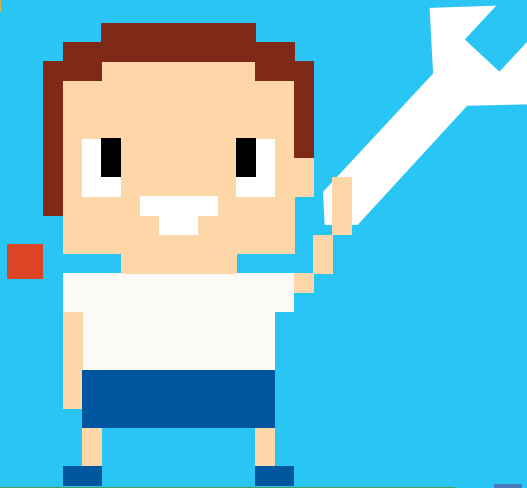


cybera



**2015  
ANNUAL  
REPORT**

# CYBERA: DRIVING ALBERTA'S ECONOMIC GROWTH THROUGH DIGITAL TECHNOLOGY.

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# CONVERSATION WITH THE PRESIDENT

## THIS PAST FISCAL YEAR HAS TRULY BEEN ONE OF COMMUNITY-BUILDING FOR CYBERA.

On a small scale, this community building is reflected in Cybera's membership base, which grew from 62 to 77. But this does not reflect the dozens of additional alliances we made with federal, provincial, and municipal governments. It also doesn't include the work we've done with vendors, Internet Service Providers, researchers and members of the public. These relationships are absolutely vital to achieving the improvements in infrastructure, policy and demand that are needed to grow Alberta's digital economy.

## IT TAKES A VILLAGE

In March 2015, we achieved a long-anticipated connection to Mount Royal University. Getting this connection required support and financial aid from the City of Calgary, Cybera, CANARIE, and the Alberta Association in Higher Education for Information Technology (AAHEIT) (through a joint funding proposal by Mount Royal University, NAIT and MacEwan University).

Similarly, connecting NAIT and MacEwan University to CyberaNet in December 2015 required another intensely collaborative effort to build accessible and affordable fibre. This effort once again utilized AAHEIT funding and separate project support from CANARIE. More and more, Alberta's technology leaders are seeing the effectiveness of working together to achieve a common goal.

Two common goals for many of our partners are increasing the efficiencies of their services, and lowering costs. These were the drivers for one of Cybera's earliest shared IT service, the Learning Management Cloud. In the last year, as Cybera began winding down its involvement in this program, we started work on two exciting new shared services. One involves the creation of a federation to approve and share identity credential protocols. This will allow students from participating schools to use a single login to access dozens — if not hundreds — of different online tools and software. The other provides Domain Name System protection — a vital backend tool for Alberta's educators.

## ADVOCATING FOR IMPROVEMENTS

In our efforts to create a community that champions vital networking and computing services, Cybera stepped up its outreach efforts to government in the last year. After consulting with stakeholders in Alberta's public sector, we testified before the CRTC's review of the future of broadband in Canada, in which we called for this essential service to be made available to all Canadians.

We are happy to report that such advocacy efforts do pay off. Last July, the CRTC announced its decision on the policies covering telecommunications wholesale

services. They determined that telco's need to share their high-speed optical fibre infrastructure — including fibre-to-the-premises — with other industry players. This is exactly the decision we had long advocated for, and we will keep working to achieve results like this.

## WHAT'S NEXT?

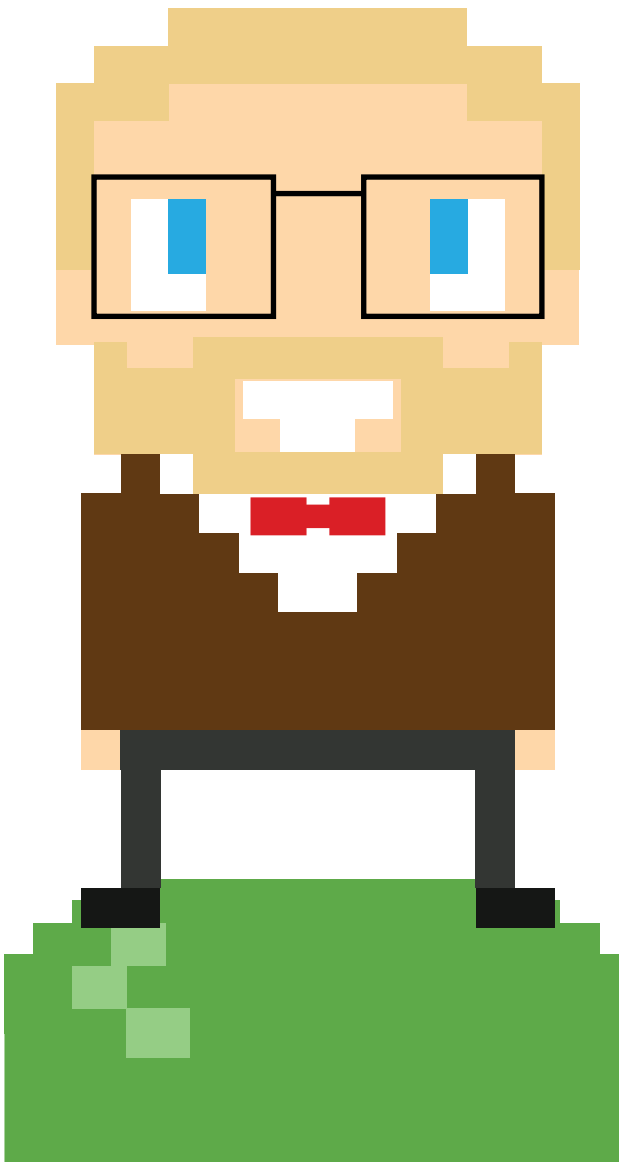
This marked the final year of Cybera's 2013-16 strategy. We want to continue the momentum of our community building, and so have asked Alberta's public stakeholders to help us determine what the priorities for our next three years should be. We plan to release the results of this outreach in Fall 2016.

Based on our own experience, we expect shared services to continue to grow both in Cybera's scope, and in interest from our community. We also expect to see a shift towards data-driven decisions, with demand for data analytics tools and expertise growing among Alberta's public sector. We are prepared to help the province develop these tools and are building up our own skillset to ensure we can make the most effective contribution possible.

With the trust and guidance of our community, we look forward to the digital road ahead.



**ROBIN WINSOR**  
PRESIDENT & CEO



## FOUR AREAS OF IMPACT

# CONNECT

In the last fiscal year, Cybera welcomed 15 new members to its community. As well as access to the high-speed Research and Education Network, these organizations are utilizing network services that reduce bandwidth costs while greatly increasing the speed and reliability of their network. Over the past year, Cybera's network services alone helped members save over \$2.5 million. During this time, our team also forged partnerships with municipalities, researchers and the private sector to explore new technologies and entry points to bring faster (and more efficient) internet to Albertans.

