


**EASTERN ONTARIO REGIONAL NETWORK**




FURTHER...FASTER

# **“Broadband for Eastern Ontario”**

**A Project of the  
Eastern Ontario Wardens’ Caucus**

Presented to the Township of Head, Clara and Maria  
Friday April 1, 2011

**Eastern Ontario Regional Network**




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## **The EORN Commitments**


*A Network Superhighway with higher speeds,  
bandwidth and efficiency than currently exists*

1. Access: 95% of the population of E. Ont.
2. Backbone: Optical Fiber 10G scalable to 100G
3. Higher Speeds: Up to 10 Mbps vs. 1.5 Mbps to end users
4. Affordable rates: For rural and urban users

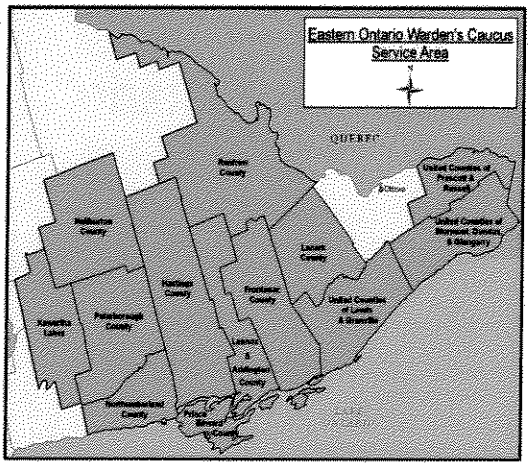


**EOWC**  
Eastern Ontario Wardens' Caucus

## Eastern Ontario Regional Network



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**Eastern Ontario Warden's Caucus Service Area**

**Area is larger than:**

- 109 countries
- 9x PEI
- >Vancouver Island
- Equal to Nova Scotia
- 50,000 sq kms
- Rugged Topography
- Home 6 First Nations


