


700 MHZ BROADBAND FOR MISSION CRITICAL PUBLIC SAFETY DATA

PROGRESS REPORT

PRESENTATION TO THE EMERGENCY SERVICES MANAGEMENT CONFERENCE
APRIL 19, 2011



On December 8, 2010...

We announced the formation of the:

The Tri-Services Special Purpose Committee
on 700 MHz Broadband for Mission Critical
Public Safety Data





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INTRODUCTION

Committee Struck to...


- Formulate a broad-based public safety response to the Industry Canada public consultations on the use of the 700 MHz band (closed February 28, 2011)
- Monitor and advise on the issue, inform stakeholders and identify responder spectrum needs and potential opportunities
- Engage with industry, public safety providers and different levels of government to put forward a position that makes sense for Canadian public safety and Canadians in general
- Deliver the written response for the consultation


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INTRODUCTION

Enable Responders to...


- Ensure that the spectrum needs of responders and public safety in general are considered and accounted for
- Enough spectrum to fulfil vision of a robust system of interoperable networks that will benefit urban, suburban and rural responder agencies in Canada
- Alignment with U.S. with a view to a trans-continental vision
- Work with industry to help better define needs and future vision
- Advocate and work with others on a whole-of-government approach


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INTRODUCTION

Why do we care?


- The allocation of 700MHz broadband spectrum **represents a once in a lifetime opportunity**
- If done correctly will enable **mission critical data communications for public safety** for years to come
- Having this ability directly impacts **community and responder safety, innovation and the health of Canada's digital economy**
- We need the right tools to **protect and save lives of Canadians and first responders**
- 700 MHz is the **"sweet spot"**


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INTRODUCTION

Present State of Broadband in Canada

- Different technology in use
- Different systems in use
- Not seamless countrywide
- No Canada-U.S. harmonization
- Thirst for bandwidth increasing exponentially
- Industry Canada Consultation opened consultations on 700 MHz spectrum on November 30, 2010 (closes February 28, 2011) — provides opportunity to state public safety needs


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700 MHZ BROADBAND

Potential Growth Vision

- Border and a few major cities
- Major centres
- Regional solutions
- Major arteries
- Continentally Aligned



THE FUTURE...

Scenario

Firefighters from New Brunswick asked by CIFFC to fly to British Columbia (or California, or Australia) to help fight wildfires – the wireless device (future versions that are hardened & intrinsically safe) immediately connects to the 700 MHz system in BC (or wherever), authenticates them as a public safety user and gives them full BROADBAND access to mission critical data including GIS location tracking, situational awareness info about where the fires are located (based on access to wireless sensors that have been deployed) and full topographical and /or satellite maps.

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Scenario

Paramedics are called to the scene of a mass casualty event along the Washington State – British Columbia border. BC Incident Commanders quickly realize that they require assistance from their U.S. counterparts. They begin deploying wireless patient care telemetry devices that connect via the 700 MHz Broadband network. Because the network was built using the same spectrum and standards (LTE), the US responders can immediately get access the information required (as authorized by previous governance and SOP's) to successfully respond to this joint operation.

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Scenario

Police are called to an Active Shooter situation at a local college. Based on broadband access to the 700 MHz network, they immediately deploy three teams into the school via three different entry points. 3D in-building location and tracking devices (originally spearheaded by the fire community) allow team leaders, local Incident Commander and HQ to be aware of each other's location. They then access the IP based speaker/microphone system in the college, overlay sounds on the building floor plan, and immediately identify victim/suspect location info. Fire and paramedic teams responding have (as authorized) access to the data to begin planning their response.

