Interoperability Strategy for Ontario

Draft Rev. Jan 28, 2013

Prepared by:
Province of Ontario Interoperability Task Group
(POINT)

“A Safe, Strong, Secure Ontario”

Record of Amendments

Revision No.	Date	Description (page #)	Amended by
Draft	Jan 28, 2013	New document	POINT Task Group

Acknowledgement

The Ministry of Community Safety and Correctional Services wishes to thank and acknowledge the valuable contributions and sources many individuals and organizations made to the development of this Strategy:

- Province of New Brunswick Emergency Response Interoperability Plan
- U.S. Department of Homeland Security
- Ontario Incident Management System Doctrine
- Ontario Critical Infrastructure Assurance Program
- Ontario Hazard Identification and Risk Assessment

Forward

<insert endorsements here>

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1. Introduction

Emergency response agencies such as Emergency Medical Services (EMS), Fire, Police, Emergency Managers, and Public Works need to share vital data or voice information across disciplines and jurisdictions to successfully respond to day-to-day incidents and large-scale emergencies. Many people assume that emergency response agencies across Canada are already interoperable. In actuality, emergency responders often cannot talk to some parts of their own agencies, let alone communicate with agencies in neighbouring cities, counties, provinces or states.

1.1 Purpose of this Document

Improved Emergency Response

A study commissioned by Industry Canada revealed that "the inability of our public safety officials to readily communicate with one another while on-the-scene during emergencies or disaster situations threatens the lives of all those people who respond to such life threatening events as well as the lives of the public in general.[1]" While the costs of increasing emergency response interoperability are significant, the inherent risks associated with lack of interoperability are far greater. Improved interoperability improves emergency response capabilities and situational awareness, thus increasing public safety and that of the responders.

Fiscal Responsibility

In today's provincial financial situation, emergency response agencies and organizations no longer have the option to continue working in silos. From the planning stages to implementation of an emergency response program, agencies need to collaborate, cooperate, and coordinate resources in order to work together more efficiently. This culture shift is vital in achieving interoperability.

Benefits of Interoperability

Emergency response interoperability improves public and responder safety; improves the efficiency of response; provides costs savings through efficiencies; and allows a coordinated approach to day-to-day operations through to large-scale disaster response.

Interoperability Strategy for Ontario

The Interoperability Strategy for Ontario (also herein referred to as the Strategy) sets the strategic and operational framework for the province's efforts and investments to enhance response interoperability. This Strategy is based on and aligns with the

[1] Public Safety Radiocommunications Project, Final Report, Prepared by RBP Associates and L'ABBE Consulting Services under contract with Industry Canada, March 2003

Communications Interoperability Strategy for Canada and Action Plan by building on the Federal/Provincial/Territorial mandate to strengthen communications interoperability capabilities across Canada. The Strategy includes Ontario's interoperability vision, strategic directions and initiatives through the use of recommended practices, and 3-year plan to enhance interoperability.

This Strategy also aligns with the Ministry of Community Safety and Correctional Services Strategic Plan's vision to ensure a "Safe, Strong and Secure Ontario"; from which the Ontario Emergency Management Doctrine was developed. The Provincial components implemented to ensure the success of this doctrine include:

- Emergency Management and Civil Protection Act
- Order in Council 1157/2009
- Ontario Regulation 380/04
- Ontario Hazard Identification and Risk Assessment
- Ontario Critical Infrastructure Assurance Program
- Incident Management System Doctrine
- Joint Emergency Management Steering Committee
- Provincial Nuclear Emergency Response Plan
- Provincial Emergency Response Plan
- Interoperability Strategy for Ontario

Aim

To facilitate decision makers communicating effectively with decision makers

This is a living document that will evolve through continued support of its stakeholders.

1.2 Scope

The Strategy sets forth the strategic and operational framework in Ontario required to enhance interoperability in support of day-to-day operations, the execution of planned events, and the response to local, regional, national and international emergencies to ultimately increase responder and citizen safety and security. The strategy is founded on the premise that accomplishing interoperability on a day-to-day basis enhances the response capabilities to major incidents or disasters. For the purpose of the Strategy, emergency response interoperability is defined as:

> "the ability of public safety services and support providers – including law enforcement, firefighters, emergency medical services, emergency management, public utilities, transportation and others – to communicate and work with staff from other responding agencies on demand, in real time, and as authorized. It enables inter-communications that support effective tactical incident management and strategic emergency management, which in turn supports continuity of operations and government functions.[2]"

[2] Note that interoperability at the national level, through the work of the Communication Interoperability Technology Interest Group (CITIG) and the Communications Interoperability Strategy for Canada, is mainly focused

1.3 Target Audience

This Strategy is targeted to communities, municipalities, ministries, emergency response agencies and organizations, partners and stakeholders responsible for emergency response and its corresponding emergency management programs within the Province of Ontario.

1.4 Province of Ontario Interoperability Task Group (POINT)

The POINT Task Group was created to support the provincial government's strategic plan for "a safe, strong, secure Ontario". POINT will be a leader among partners advancing interoperability within the Province of Ontario and will serve as a centre of excellence, including a forum for the advancement of interoperability among government agencies, public sector organizations, provincial communities, and the private sector.

POINT is the provincial body accountable to the Commissioner of Emergency Management who will furnish leadership for Interoperability in the Province of Ontario.

POINT has the authority to evaluate the state of both current and emerging technologies including issues regarding interoperability in order to create a plan for interoperability within Ontario, oversee the implementation of the plan, and develop appropriate policies, procedures and guidelines that can be used by all stakeholders within Ontario. See Appendix A: POINT Governance and Charter for more information.

POINT is responsible for the development, implementation and management of this document.

1.5 Approach

This Strategy is a living document that will evolve from the ground up by the first responder community and other key stakeholders with the assistance of the provincial government and other key partners. Through stakeholder engagement, POINT wishes to further refine the work plan activities and identify regional and local priorities that will contribute to achieving the desired state on the Canadian Interoperability Continuum.

This Strategy has been endorsed by the following agencies:

- <insert list of agencies here>

1.6 Current State of Interoperability in Ontario

Currently most response agencies have limited capabilities to operate across jurisdictions or disciplines throughout their local communities, and certainly not with

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on "communications interoperability" and is defined as the ability of emergency personnel to communicate between jurisdictions, disciplines, and levels of government, using a variety of systems, as needed and as authorized (adapted from DHS SAFECOM).

multiple levels of government. However, the public perceives that response agencies currently are interoperable and they expect that level of response. There are exceptions – champions of interoperability, for example: Windsor-Essex and the State of Michigan, Durham Region, Town of Gananoque, Peel Region, and the City of Ottawa, to name a few.

In reality, interoperability capabilities of communities, or that of the Province have never been measured. The actual state of interoperability in Ontario is currently unknown. Tools are being developed to obtain an accurate picture of interoperability of stakeholders throughout the Province. The POINT Task Group will continue to develop these tools to gauge what our capabilities are today, and continue to monitor our progress.

2. Provincial Overview

The Province of Ontario is committed to provide "a safe, strong, secure Ontario" by "serving all of Ontario's diverse communities to keep our province safe". Recent events such as SARS, 9/11, Air France incident, the blackout of 2003, G8 and G20, tornados, flooding, and northern forest fires exemplify the dedication and skill of all the responders. These events demonstrate the continued need to communicate across jurisdictions and disciplines, and how vital interoperability is to an efficient and effective response.

2.1 Environmental Scan[3]

Ontario is the second largest Canadian province, covering more than 1 million square kilometers and is home to more than 13.5 million people. It is bordered by the province

[3] For illustration purposes only, the above map is divided into the Far North, the Near North, and Southern Ontario.

of Manitoba to the west, Quebec and the United States to the east and south, and Hudson Bay to the north. The Province is often divided into three main geographic regions; the Canadian Shield in the northwest and central areas, the Hudson Bay Lowlands in the far north and northeast, and Southern Ontario. The Canadian Shield region is sparsely populated and known for its mineral deposits and other natural resources. The Hudson Bay Lowlands is very sparsely habited, with up to 85% of its surface made up of muskeg or peat-forming wetlands. Many communities in the northern parts of Ontario are remote and accessible only by air or by limited road access. Southern Ontario is the most densely populated part of the Province and contains the greatest amount of infrastructure. Due to its large expanse, temperature varies considerable in Ontario, from 30℃ during summer in Southern Ontario to below -40℃ during winter in Northern Ontario. Toronto, located in Southern Ontario is the largest city in Canada. Ontario also houses the nation's capital in Ottawa. Ontario's population is becoming increasingly diverse with more than 368,500 people from many different countries choosing to settle in Ontario between 2001 and 2006. Aboriginal peoples, including First Nation, Métis and Inuit comprise approximately 2% of Ontario's population, which is approximately one-fifth of all Aboriginal people in Canada.

Ontario is connected by a vast transportation grid, including the 400-Series Highways which connect to border crossings with the United States in the south and the Trans-Canada Highway which provides a vital link in Northern Ontario. Other Provincial highways and regional roads criss-cross the Province providing transportation access. Due to its location, transportation in Ontario has been able to benefit from shipping routes in the Great Lakes. The Saint Lawrence Seaway allows for shipping between southern portions of the province to the Atlantic Ocean. Rail transportation for both passengers and cargo is also common in Ontario, with some service provided as far north as Moosonee near James Bay. Toronto Pearson International Airport is the most frequently used airport in Canada with approximately 400,000 flights per year. Other large airports in Ontario include Ottawa Macdonald-Cartier International Airport and Hamilton's John C. Munro Hamilton International Airport. Many cities in Ontario have regional airports. Many remote communities, especially in the far North rely on air travel as their sole form of transportation.

There are approximately 2,500 dams in Ontario that are greater than two meters in height and which each contain a minimum of 2 hectares in reservoir surface area (MNR, 2010a).