**Project Cost \$170m**



Eastern Ontario Warden's Caucus


## Eastern Ontario Regional Network

### Sharing Formula

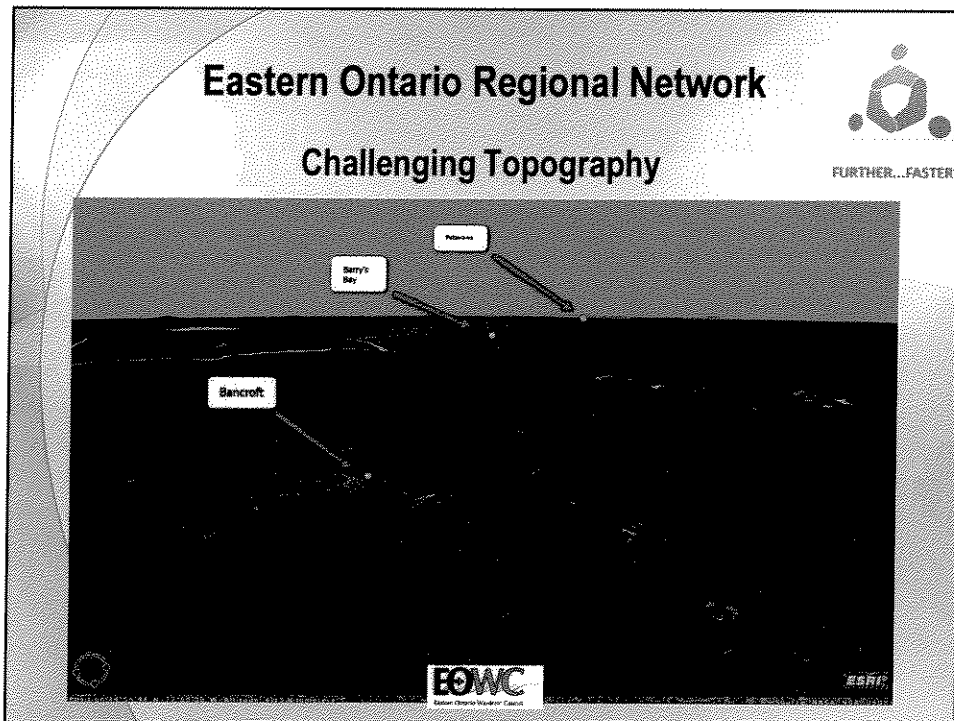
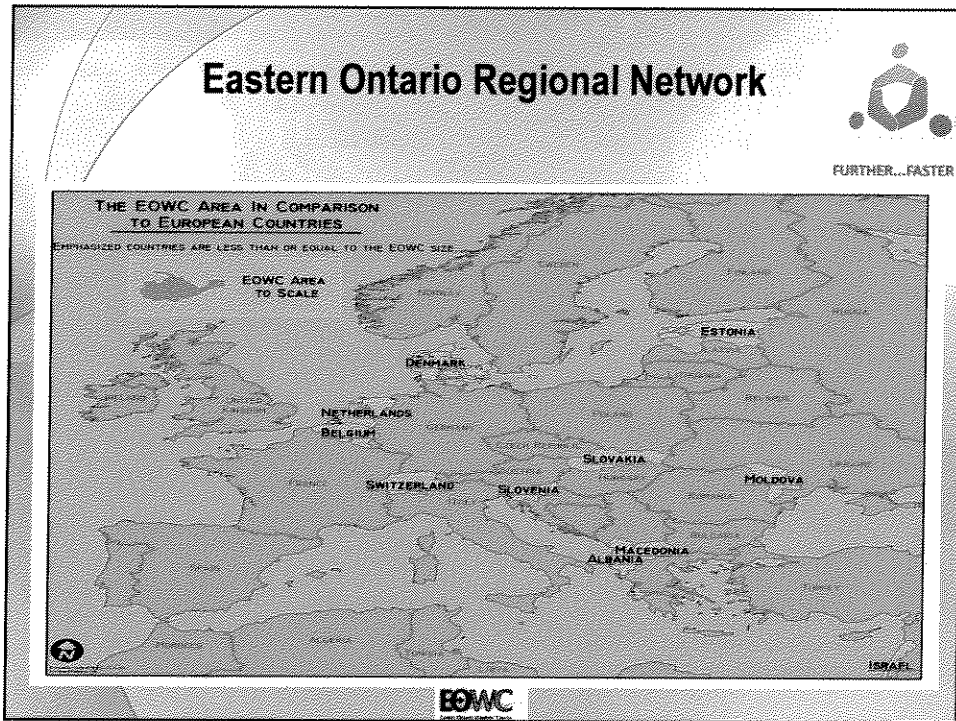


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• Canada	➔	\$55 m
• Ontario	➔	\$55 m
• Private Sector	➔	\$50 m
• EOWC Inc.	➔	\$10 m

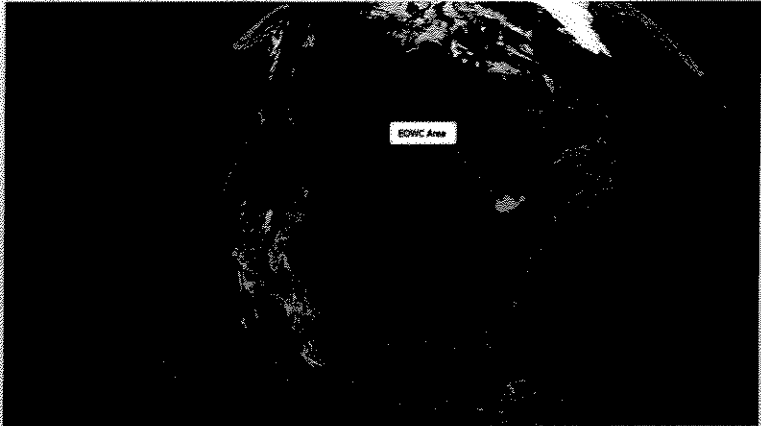


Eastern Ontario Warden's Caucus




## Eastern Ontario Regional Network

Scale



**EOWC**  
Eastern Ontario Workforce Council

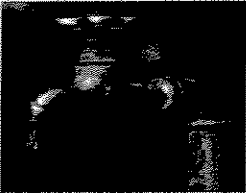

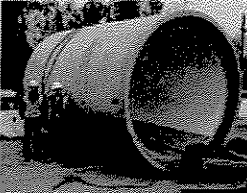


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## Eastern Ontario Regional Network


### EORN – What is it?

Network Superhighway with higher speeds, bandwidth and efficiency than currently exists

