BCNET

Shared IT Services for Higher Education & Research

Conference 2018

Success, Progress, Developments and Opportunities

BCNET Shared Services Portfolio

Agenda

- Network Services

- Procurements

- Cybersecurity and Identity Management

- Enterprise Resource Planning

- Professional Development & Training

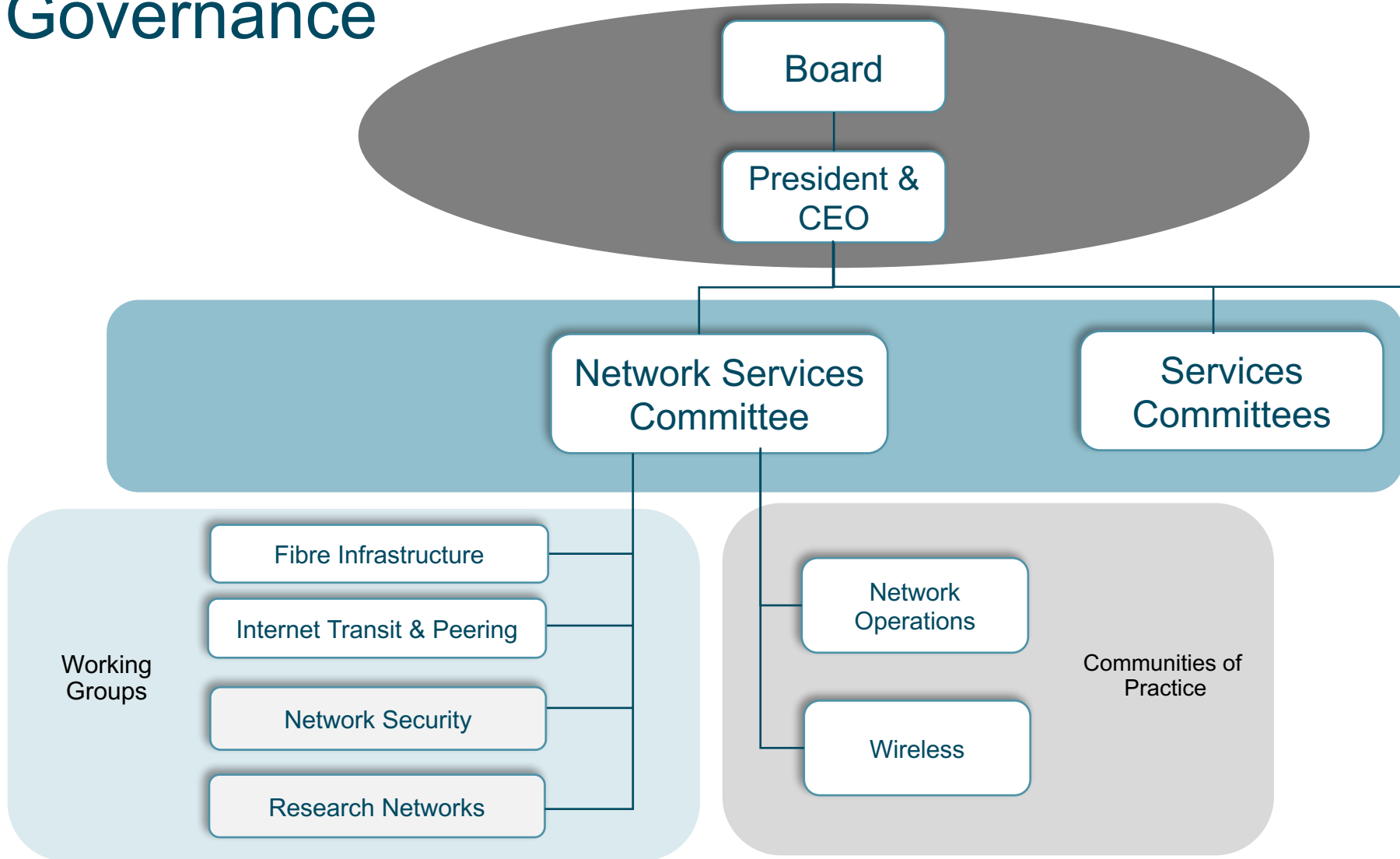- Shared Systems and Technology

Network

Marilyn Hay

Vision

We will deliver, operate and advance network infrastructure to support education, research and innovation in British Columbia.

Governance

Board

President & CEO

Network Services Committee

Services Committees

Working Groups

Fibre Infrastructure

Internet Transit & Peering

Network Security

Research Networks

Communities of Practice

Network Operations

Wireless

NREN – Canada's National Research and Education Network

Network Services Portfolio

Physical Access

- Fibre Connection
- Fibre Cross Connect
- Point to Point Ethernet

Layered Services

- Advanced Network
- Internet Transit
- Transit Exchange
- Virtual Router

Our Fibre Infrastructure Investments

2017/18 New Builds

✓ Added 228 fibre kms

✓ Douglas College (2 sites)

✓ Emily Carr

✓ Justice Institute of BC

✓ Okanagan College

2018/19

✓ Kamloops – TRU, EduCloud

✓ Kelowna – OC, UBC

Oversight by Finance Committee

❖ Invest & develop with members and local partners

Reviewed by:

❖ Network Services Committee
❖ Fibre Infrastructure WG

9,980 fibre kms - BCNET Assets
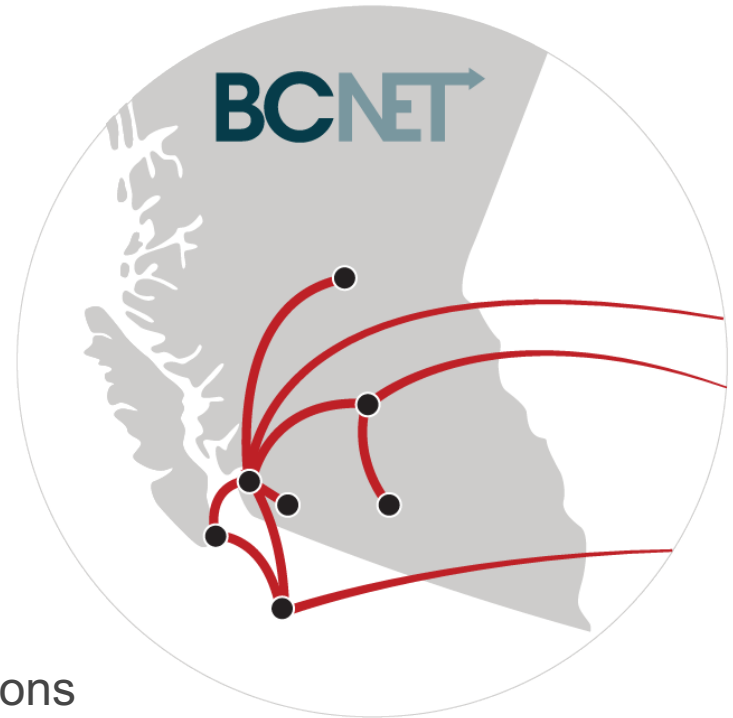
New Connections and Upgrades

2017/18 NEW

- ✓ 26 PLNet Transitions
- ✓ 4 research sector
- ✓ 2 100 Gig-E connections
- ✓ 3 new sites/ECUAD, OC, KPU