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Key Work Completed for Consultation Response

Report entitled 700MHz Spectrum Requirements for Canadian Public Safety Interoperable Mobile Broadband Data Communications

- Technical assessment of the 700 MHz spectrum requirements conducted by Defence Research and Development Canada Centre for Security Science (DRDC CSS)
- Goal: to determine how much spectrum is required to meet the needs of the public safety for mobile broadband wireless data communications within a 20-year time frame
- The results show that the amount of bandwidth required to satisfy the needs of public safety is greater than 20MHz in the near-to-mid term, and likely to also exceed 20MHz in the long term, despite advances in technology

(Full report on action700.ca)

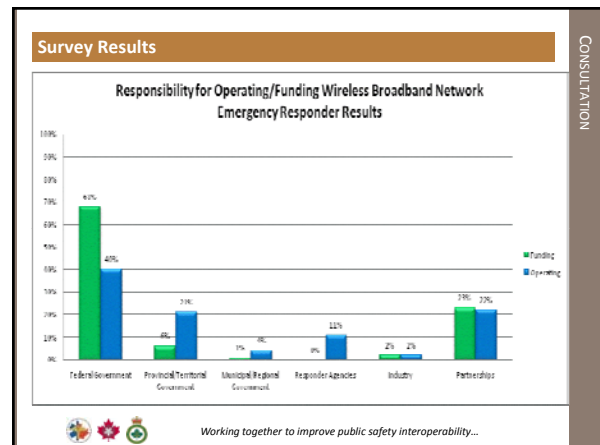
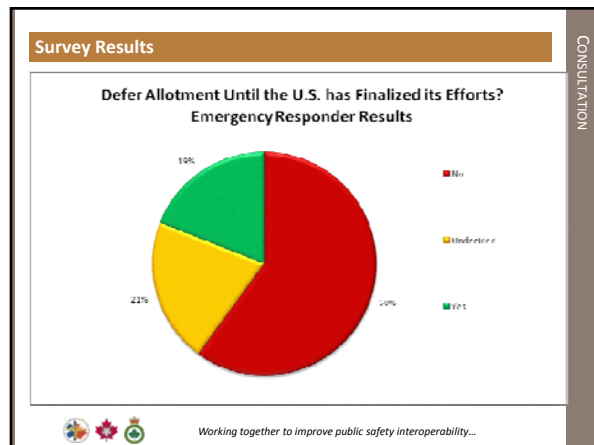
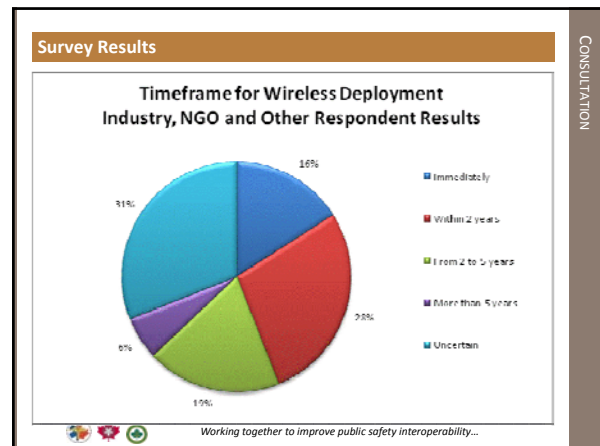
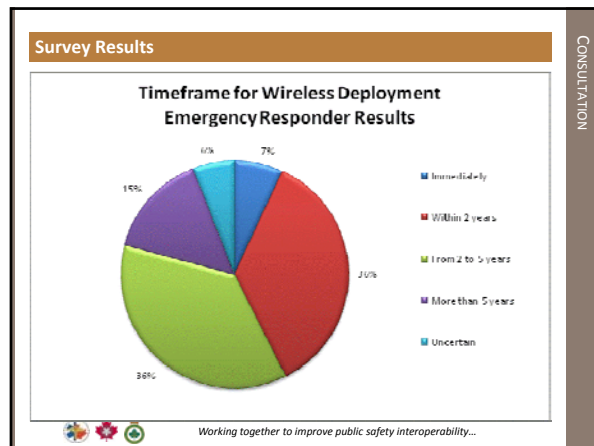
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Stakeholder Survey

- Conducted in partnership with CATA, see report entitled *Answering the Call: Survey report of Canadian stakeholders regarding the importance and priority need of dedicated 700 MHz broadband spectrum for a national public safety network*
- Highlights include:
 - 366 individuals responded during January and February, the majority of whom were tri-service emergency responders (fire, police, EMS)
 - Over 80% of all respondents believed that the public safety agencies do not possess sufficient broadband capability

(Full report on action700.ca)