Rural	Urban	EORN
		

*Large capacity network that will serve at least 95% of E. Ontario's population & business with up to 1.5 Mbps and at least 85% with up to 10Mbps*

**EOWC**  
Eastern Ontario Workforce Council




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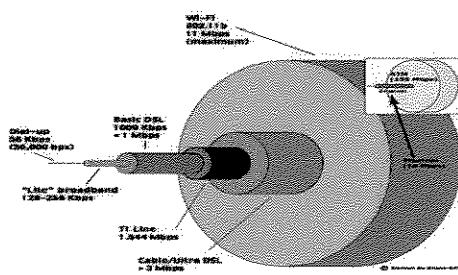


## Eastern Ontario Regional Network

### Bandwidth to the Consumer



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*Bandwidth at affordable prices*

**EORNC**  
Eastern Ontario Regional Network Corporation

### How Big is a GIG?


A gigabyte is approximately 1,000 megabytes. In short, a *lot* of information.

**Can't get your head around it? Think of it this way.**


Each of these activities represents just one gigabyte of usage:

- View 26,000 Web pages OR
- Send 105,000 e-mails OR
- Attach over 2,000 Microsoft Word documents (of about 10 pages each) OR
- Receive up to 500 digital photos OR
- Download more than 200 songs OR
- Stream 18 hours of music from the Web OR
- Download 1.5 movies (or 2/3 of a movie in high definition) OR
- Play games online for 240 hours (or 10 days)


## Eastern Ontario Regional Network



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August 31, 2010  
EOWC Partners Announced



Eastern Ontario's Wireless Future



## Eastern Ontario Regional Network Implementation





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### Two Major Phases


A) Optical Fiber Backbone Transport



B) Access to Residents and Businesses





*Higher speeds, more capacity and greater reach*



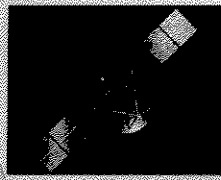
Eastern Ontario's Wireless Future

## Eastern Ontario Regional Network Current Private Sector Partners




→

**Bell & Bell Aliant**  
(\$55 m contribution)

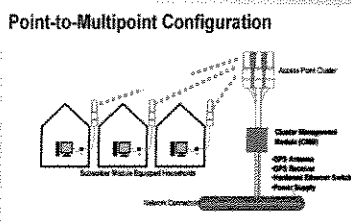
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**Barrett Xplore Inc**  
(\$21m contribution)

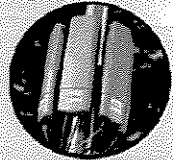


## Last Mile Access Options


### Fixed Wireless Broadband Point-to-Multipoint Configuration



Subscriber Module (Optional) Household  
Access Point Cluster  
Cluster Management System (CMS)  
GPS Receiver  
GPS Transmitter  
Weathered Ethernet Switch  
Power Supply  
Network Controller