Ontario has approximately 3,000 oil and natural gas wells in operation. These wells are located on land and offshore under Lake Erie. Every year, approximately 100 new wells are drilled in Southern Ontario and approximately 600 wells are suspended (MNR, 2010).

Ontario currently has three nuclear power plants and the Chalk River Laboratories which have significant amounts of radioactive materials.

Ontario has the largest chemical industry of any province in Canada. The City of Sarnia has the largest cluster of facilities that produce or use large quantities of chemicals in Canada. There are forty-six facilities that are listed in the National Pollutant Release

Inventory within 25 km of Sarnia, with more on the United States side of the border. Two other areas which have been identified by the Ontario Government (2008) as having a large concentration of chemical companies are the Greater Toronto Area and Eastern Ontario.

The Windsor-Detroit Gateway is Canada's largest border crossing. It currently consists of four crossing points:

- Ambassador Bridge
- Windsor-Detroit Tunnel
- Detroit-Windsor Truck Ferry
- Central Michigan Rail Tunnel (MTO)

2.2 Hazard Identification and Risk Assessment

Thirty-nine hazards have been identified in the 2012 Provincial Hazard Identification and Risk Assessment (HIRA) Report as having occurred in the past or having the potential to occur in Ontario. These can be grouped into three categories; natural, technological, and human-caused hazards. Natural hazards are hazards which are caused by forces of nature. Human activity may trigger or worsen the hazard; (for example deforestation may increase the risk of a landslide) but the hazard ultimately is viewed as a force of nature. These include snowstorms, forest fires, floods, and landslides. The most common hazards resulting in declared emergencies in Ontario are forest fires and floods. Technological hazards are hazards which arise from the manufacture, transportation, and use of such substances as radioactive materials, chemicals, explosives, flammables, modern technology and critical infrastructure. Technological hazards include power outages, hazardous materials incidents, and mine emergencies. Human-caused hazards are hazards which result from direct human action or inaction, either intentional or unintentional. This includes hazards that arise from problems within organizational structure of a company, government, etc.

2.3 Emergency Response Agencies

Emergency response in Ontario is incredibly diverse and is comprised of municipal and provincial agencies and ministries.

First Response Agencies in Ontario[4]

Agency	No. of services	Details
Police	26	Municipal, First Nations
	1	Ontario Provincial Police
	1	RCMP
	28	**Total**
Fire	28	Fulltime
	308	Volunteer
	151	Composite (full-time and volunteer)
	487	**Total**

[4] Statistics gathered from various agency association websites.

Emergency Medical Services	61	Land ambulance
	9	Air ambulance
	10	Transfer services
	9	Event medical
	89	**Total**

The following Ministries have an Order in Council to prepare and respond in respect of the type of emergency assigned[5]:

Ministry	**Type of Emergency**
Agriculture, Food and Rural Affairs	• Farm animal disease • Food contamination • Agricultural plan disease and pest infestation
Attorney General	• Any emergency related to the administration of justice including the operation of the courts • Provision of legal services to government in any emergency
Community and Social Services	• Any emergency that requires emergency shelter, clothing and food • Victim registration and inquiry services • Personal services
Community Safety and Correctional Services	• Any emergency that requires the coordination of provincial emergency management • Nuclear and radiological • Severe weather • War and international • Building structural collapse • Explosion and structural fire • Space object crash • Terrorism • Civil disorder • Any emergency that requires the continuity of provincial government services
Energy and Infrastructure	• Energy supply
Environment	• Spills of pollutants to the natural environment including fixed site and transportation spills • Drinking water
Health and Long-Term Care	• Human health

[5] Order of Council, 2009

	• Disease and epidemics • Health services during an emergency
Labour	• Any emergency that affects worker health and safety
Government Services	• Any emergency that affects labour relations and human resource management in the provincial government
Municipal Affairs and Housing	• Any emergency that requires the coordination of extraordinary provincial expenditures

2.4 Border Communities and Agreements

<To be developed.>

3. Strategy

Mission

To achieve full interoperability with all partners

3.1 Provincial Vision for Interoperability

The Province endorsed the Interoperability Strategy for Ontario vision:

"We have the capability to operate with and together across organizational boundaries in order to achieve common objectives."

The vision aligns with the Ministry of Community Safety and Correctional Services mission of "*a safe, strong, secure Ontario"*.

The Interoperability Strategy for Ontario also supports and is in alignment with the Communications Interoperability Strategy and Action Plan for Canada and supports overarching municipal, provincial and Canadian emergency management legislation, strategies, and initiative. The Strategy also applies guidance from the Canadian Communications Interoperability Plan that focuses on communications interoperability for emergency responders nationwide. The Strategy is intended to provide Ontario with an approach to increase the level of operational interoperability across the province.

3.2 Canadian Communications Interoperability Continuum

The Province has adopted the Canadian Communications Interoperability Continuum as a guide and directional goal to gain seamless communications interoperability province-wide and has extended the purpose of the continuum to include emergency response in its broader context to align to the scope of this Strategy. It is the province's intent to move towards the optimal level in each of the lanes in collaboration with all stakeholders as solutions to emergency response interoperability often focus solely on equipment or technology, excluding other factors that are also critical to success. The Continuum is a multi-faceted approach to emergency communications, which identifies five interrelated elements that are essential to a foundation for seamless interoperability:

- Governance: leadership, decision making groups, agreements, interoperability funding, strategic planning
- Standard Operating Procedures: policies, practices and procedures, command and control, common language
- Technology – Data and Voice: approaches, implementation, maintenance and support
- Training and Exercises: operator training, exercises
- Usage: frequency of use and familiarity

To help visualize the evolving interrelationship of these components, the following diagram illustrates the entire range of interoperable communications, from a minimal level on one end of the spectrum, to an optimal level on the other end.

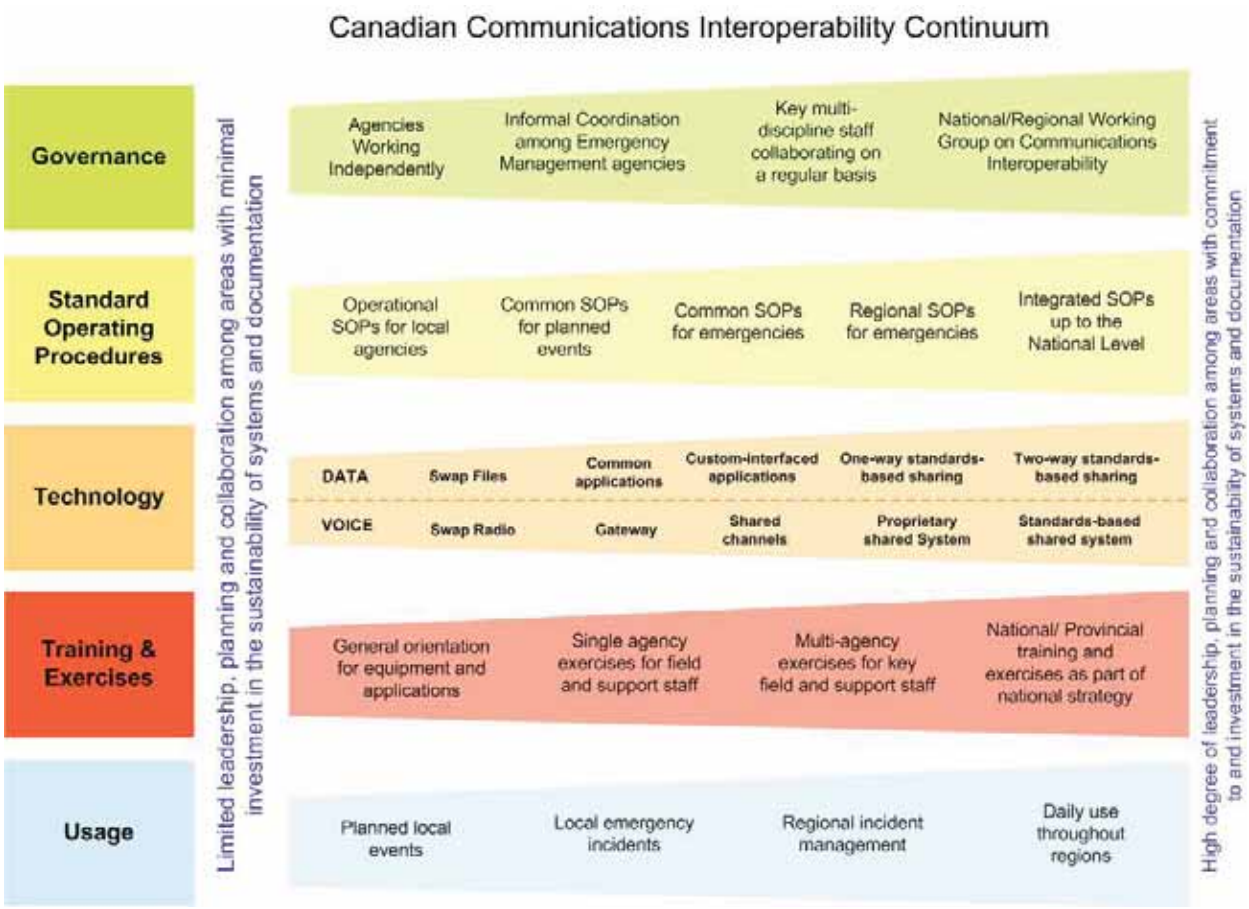


Figure 1: Canadian Communications Interoperability Continuum

As this graphic suggests, proficiency in all five of these elements is needed to achieve the best possible interoperability and compatibility. Furthermore, the Continuum should not only be read horizontally, but vertically as well. The implementation of initiatives requires attention in each of the lanes. For example, procurement initiatives should not solely focus on the technology lane, but should encompass every lane. Governance is needed to decide on the equipment requirements, standard operating procedures that explain the equipment's operational use need to be developed, training must occur on the new equipment, and usage must be ensured by all relative agencies on a daily basis.