Upgrades

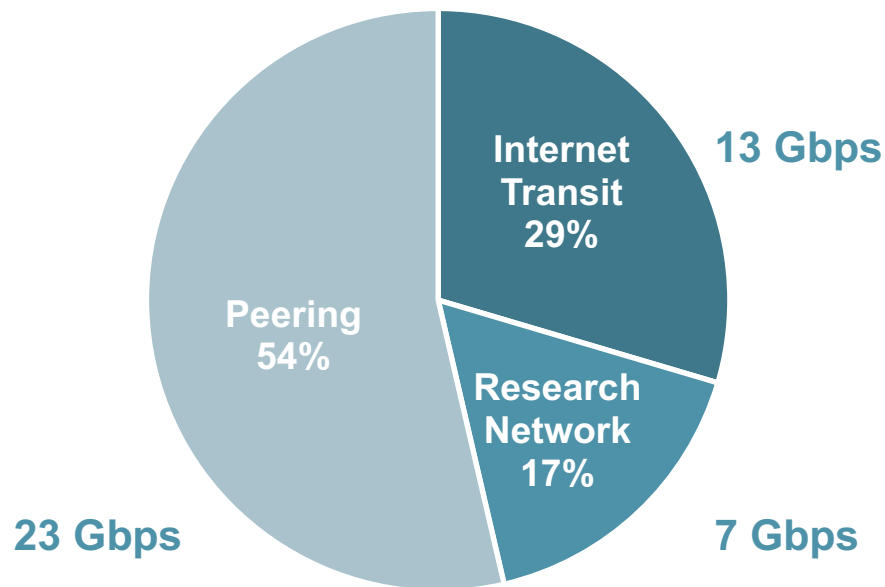- ✓ 12 upgrades across 6 institutions

Planning

- ✓ Prince George & Kelowna diverse connections
- ✓ Vancouver & Kamloops 100GigE

Internet Transit and Peering Services

**Traffic Distribution
2017-18**

Internet
Transit
29%

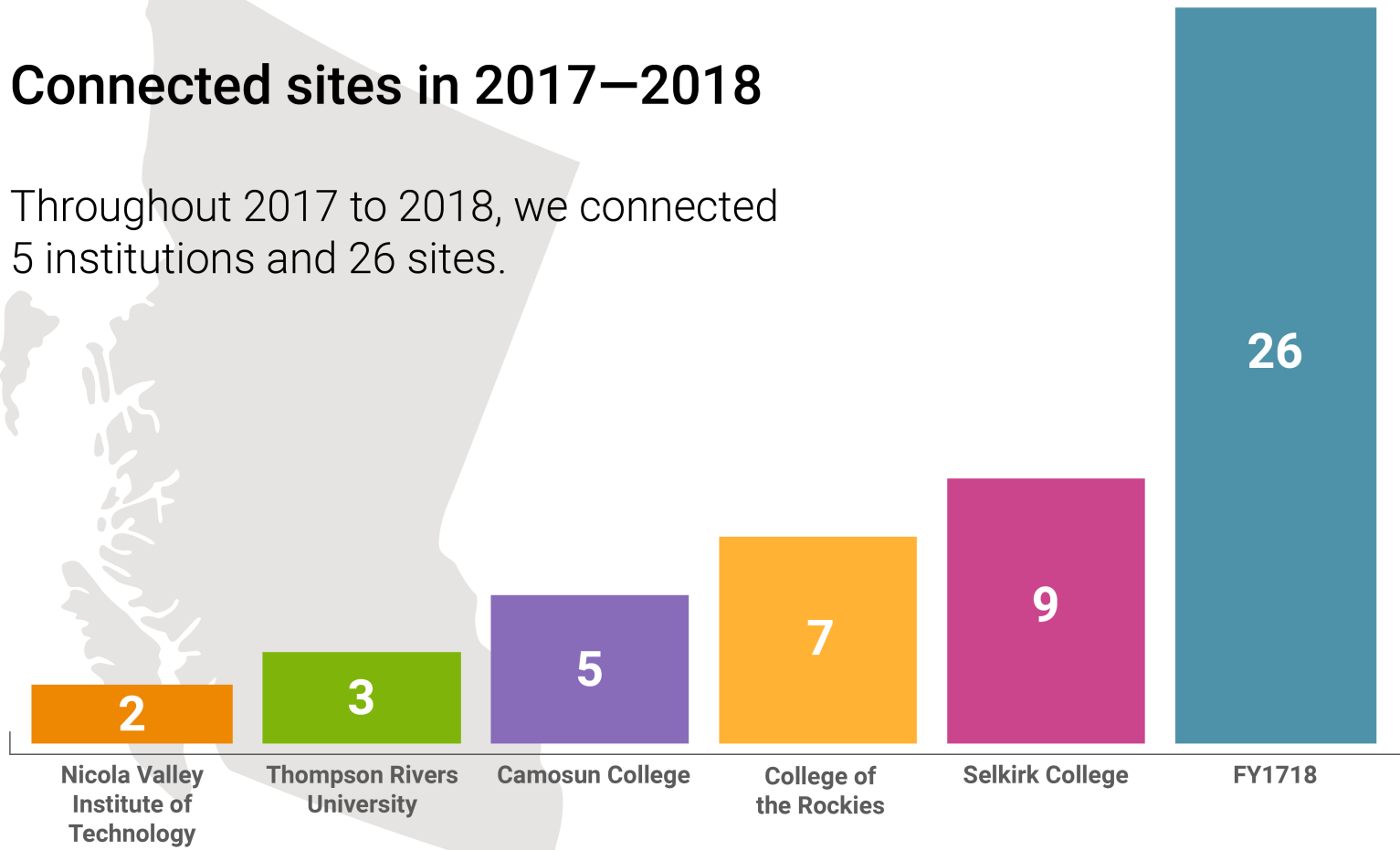13 Gbps

Peering
54%

Research
Network
17%

23 Gbps

7 Gbps

- Multiple upstream connectors
- Enhances connectivity experience
- Optimizes data traffic

Investment in Research Network + Peering = $2.2 M annual avoided cost for members

Integrated Network Project

Connected sites in 2017—2018

Throughout 2017 to 2018, we connected
5 institutions and 26 sites.

Nicola Valley Institute of Technology	Thompson Rivers University	Camosun College	College of the Rockies	Selkirk College	FY1718
2	3	5	7	9	26

Integrated Network Project: April–September

Planned connections in 2018

We plan to connect the remaining 6 institutions and 39 sites by September 2018.

2	6	7	7	8	9	39
University of Northern British Columbia	College of New Caledonia	North Island College	Northwest Community College	Vancouver Island University	Northern Lights College	Remaining Sites

Distributed Network Management

Vancouver | Core Staff

- Blake Bridgewater

- Morgan Dapilly

- Pallavi Kapoor

- Don McWilliams

- Oscar Rondon

- Dave Stillwell

- Toby Wong

Kamloops | TRU

- David Burkholder

Kelowna | UBCO

- Keelin O'Reilly

Prince George | UNBC

- Curtis Bowden

Surrey | SFU

- Vic Herbert

Victoria | UVic

- Steve Lahey

- Hans Yodzis

- Staff

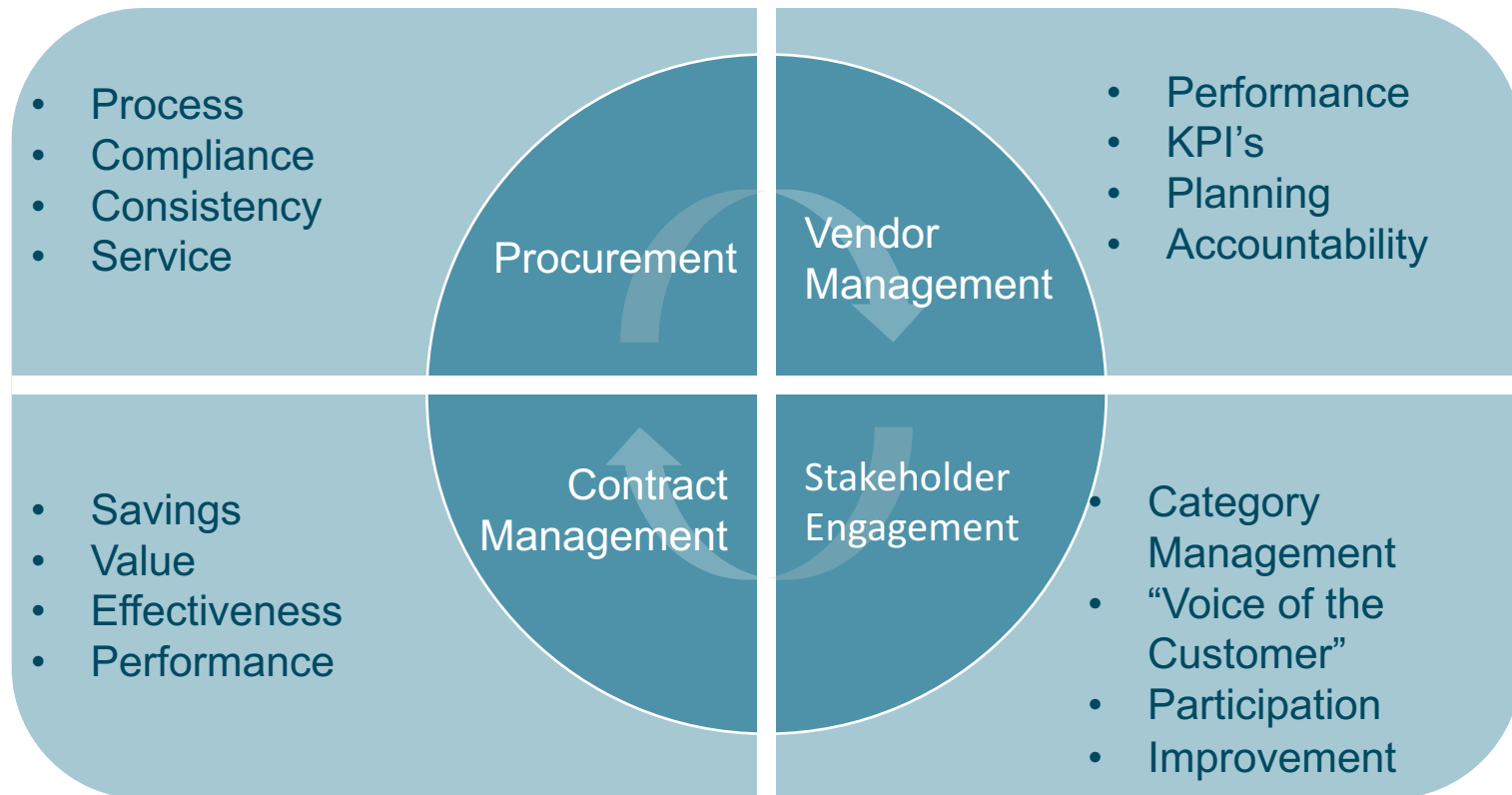**UBC | Operations 24x7**
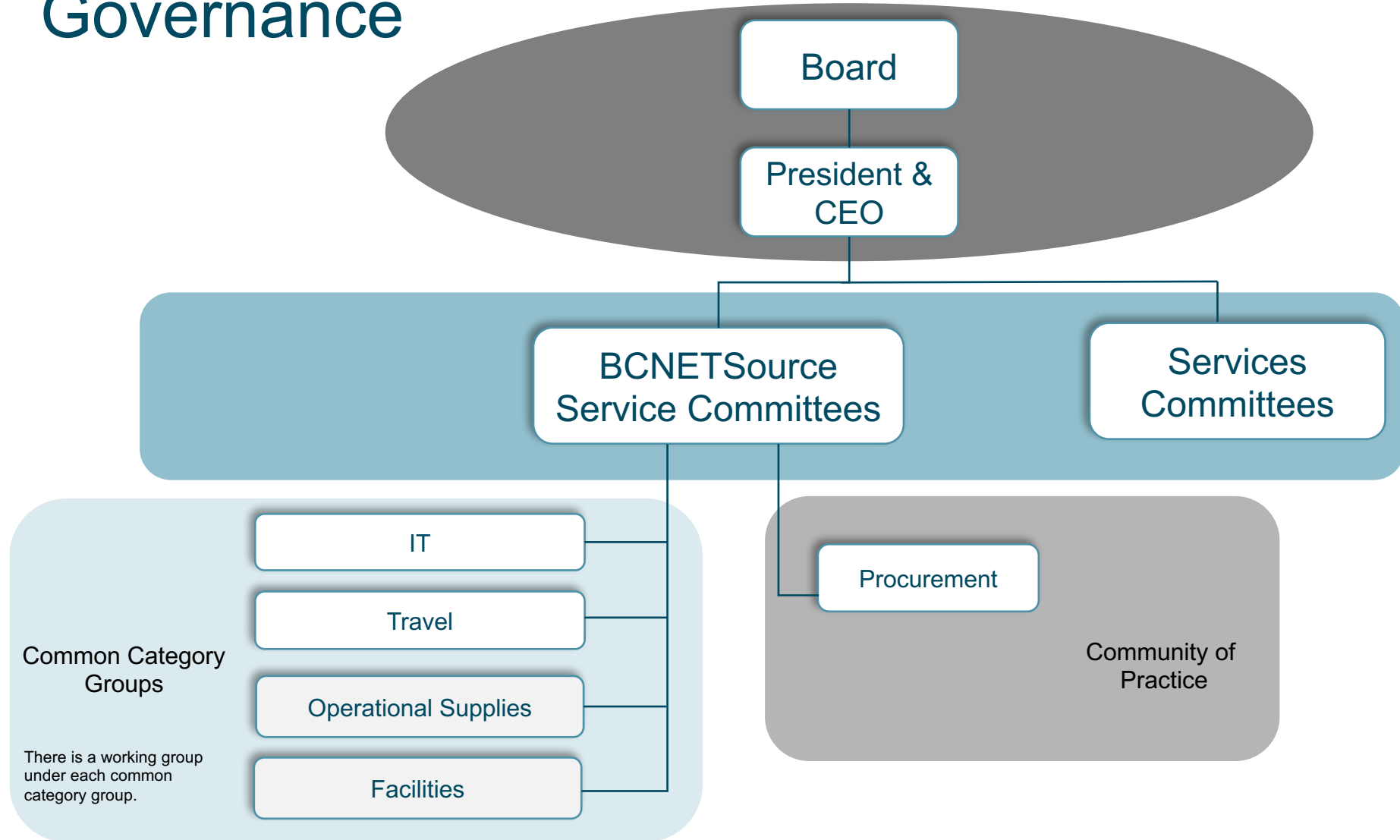
- Rose Chan

