INSAC proposed budget
  30 Gbps to be installed, a 52% increase from budget

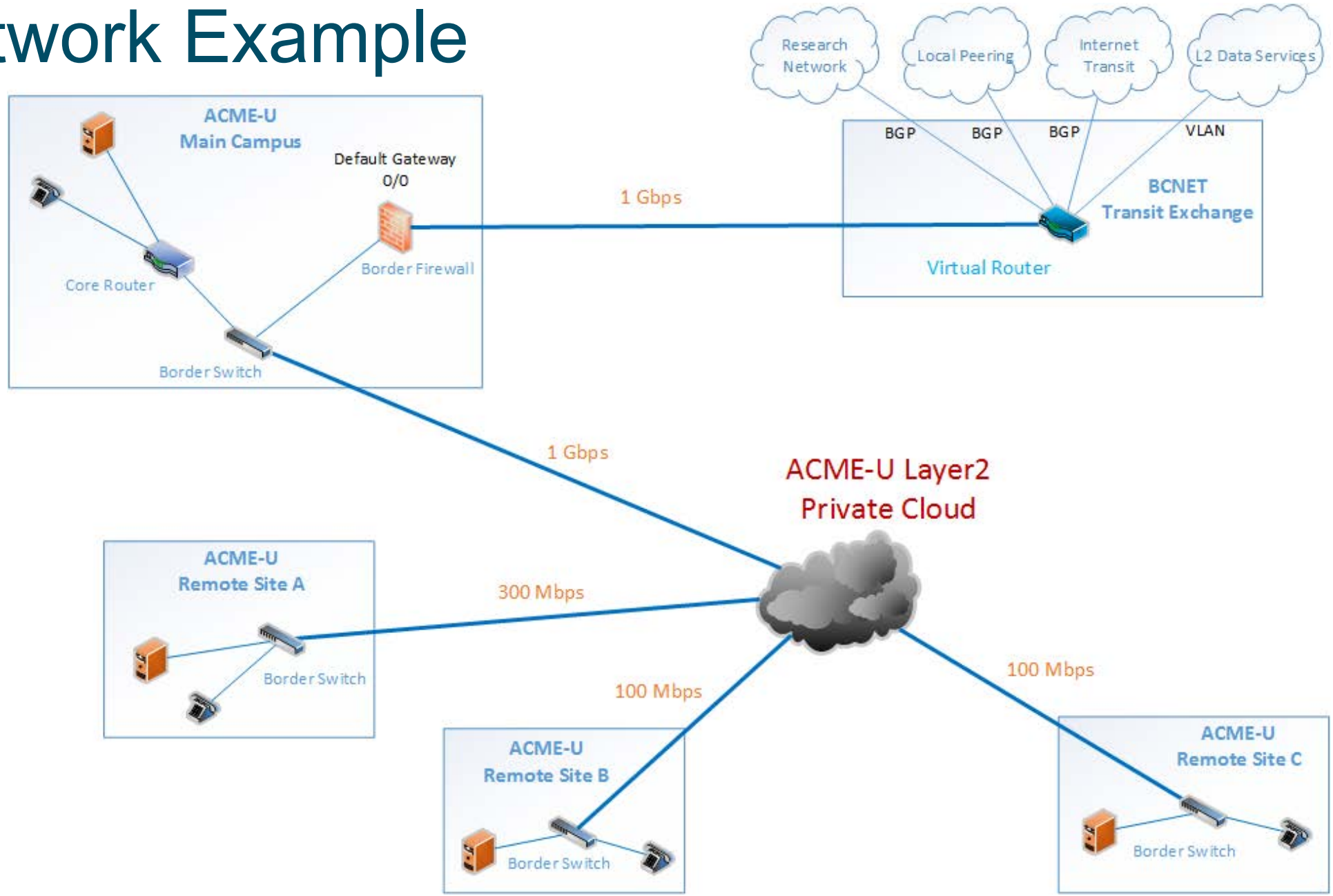
Project Organization

Physical Network Example



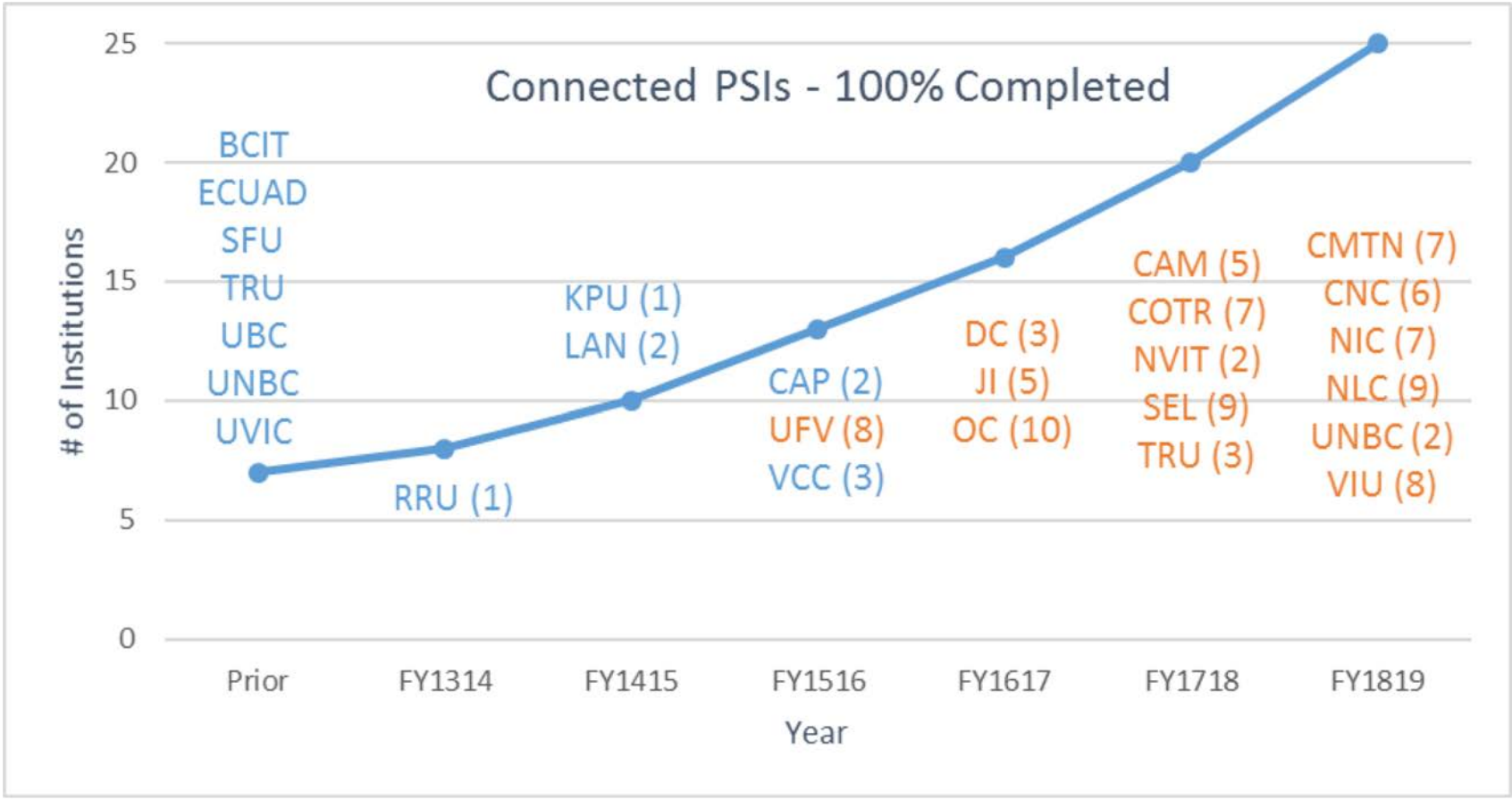
BCNET 30 Years

Logical Network Example



BCNET 30 Years

Program Timeline



12 self funded

15 funded by the Integrated Network PSI Transition Project

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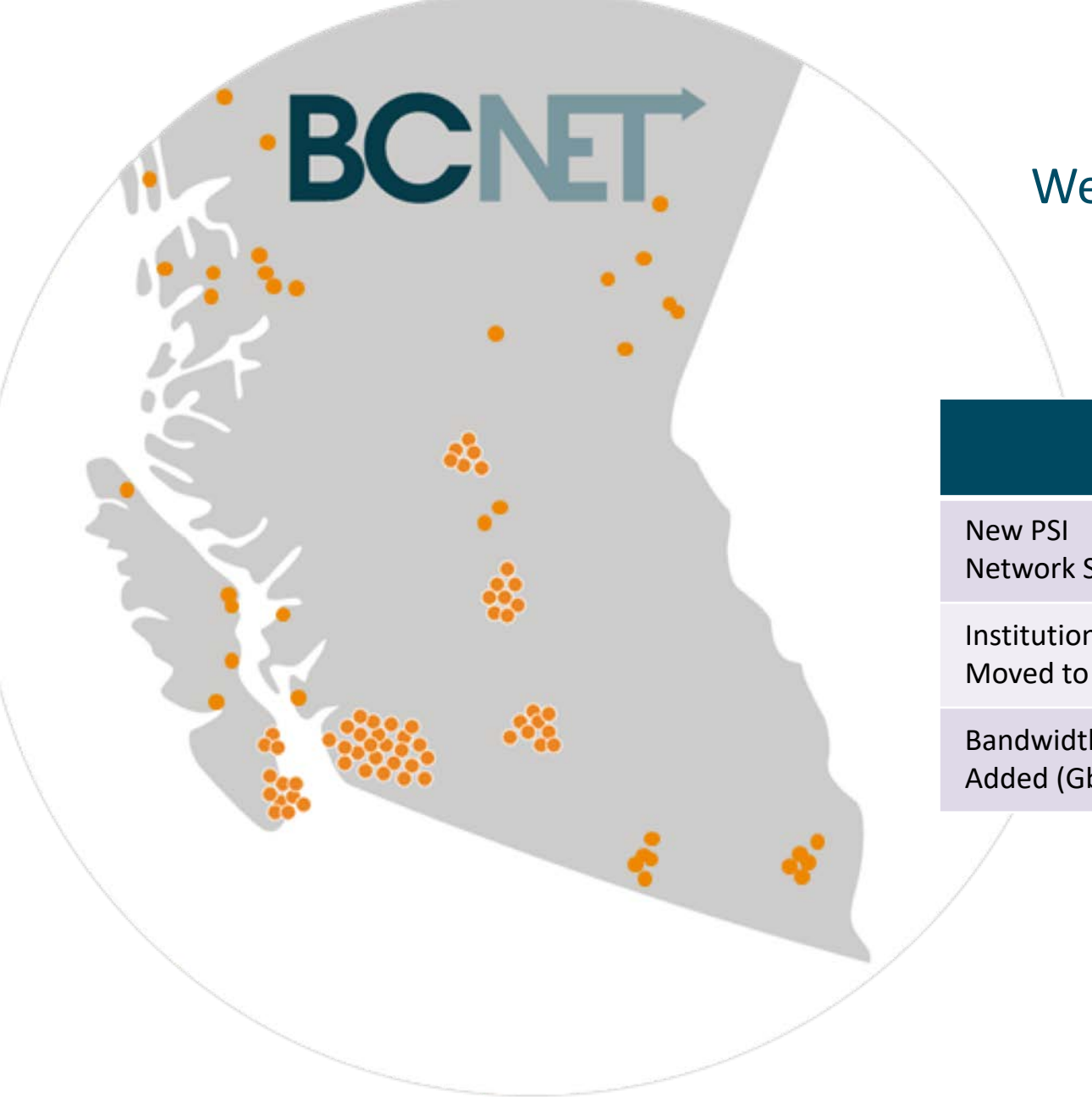
Outcomes



We have added **101 new sites** through the program with **138 Gbps new bandwidth.**

	2013	2014	2015	2016	2017	2018
New PSI Network Sites	1	5	20	36	62	101
Institutions Moved to BCNET	1	3	6	9	13	18
Bandwidth Added (Gbps)	0.3	1.9	27.0	31.8	114.8	137.8

17% more sites than budgeted
28% under the budgeted circuit costs

Close Out Project Reviews

Goals and Objectives	★★★★½ (4.6)
Schedule	★★★★½ (4.1)
Network Service	★★★★½ (4.5)
Communication	★★★★½ (4.6)
Resource Management	★★★★½ (4.5)
Overall Performance Rating	★★★★½ (4.5)

Quotes from Institutions