3.3 Ontario Assessment of Interoperability Systems (OASIS) – The Ontario Continuum

The Ontario Interoperability Continuum is published in the form of the Ontario Assessment of Interoperability Systems. OASIS is a self-assessment interoperability tool that identifies interoperability challenges from individual agencies through to provincial capabilities. This tool uses the Interoperability Continuum concepts as the basis to the gap analysis. However, it provides more granularity than the National model allowing for a bottom-up approach to interoperability solutions.

Refer to Appendix B – Ontario Assessment of Interoperability Systems Tool

3.4 Functional and Technical Interoperability

Functional interoperability allows all levels of diverse organizations, to operate within, and collaborate across organizational boundaries in order to achieve common objectives. This can be achieved using a common language, operating under a common structure (IMS) and agreeing to common methods and standards for communication and information sharing.

Functional interoperability includes all five aspects of the continuum.

Who do you need to communicate with – when and how does this need to happen.

Technical Interoperability comprises of the tools required that enable functional interoperability to take place.

It cannot be assumed that effective communication will take place just because a technology has been introduced

3.5 A Practitioner Led Approach to Interoperability

Emergency Management in Ontario starts at the local level; as does interoperability. It is the intent of this Strategy to use a practitioner led approach to achieve interoperability throughout the province. The collaboration and cooperation of emergency response agencies [municipal, provincial or private] will champion interoperability and ensure this Strategy's success.

3.6 Incident Management System

Interoperability is the backbone of the Incident Management System (IMS). IMS has a standardized system that provides functional interoperability at all levels of emergency management. IMS is a scalable approach based on the following principles and concepts:

- All incidents responses can be organized using the functional areas of activity: Command, Operations, Planning, Logistics, and Finance & Administration
- IMS is applicable at all incidents and by all levels of response
- The system is scalable and modular
- The use of common terminology and criteria ensures mutual understanding amongst responders and facilitates the exchange of resources

3.7 Critical Infrastructure Assurance Program

Critical infrastructure is defined as interdependent, interactive, interconnected networks of institutions, services, systems and processes that meet vital human needs, sustain

the economy, protect public health, safety and security, and maintain continuity of and confidence in government.

The vision of the Critical Infrastructure Assurance Program is to become disaster resilient and sustainable during threats from all hazards through the collaborative effort of government and the private sector. Interoperability is an integral component to the success of this initiative through engagement, collaboration and communication between sectors, stakeholders, and all levels of government.

3.8 Strategic Direction

By following the key elements of the Interoperability Continuum, a practitioner-led approach will achieve a sophisticated interoperability solution that is customized to suit local requirements.

In support of this initiative, the Ontario Association of Chiefs of Police, Ontario Association of Paramedic Chiefs, Ontario Association of Fire Chiefs, and Ontario Association of Emergency Managers have endorsed this Strategy and are working together on interoperability solutions.

Assumptions:

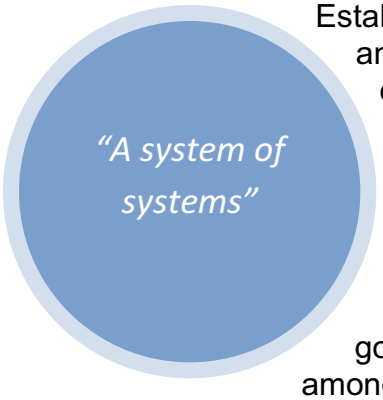
- This is a common goal among stakeholders
- All stakeholders will cooperate for the greater good
- All stakeholders understand the need to look beyond the community
- Each step will be phased in over time by each stakeholder in each community
- There is a cultural alignment towards interoperability

Governance:
Governance should:

- gain leadership commitment from all disciplines (i.e. police, fire, EMS)
- foster collaboration across disciplines through leadership support
- interface with policy makers to gain leadership commitment and resource support
- plan and budget for ongoing updates to systems, procedures, and documentation
- ensure collaboration and coordination across all Interoperability Continuum elements
- gain support from all levels of government – politically and administratively

Thus providing a governance framework in which stakeholders can collaborate and make decisions that represent a common objective. Achieving interoperability requires a partnership among emergency response organizations across all levels of government.

Standard Operating Procedures (SOPs):



Established SOPs enable emergency responders to successfully coordinate an incident response across disciplines and jurisdictions. Clear and effective SOPs are essential in the development and deployment of any interoperable communications solution.

Technology: Data and Voice:

Technology is a critical tool for improving interoperability, but it is not the sole driver of an optimal solution. Successful implementation of data and voice communications technology is supported by strong governance and is highly dependent on effective collaboration and training among participating agencies and jurisdictions. Technologies should meet the needs of practitioners on the frontlines and should address regional needs, existing infrastructure, cost vs. benefit, and sustainability. The technologies described within the Continuum must be scalable in order to effectively support day-to-day incidents as well as large-scale disasters. Many times, a combination of technologies is necessary to provide effective communications among emergency responders. Security and authentication challenges are present in each technology and must be considered in all implementation decisions.

Training and Exercises:
Implementing effective training and exercise programs to practice communications interoperability is essential for ensuring that the technology works and responders are able to effectively communicate during emergencies.

Usage: Integration of interoperability in day-to-day operations.

Refer to the OASIS tool (Appendix B) to help identify current state of interoperability, gap analysis, and preferred end state.

3.9 Strategic Initiative

In today's' fiscal environment, it will be important to leverage existing resources. The Province of Ontario already has legislation in the form of the Emergency Management and Civil Protection Act, as well as a provincial radio system. POINT will also play a role in assisting municipalities develop their interoperability strategies.

The Province of Ontario has acquired 10 MHz of the 700 MHz broad band spectrum.[6]

The priorities of POINT and this Strategy are as follows:

1. Further development of this Strategy and its 3-year work plan
2. Interoperability education and promotion
3. Implementation of this Strategy

[6] The remaining 10 MHz should be acquired by the time this document is published.

3.10 Three-year Work Plan

Year One	• Seek endorsement of partners • First draft of this Strategy for general distribution Jan 15, 2013 • Launch and pilot OASIS • Interoperability education and promotion campaign developed by Jan 15, 2013 • Research metrics project • Acquire sustainable funding • Education of CEMCs, EMS students, Fire college, Police college • Develop scenario-based information exchange • Develop Action Plans ○ Including the management of 700 MHz
Year Two	• Community level interoperability development assistance and education • Web-based OASIS in order to measure interoperability capabilities by community/agency/government
Year Three	• Provincial-level interoperability strategic plan and implementation • Integration in OPS strategic plan

3.11 Performance Measures

A set of long-term performance measures and success indicators have been identified and will be further developed as this Strategy evolves. These measures are:

- Progress in each lane of the Interoperability Continuum;
- Ability and effectiveness of municipal, regional, provincial, NGOs, and private sector stakeholder to interoperate during emergency responses;
- Direct and indirect interoperability funding;
- Number of new or revised joint SOPs, agreements, training and exercises;
- Frequency of use and familiarity with interoperability systems and processes.
- Gap analysis using OASIS to identify level of interoperability

Critical success factors include:

- Reduced injury, death, and property loss caused in whole or in part by the lack of interoperability
- More surge capacity

- Improved situational awareness
- Increased operational efficiency
- Increased technology compatibility
- Use of common language and processes
- Cost savings due to buying power
- Integrating interoperability into Fire, Police, EMS and Emergency Management education and training curriculums

4. Development of Local Interoperability Programs

If a community is intending to develop a local interoperability program, consider these points:

- ✓ Who is your Interoperability Champion?
- ✓ Who are your partners?
- ✓ Who needs to know what? Consider span of control.
- ✓ Who do you need to talk to?
- ✓ How are you going to talk to them?
- ✓ Who do you operate with?
- ✓ How do you operate now?
- ✓ Does your agency/community use a common operating structure?
- ✓ Are your staff trained to IMS 100? IMS 200?
- ✓ How do you currently communicate within agencies? Between agencies?
- ✓ What are your shortfalls? Why?
- ✓ Do you have senior management engagement and commitment?
- ✓ Do you have sustainability; the resources necessary to implement and advance the program?

4.1 Moving Forward

Using the OASIS tool, a community will be able to identify where they are positioned on the Interoperability Continuum and where the challenges exist. Is it funding? Is it technology? Or does the technology exist, however there is no governance for all stakeholders to utilize the technology effectively?

The community must then determine to what end they need to be along the continuum. Perhaps it is not necessary or required for a local government to be fully interoperable between provinces, but definitely required between neighbouring municipalities. Or simply within the local community itself?

Developing an interoperability program that includes the key aspects of interoperability - Governance, Standard Operating Procedures, Technology, Training and Exercises, and Usage - will ensure its success and progression along the continuum.

End State

The ability for all responding agencies and communities to fully communicate and interoperate with all partners to resolve the common objective

Appendix A Province of Ontario Interoperability Task Group Governance and Charter

Introduction

The Province of Ontario Interoperability Task Group (POINT) exists to support the provincial government's strategic plan for "A safe, strong, secure Ontario". POINT will be a leader among partners advancing interoperability within the Province of Ontario and will serve as a centre of excellence, including a forum for the advancement of interoperability among government agencies, public sector organizations, provincial communities and the private sector.

The POINT Task Group is the provincial body accountable to the Commissioner of Emergency Management who will furnish leadership for Interoperability in the Province of Ontario.

The POINT Task Group is looking to work with and build-upon the excellent work carried out so far by many of the agencies, communities and other organizations involved in Emergency Management, including those who can also contribute to advancing interoperability in the Province of Ontario and in harmony with our national and international partners.

It is necessary for Agencies to communicate or share critical information between themselves in day-to-day operations, emergency response and recovery scenarios and planned events. Failure to accomplish the mission in each situation could result in the loss of life and property.

The POINT Task Group focus is squarely on the functional aspects of interoperability which include all five of touchstones of the Interoperability Continuum: Governance, Standard Operating Procedures, Technology, Usage, Training and Exercises.