- Staff

Procurements

Dennis Silva

Vision

We will provide outstanding value to member organizations through supply management expertise, innovation and collaboration.

What we do

- Process
- Compliance
- Consistency
- Service

Procurement

- Performance
- KPI's
- Planning
- Accountability

Vendor Management

- Savings
- Value
- Effectiveness
- Performance

Contract Management

Stakeholder Engagement

- Category Management
- "Voice of the Customer"
- Participation
- Improvement

Governance

Board

President & CEO

BCNETSource Service Committees

Services Committees

Common Category Groups

There is a working group under each common category group.

IT

Travel

Operational Supplies

Facilities

Procurement

Community of Practice

Who do we collaborate with?

Members
- Strategic Sourcing
- Contract Support
- Awareness

Vendors
- KPI's
- Reporting
- Vendor Management

ASDT & Ministry
- Benefit Reporting
- ASDT Procurements
- Leadership

Other Groups
- GPO's
- BCCampus
- Procurement Networks

BCNET SST& Network
- Procurement
- Policy & Compliance
- Contract Support
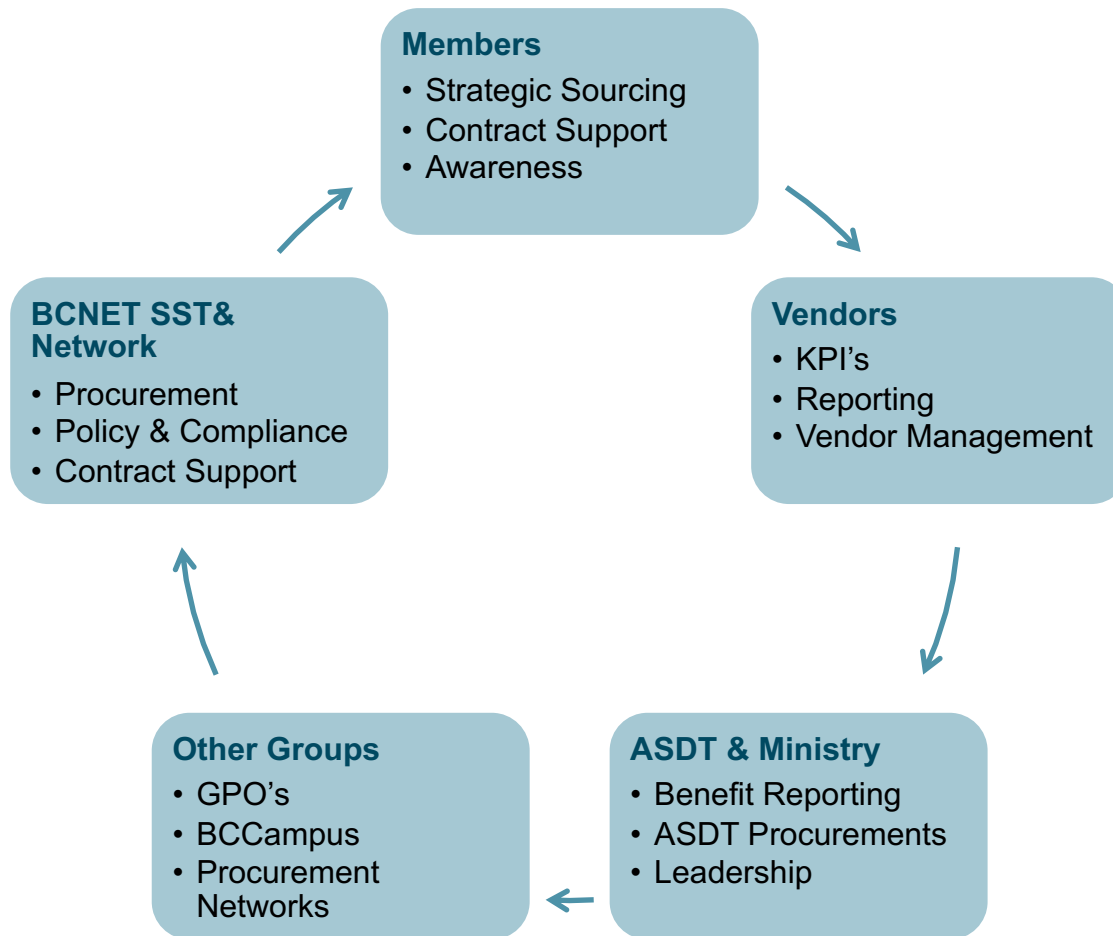
We reached $90M in participating spend

IT Procurements   **General Procurements**

PARTICIPATING SPEND (IN MILLIONS)

	FY 14/15	FY 15/16	FY 16/17	FY 17/18 PROJECTED
General Procurements	$5.2	$8.5	$10.2	$14.6
IT Procurements	$47.4	$49.2	$73.7	$76.2