### PEERING AND INTERNET BUYING GROUP

Cybera members continue to utilize the Peering Service and Internet Buying Group to achieve network cost savings. Peering provides direct connections to major content providers (including Google, Akamai and Facebook). The Internet Buying Group is a bulk-buying bandwidth co-op, facilitated by Cybera. In the past fiscal year, the Internet Buying Group saw two more price decreases, with the cost of bandwidth dropping to \$7.50/Mbps by March 31, 2016 (from the previous year's rate of \$9.50/Mbps).

### RESEARCH DATA ON THE RISE

In April 2015, we announced that the annual amount of data being transported over our

network to WestGrid-run supercomputers had increased by 22% (over the previous year). In total, CyberaNet transported 23.4 PB of data this past fiscal year — a 45% growth from the previous year. The trend is clear: researchers are creating and sharing larger and larger data files, and the networking infrastructure needs to keep up!

In November 2015, a new system for sending very large data files was demonstrated by Edmonton-based company Obsidian. Its Longbow technology was able to send large data files from Austin, Texas to the University of Alberta (via CyberaNet) at a rate of 928 MB/s (7.4 Gb/s). This opens up exciting new possibilities for academics looking to share and increase collaborations using their big data.

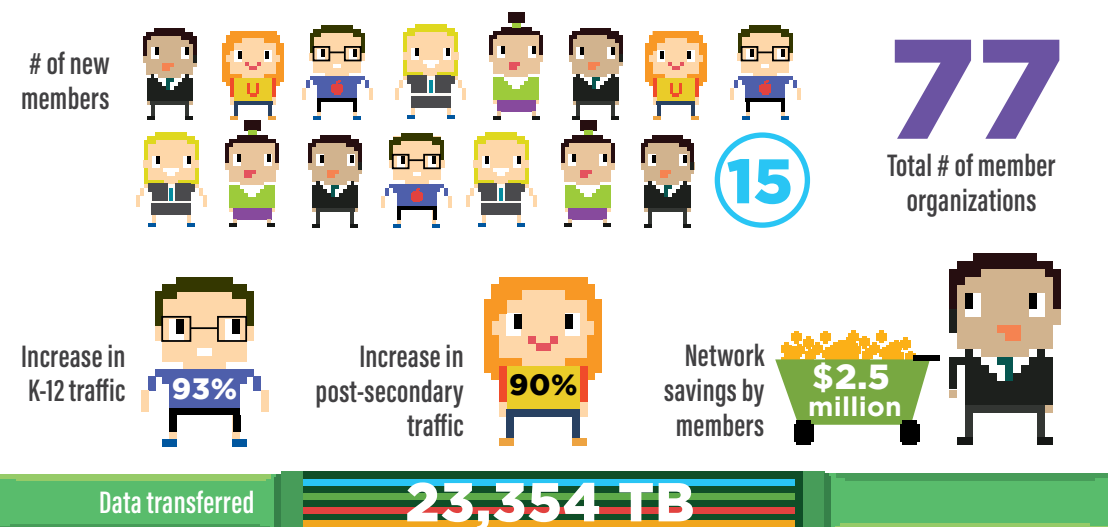
### FORGING CONNECTIONS WITH CITIES

Municipalities across Alberta are finding new ways to maximize the use of their public fibre. Last year, in conjunction with the City of Edmonton, Cybera began laying fibre

connections along the city's new light rail transit line. This allowed NAIT and MacEwan University to gain access to CyberaNet. A similar partnership with the City of Calgary in March 2015 made a new connection to Mount Royal University possible. Cybera is continuing to work with these and other municipal centres to improve internet opportunities for city residents and public-sector organizations.

### A NEW WEB CACHE IN ALBERTA

In December 2015, Akamai Technologies (a content delivery network that delivers between 15-30% of all web traffic) announced it had opened a new "web cache" in Calgary that connects to the Calgary Internet Exchange (YYCIX). This means much of Alberta's internet queries will no longer have to travel from Seattle or Vancouver, but can stay in the province. As an advocate for Alberta-based Internet Exchanges, Cybera facilitated the hosting of the Akamai servers at the University of Calgary data centre, as well as the connection to the YYCIX (through which all local ISPs can link to it).



## FOUR AREAS OF IMPACT

# ENABLE

In our capacity as a technology enabler, Cybera develops and tests tools that operate on and above the network, and that can be of use to educators and public organizations. We also support researchers who are developing their own cutting-edge tools – including big data platforms.

### RAPID ACCESS CLOUD

Since 2013, Cybera has operated a free cloud for Albertans to explore the potential of cloud computing. It has been used by post-secondary computer science students, elementary school teachers, hackathon and datathon participants, and open city data analysts. As of March 31, 2016, the Rapid Access Cloud had been used by 641 people (an increase of 156% over the previous year). To mark its cloud achievements, Cybera received two national awards in 2015: the ITAC Ingenious Award for digital innovation, and the i-CANADA Community i-Performance Award.

### DAIR

Cybera was pleased to see the federal government's renewed commitment to this national cloud resource for entrepreneurs, which is funded and administered by CANARIE, and developed and maintained by Cybera (in partnership with Compute Canada). In the last fiscal year, Cybera signed a new five-year commitment to manage the DAIR cloud infrastructure. Our staff also

began onboarding GPU-enabled compute nodes, which will allow users to do more graphically intensive data visualization work on the cloud. By the end of the 2015-16 fiscal year, there were 652 users of DAIR – almost double from the previous year.

### SHARING ARCTIC DATA

ArcticConnect was a University of Calgary initiative to build the most comprehensive Arctic mapping / data source on the internet. Cybera provided project management and communications support for the project. In the last fiscal year, it released the Arctic Web Map (an easy-to-integrate tool that uses Arctic-specific map projections). A variety of sensor, research, historical and community-gathered information is now available through the map. The ArcticConnect project wrapped up in March 2016 while the group explores new funding opportunities. Meanwhile, the portal continues to operate and provide vital information on the effects of a rapidly changing Arctic environment.

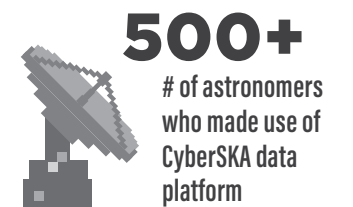
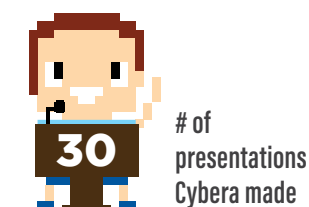
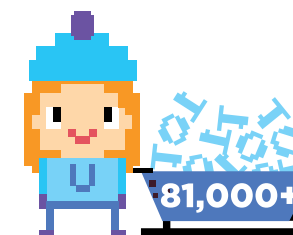
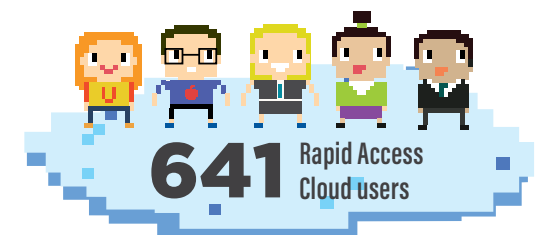
### A NEW VISUALIZATION TOOL FOR SPACE DATA

CyberSKA was a University of Calgary-led project to develop digital infrastructure that meets the data-intensive needs of radio astronomy projects, including the Square Kilometre Array (SKA). The SKA radio telescope is expected to transmit a

data stream that is 10 times the world's total current internet traffic, every day. In the last fiscal year, the CyberSKA team (with project management support from Cybera) unveiled an updated data visualization platform to store, share, explore and visualize large and complex data. Space researchers are using the platform to conduct discovery research, including finding new pulsars. The project ended in March 2016, and the CyberSKA team is focusing on the delivery of the larger SKA project.