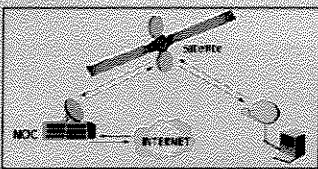


Access Point




Subscriber Module


### Satellite Broadband



MOC  
INTERNET  
USER



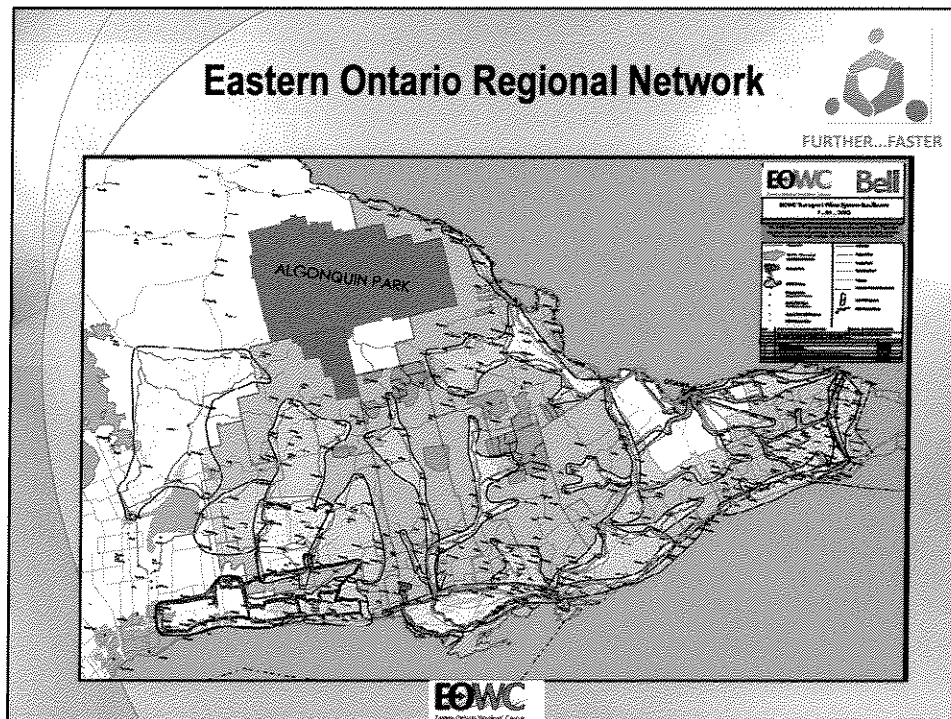
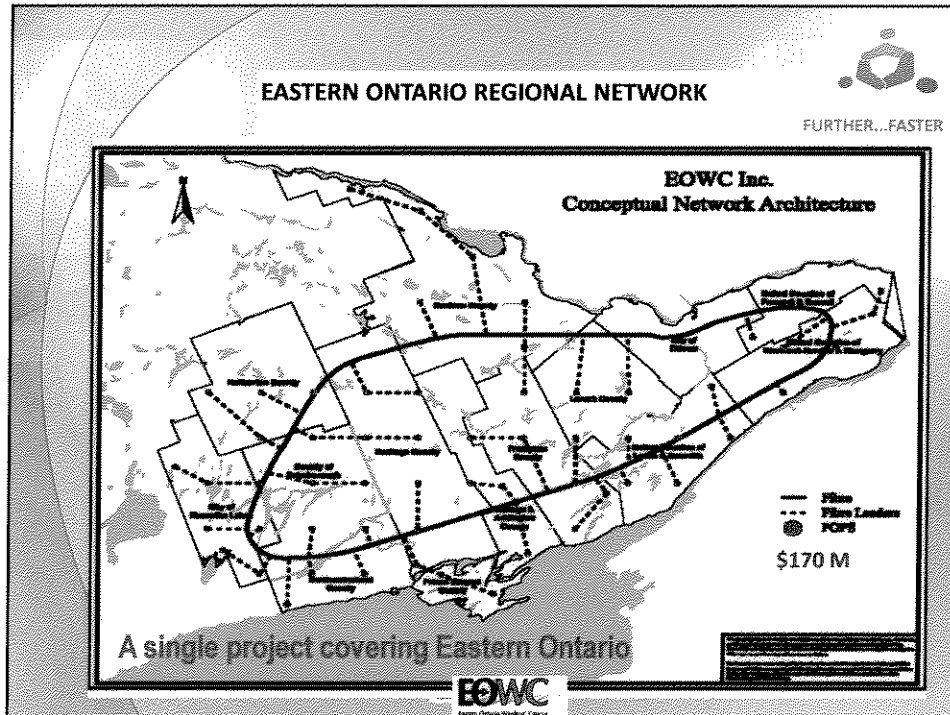
Dish Antenna (66-74cm)