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- Meeting with Stakeholders**
- The Tri-Services consulted with (and has the support of) a wide variety of stakeholders, including multi-discipline, multi-jurisdictional responders, academia, industry, government at all levels, and non-governmental organizations
 - From December 8, 2010 to February 28, 2011, committee members met (either face-to-face or via teleconference) with representatives from more than **96** organizations
 - When the Tri-Services Special Purpose Committee was struck on December 8, 2010 during the Fourth Canadian Public Safety Interoperability Workshop in Victoria, **110** of the 240 delegates volunteered their services in preparation of a consultation response — those individual were provided and opportunity to contribute and review parts of the Tri-Services submission prior to the February 28, 2011 deadline
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- Letters of support**
-
- Over 60 received (and counting), including:
 - Letter from Minister Bradley supported by all P/T Ministers
 - Labour organizations (CPA, IIFF, PAC, etc.)
 - Federation of Canadian Municipalities
 - APCO
 - Canadian Centre for Emergency Preparedness
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Industry Canada Consultation Response

- As mentioned, the first round of Industry Canada consultations closed Feb. 28 (rebuttal period closed April 6)
- Tri-Services main themes in response:
 - Assign 20 MHz for public safety broadband use
 - Coordinate 700 MHz Canadian public safety broadband spectrum with the U.S.
 - Governance of the 20 MHz of 700 MHz spectrum for public safety for broadband use must reside with public safety stakeholders
 - Current commercial systems will not meet the mission critical requirements of our public safety community

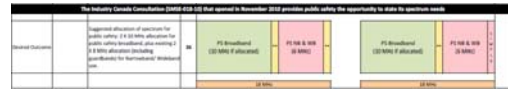


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TRI-SERVICES POSITION

20 MHz of 700 MHz Spectrum

- Re-designate 8 MHz of spectrum (currently assigned to public safety with unspecified use) to broadband use and designate an additional 12 MHz of adjacent spectrum for broadband use.
- Total allocation to public safety of 36 MHz — 20 MHz for broadband and an existing 16 MHz for narrowband/wideband (i.e., voice and low speed data)



- Dedicate spectrum to public safety to dictate that industry builds wireless broadband networks to needs of public safety (i.e., national protocol and interoperability standards as called for in the *Communications Interoperability Strategy for Canada*)



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TRI-SERVICES POSITION

Coordinate with U.S.

- Coordinate the 700 MHz Canadian public safety broadband spectrum with the FCC band plan, **including the pending designation of the D Block to public safety** (supported by the U.S. President and members of U.S. Congress)
 - Ensures that broadband user devices will function on any public safety network and in either country to provide critical cross-border interoperability functionality
 - Creates a larger commercial market for specialized public safety devices thus establishing scale and ensuring lower costs
 - Affords Canadian information and communications technology (ICT) companies with access to international opportunities in this specialized market



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TRI-SERVICES POSITION

Spectrum Governance

- Governance of the 20 MHz of 700 MHz spectrum for public safety for broadband use **must reside** with public safety stakeholders
- Must include representation from the Tri-Services Chiefs Associations and CITIG (as outlined in the *Communications Interoperability Strategy for Canada* Governance model) through which decisions of national public safety leadership can guide the construction and operation of an interoperable nationwide public safety-grade wireless broadband network
- Tri-Services will be willing and active participants in the three-phase process outlined by Public Safety Canada



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TRI-SERVICES POSITION

Public Safety Canada Plan

Public Safety Canada, through its Interoperability Development Office, has developed a three phase concept of operations to ensure the timely launch of the 700 MHz program:

- Phase 1** – Departmental response to Industry Canada Consultation (completed)
- Phase 2** – (March - December 2011)
 - PS to work with partners and private industry to identify and confirm business models
 - Further develop and consult on identification and evaluation of associated factors
- Phase 3** – Phase Three (Starting December 2011)
 - Develop roll-out plan



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TRI-SERVICES POSITION

Spectrum Ownership/Build out

- Tri-Services opposed to auctioning the 20 MHz sought (total allocation of 36 MHz) of spectrum for public safety
- The use of commercially owned and operated 700 MHz broadband networks will not meet the mission critical requirements of our public safety community (driven from a business model designed to support general public and commercial user applications and expectations)
- However, the Tri-Service Chiefs Associations are extremely interested in partnering with industry to build, manage and operate such networks in partnership, not as a client (i.e., as owners, not renters)
- The Public Safety Canada process to clarify the way forward