Values

The values governing the POINT Task Group's development will include, but are not limited to the following:

- Will foster a climate which encourages the advancement of interoperability among emergency management professionals.
- Will operate in accordance with the highest standards in all relationships with first responders, communities, government ministries, non-government organizations and the private sector.

Without restraint, the POINT Task Group will share its expertise and knowledge of interoperability to any Agency or Emergency Management professional.

Operating Principles

- **Simplicity.** We will not reinvent the wheel—the POINT Task Group will build upon and advance the good work that is already in progress or completed and recognizable.
- **Leadership not ownership**. Recognition that interoperability in Ontario is driven by necessity. The POINT Task Group's job is to ensure that good work among stakeholders is identified and remains nested in both Provincial and National Strategies.
- **Collaboration.** The POINT Task Group will encourage and support collaborations between agencies and communities who currently have, or are about to, implement and operate an interoperability program.
- **Innovation.** The POINT Task Group will pursue and share progressive and innovative interoperability solutions.
- **Achieve professional excellence**. The POINT Task Group will continue to build its professional acumen and dedicate this competency to all stakeholders.
- **Communication.** Maintain vigorous communication by sharing issues, views and challenges to any agency that wishes stay informed, understand or implement an interoperability program.

Governance

For functional interoperability to improve within the Province of Ontario, collaboration and participation from a wide range of stakeholders is essential. A formalized, provincial governance system provides a unified approach among multiple Agencies; this approach aids the effectiveness, and overall support for functional interoperability. Establishing a governing body is critical to successfully addressing the key challenges associated with achieving functional interoperability. Provincial governance and coordination also provide the framework in which Agencies can collaborate and make decisions that reflect shared objectives.

Governance Model {Approved by the Assistant Deputy Minister of Community Safety}

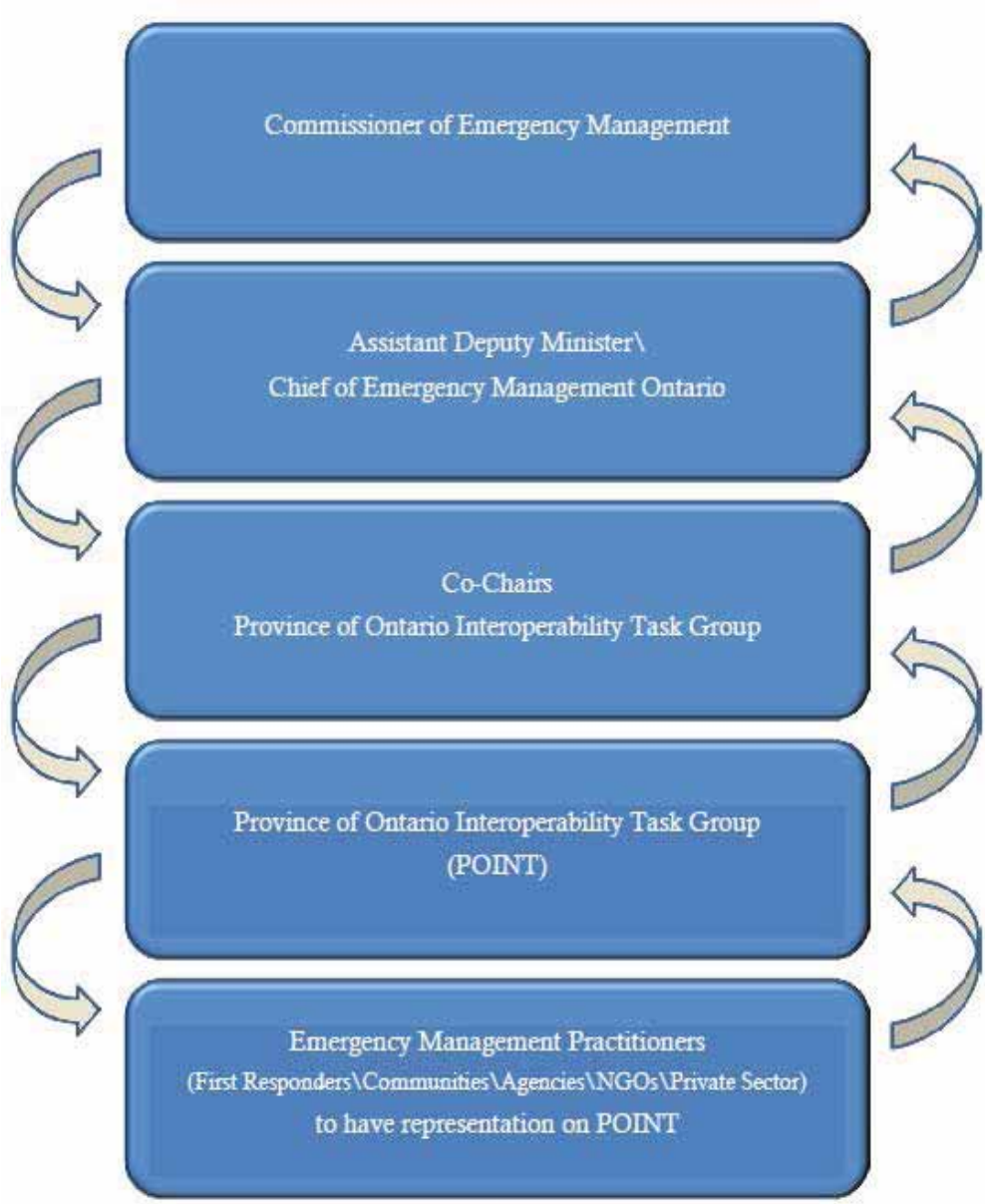


Figure 1 summarizes the governance structure for the POINT Task Group.

Governance Roles

- The Commissioner of Emergency Management has an oversight and implementation responsibility to the provincial interoperability program.
- The Commissioner of Emergency Management is responsible for an annual review of a provincial interoperability program and providing strategic direction to the POINT Task Group.

- The Assistant Deputy Minister/Chief of Emergency Management Ontario will continually evaluate the performance of the POINT Task Group and its members.

Authority

The POINT Task Group has the authority to evaluate the state of both current and emerging technologies including issues regarding interoperability in order to create a plan for interoperability within Ontario. Oversee the implementation of the plan, and develop appropriate policies, procedures and guidelines that can be used by all stakeholders within Ontario.

Create a common platform for stakeholders to monitor the progress by establishing metrics for each of the five touchstones on the continuum that measure interoperability progress through initiatives through tools such as OASIS (Ontario Assessment of Interoperability Systems)

This POINT Task Group can make recommendations to help direct the use of funding earmarked for improvements and operational upgrades to improve public safety through interoperability.

This POINT Task Group will also try to identify any potential\additional resources or funding that could be allotted to stakeholders for interoperability programs.

All policies, plans and projects that support a provincial interoperability plan will be submitted to and approved by the Assistant Deputy Minister\Chief of Emergency Management Ontario.

Deliverables

The POINT Task Group's deliverables include:

a) To furnish a centre of excellence, including the provision of an internet based centralized resource to the Province of Ontario.
b) Create a common vision for interoperability in Ontario.
c) Encourage interoperability through use of funding opportunities.
d) Identify what needs to be achieved by all partners to create and support a Provincial Interoperability Program.
e) Produce and present provincial position document\s on appropriate allocation of the 700MHZ spectrum for emergency stakeholders
f) Ontario Assessment of Interoperability Systems (OASIS)

The POINT Task Group will communicate with any provincial agency requesting assistance with partnerships that have been established in order to enhance local and provincial interoperable capabilities

Scope

Government	Agency	Level
• Federal • Provincial • Local • Multi-Region	• First Responders • Communities • Ministries • Non-Government Organizations • Private Sector	• Executive • Emergency Operations Centre • Dispatch/ • Communications Center • Incident Command • Tactical (Field)
Function	**Type**	**Usage**
• Equipment & Technology. • Utilization & Operations.	• Non technical • Voice • Data • Video	• Day-to-day • Unplanned Incident • Planned Event

1. Government

The POINT Task Group will:

- Work toward identifying initiatives that improve provincial public safety, while understanding that there is the possibility that locally implemented initiatives could also improve a Provincial interoperability program.
- Work with all Agencies to prevent or eliminate duplication of effort. This may include recommending the coordination of procurement decisions among the various Agencies.
- Coordinate with all Agencies to keep them updated on POINT Task Group activities and provincially led initiatives.
- Identify ways to coordinate activities through sharing resources or technologies.
- Develop relationships that will increase awareness to ensure the success of interoperability initiatives.

2. Agency

- The POINT Task Group will assist any Agency that wishes to develop, implement or improve interoperability program\s.

3. Level

- The POINT Task Group will address functional interoperability at all levels of operation and authority.

4. Function

- The POINT Task Group will advise on the technology and operational components of functional interoperability. Technical also includes equipment procurement and maintenance. Operational means governance, authorization, standard operating procedures, Incident Command and training.

5. Type

- The POINT Task Group will provide guidance on functional and technical solutions that will achieve interoperability at all levels.

6. Usage

- The POINT Task Group has identified 4 distinct areas of interoperability to address:
    - Day-to-Day – Routine within a jurisdiction (interdisciplinary)
    - Day-to-Day – Routine inter- jurisdictional (mutual aid)
    - Unplanned incident (interdisciplinary / inter-jurisdictional)
    - Planned Event (interdisciplinary / inter-jurisdictional)

Membership

The POINT-Task group will be an inter-disciplinary team consisting of stakeholders whose knowledge and experience can be utilized in the field of interoperability.

In order to maintain optimal representation, representatives from various Agencies will be invited to make up the permanent membership of the POINT Task Group.

Voting members are responsible for representing their particular Agency\Community. If a voting member is unable to attend a POINT Task Group meeting, an alternative voting member from that discipline may be appointed for that meeting. The voting member must notify the POINT Task Group coordinator prior to the meeting that an alternate has been designated to represent him/her at the meeting. Without such prior notification, the alternate will not count when determining if a quorum has been established or be allowed to participate in votes during the meeting. Nonvoting members will have a participatory role within POINT.