### KNOWLEDGE SHARING

Cyberans continue to share "technology lessons learned" through our Tech Radar blog posts, webinars and conference presentations. In the last fiscal year, Cybera delivered 23 talks at conferences, town hall meetings and in post-secondary classrooms. Our staff have also hosted or helped organize six webinars and workshops on topics ranging from Software Defined Networking to setting up an Identity Federation. Cybera's developers also led a Canada-wide "Hour of Code" event in December 2015, which introduced over 1,200 K-12 students to the joys of coding.



## FOUR AREAS OF IMPACT

# SHARE

Over the last three years, Cybera has demonstrated the effectiveness of shared services as a time and money saving proposition. The scope of our shared service projects — and interest from stakeholder groups — continues to grow. In the last fiscal year, Cybera began wrapping up one of its original shared IT pilots (the Learning Management Cloud), while implementing two new projects focused on sharing IT equipment, policies and protocols. As well, Cybera continued to host hardware for the Shared Firewall Pilot initiated by our K-12 members.

### LEARNING MANAGEMENT CLOUD

For three years, the Learning Management Cloud successfully housed the Moodle-based learning management systems for the University of Alberta, NAIT, and NorQuest College in a single cloud environment. By combining systems, the post-secondary institutions reduced costs and IT efforts, and increased the level of computing power available. Each semester, thousands of students seamlessly registered for courses, checked marks, and interacted with teachers. In the past fiscal year, Cybera's staff began working with the University of Alberta to transition the operation of the Learning Management Cloud to the university, where it will be managed from the summer of 2016 onwards.

### SHARED FIREWALL PILOT

Since 2014, Cybera has hosted the IT equipment for Alberta K-12 schools participating in a Shared Firewall pilot. Chinook's Edge, Wild Rose, Canadian Rockies and Golden Hills school divisions were the original participants in the pilot, which they say has increased knowledge sharing between schools, while reducing their costs. In the past fiscal year, Parkland School District, Northern Gateway School District, and Sturgeon School District joined the Shared Firewall pilot. Inspired by the success of this pilot, Cybera is looking to offer its own cloud-based Firewall as a Service pilot to members in the near future.

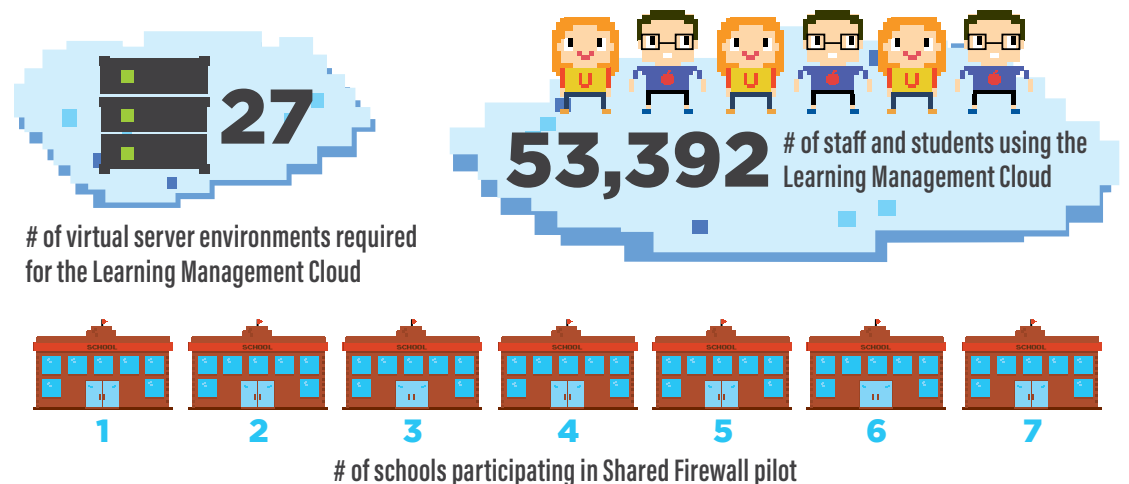
### CREATING SHARING FEDERATIONS

Technologies that enable staff and students to automatically link their devices — and access shared digital resources — are being actively promoted by Cybera. In the last fiscal year, Cybera deepened its involvement with CANARIE on an initiative called the Canadian Access Federation. Its goal is to develop and promote identity and access management solutions. One such solution, eduroam (a world-wide roaming access service), has

been rolled out to Burman University, and Cybera is working with two other institutions to get them up and running. We have also begun working with Alberta Education to develop Canada's first K-12 Federated Identity Management solution. This will allow staff and students at participating school authorities to access a central catalogue of services and resources, without having to enter separate login credentials for each service. We hope to launch a Federated Identity pilot in the next fiscal year.

### DOMAIN NAME SYSTEM PROTECTION

In March 2016, Cybera partnered with the Canadian Internet Registration Authority to offer members improved Domain Name System (DNS) protection and performance. The Authority's D-Zone Anycast DNS is beneficial for larger public and education institutions that run their own .ca domain, and are at risk of Distributed Denial-of-Service (DDoS) attacks. This new offering is expected to bring advanced cyber-security and web-performance to educators and public organizations.





## FOUR AREAS OF IMPACT

# ADVOCATE

All Canadians need access to high-quality, high-speed and affordable digital services in order to participate in the 21st century economy. Through advocacy efforts, collaboration with governments and technology suppliers, and outreach to new communities, Cybera is working to make this happen. In the past fiscal year, we consulted with federal and provincial governments on their digital strategies, and hosted a panel at a national science policy conference on making data-driven decisions for public policy. We also submitted a response to the CRTC's review of Canada's basic telecommunications services.

### THE FUTURE OF BROADBAND

In May 2015, Cybera's president and CEO, Robin Winsor, wrote a blog that asked: "What is Canada's average internet speed?" In it, he stated that most Canadians do not achieve the "average" speeds advertised on bandwidth testing websites, but sadly, fall far below it. To date, this post is the most visited page on Cybera's website — demonstrating

that people are concerned about their network capabilities!