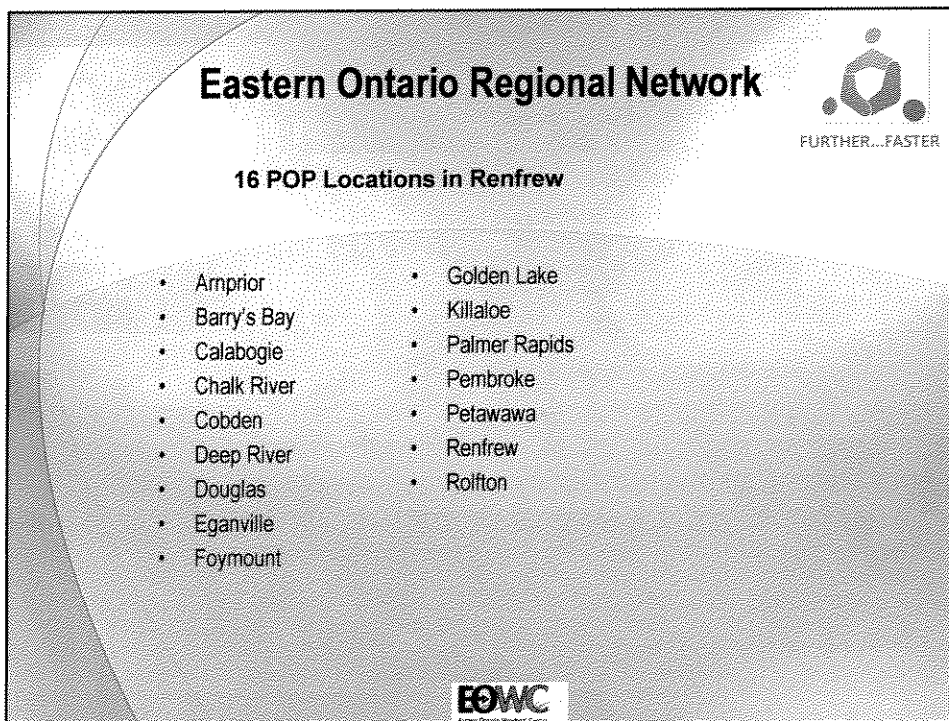
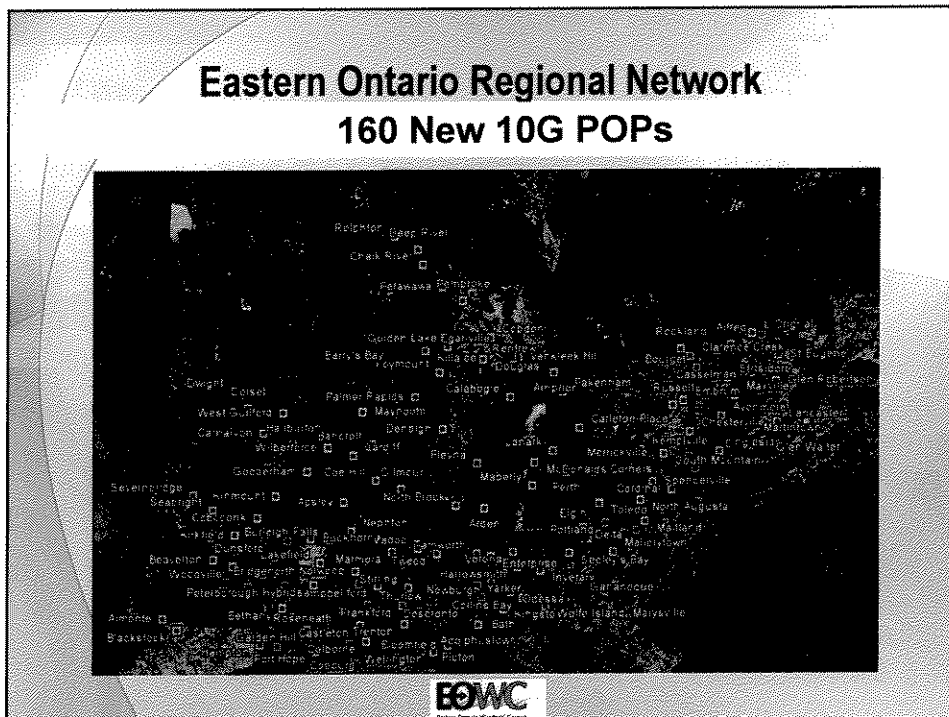
Modem