Individually, POINT Task Group members will come from and represent a wide variety of agencies and communities across Ontario. Collectively they will represent the overall interests of stakeholders within the Province.

As necessary, the POINT Task Group may invite, on a temporary basis, subject matter experts to meetings. These subject matter experts may come from any Federal or Provincial agency, Municipalities, Public Safety emergency management professionals, Planning organizations or Specialist groups.

Current Member Agencies

At this point the members of POINT include but are not limited to Ontario Power Generation (OPG), Office of the Fire Marshall (OFM), Ontario Municipal Administrators Association (OMAA), Ontario Association Chiefs of Police (OACP), Ontario Association of Fire Chiefs (OAFC), Community Emergency Management Coordinators (CEMC), Ontario Association of Emergency Managers (OAEM), Industry Canada (IC), Public Safety Canada (PSC), Ontario Paramedic Association (OPA), Association of Municipalities of Ontario (AMO), York Regional Police (YRP), Department of National Defence (DND), Ontario Provincial Police (OPP), Ministry of Natural Resources (MNR), Ontario Critical Infrastructure Program (OCIP), Ministry of Government Services (MGS), Emergency Management Ontario (EMO).

Management

Committee decision making process:

- Each member of the POINT Task Group has one vote.
- If the voting member is unable to attend, the alternate voting member will cast the vote.
- Simple majority rules. All decisions and recommendations approved by a simple majority will be considered a decision or recommendation of the POINT Task Group when presented to The Assistant Deputy Minister/Chief of Emergency Management Ontario. As much as possible, the majority opinion will be reflected.
- POINT Task Group committee members are free to express to the groups they represent how they voted/stood on the position.
- A two thirds majority vote is required for charter amendments.
- Quorum will be met when 10 voting members (or their designated alternatives) are present. If a sufficient quorum is not achieved, votes will be tabled.
- Decisions and recommendations will be reported through the POINT Task Group chair or a designated representative.
- The POINT Task Group will report status, actions and recommendations to a larger audience through a communications plan developed in partnership with member agencies. The communication plan will be developed independent of this charter.

- A more formalized organizational structure will evolve over time with defined roles and responsibilities. Expansion plans will include working groups and committees as they are vital to achieving programmatic success, and the governance document will be adjusted to reflect the formation of such groups.

Co-chairs

The POINT Task Group will be led by two chairs chosen by election at an annual meeting by a simple majority vote. The duration of the commitment shall be for one year, until the next annual meeting. The nominations for the position will be collected at regional meetings by PTG members and elected with a simple majority vote. A rotational cycle between key agencies will be encouraged to allow for balanced representation among the different agencies and regions.

Meeting Frequency and Logistics

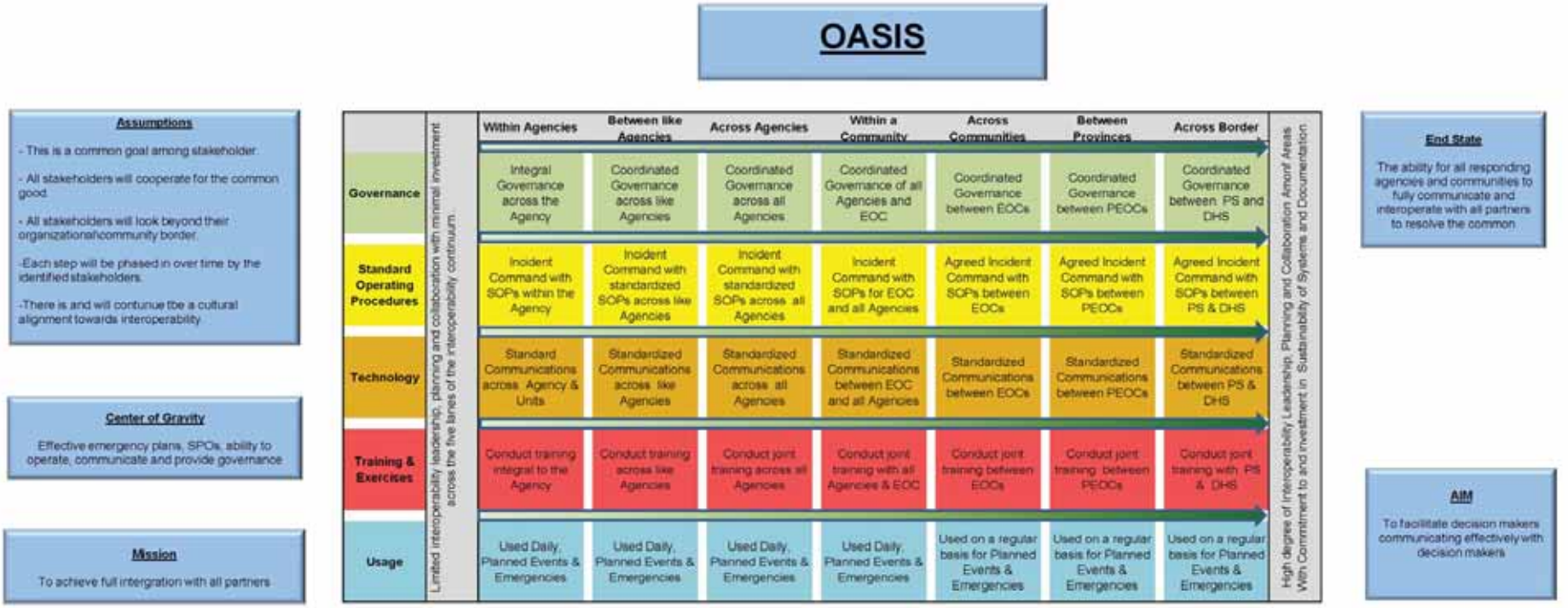
The POINT Task Group will meet as necessary to implement or approve the initiatives set forth in the program. Where possible/practical, The POINT Task Group will meet at various facilities across the Province provided by each POINT Task Group member on a rotating basis. A meeting calendar will be developed and will be available on the CITIG website in the interim transitioning to a dedicated portal to provide a single point of contact and messaging for POINT.