During the last fiscal year, Cybera submitted a response to the CRTC's review of the future of basic telecommunications services in Canada. In it, we argued that broadband is an essential service, and the CRTC should ensure that an affordable base service level is available to all Canadians. The commission's decision is expected in late 2016.

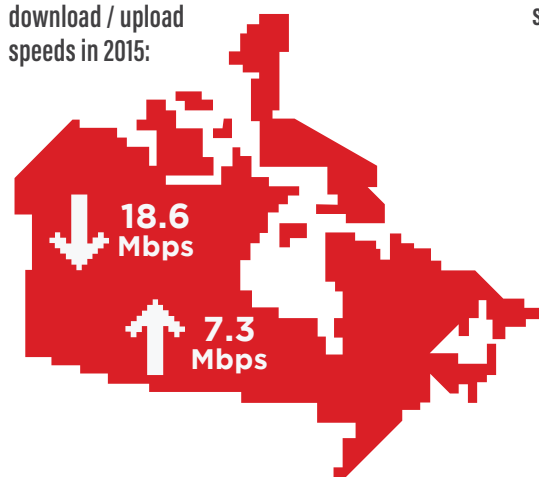
### EFFECTIVE DIGITAL INFRASTRUCTURE FOR RESEARCH AND POLICY

In 2015, Industry Canada held a consultation on building a digital research infrastructure (DRI) strategy "to enable world-class research." In Cybera's submission, we argued for a national DRI strategy that strategically invests in compute, networks and research data management, and empowers Canadian researchers to be able to utilize compute and

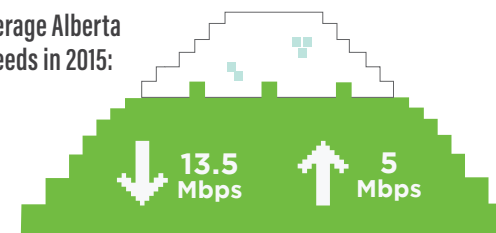
network capacity as needed. This will require long-term planning and sustainable funding. The new federal Ministry of Innovation, Science and Economic Development Canada is expected to publish a statement of principles on digital data management in 2016.

In November 2015, Cybera hosted a panel at the Canadian Science Policy Conference in Ottawa on "Data Driven Decisions: Putting IoT, big data and analytics to work for better public policy". This well-received session highlighted the benefits of incorporating new digital tools and analytical programming into policy decisions. It also called for data scientists to improve their communications strategies to help politicians make the most effective use of their findings.

Average Canadian download / upload speeds in 2015:

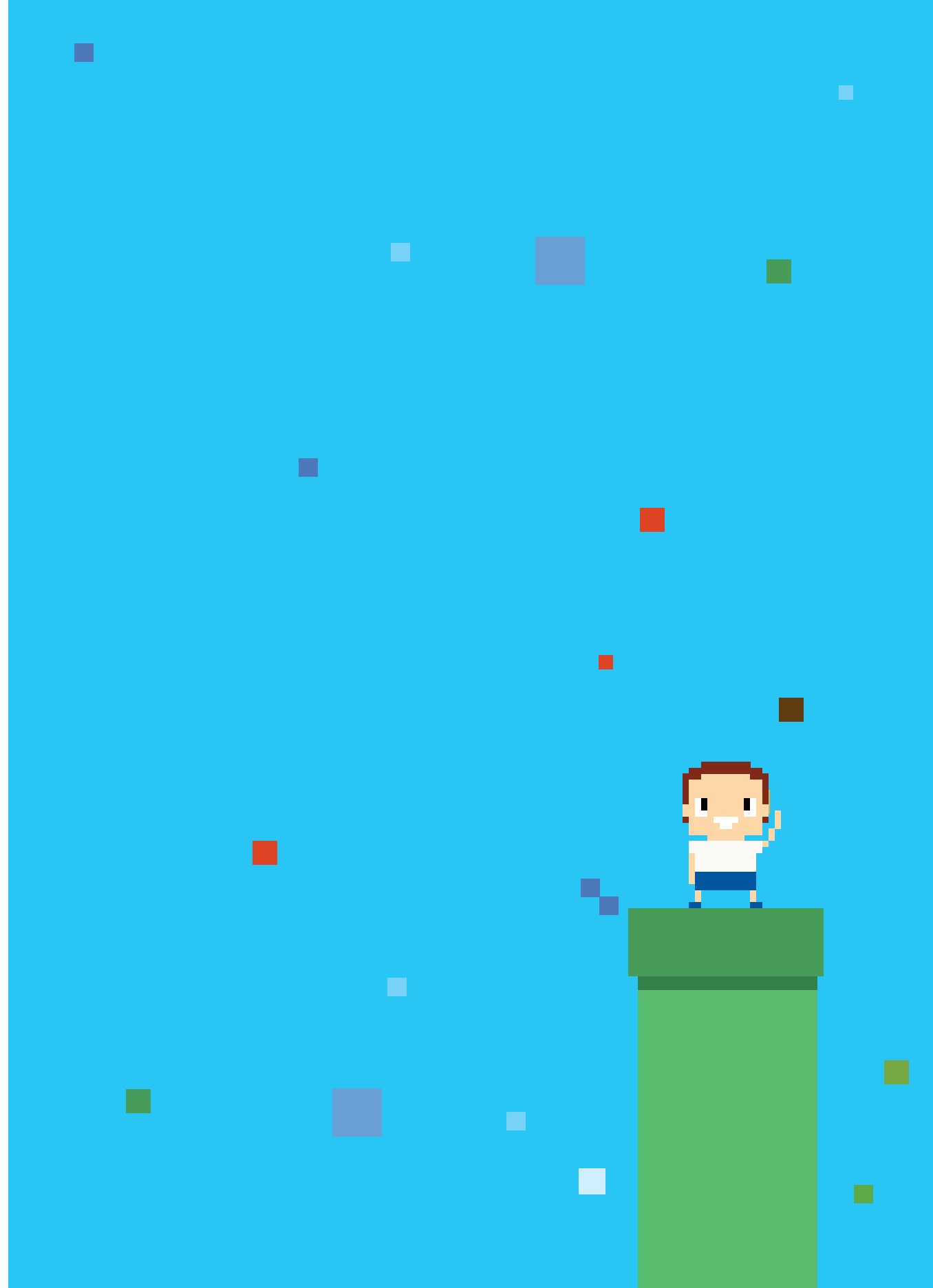
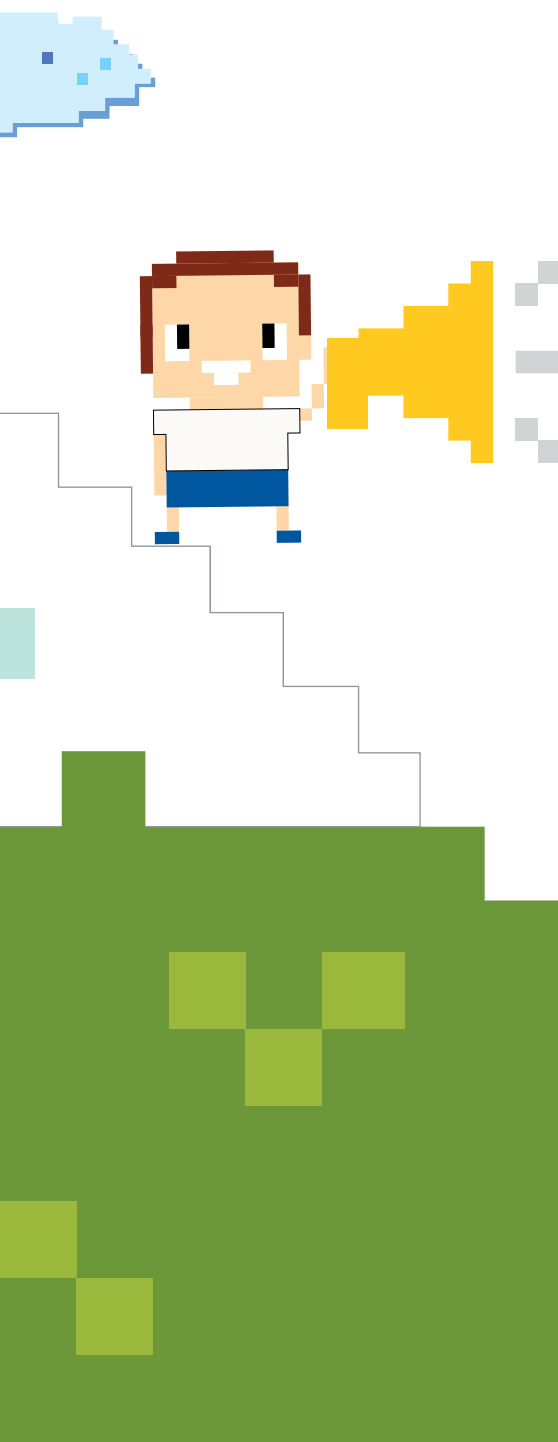