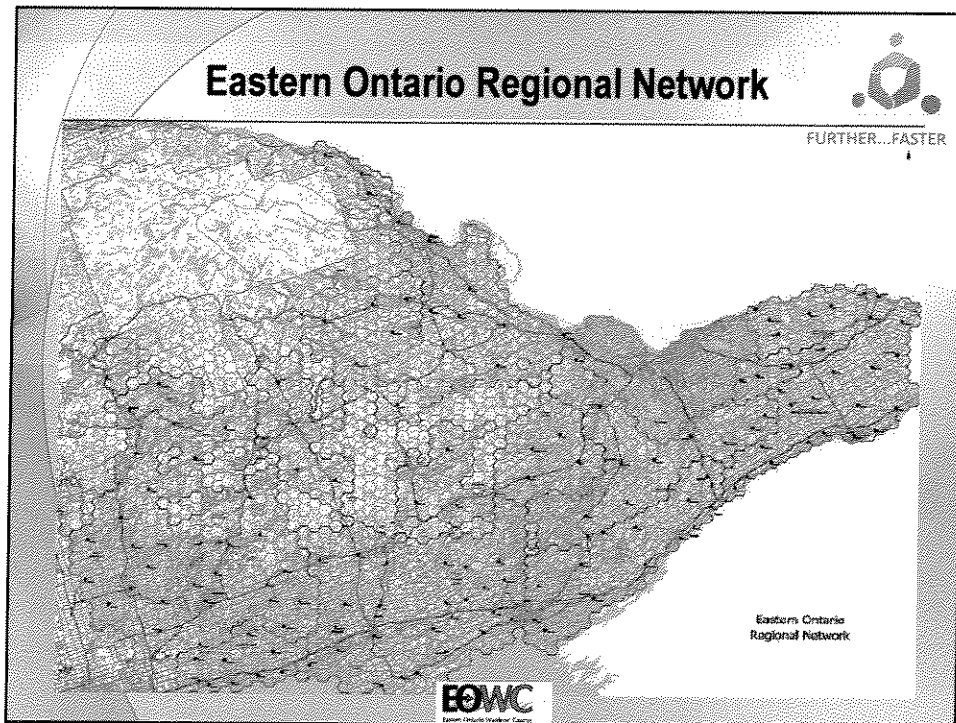
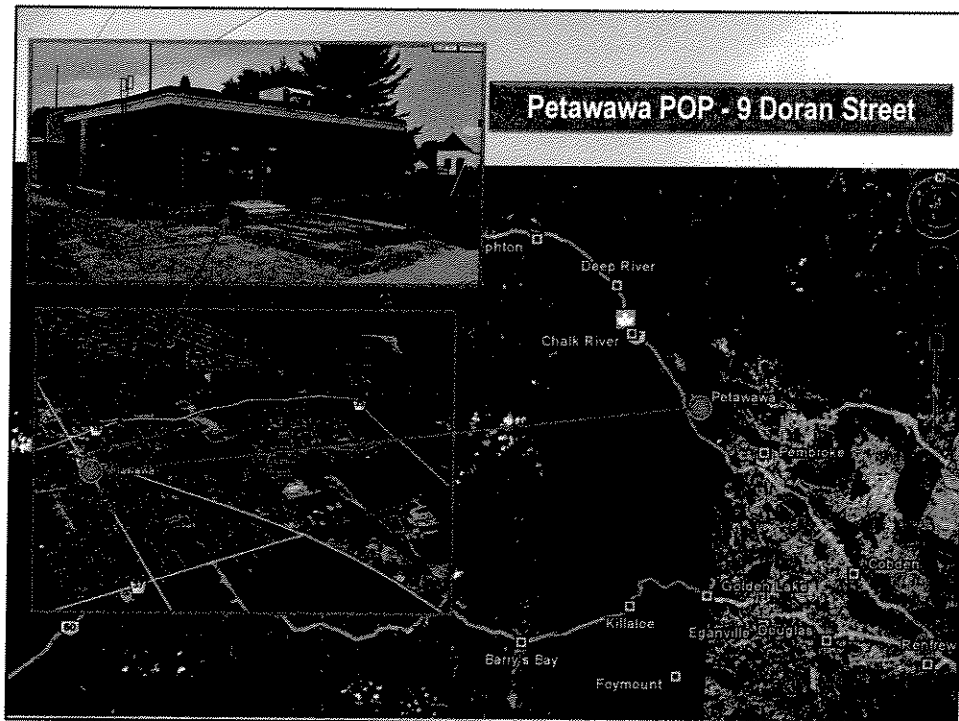
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