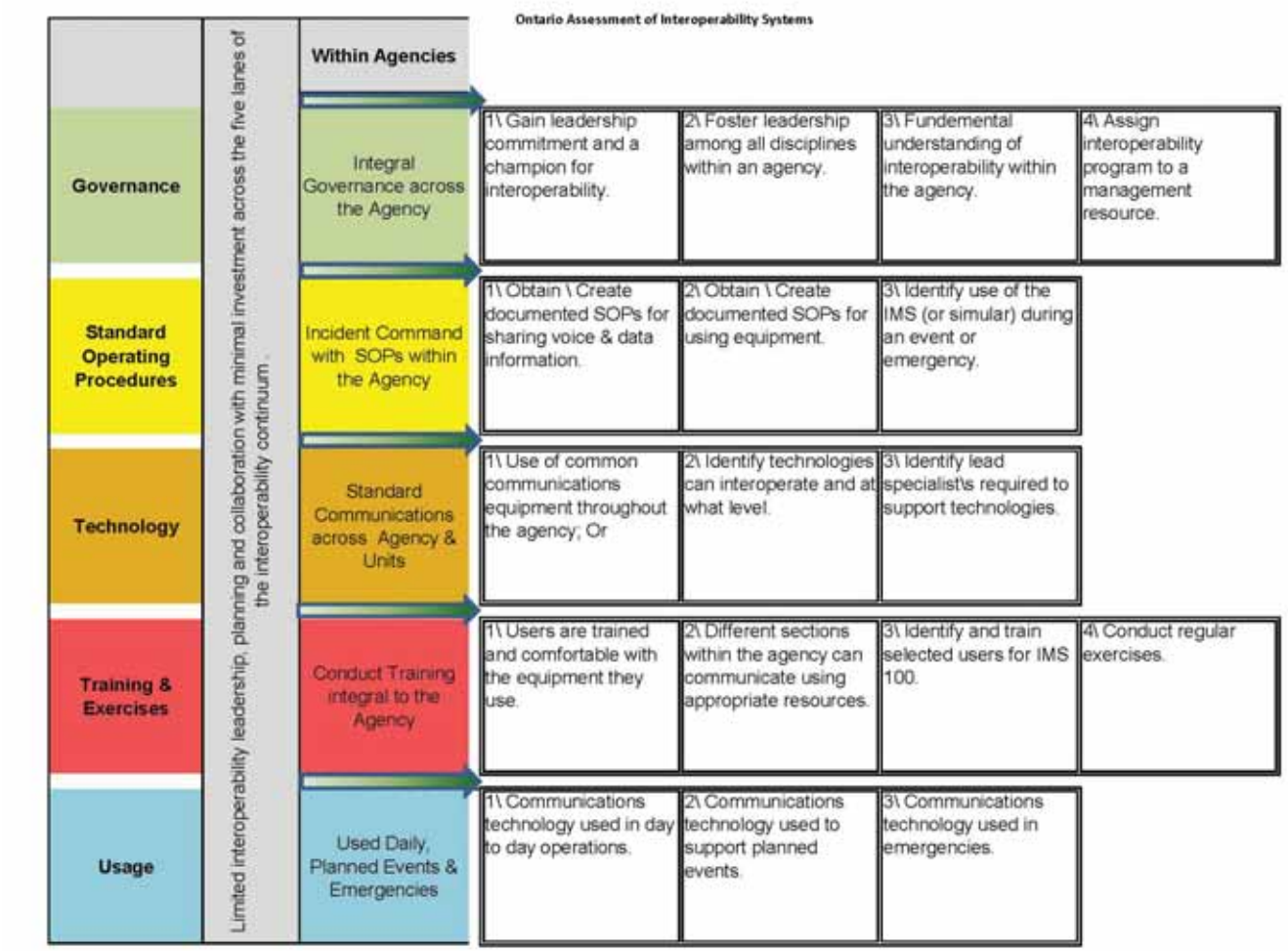
Long Term Priorities and Objectives

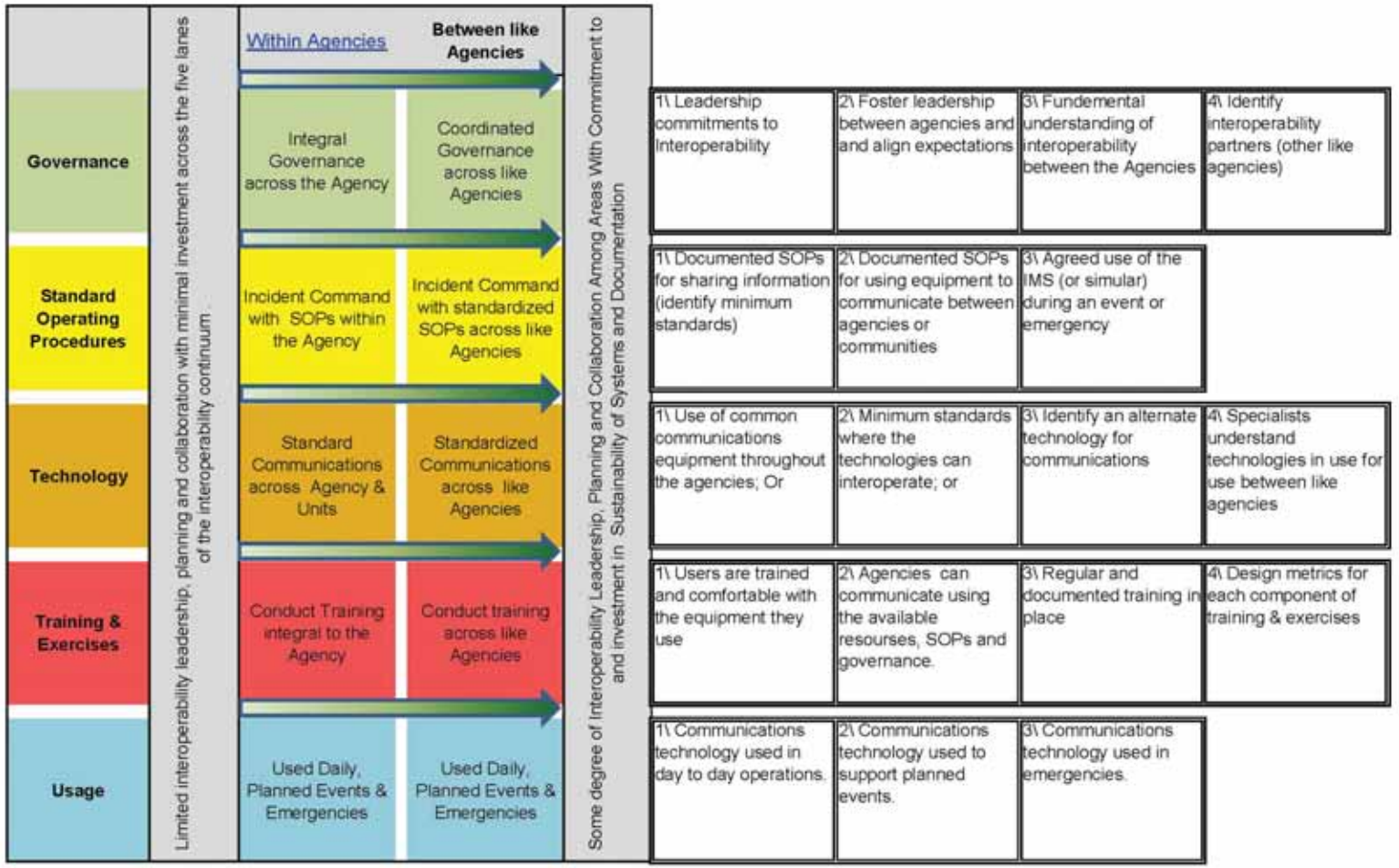
This POINT Governance document is a living document that will be updated on an annual basis to maintain the province wide plan for communications interoperability in the Province of Ontario. This will include an annual status review of deliverables, gap analysis to determine what needs to be achieved by all partners to support provincial interoperability. This governance document includes the one year plan. Inclusion into future governance documents will be the development of long range objectives in the form of goal setting of 1, 3, 5 year directives.

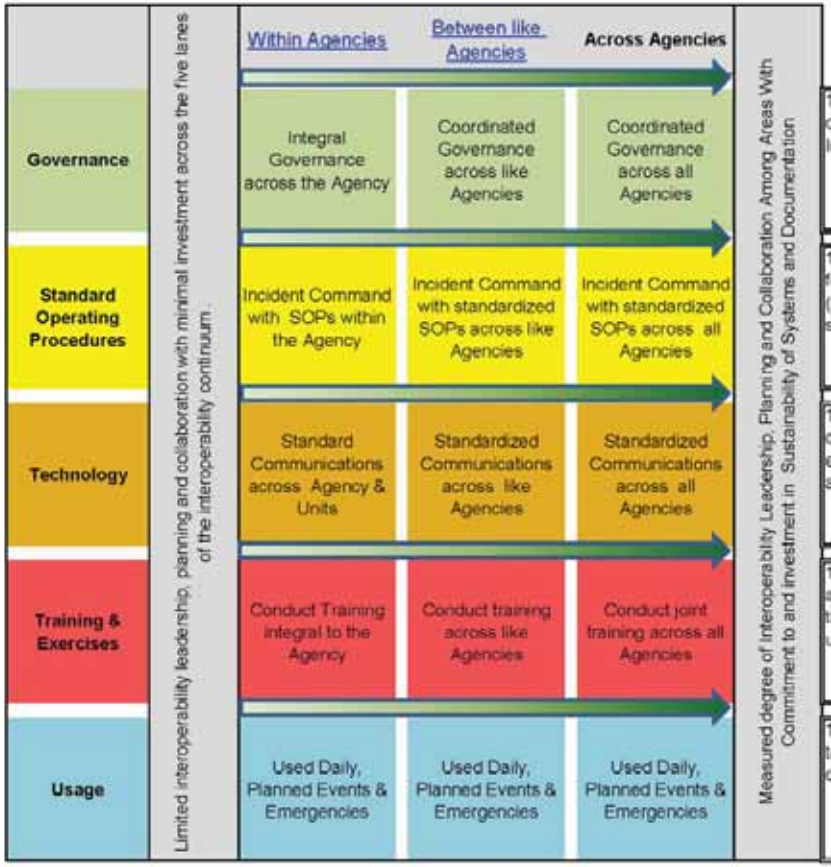
The governance document describes the purpose, authority, outcomes, scope, operating principals, membership and management by which POINT will achieve success and the end state of interoperability of a high degree of leadership, planning, collaboration among areas with commitment to and investment in sustainability of systems and documentation to improve public safety response through effective and efficient interoperability.

Appendix B Ontario Assessment of Interoperability Systems Tool

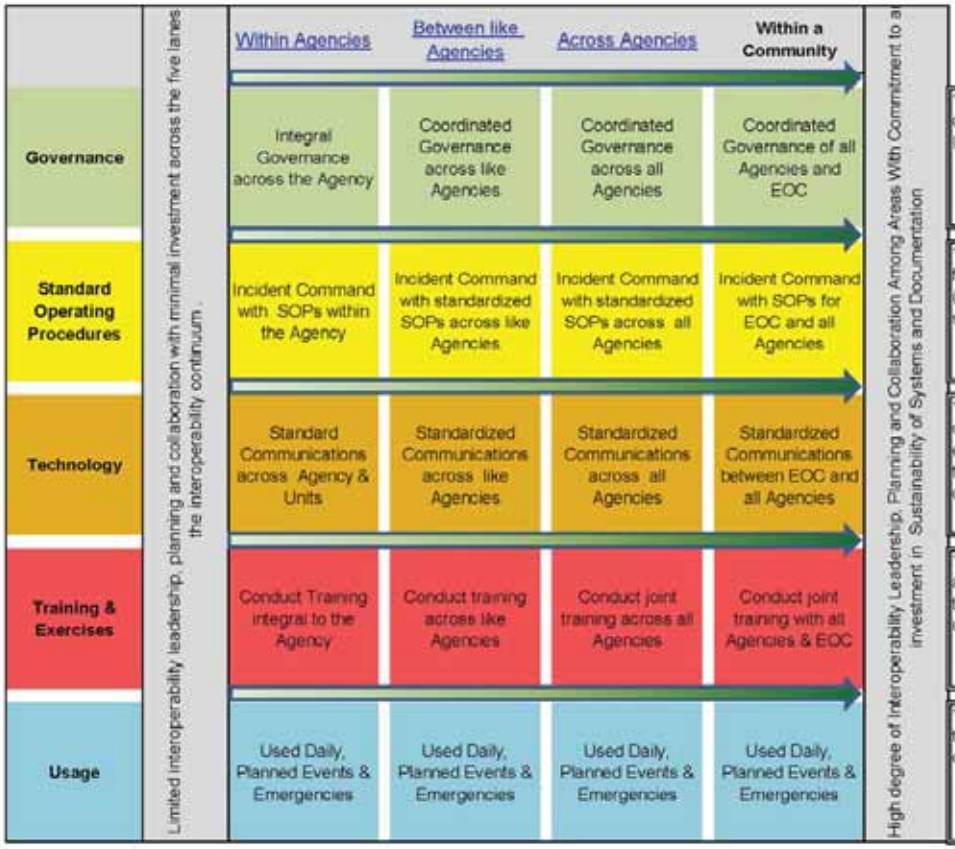



Ontario Assessment of Interoperability Systems
Within Agencies
Governance
Standard Operating Procedures
Technology
Training & Exercises
Usage
Limited interoperability leadership, planning and collaboration with minimal investment across the five lanes of the interoperability continuum.
Integral Governance across the Agency
Incident Command with SOPs within the Agency
Standard Communications across Agency & Units
Conduct Training integral to the Agency
Used Daily, Planned Events & Emergencies
1\ Gain leadership commitment and a champion for interoperability.
2\ Foster leadership among all disciplines within an agency.
3\ Fundemental understanding of interoperability within the agency.
4\ Assign interoperability program to a management resource.
1\ Obtain \ Create documented SOPs for sharing voice & data information.
2\ Obtain \ Create documented SOPs for using equipment.
3\ Identify use of the IMS (or simular) during an event or emergency.
1\ Use of common communications equipment throughout the agency; Or
2\ Identify technologies can interoperate and at what level.
3\ Identify lead specialist\s required to support technologies.
1\ Users are trained and comfortable with the equipment they use.
2\ Different sections within the agency can communicate using appropriate resources.
3\ Identify and train selected users for IMS 100.
4\ Conduct regular exercises.
1\ Communications technology used in day to day operations.
2\ Communications technology used to support planned events.
3\ Communications technology used in emergencies.