FISCAL PERIOD
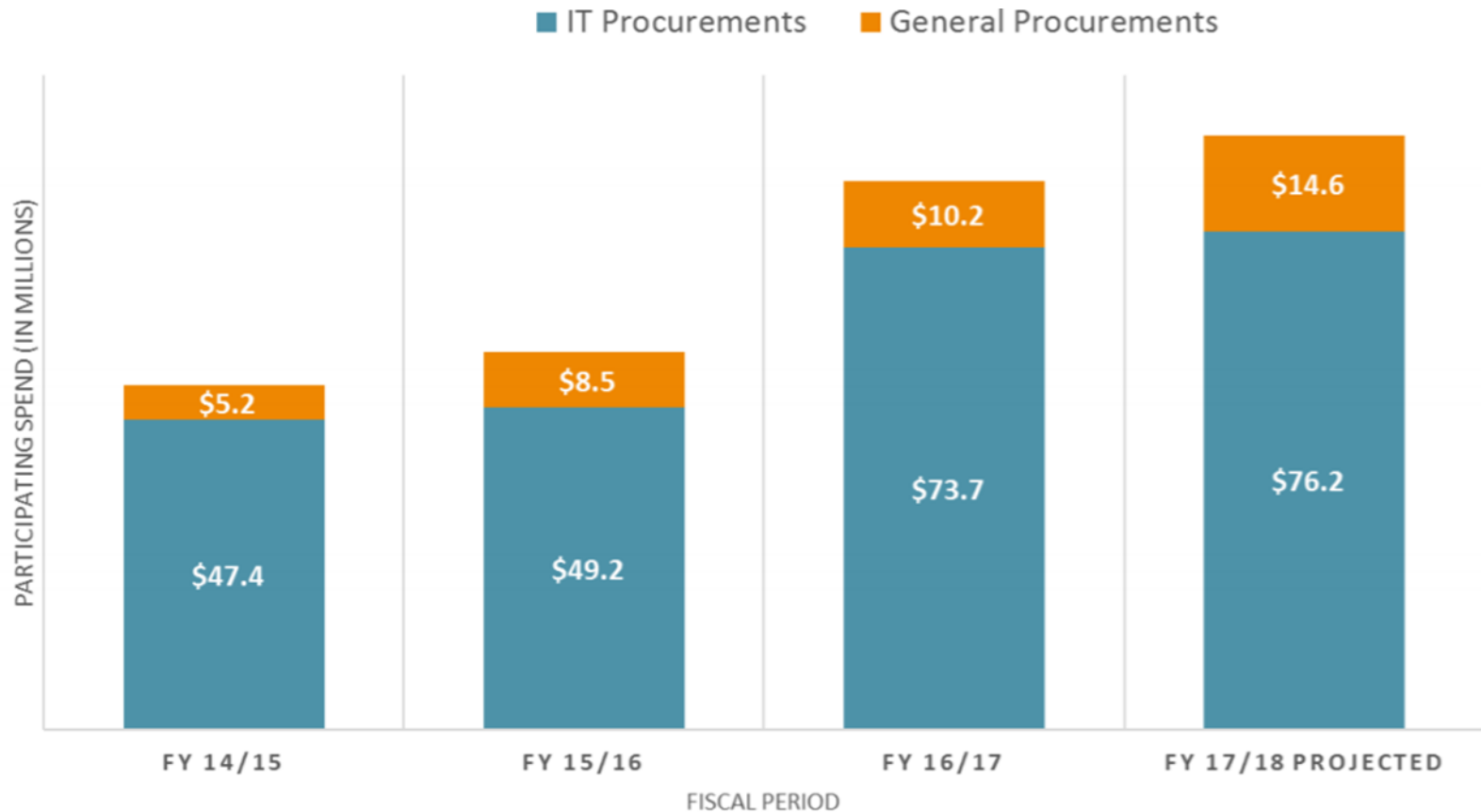
We received 256 participating agreements

IT Contracts

Chart legend: IT MSA, IT PA

	2015/16	2016/17	2017/18
IT MSA	20	24	24
IT PA	215	232	256
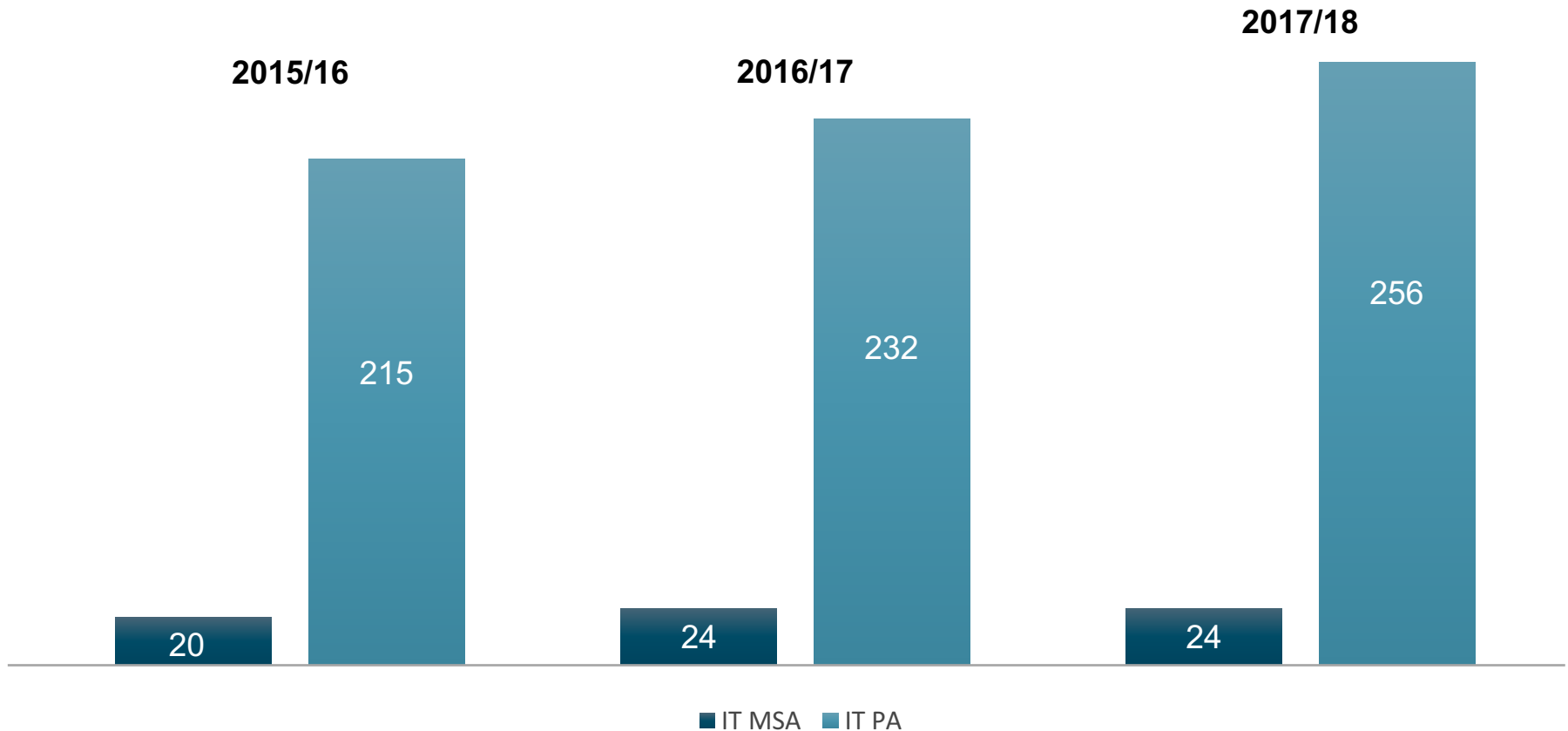
We received 120 participating agreements

General Contracts

2015/16 — General MSA: 4, General PA: 39
2016/17 — General MSA: 7, General PA: 67
2017/18 — General MSA: 10, General PA: 120

■ General MSA ■ General PA
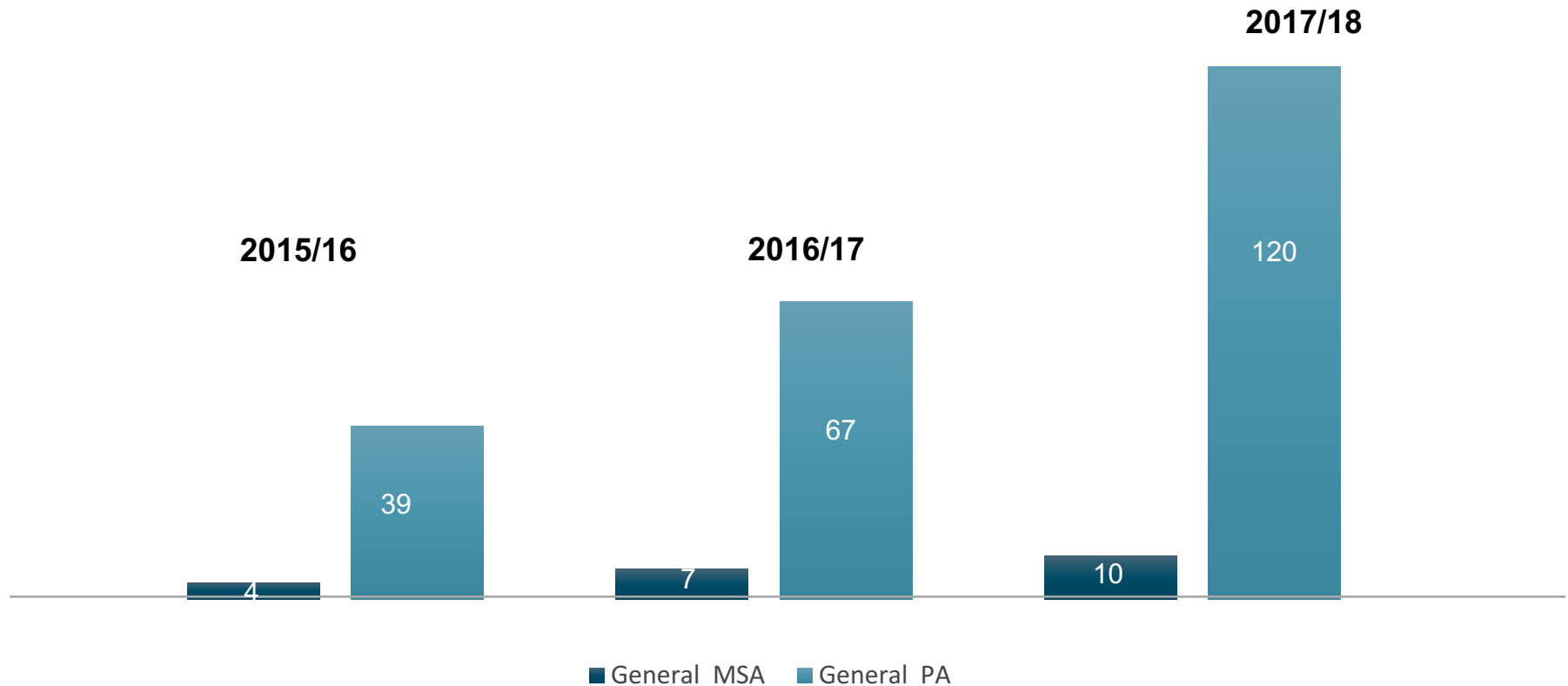
Major IT contracts in 2017/18