Average Alberta speeds in 2015:



# of Albertans without access to internet at speeds of at least 5 Mbps down / 1 Mbps up:

# 80,000



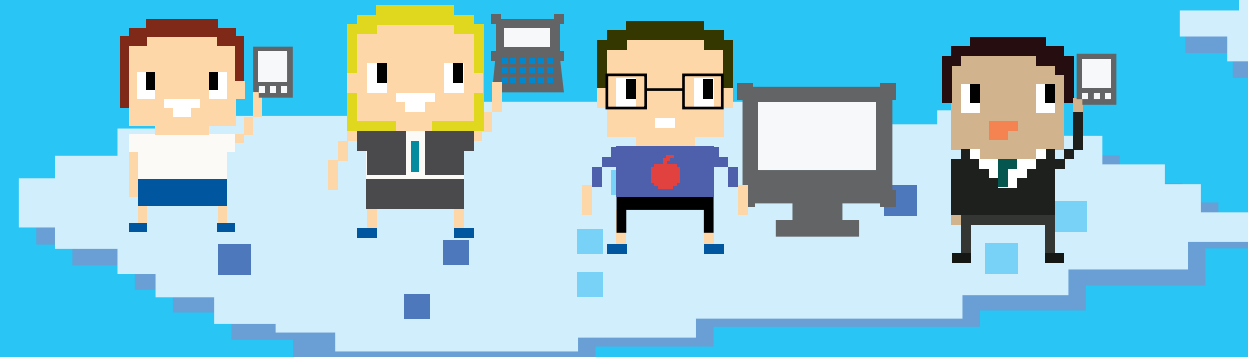


# HOW CYBERA HELPS ALBERTANS



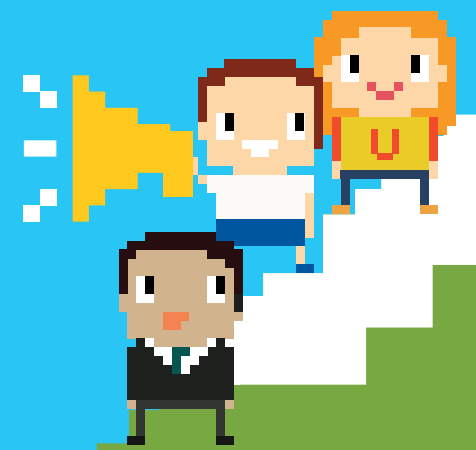
## SHARE

OFFERING COLLABORATIVE SHARED IT SERVICES



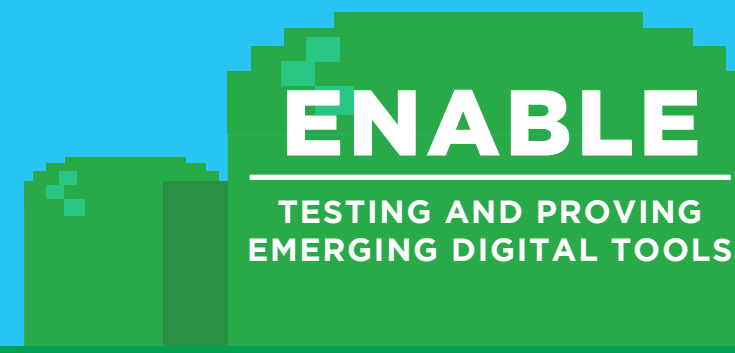
## ADVOCATE

CALLING FOR ACCESS TO TECHNOLOGY ADVANCEMENTS

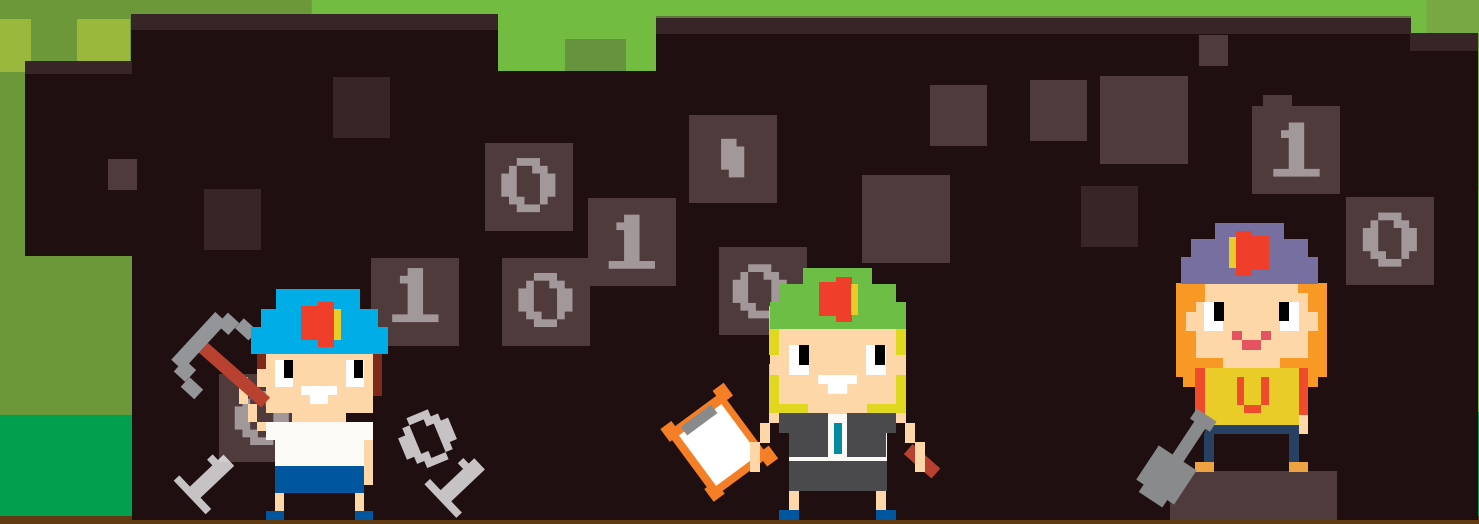


## ENABLE

TESTING AND PROVING EMERGING DIGITAL TOOLS

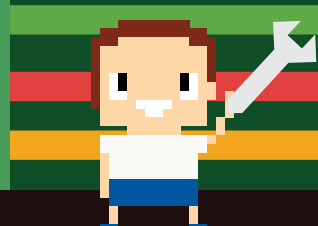


## DATA MINING



## CONNECT

PROVIDING HIGH-SPEED BANDWIDTH FOR ALBERTA'S PUBLIC SECTORS



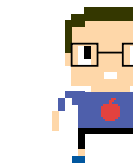
## CYBERA STAKEHOLDERS



CYBERA



POST-SECONDARY



K-12



GOVERNMENT



ENTREPRENEUR



INNOVATOR



# CYBERA IS LEADING ADVANCED NETWORKING AND 'ABOVE THE NETWORK' PROJECTS IN ALBERTA THAT SUPPORT THE PROVINCE'S ECONOMIC GROWTH.

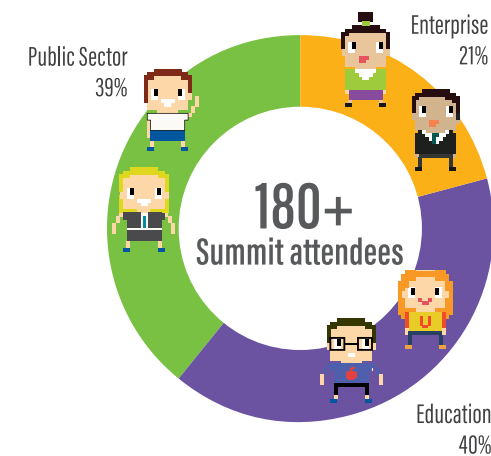
## CYBERA STAKEHOLDERS

# COMMUNITY OUTREACH

### 2015 CYBER SUMMIT

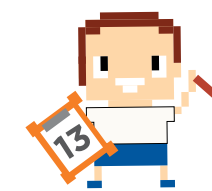
The 2015 Cyber Summit marked the first joint-collaboration between Cybera and its sister networks in the Prairies (SRNET and MRNET) to host this event. The theme of the summit focused on the evolving field of data science. The conference featured 43 speakers and 22 sessions ranging from privacy, security and access to data, to engaging students with technology. Over 180 people attended, many of them key members of Cybera's stakeholder community, proving the importance of the Cyber Summit *first and foremost* as a networking event.

### Summit attendee breakdown



### VIDEOS

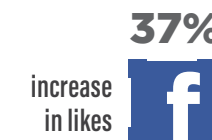
In the past fiscal year we began exploring new avenues for telling Cybera's story. This included creating an infographic that describes the primary audiences for our services. We also produced several videos that explain who we are and what we do, including Cybera's first corporate video (which can be viewed on our homepage: [www.cybera.ca](http://www.cybera.ca)). Staff also created four animated videos that focus on a specific audience or service that we offer. The success of these outreach projects has inspired us to invest more time into new tools and software that better visualize what we do.



# of press releases sent out



# of Tech Radar blog posts



## CYBERA STAKEHOLDERS

# BOARD OF DIRECTORS

The Board of Directors met four times during the last fiscal period. Peter Singendonk was elected as Chair and Mike MacGregor was elected as Vice Chair for 2016. Susan Skone replaced Frank Maurer as representative of the University of Calgary. Leslie Warren and Justin Webb retired from the Board, and Doug Hawkins and Christopher MacPhee were elected to fill their spots.