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TRI-SERVICES POSITION

RESPONSES

Consultation Responses

- **88** total responses to Industry Canada
 - **55** from Companies and Organizations (the Tri-Services, Telcos, CATA, Industry, etc.)
 - **4** from Federal Government (ICSAR, Public Safety Canada, RCMP and Scott Simms, MP)
 - **23** from Provincial and Municipal Governments (notables include CCEMO, SOREM, many provinces)
 - **6** from Private Individuals
- Overall, the Tri-Services and public safety stakeholders were pleased to see that the majority of responses to the consultation acknowledged the need to designate a portion of 700 MHz spectrum to be dedicated for public safety use
- PS stakeholders “sang from same song sheet”




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RESPONSES

Of the 88 Submissions...

- **44** advocated harmonize with the U.S.
- **26** called for 20 MHz of spectrum to be dedicated to public safety
- **7** called for only 10 MHz of spectrum to be dedicated to public safety
- **6** called for 10 MHz of spectrum to be dedicated to public safety now, plus a possible additional 10 MHz after D Block assigned in the U.S.
- **3** respondents called for 0 MHz dedicated to public safety
- The remaining responses made no mention of public safety

(Of note, one Telecommunications company acknowledged the need to designate a portion of 700 MHz spectrum to be dedicated for public safety use)




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CURRENT WORK

Tri-Service Committee Current Work

- Continue reaching out to all levels of government, public safety agencies and industry
- Work with Public Safety Canada on next steps
- Inform key stakeholders




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NEXT STEPS

What can YOU do about it?

- Get informed and put this issue on your organization’s radar
- Inform your key decision makers, boards, municipalities, provincial/territorial governments and other governing bodies that spectrum allocations will have a significant impact on public safety in Canada
- Work with tri-services colleagues and others to advocate a strong voice for public safety in advance of spectrum allocations
- Look for and act on mobilization information as it sent by CACP, CAFC, EMSCC and others



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CALL TO ACTION!

www.action700.ca

- Web site created by the Associations to provide a focal point for communications efforts:

www.action700.ca

(download basic information, including sample support letter, media release, presentations and sign up for e-mail updates)

- Inquiries — send e-mail to:

action700broadband@gmail.com



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CITIG NEXT STEPS

Canadian Interoperability Technology Interest Group Update

- **London CITIG Regional Forum**, Thursday, May 12th from 9:00 a.m. to 4:00 p.m. in London, ON
- **Northern CITIG Forum**, August 30th, Iqaluit, Nunavut
- **CATA Vendor Outreach Forum**, October 18th and 19th, Pan Pacific Hotel – www.cata.ca for details soon.
- **Fifth National Public Safety Interoperability Workshop**, December 4th to 7th, Ottawa, Ontario www.cacp.ca to register

Visit www.citig.ca for more info and to join.



4/19/2011

The 5th Canadian Public Safety Interoperability Workshop: A CITIG National Forum
*From Results to Successes!



Date: December 4 - 7, 2011 (Sunday evening to Wednesday afternoon)
Location: The Fairmont Chateau Laurier, Ottawa, ON
Registration Cost: \$450 + HST (VAT 60), includes Sunday evening meet and greet, all plenary sessions, Monday evening exhibitors reception, 3 breakfasts, 2 lunches and 5 refreshment breaks.
Please note conference sessions will only be offered in English

The 5th Canadian Public Safety Interoperability Workshop is a key event in the development of the National Public Safety Interoperability Strategy for Canada. It will bring together public safety professionals from across the country to discuss the challenges of public safety interoperability and to develop a plan of action to address these challenges. The workshop will focus on the following topics:

- National Public Safety Interoperability Strategy for Canada
- Public Safety Interoperability: Challenges and Opportunities
- Public Safety Interoperability: A National Priority
- Public Safety Interoperability: A Shared Responsibility
- Public Safety Interoperability: A Shared Vision
- Public Safety Interoperability: A Shared Future

Register at www.cacp.ca



Discussion

Questions?

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For more information

www.action700.ca

action700broadband@gmail.com

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CONTACT