- Network Circuits - TELUS
- Software VAR – Compugen
- Microsoft Sector Agreement Extension
- Firewall – Palo Alto
- Core Switches – Juniper and Cisco
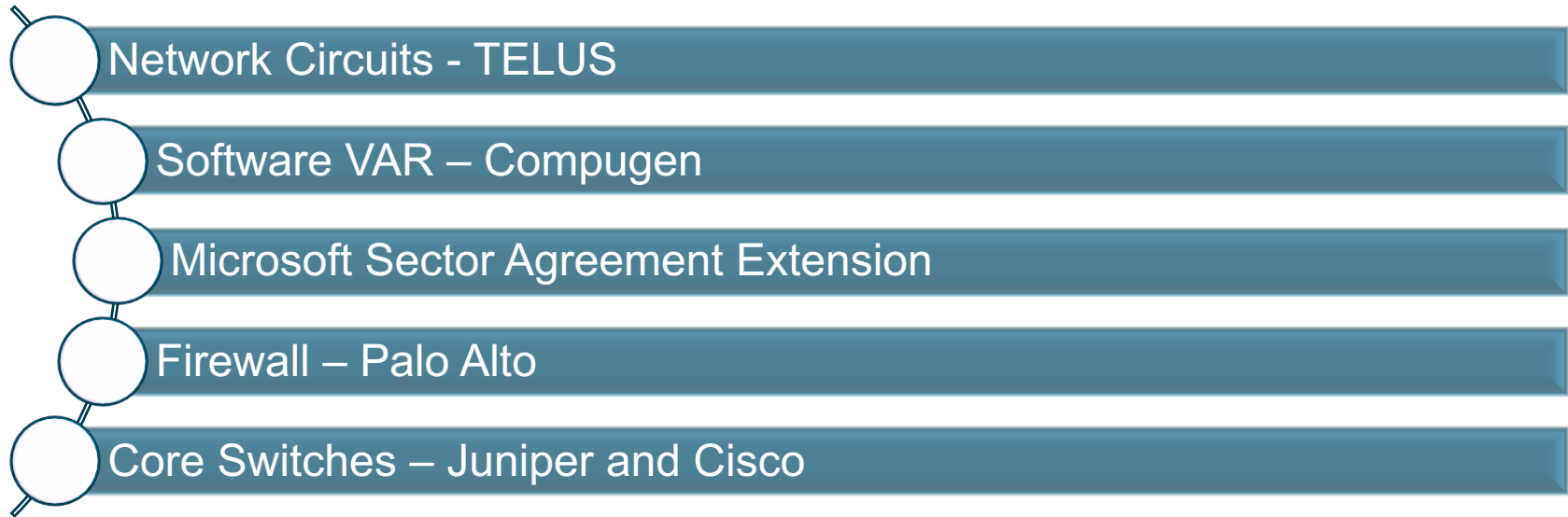
Our procurement pipeline: 2018/19

Underway

- IT Pre Qualified Services
- End User Computing Devices
- Elevator Maintence Services
- Custodial Supplies
- Traveller Emergency Services
- International Refund and Tuition Payments
- Facilities Pre Qualified Suppliers
- Maintence Repairs and Operations

In Planning

- Hardware VAR
- Scientific Supplies
- Stationary & Promotional Products
- External Audit Services
- Shredding and Records Management

Summary

We engage and support our members' needs and pursue new opportunities.

IT contracts are the largest area of spend and success.

We facilitate

- Better service
- Better contracts
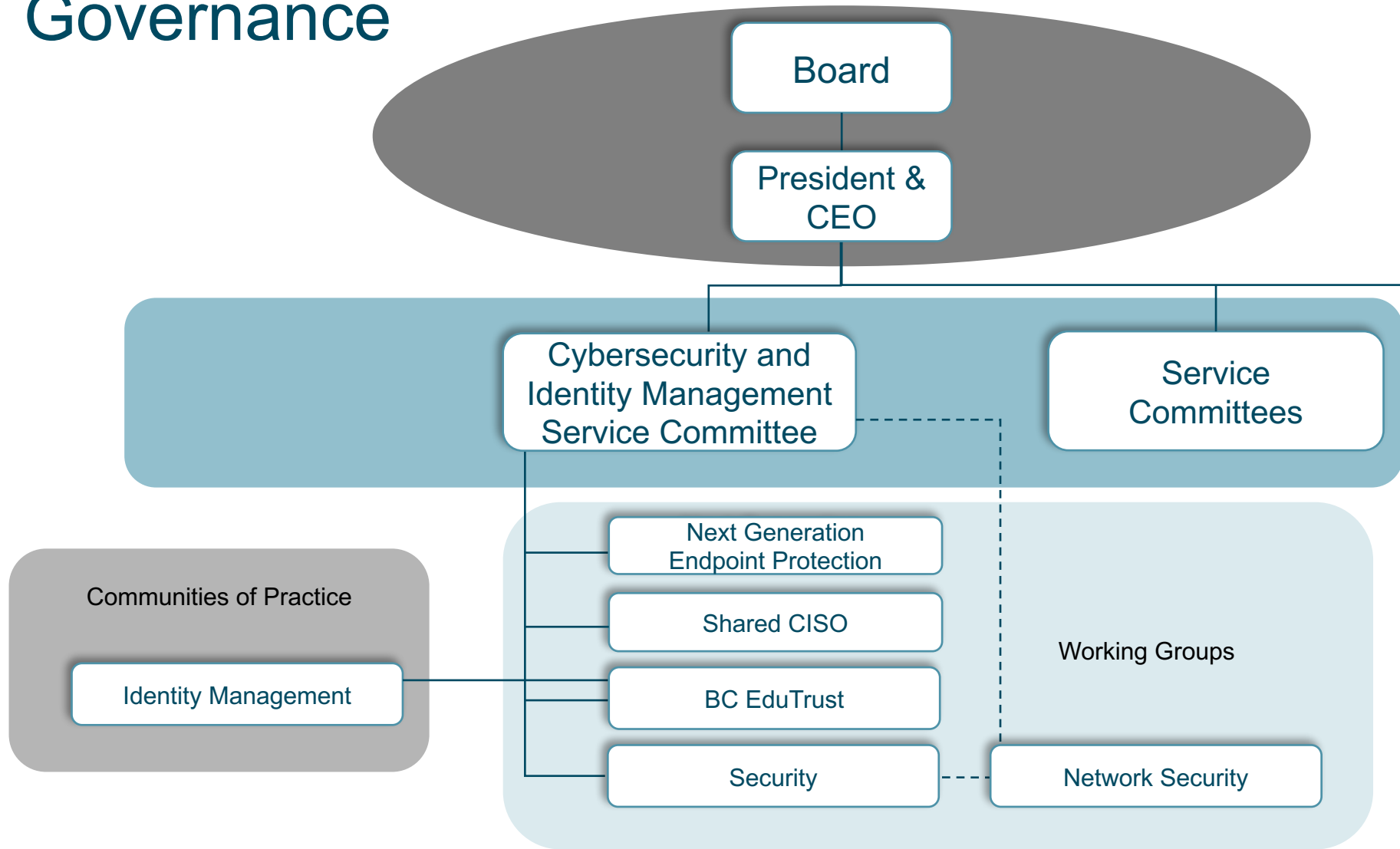- Better results

Cybersecurity and Identity Management

Ivor MacKay

Vision

BCNET higher education members lead the country in cybersecurity and identity management.

Governance

Board

President & CEO

Cybersecurity and Identity Management Service Committee

Service Committees

Communities of Practice

Identity Management

Next Generation Endpoint Protection

Shared CISO

BC EduTrust

Security

Working Groups

Network Security

What's new in cybersecurity services

CIRA D-Zone AnycastDNS

Nessus Vulnerability Scanning

Shared CISO

Next-Generation Endpoint Protection

Security Information and Event Management (SIEM) System

CIRA D-Zone AnycastDNS Service

- ✓ New core service (FREE)
- ✓ Fault Tolerance
- ✓ DDoS Resiliency
- ✓ Web Interface
- ✓ Reporting
- ✓ 24/7 monitoring & support
- ✓ 100% SLA

Attend Nessus Session!

Date: Wednesday, April 25,

Time: 2:15 PM – 3:15 PM

Room: Barrick Gold Lecture

Nessus Vulnerability Scanning Service

- ✓ Configuring the Nessus scanner to scan your networks for vulnerabilities.

- ✓ Scanning takes place on the public side of your network (not the internal network).

FREE Service for BCNET Members!

Attend CISO Session!

Cybersecurity Challenges in Higher Ed: A Proposal for Shared Chief Information Security Office

Date: Monday, April 23,

Time: 1:00 PM – 2:00 PM

Room: Labatt Hall

Shared Chief Information Security Officer (CISO)

✓ Proposed MOU for shared CISO for five to eight institutions. (BCNET Cybersecurity Committee)

✓ Goal: develop and improve security baseline and maturity

Attend NREN SIEM Session!