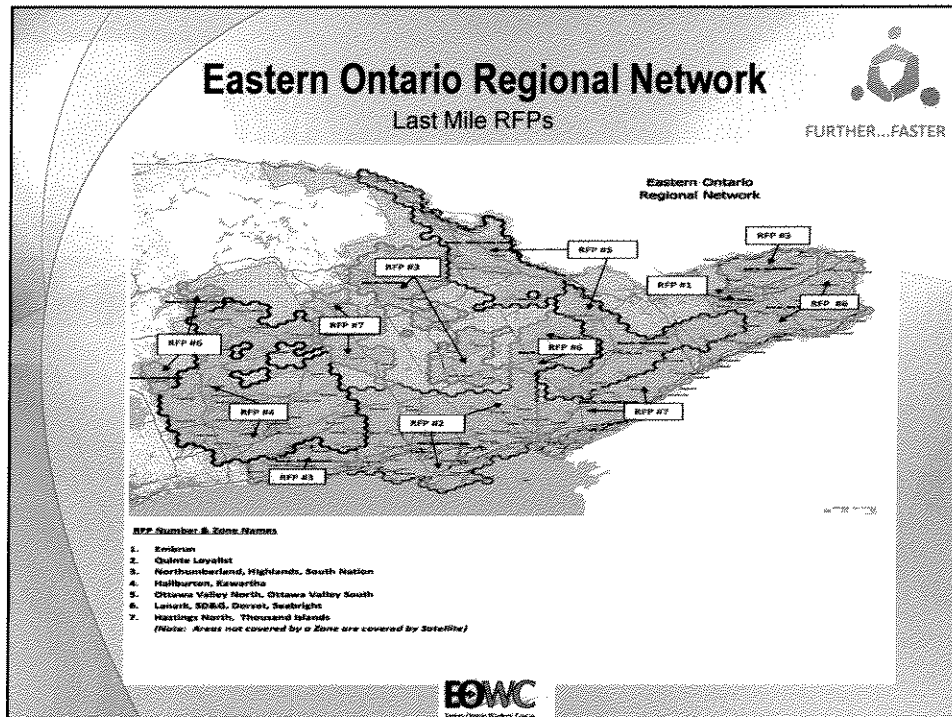
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### Eastern Ontario Regional Network Project Implementation