- ✓ Connectivity and speed have been great and solid. Latency results has improved.
- ✓ Good, regular and clear communication, and BCNET resources were very helpful and responsive.
- ✓ Some issues with TELUS technicians not having right information when they were visiting sites for the install.
- ✓ BCNET's effort to perform circuit testing has really helped achieve great results.
- ✓ SSBC was responsive and did a great job in addressing and escalating the completion of domain transfers.

Institution Outcomes - CNC

College of New Caledonia
CNC

Meet College Goals to Provide Access to Resources Wherever a Student May Be.

"The College community is very appreciative of the new BCNET Network Services and is already planning increased usage to further meet the College Strategic Goals. To date, several College programs are now taking advantage through new online resources to support new programming and resources for students and the expansion of telepresence delivery (DDI) between CNC campuses in the North and beyond."

- Bradley Bowness

Institution Outcomes - OC

Foundation for the Next Generation Learners.

"Pilot projects are underway to equip our regional campuses with technology enabled classrooms that will permit expanded offerings in these rural regions which have not been possible in the past. The new network infrastructure is the foundation for the next generation of technology enabled classrooms and the college to be ready for the next generation of learners."

- Jake Block

Institution Outcomes - VIU

Critical to IT Strategy

"The BCNET migration project was a critical piece to laying the groundwork for VIUs long term student success and IT strategic plan. The project not only improved service offerings across all our campuses with improved speed and reliability of our network core , but also created the opportunity to rearchitect our network positioning ourselves for adoption of modern technologies. This project was critical to our complete network remediation plan and positions our IT department to deliver even better service to our students."