NREN SIEM Deployment Project

Date: Tuesday, April 24, 2:30 PM – 3:30 PM

SIEM Workshop

Date: Thursday April 27

Register online!

- ✓ CANARIE funded
- ✓ Building a SIEM for BCNET core management network.
- ✓ Plan to build capacity and resource for members use
- ✓ Hiring a SIEM Systems Administrator
- ✓ Building capacity

Next Generation Endpoint Protection

The Endpoint Has Changed

Corporate Perimeter

Corporate Perimeter

VPN

Cloud Services

SOPHOS   9
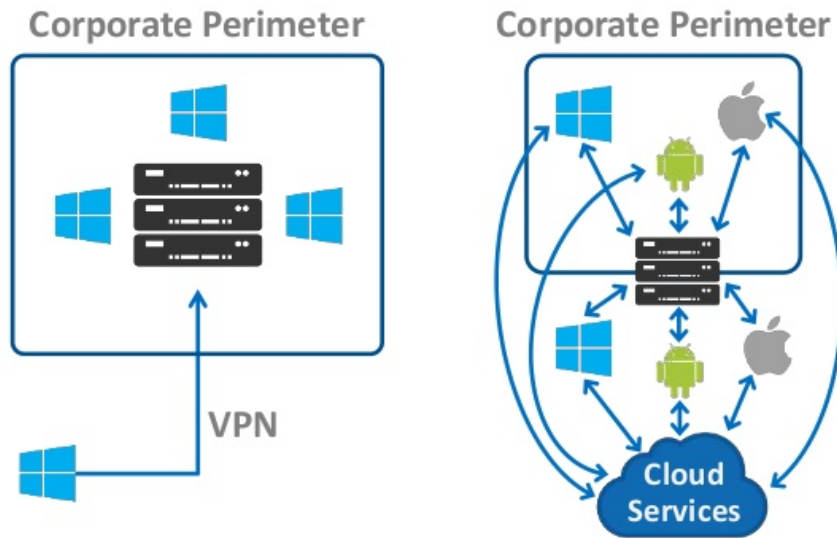
Executive Summary sent to BCNET Procurement team for prioritization.

Once prioritized, will issue request for expression of interest to be ensure our bases covered.

Enterprise Resource Planning

Garry Sagert

Vision

We will provide collaborative ERP support services, facilitate increased collaboration, and promote adoption of the April 2016 ASDT ERP Strategy with a vision of risk mitigation, cost containment and service improvement.
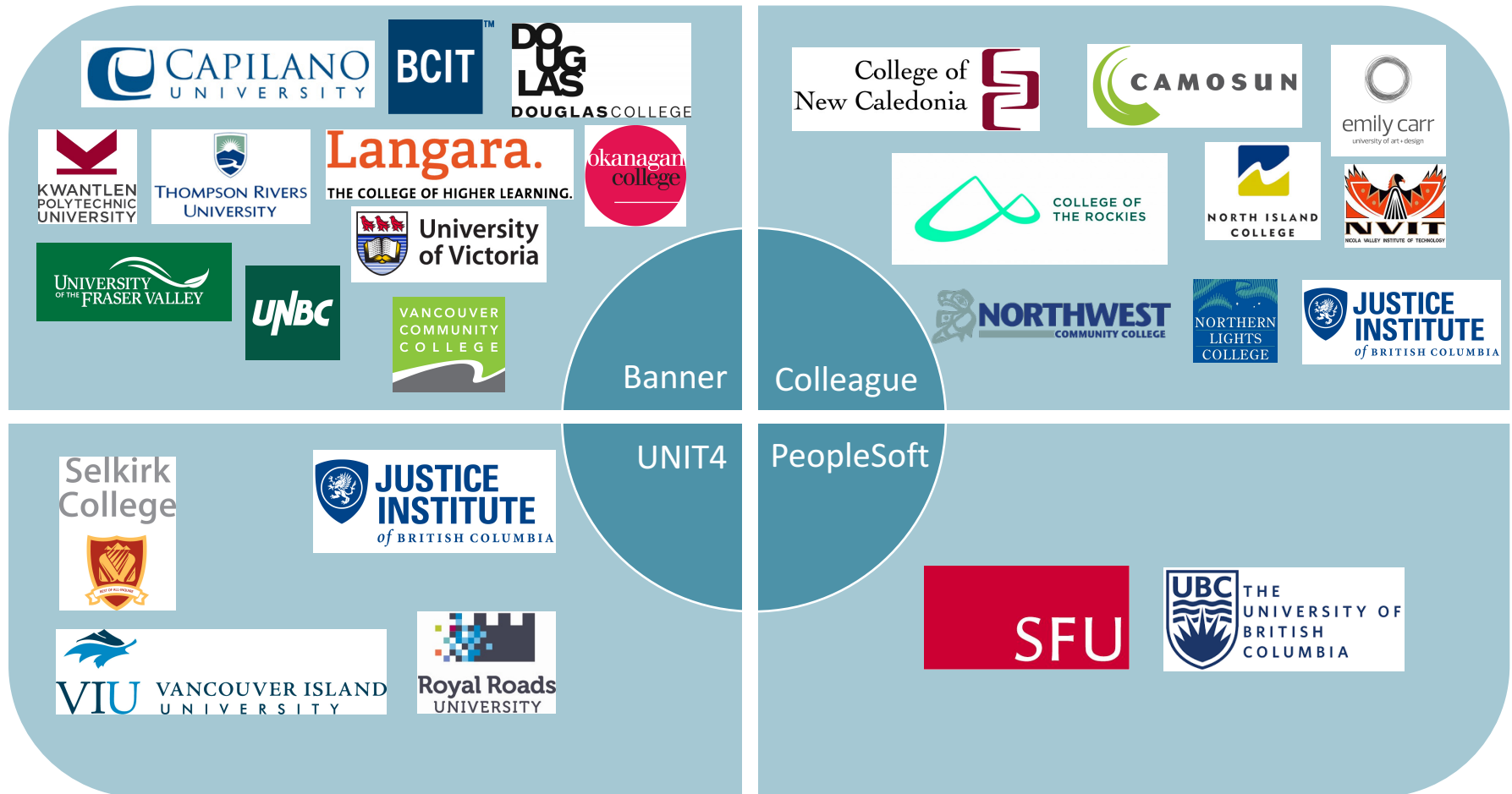
Governance
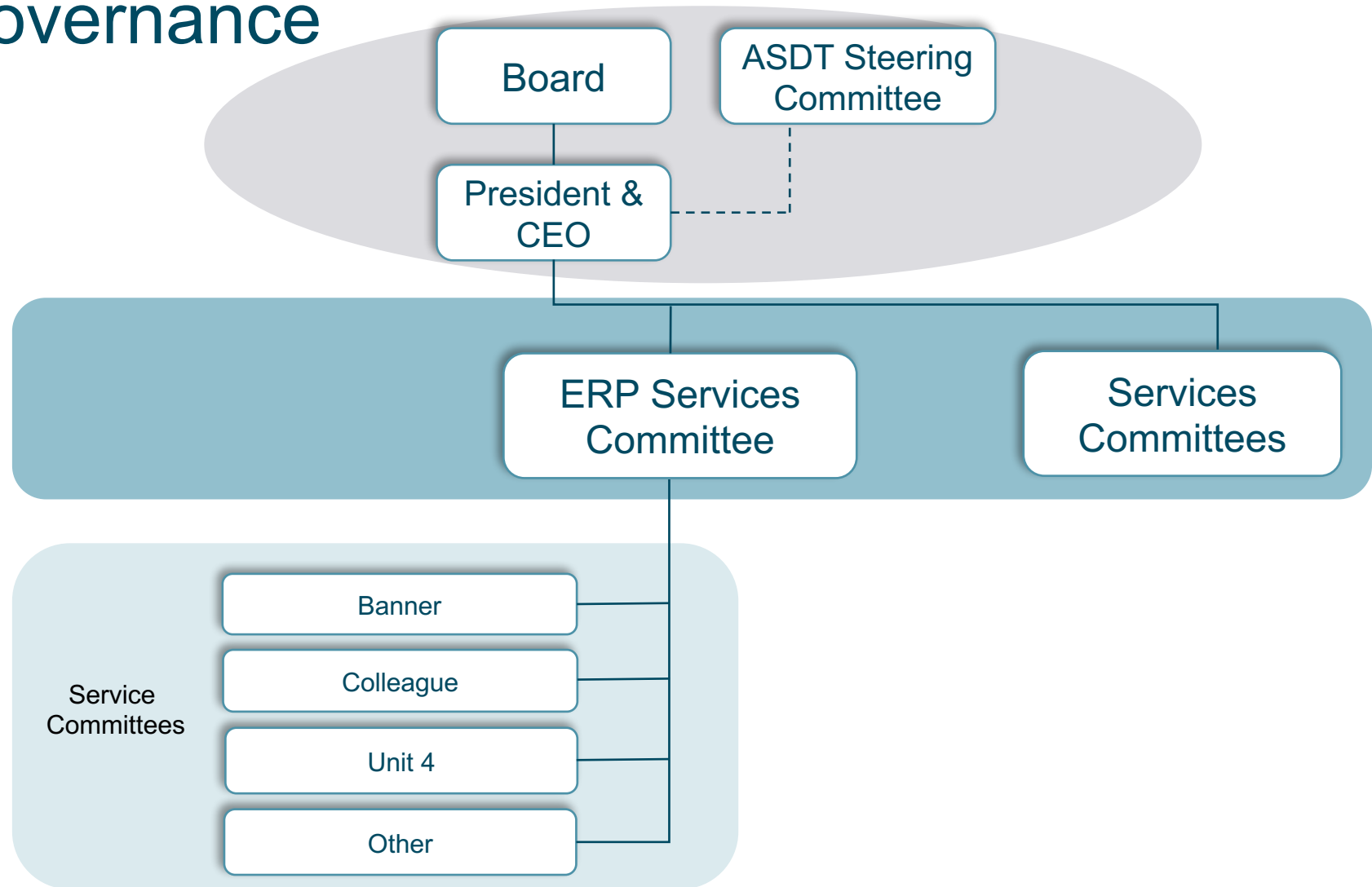
History of ERP Office

- ✓ 2013 Deloitte Report
- ✓ 2016 Sector ERP Strategy
- ✓ 2017 Business Engagement Report (BER)

Key Recommendations

Recommendation to establish an ERP office to facilitate collaboration

Sector ERP Landscape

Shared Opportunities

Attend the ERP Office Session!