**FURTHER...FASTER**

	RFP Issue Date	RFP Due Date	POP Completion Date	EORN Zone Name	Anticipated date services available to households
1	Nov 18 2010	Feb 1 2011	May 2011	Embrun	IIQ 2012
2	Dec. 22 2010	May 3 2011	IV Q 2011	Quinte Loyalist	IIQ 2012
3	Jan 31 2010	June 7 2011	IQ 2012	Northumberland	IVQ 2012
				Highlands	IVQ 2012
				South Nation	IVQ 2012
4	Feb 3 2011	Aug 9 2011	IQ 2012	Haliburton	IVQ 2012
				Kawartha	
5	June 7 2011	Oct 4 2011	IIQ 2012	Ottawa Valley North	IVQ 2012
				Ottawa Valley South	
6	July 12 2011	Nov 15 2011	IVQ 2012	Lanark	IIQ 2013
				SD&G	
				Dorset	IIQ 2013
Seabright					
7	Aug 9 2011	Jan 10 2012	IV 2012	Hastings North	IIQ 2013
				Thousand Islands	

**EOWC**  
Eastern Ontario Water Conservation

Access RFP Rollout				As of Mar 20, 2011	Subject to change
RFP Issue Date	RFP Due Date	POP Completion Date	EORN Zone Name	Anticipated date services available to households	POPs - These are the locations that will be active at the point indicated under POP Completion Date. <small>Blue indicates trunk switch</small>
Nov 18 2010	Feb 1 2011	May 2011	Embrun	IQ 2012	Casselman, Embrun, Russell
Dec 22 2010	May 3 2011	IV Q 2011	Quinte Loyalist	IQ 2012	Belleville, Kingston Bloomfield, Wellington, Frankford, Brighton, Trenton, Odessa, Collins Bay, Napanee, Picton, Bath, Adolphustown, Thurlow, Marmora, Stirling, Selby, Newburgh, Tamworth, Verona, Yarker, Deseronto, Enterprise, Harrowsmith
Jan 31 2011	June 7 2011	IQ 2012	Northumberland	IVQ 2012	Peterborough Cobourg, Port Hope, Colborne, Garden Hill, Welcome, Castleton, Cold Springs, Grafton, Roseneath
			Highlands	IVQ 2012	Barry's Bay, Foycounit, Golden Lake, Killaloe, Palmer Rapids, Arden, Derbigh, Northbrook, Plevna, Tweed
			South Nation	IVQ 2012	Alfred, Bourget, Clarence Creek, L'Orignal, Plantagenet, Rockland
Feb 9 2011	Aug 9 2011	IQ 2012	Haliburton	IVQ 2012	Coboonk, Kirkfield, Little Britain, Woodville, Bethany, Bobcaygeon, Buxhorn, Dunsford, Lindsay, Ferenol Falls, Balaclava, Bridgenorth, Ormaizex, Carmarvon, Gooderham, Haliburton, Kilmount, West Gifford, Wilberforce, Minden, Apsley, Burleigh Falls, Campbellford, Hastings, Havelock, Lakefield, Nepton, Norwood, Warkworth
			Kawatha		
June 7 2011	Oct 4 2011	IQ 2012	Ottawa Valley North	IVQ 2012	Pembroke Chalk River, Deep River, Petawawa, Rohton, Eganville, Cobden, Douglas, Renfrew, Arnprior, Carleton Place
			Ottawa Valley South		Rewith Falls Almonte, Carleton Place, Pakenham, Chesterville, Merrickville, Kemphill, South Mountain, Winchester, Egin, Portland, Toledo
July 12 2011	Nov 15 2011	IVQ 2012	Lanark	IQ 2013	Lanark, Macdonald Carries, Mabey, Path
			SD&G	IQ 2013	Corwell, Nekechong Lancaster, Alexandria, Glen Robertson, Glen Walter, St. Eugene, Vankeek Hill, Ingleside Long Saul, Marlinton, Williamsburg, Carden, Fogus, Morrisburg, Avonmore, Oryser, Finch, Maxville, St. Isidore
			Dorset	IQ 2013	Dorset
			Seabright	IQ 2013	Seabright
Aug 9 2011	Jan 12 2012	IV 2012	Hastings North	IQ 2013	Bancroft, Carleton Place, Coo Hill, Gilmour, Madoc, Maynooth
			Thousand Islands	IQ 2013	Inverary, North Augusta, Seely's Bay, Spencerville, Wolfe Island, Athens, Delta, Matilda, Helenburg, Prescott, Casselman, Rossville


## Eastern Ontario Regional Network



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### Satellite Service Highlights


- Provides access to up to 1Gbps of satellite capacity
- Coverage extends across region – ensures no one “left behind”
- Two phases of service deployment based on existing and new satellites to be launched
  - Phase 1 = From Now to December 31, 2011
  - Phase 2 = January 1, 2012 forward



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**Satellite Highlights**

- New satellites mean higher speeds and capacities for users
- Special opt out provision where terrestrial solutions become available to satellite customers
- "Best in price" discount for any EOWC customer on any new pricing offered anywhere in Canada
- Significant savings to customers




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**Network Governance & Operation**

- ✓ Operated by private sector partners
- ✓ Oversight & contract management by EORN Board
- ✓ Board will have 9 members from public, EOWC Inc., First Nations and Eastern Mayors group
- ✓ Looking for members with wide range of skill sets and knowledge of public telecommunications



  
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## Eastern Ontario Regional Network


### What Have We Achieved So Far?

- 256% more penetration of POPs (160 vs 60)
- 1000% more capacity (10G scalable to 100G vs 1 G)
- Erasing ISP pricing disadvantage vs GTA, SW Ontario

PoPs	Today	EORN
Price	\$880/m	\$840/m
Capacity	1.5 Mbps	100 Mbps

*Higher speeds, more capacity and greater reach*



  
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## Eastern Ontario Regional Network


### What Does This Mean For Eastern Ontario?

Investment Leveraging

Provincial 3 to 1  
 Federal 3 to 1  
 Private 3 to 1  
**Municipal 20 to 1**

*Higher speeds, more capacity and greater reach*






**Eastern Ontario Regional Network**

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Questions?



**EOWC**  
Eastern Ontario Water Council

The image is a slide with a background of overlapping, semi-transparent circles. The text 'Eastern Ontario Regional Network' is in the top left, the logo and tagline 'FURTHER...FASTER' are in the top right, 'Questions?' is centered, and the 'EOWC' logo is in the bottom center.