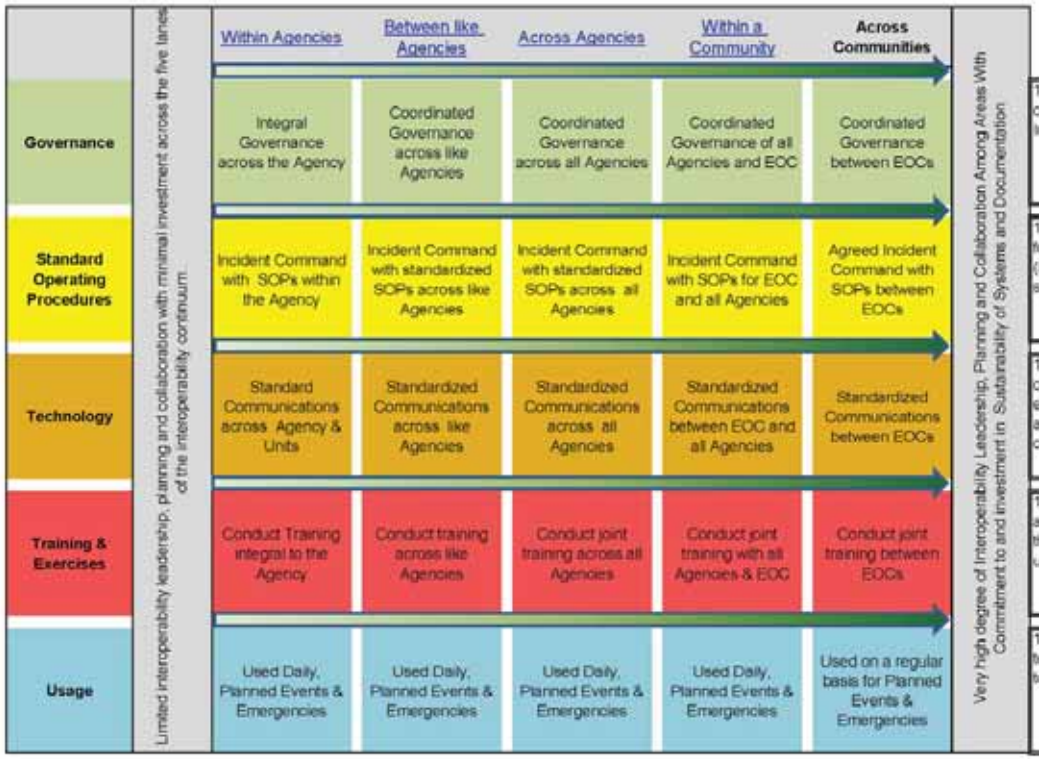

Within Agencies
Between like Agencies
Governance
Standard Operating Procedures
Technology
Training & Exercises
Usage
Limited interoperability leadership, planning and collaboration with minimal investment across the five lanes of the interoperability continuum
Integral Governance across the Agency
Coordinated Governance across like Agencies
Incident Command with SOPs within the Agency
Incident Command with standardized SOPs across like Agencies
Standard Communications across Agency & Units
Standardized Communications across like Agencies
Conduct Training integral to the Agency
Conduct training across like Agencies
Used Daily, Planned Events & Emergencies
Used Daily, Planned Events & Emergencies
Some degree of Interoperability Leadership, Planning and Collaboration Among Areas With Commitment to and investment in Sustainability of Systems and Documentation
1\ Leadership commitments to Interoperability
2\ Foster leadership between agencies and and align expectations
3\ Fundemental understanding of interoperability between the Agencies
4\ Identify interoperability partners (other like agencies)
1\ Documented SOPs for sharing information (identify minimum standards)
2\ Documented SOPs for using equipment to communicate between agencies or communities
3\ Agreed use of the IMS (or simular) during an event or emergency
1\ Use of common communications equipment throughout the agencies; Or
2\ Minimum standards where the technologies can interoperate; or
3\ Identify an alternate technology for communications
4\ Specialists understand technologies in use for use between like agencies
1\ Users are trained and comfortable with the equipment they use
2\ Agencies can communicate using the available resourses, SOPs and governance.
3\ Regular and documented training in place
4\ Design metrics for each component of training & exercises
1\ Communications technology used in day to day operations.
2\ Communications technology used to support planned events.
3\ Communications technology used in emergencies.



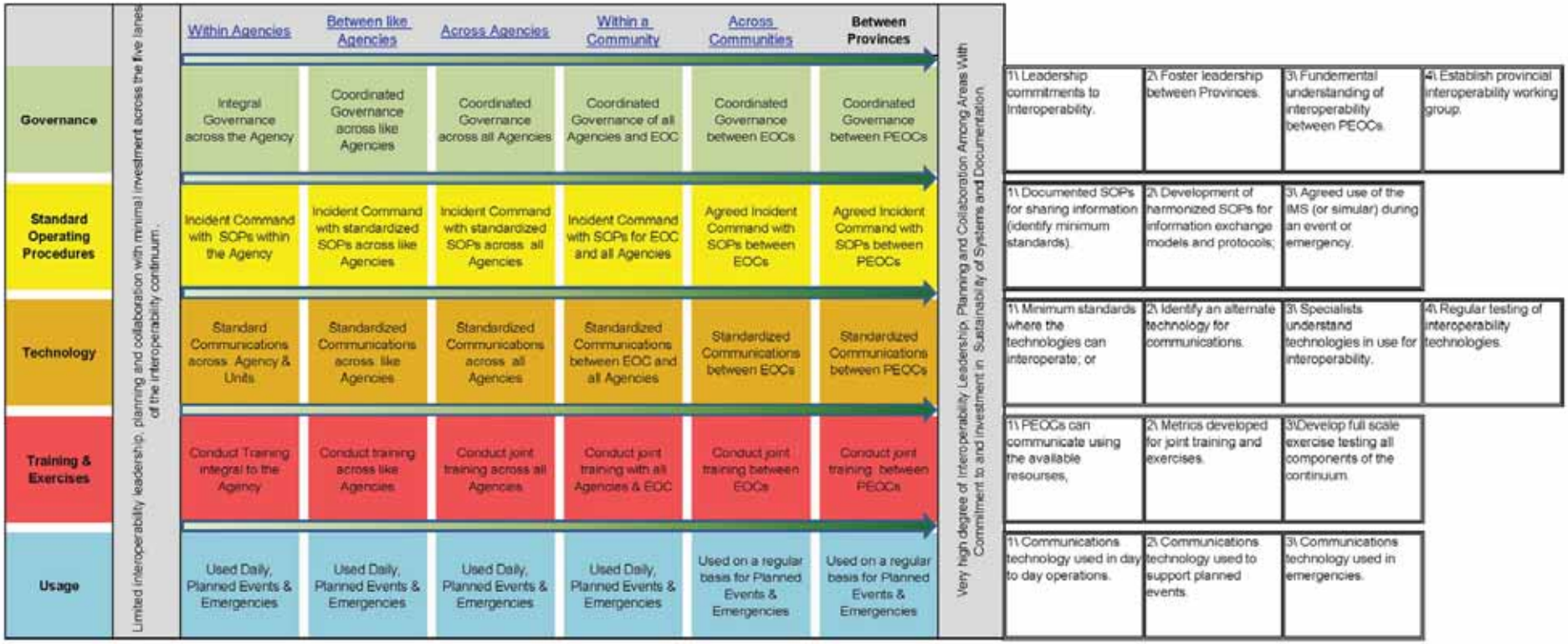
1\ Leadership commitments to interoperability.	2\ Foster leadership across agencies and and align expectations.	3\ Fundemental understanding of interoperability across agencies.	4\ Setup of interoperability working group.	5\ Identify interoperability partners (who do you need to talk to and when).
1\ Documented SOPs for sharing information (identify minimum standards).	2\ Development of harmonized SOPs for information exchange models and protocols;	3\ Documented SOPs for using equipment to communicate across agencies.	4\ Agreed use of the IMS (or simular) during an event or emergency.	5\ Develop tabletop exercise to test SOPs.
1\ Use of common communications equipment across agencies; or	2\ Minimum standards where the technologies can interoperate; or	3\ Identify an alternate technology for communications.	4\ Specialists understand technologies in use for interoperability.	5\ Regular testing of interoperability technologies.
1\ Users are trained and comfortable with the equipment they use.	2\ Appropriate sections across agencies can communicate using the available resources,	3\ Regular and documented user training in place.	4\ Metrics developed for joint training and exercises.	5\Develop full scale exercise testing all components of the continuum.
1\ Communications technology used in day to day operations.	2\ Communications technology used to support planned events.	3\ Communications technology used in emergencies.		