### PETER SINGENDONK (CHAIR)

Peter Singendonk is the Director, Strategic Operations and Technical Operations at Cisco Systems, Canada.



### MIKE MACGREGOR (VICE CHAIR)

Dr. Mike MacGregor is a Professor in the Department of Computing Science, and Vice Provost and Associate Vice President (IT), at the University of Alberta.



### MIKE BATTISTEL

Mike Battistel is the Vice President, Information Technology at Athabasca University.



### DOUG HAWKINS

Doug Hawkins, P. Eng., is the Director of Infrastructure Services for the City of Lethbridge.



### JAYMON LEFEBVRE

Jaymon Lefebvre is the Director of Technology for Wild Rose School Division in Rocky Mountain House, Alberta.



### CHRISTOPHER MACPHEE

Christopher MacPhee is the Superintendent of Canadian Rockies Public School Division and second Vice President for the Board of Directors at the College of Alberta School Superintendents.



### MATT NORTON

Matt Norton is the Director, Information Technology Services at Lethbridge College.



### SUSAN SKONE

Dr. Susan Skone is an Associate Vice-President (Research) and an Associate Professor in Geomatics Engineering at the University of Calgary.



### DARRYL VLEEMING

Darryl Vleeming is Vice President, Information Systems, and Chief Information Officer at Capital Power.

CYBERA STAKEHOLDERS

MEMBERS





# FINANCIAL STATEMENTS OF CYBERA INC.

YEAR ENDED MARCH 31, 2016

## FINANCIAL STATEMENTS

# INDEPENDENT AUDITORS' REPORT

To the Members of Cybera Inc.:

We have audited the accompanying financial statements of Cybera Inc., which comprise the statement of financial position as at March 31, 2016, the statements of operations, changes in net assets and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

### MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### AUDITORS' RESPONSIBILITY

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### OPINION

In our opinion, the financial statements present fairly, in all material respects, the financial position of Cybera Inc. as at March 31, 2016, and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

*KPMG LLP*

Chartered Professional Accountants

June 29, 2016  
Calgary, Canada

## STATEMENT OF FINANCIAL POSITION

MARCH 31, 2016, WITH COMPARATIVE INFORMATION FOR 2015

	2016	2015
<b>ASSETS</b>		
Current Assets:		
Cash and cash equivalents	\$ 884,100	\$ 1,083,579
Accounts receivable (note 2)	251,755	539,357
Prepaid expenses	45,080	32,287
	<u>1,180,935</u>	<u>1,655,223</u>
Property and equipment (note 3)	170,870	190,943
	<u>\$ 1,351,805</u>	<u>\$ 1,846,166</u>
<b>LIABILITIES AND NET ASSETS</b>		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 196,555	\$ 531,673
Deferred revenue (note 4)	295,829	183,592
	<u>492,384</u>	<u>715,265</u>
Net assets (note 5)	859,421	1,130,901
Economic dependence (note 6)		
	<u>\$ 1,351,805</u>	<u>\$ 1,846,166</u>

See accompanying notes to financial statements.