- Darren Eveleigh

Support Improvements for Members

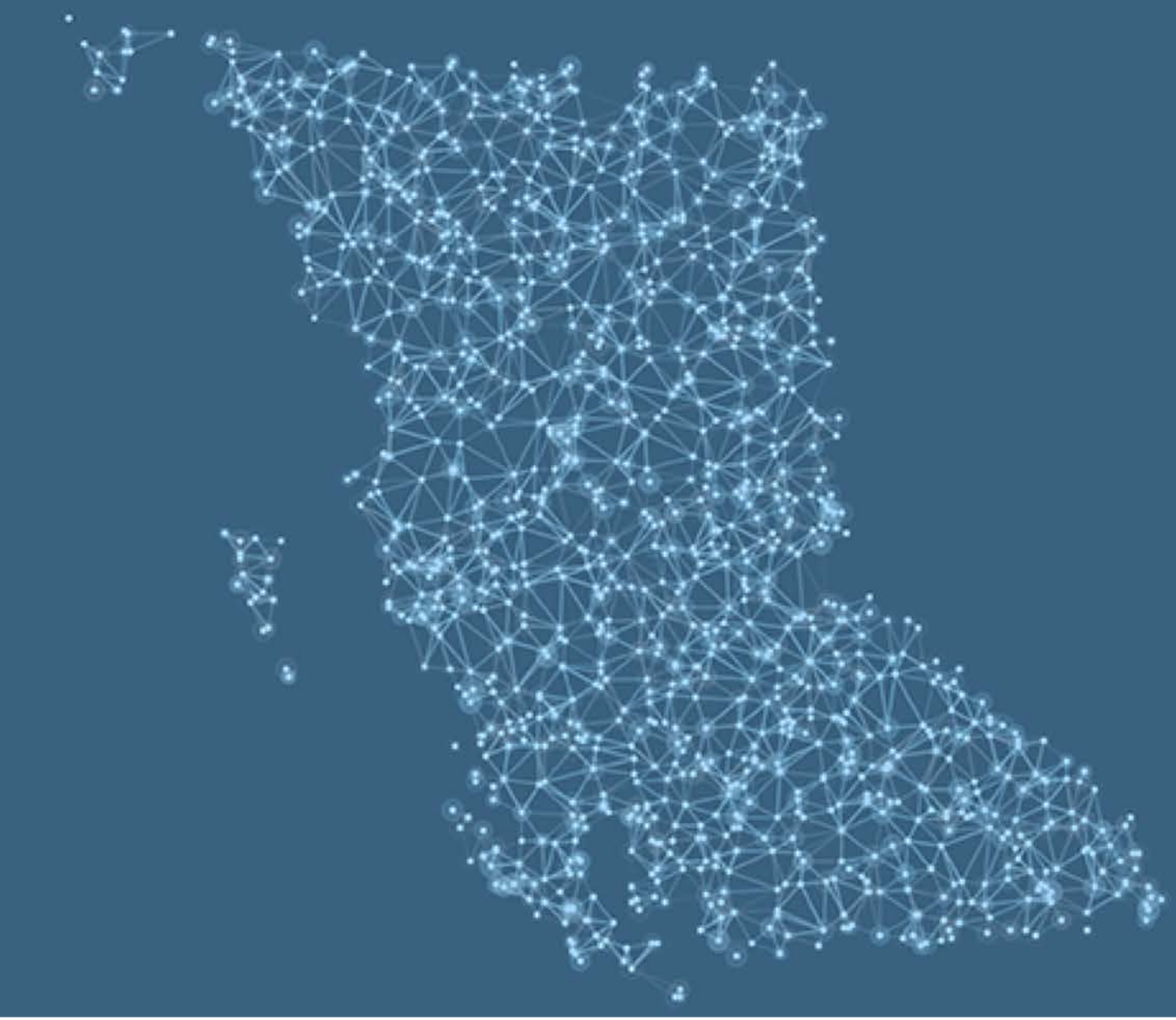
- Connection Requests
  - standard form
  - streamline intake
    - new
    - upgrade
    - diverse
- Circuit Monitoring
  - baseline all circuits
  - L2 up / down
  - collaborate
    - priority
    - escalation

Pallavi Kapoor
Toby Wong
Blake Bridgewater
Dave Stillwell
Oscar Rondon
Morgan Dapilly
Don McWilliam
Clarence Lee

Requires an entire dedicated team for a successful project.

Thanks!

Gerry Currie
Pat Todd
Jane Godfrey
Curtis Bowden
Keelin O’Reilly
David Burkholder



Questions ?