BCNET ERP Office – Opportunities and Value

Date: Monday, April 23,

Time: 3:15 PM – 4:15 PM

Room: 1415 Cominco Policy

ERP Office Initiatives

- ✓ Online ERP body of knowledge
- ✓ Banner in EduCloud option
- ✓ Oracle OMA update
- ✓ Banner v9 upgrade support
- ✓ Colleague printing and operational support
- ✓ EducationPlannerBC and BCFA support

Vision

We will enable continuous IT knowledge improvement through collaborative and innovative methods.

Our Goals

Support + facilitate IT training

Negotiate competitive pricing

Aggregate seat counts

Offer diverse training methods

Meet members' needs

Areas of Focus

Business + management skills

Infrastructure

Applications

Security
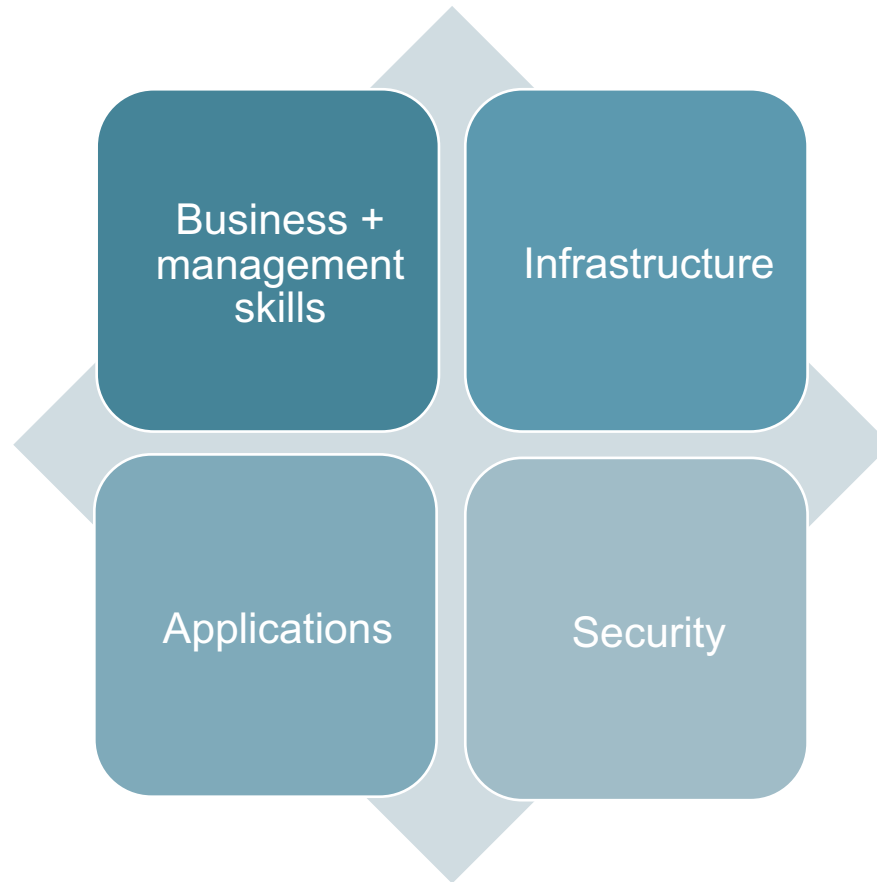
Member Participation
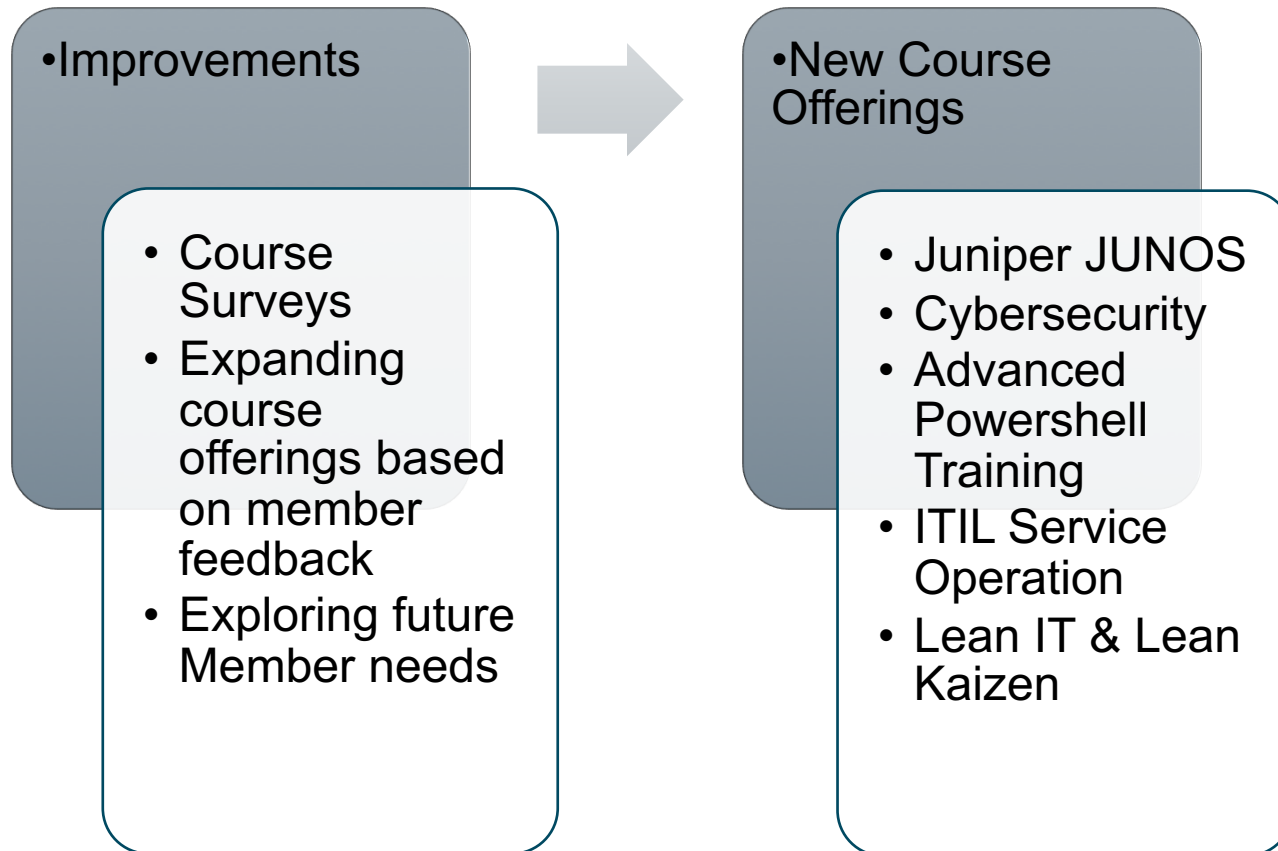
Participation from 25 PSIs

131 attendees across 11 professional development and training courses

Average 4/5 stars rating in value of education, instructor expertise, and overall satisfaction with training courses

Areas of Focus

Improvements

- Course Surveys
- Expanding course offerings based on member feedback
- Exploring future Member needs

New Course Offerings

- Juniper JUNOS
- Cybersecurity
- Advanced Powershell Training
- ITIL Service Operation
- Lean IT & Lean Kaizen

Our 2018 Course Roster

NEW Courses

- Lean IT Foundation (May 24-25)
- MS Powershell (June 4-8)
- Banner Technical: Extending Banner 9 Admin Apps (June 19-21)
- MS Enabling and Managing Office 365 (June 25-29)
- ITIL Foundation (August 15-17)
- COBIT 5 Foundation (October)
- Cybersecurity Foundations (October)
- Advanced MS Powershell (November)

In Development

- Juniper JUNOS (Summer/Fall)
- ITIL Service Operation (Fall/Winter)
- Lean IT Kaizen (Fall/Winter)