Approved by the Board:



Peter Singendonk



Mike MacGregor

## STATEMENT OF OPERATIONS

YEAR ENDED MARCH 31, 2016, WITH COMPARATIVE INFORMATION FOR 2015

	2016	2015
Revenues:		
Grant	\$ 2,031,985	\$ 2,454,603
Project	1,813,071	2,706,608
Membership	449,607	411,102
Other	50,831	26,130
Interest	16,363	11,586
	<u>4,361,857</u>	<u>5,610,029</u>
Expenses:		
Project	1,577,783	2,783,504
Infrastructure	1,494,430	1,298,974
Project and partnership development	655,036	429,720
General and administrative	502,113	467,768
Marketing and communications	277,263	198,016
Depreciation	126,712	162,594
	<u>4,633,337</u>	<u>5,340,576</u>
Excess (deficiency) of revenues over expenses	<u>\$ (271,480)</u>	<u>\$ 269,453</u>

## STATEMENT OF CHANGES IN NET ASSETS

YEAR ENDED MARCH 31, 2016, WITH COMPARATIVE INFORMATION FOR 2015

	2016	2015
Net assets, beginning of year	\$ 1,130,901	\$ 861,448
Excess (deficiency) of revenues over expenses	(271,480)	269,453
Net assets, end of year	<u>\$ 859,421</u>	<u>\$ 1,130,901</u>

See accompanying notes to financial statements.



## STATEMENT OF CASH FLOWS

YEAR ENDED MARCH 31, 2016, WITH COMPARATIVE INFORMATION FOR 2015

	2016	2015
Cash provided by (used in):		
Operations:		
Excess (deficiency) of revenues over expenses	\$ (271,480)	\$ 269,453
Add item not affecting cash:		
Depreciation	126,712	162,594
	(144,768)	432,047
Changes in non-cash working capital:		
Accounts receivable	287,602	247,171
Prepaid expenses	(12,793)	16,671
Accounts payable and accrued liabilities	(335,118)	26,907
Deferred revenue	112,237	(226,834)
	(92,840)	495,962
Investments:		
Purchase of property and equipment	(106,639)	(32,264)
Increase (decrease) in cash and cash equivalents	(199,479)	463,698
Cash and cash equivalents, beginning of year	1,083,579	619,881
Cash and cash equivalents, end of year	\$ 884,100	\$ 1,083,579

See accompanying notes to financial statements.

## NOTES TO FINANCIAL STATEMENTS

YEAR ENDED MARCH 31, 2016, WITH COMPARATIVE INFORMATION FOR 2015

### General:

Cybera Inc. ("Cybera") was incorporated on January 12, 1994 under Part II of the Canada Corporations Act as a corporation without share capital as WurcNet Inc. In 1999 it changed its name to Netera Alliance Inc. and in 2007 it changed its name to Cybera Inc. Cybera was continued under the Canada Not-For-Profit Corporations Act on November 27, 2014.

Cybera is an Alberta-based, not-for-profit alliance that manages large-scale inter-institutional information and communication technology projects, including research networks, high performance computing resources, digital content projects and collaboration facilities.

The objectives of Cybera are to provide information and communications infrastructure, project management, advocacy and technical expertise to leverage the resources, skills and services of its members, without preference or partiality to any individual member.

As a not-for-profit organization, the income of Cybera is not subject to tax under paragraph 149(1)(l) of the Income Tax Act (Canada).

### 1. Significant accounting policies:

The financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations.

#### (a) Revenues:

Revenue from membership dues is recognized evenly over the term of the membership.

Project and grant revenues, which are comprised of contributions towards project and infrastructure costs, is recognized using the deferral method. Under this method, restricted contributions are recognized as revenue when the related project costs are incurred. Restricted contributions received in a period before the related expenses are incurred are accumulated as deferred revenue. Unrestricted contributions are recognized as revenue when received or receivable.

Interest income is recognized when earned.

#### (b) Project expenses:

As part of the development of applications for high speed networks, Cybera provides funding for certain research and development projects. Cybera charges costs incurred on these projects to operations as incurred. Typically, Cybera does not retain ownership rights in the results of these projects, rather, these rights reside with the project participants on a basis defined in the respective project agreements.

#### (c) Cash and cash equivalents:

Cybera considers deposits in banks, certificates of deposit and short-term investments with original maturities of three months or less as cash and cash equivalents.

#### (d) Property and equipment:

Property and equipment is recorded at cost. Depreciation of computer equipment is provided using the straight-line method at a rate of one-third of cost per year.

#### (e) Donations of services:

Cybera receives from its members and others, donations of professional time and services. The value of these donations is not included in these financial statements as the related fair value cannot be reasonably determined.

**(f) Use of estimates:**

The preparation of the financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Estimates include the valuation of accounts receivable, estimated life of property and equipment and accrued liabilities. Actual results could differ from those estimates.

**(g) Financial instruments:**

Financial instruments are recorded at fair value on initial recognition. Freestanding derivative instruments that are not in a qualifying hedging relationship and equity instruments that are quoted in an active market are subsequently measured at fair value. All other financial instruments are subsequently recorded at cost or amortized cost, unless management has elected to carry the instruments at fair value. Cybera has not elected to carry any such financial instruments at fair value.

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the effective interest rate method.

Financial assets are assessed for impairment on an annual basis at the end of the fiscal year if there are indicators of impairment. If there is an indicator of impairment, Cybera determines if there is a significant adverse change in the expected amount or timing of future cash flows from the financial asset. If there is a significant adverse change in the expected cash flows, the carrying value of the financial asset is reduced to the highest of the present value of the expected cash flows, the amount that could be realized from selling the financial asset or the amount Cybera expects to realize by exercising its right to any collateral. If events and circumstances reverse in a future period, an impairment loss will be reversed to the extent of the improvement, not exceeding the initial carrying value.

**2. Accounts receivable:**

Included in accounts receivable are government remittances receivable of \$8,609 (2015 - \$9,511), which include amounts receivable for input tax credits.

**3. Property and equipment:**

	2016		2015	
	Cost	Accumulated amortization	Net book value	Net book value
Computer equipment	\$ 770,356	\$ 599,486	\$ 170,870	\$ 190,943

**4. Deferred revenue:**

Deferred revenue represents restricted contributions received that relate to expenses of future years. Contributions are recorded as deferred revenue until the related expenditures have been incurred.

The components of deferred revenue as at March 31 were as follows:

	2016		2015	
Balance, beginning of year	\$	183,592	\$	410,426
Less amounts recognized as revenue in the year		(183,592)		(410,426)
Add amounts received related to expenses of future periods		295,829		183,592
	\$	295,829	\$	183,592

**5. Net assets:**

In the event of dissolution or winding-up of Cybera, all of its remaining assets, after payment of its liabilities, would be distributed to other not-for-profit organizations by the Board of Directors.

**6. Economic dependence and government assistance:**

Cybera's future operations are dependent on continued funding from the Alberta Government.

Cybera periodically applies for financial assistance under available government incentive programs. Government assistance relating to research and development expenditures is recorded as a reduction of current year expense when the related expenditures are incurred.

**7. Financial instruments and related risks:**

Fair value of financial assets and financial liabilities:

Financial instruments include cash and cash equivalents, accounts receivable and accounts payable and accrued liabilities. The fair value of these financial instruments approximates their carrying value due to their short term nature.

**(a) Credit risk:**

Accounts receivable are subject to minimal credit risk as the majority of the receivables are from government-sponsored institutions. Cash is held at financial institutions that are considered to be creditworthy by Cybera.

**(b) Market risk:**

Cybera is exposed to the following types of market risk:

**(i) Foreign currency risk:**

Foreign currency exposure arises from the holding of a U.S. bank account and transactions with foreign companies. Cash held in foreign currencies as at March 31, 2016 and 2015 was minimal.

**(ii) Interest rate risk:**

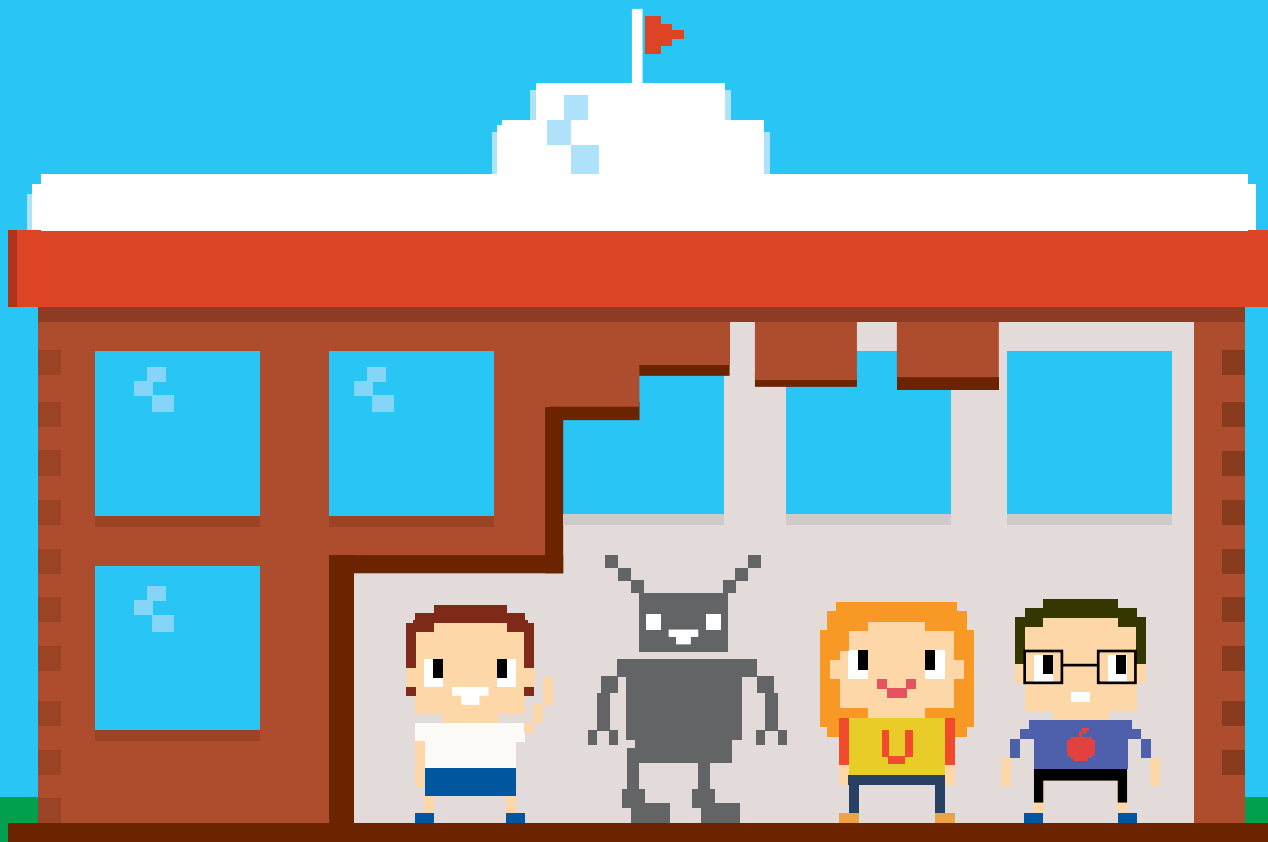
Interest rate risk arises from the holdings of fixed income securities. For every 0.25% change in interest rates, the annual change in interest income would be approximately \$1,898 (2015 - \$2,178)

**(c) Liquidity risk:**

Liquidity risk is the risk that Cybera will be unable to fulfill its obligations on a timely basis or at a reasonable cost. Cybera is not exposed to significant liquidity risk and manages its liquidity risk by monitoring its operating requirements.



# INSPIRING THE NEXT GENERATION WITH TECHNOLOGY



At Cybera, we think technology is pretty awesome, and we've met several young people who feel the same way. In the last fiscal year, Cybera had several amazing opportunities to teach K-12 students about technology. In turn, our staff have been inspired by what these kids have done with their new tech skills. Here are a few examples:

## LEARN TO CODE

In December 2015, Cybera partnered with MindFuel and Partners in Research to host an Hour of Code webinar. Cybera's coding experts, John Shillington and David Ackerman, led a one-hour webinar guiding over 1,200 students through a Minecraft-inspired tutorial. Students tweeted questions about career opportunities in computer science, and asked for tips for creating their own video games. It was a great introduction for many students to the creative potential of coding.

## "TECHSPERTS" AT THE CALGARY GIRLS SCHOOL

The Calgary Girls School has been connected to CyberaNet since 2014. In a blog published on Cybera's Tech Radar

in January 2016, its staff outlined how this connectivity has allowed them to develop a strong technology support program within their school district. Two schools have developed teams of "Techsperts": interested students who meet twice a week to explore topics such as app development, 3D printing, coding, and programming Raspberry Pis. These students could be Canada's next leading tech entrepreneurs!

## RONALD MCDONALD HOUSE

In early 2016, Cybera loaned one of its telepresence robots, "Biff", to the Edmonton Ronald McDonald House. This facility provides housing and support for families of young patients staying in nearby hospitals. Biff will be used by patients and families, as well as house staff, to interact with colleagues and friends in a more personal way.



# CONTACT

P: 403-210-5333

E: [info@cybera.ca](mailto:info@cybera.ca)

[cybera.ca](http://cybera.ca)