Our future offerings…

IT Leadership
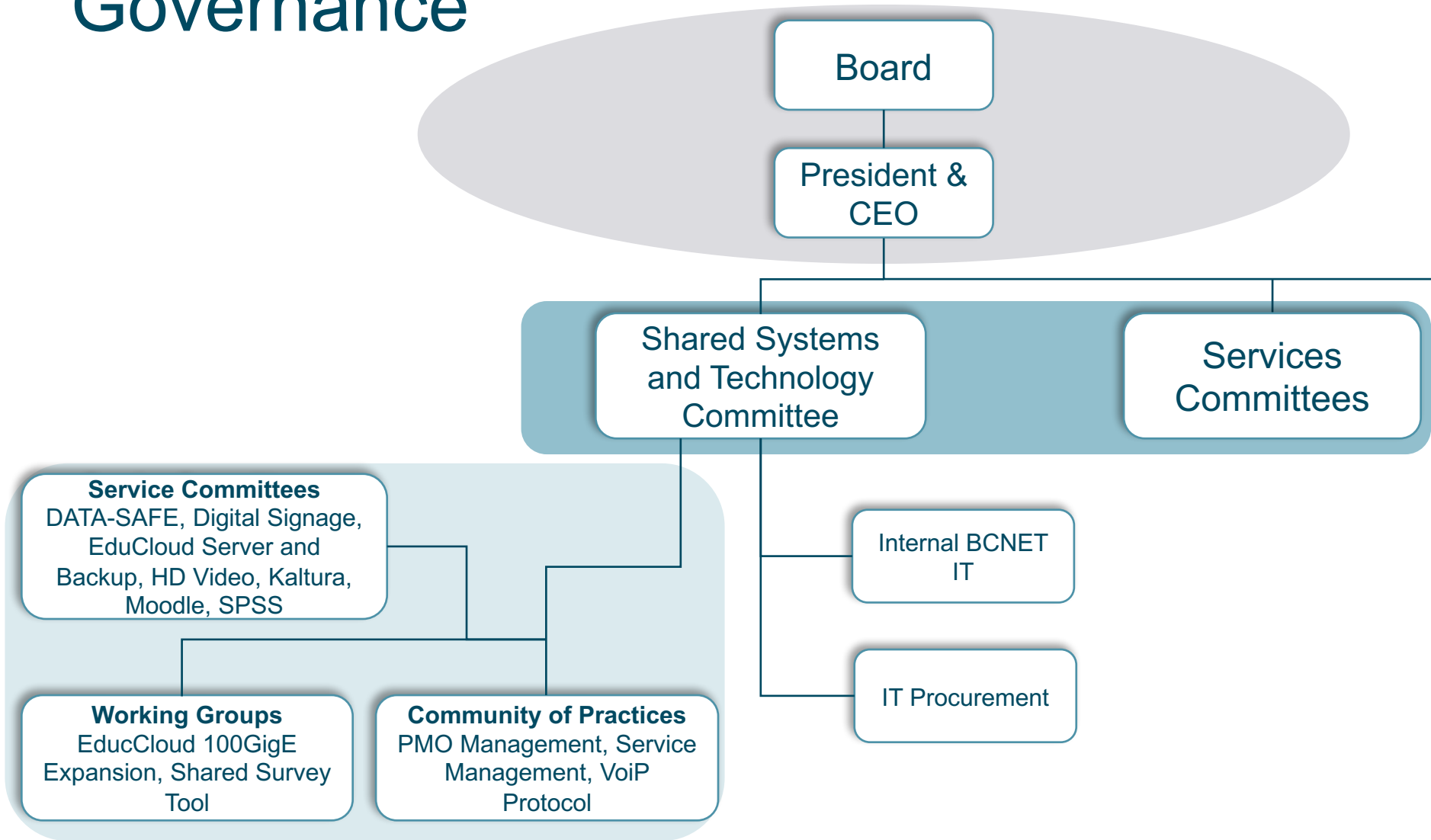
Mentorship Program

More Course Offerings

Vision

To facilitate collaborative and innovative information technology solutions to support the delivery of education and research.

Governance

Board

President & CEO

Shared Systems and Technology Committee

Services Committees

Service Committees
DATA-SAFE, Digital Signage, EduCloud Server and Backup, HD Video, Kaltura, Moodle, SPSS

Internal BCNET IT

IT Procurement

Working Groups
EducCloud 100GigE Expansion, Shared Survey Tool

Community of Practices
PMO Management, Service Management, VoiP Protocol

What we do

IT Services
- EduCloud, DATASAFE, Video Conferencing, Digital Signage

Enterprise
- Kaltura, SPSS, SurveyMonkey

Educational
- Desire2Learn, Moodle, Blackboard Collaborate

Licensing
- Microsoft, Adobe, Switches, Network Storage
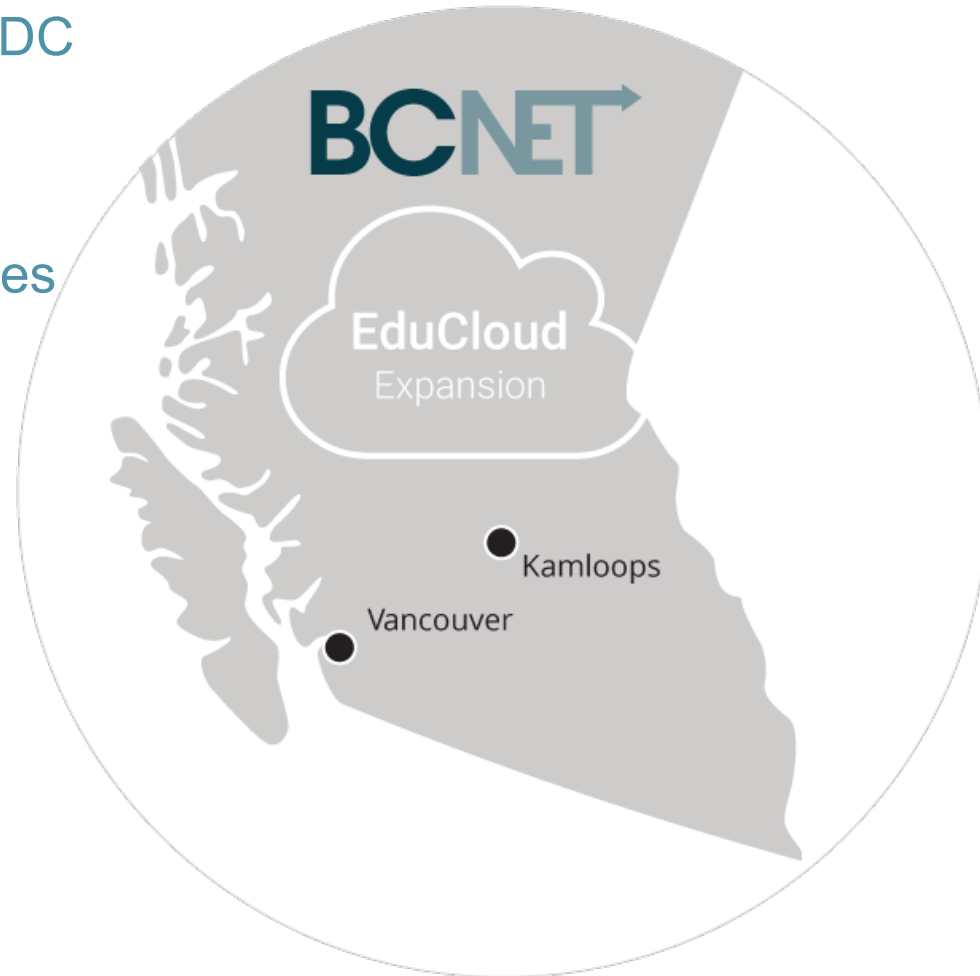
Internal IT
- Wiki, EduRoam, DNS, Security

EduCloud Server/Backup Service

- User definable location within VDC

- User definable resources to include in DR

- Bi-directional between both nodes

EduCloud Disaster Recovery in planning/development this year

Participation in Information Technology Services

Visit our Service Catalogue: www.bc.net/service-catalogue

EduCloud
(23 members)

BCIT	OC
Capilano	RRU
CNC	Selkirk
COTR	TRU*
Douglas	TWU
ECU	UFV
JIBC	UBC
KPU	UNBC
Langara	UVic
NVIT	VCC
NLC	VIU*
NWCC	BCNET

*TRU using Server and Backup, VIU using Backup

Video Conferencing
(20 members)

BCIT	SC
CNC	SFU
COTR	TRU
DC	TWU
ECU	UBC
JIBC	UNBC
KPU	UVic
Langara	
NLC	
NVIT	
NWCC	
OC	
RRU	

DATASAFE
(8 members)

CAP
ECU
KPU
RRU
SFU
TWU
UNBC
UFV

BCNET
1 member evaluating

Digital Signage

Langara
TRU
UVic

3 members piloting/ evaluating

Participation in Enterprise Applications

Visit our Service Catalogue: www.bc.net/service-catalogue

Moodle	Kaltura	SPSS
8 Members/40K FTE's	12 members/107K FTE's	18 Members

Moodle	Kaltura		SPSS	
CNC	Camosun	RRU	BCIT	SFU
CotR	CotR	UBC	CNC	TRU
ECU	Douglas	UNBC	Douglas	TWU
KPU	ECU	UFV	ECU	UFV
NVIT	JIBC	VIU	JIBC	UNBC
OC	KPU	Bccampus	KPU	UVic
TRU	Langara		Langara	VCC
TWU			NIC	VIU
			OC	
	Pipeline		RRU	
	TRU			

Visit our services teams at the BCNET booth!