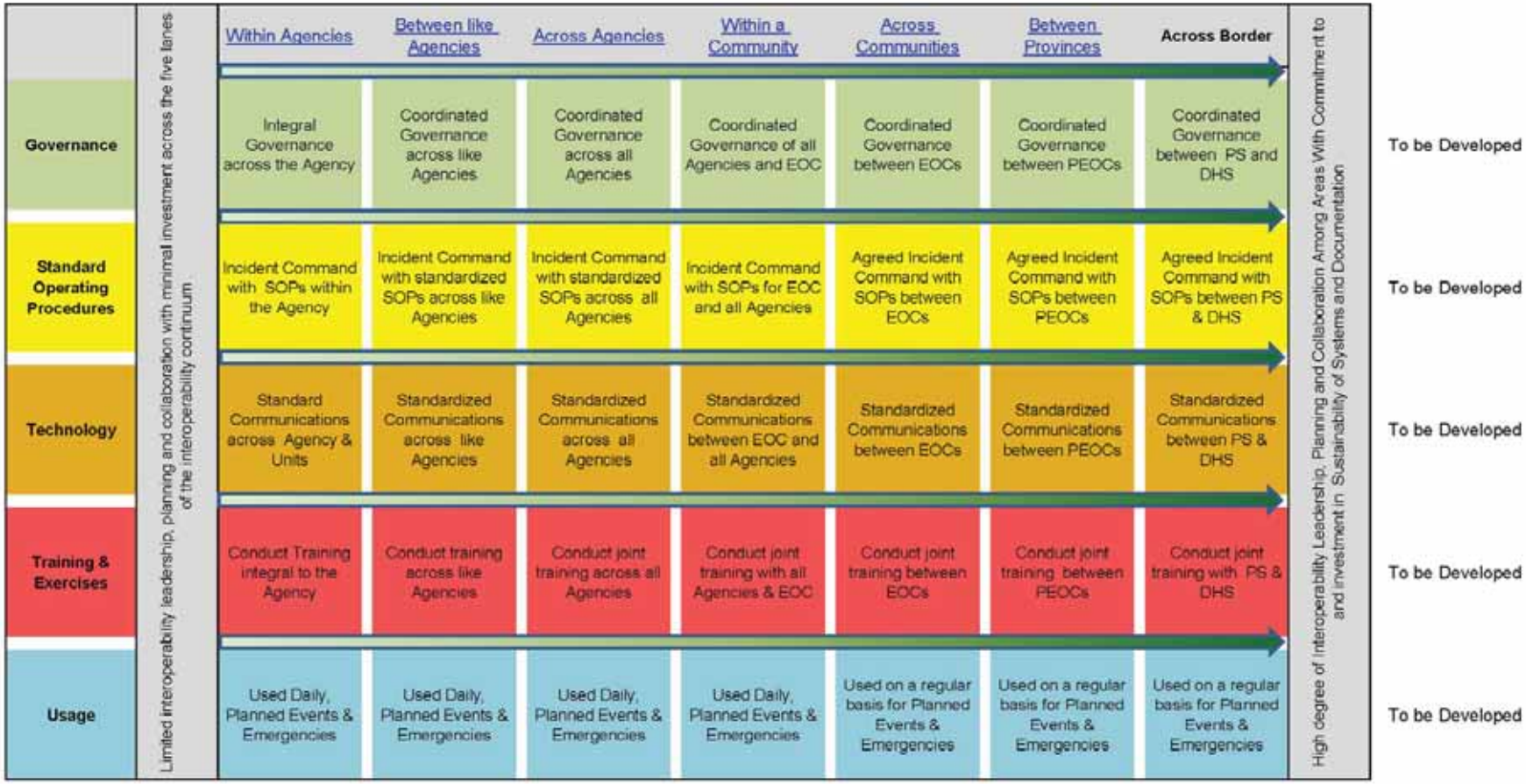


1\ Leadership commitments to interoperability.	2\ Foster leadership between agencies, community and and align expectations.	3\ Fundemental understanding of interoperability between the agencies and community.	4\ Review terms of reference for the interoperability working groups.	5\ Develop tabletop exercise for governance.
1\ Documented SOPs for sharing information (identify minimum standards).	2\ Development of harmonized SOPs for information exchange models and protocols;	3\ Documented SOPs for using equipment to communicate between agencies and community.	4\ Agreed use of the IMS (or simular) during an event or emergency.	5\ Develop tabletop exercise for SOPs.
1\ Use of common communications equipment throughout the agencies and community; or	2\ Minimum standards where the technologies can interoperate; or	3\ Identify an alternate technology for communications.	4\ Specialists understand technologies in use for interoperability (Setup interoperability technology team).	5\ Regular testing of interoperability technologies.
1\ Users are trained and comfortable with the equipment they use.	2\ Appropriate agencies can communicate with EOC using the available resources.	3\ Regular and documented user training in place.	4\ Metrics developed for joint training and exercises.	5\Develop full scale exercise testing all components of the continuum.
1\ Communications technology used in day to day operations.	2\ Communications technology used to support planned events.	3\ Communications technology used in emergencies.		



1\ Leadership commitments to interoperability.	2\ Foster leadership across agencies and communities and and align expectations.	3\ Fundemental understanding of interoperability between the agencies and communities.	4\ Review terms of reference of interoperability working group\s.	5\ Develop tabletop exercise for governance.
1\ Documented SOPs for sharing information (identify minimum standards).	2\ Development of harmonized SOPs for information exchange models and protocols.	3\ Documented SOPs for using equipment to communicate across agencies and communities.	4\ Agreed use of the IMS (or simular) during an event or emergency.	5\ Develop tabletop exercise for SOPs.
1\ Use of common communications equipment across the agencies and communities; Or	2\ Minimum standards where the technologies can interoperate; or	3\ Identify an alternate technology for communications	4\ Specialists understand technologies in use for interoperability (review membership of technology team)	5\ Regular testing of interoperability technologies.
1\ Users are trained and comfortable with the equipment they use.	2\ Appropriate sections across agencies and communities can communicate using available resources.	3\ Regular and documented user training in place.	4\ Metrics developed for joint training and exercises.	5\Develop full scale exercise testing all components of the continuum.
1\ Communications technology used in day to day operations.	2\ Communications technology used to support planned events.	3\ Communications technology used in emergencies.		


Within Agencies
Between like Agencies
Across Agencies
Within a Community
Across Communities
Between Provinces
Governance
Standard Operating Procedures
Technology
Training & Exercises
Usage
Integral Governance across the Agency
Coordinated Governance across like Agencies
Coordinated Governance across all Agencies
Coordinated Governance of all Agencies and EOC
Coordinated Governance between EOCs
Coordinated Governance between PEOCs
Incident Command with SOPs within the Agency
Incident Command with standardized SOPs across like Agencies
Incident Command with standardized SOPs across all Agencies
Incident Command with SOPs for EOC and all Agencies
Agreed Incident Command with SOPs between EOCs
Agreed Incident Command with SOPs between PEOCs
Standard Communications across Agency & Units
Standardized Communications across like Agencies
Standardized Communicabons across all Agencies
Standardized Communications between EOC and all Agencies
Standardized Communications between EOCs
Standardized Communications between PEOCs
Conduct Training integral to the Agency
Conduct training across like Agencies
Conduct joint training across all Agencies
Conduct joint training with all Agencies & EOC
Conduct joint training between EOCs
Conduct joint training between PEOCs
Used Daily, Planned Events & Emergencies
Used Daily, Planned Events & Emergencies
Used Daily, Planned Events & Emergencies
Used Daily, Planned Events & Emergencies
Used on a regular basis for Planned Events & Emergencies
Used on a regular basis for Planned Events & Emergencies
Limited interoperability leadership, planning and collaboration with minimal investment across the five lanes of the interoperability continuum.
Very high degree of interoperability Leadership, Planning and Collaboration Among Areas With Commitment to and Investment in Sustainability of Systems and Documentation
1\ Leadership commitments to Interoperability.
2\ Foster leadership between Provinces.
3\ Fundemental understanding of interoperability between PEOCs.
4\ Establish provincial interoperability working group.
1\ Documented SOPs for sharing information (identify minimum standards).
2\ Development of harmonized SOPs for information exchange models and protocols;
3\ Agreed use of the IMS (or simular) during an event or emergency.
1\ Minimum standards where the technologies can interoperate; or
2\ Identify an alternate technology for communications.
3\ Specialists understand technologies in use for interoperability.
4\ Regular testing of interoperability technologies.
1\ PEOCs can communicate using the available resourses,
2\ Metrics developed for joint training and exercises.
3\Develop full scale exercise testing all components of the continuum
1\ Communications technology used in day to day operations.
2\ Communications technology used to support planned events.
3\ Communications technology used in emergencies.


Within Agencies
Between like Agencies
Across Agencies
Within a Community
Across Communities
Between Provinces
Across Border
Governance
Integral Governance across the Agency
Coordinated Governance across like Agencies
Coordinated Governance across all Agencies
Coordinated Governance of all Agencies and EOC
Coordinated Governance between EOCs
Coordinated Governance between PEOCs
Coordinated Governance between PS and DHS
To be Developed
Standard Operating Procedures
Incident Command with SOPs within the Agency
Incident Command with standardized SOPs across like Agencies
Incident Command with standardized SOPs across all Agencies
Incident Command with SOPs for EOC and all Agencies
Agreed Incident Command with SOPs between EOCs
Agreed Incident Command with SOPs between PEOCs
Agreed Incident Command with SOPs between PS & DHS
To be Developed
Technology
Standard Communications across Agency & Units
Standardized Communications across like Agencies
Standardized Communications across all Agencies
Standardized Communications between EOC and all Agencies
Standardized Communications between EOCs
Standardized Communications between PEOCs
Standardized Communications between PS & DHS
To be Developed
Training & Exercises
Conduct Training integral to the Agency
Conduct training across like Agencies
Conduct joint training across all Agencies
Conduct joint training with all Agencies & EOC
Conduct joint training between EOCs
Conduct joint training between PEOCs
Conduct joint training with PS & DHS
To be Developed
Usage
Used Daily, Planned Events & Emergencies
Used Daily, Planned Events & Emergencies
Used Daily, Planned Events & Emergencies
Used Daily, Planned Events & Emergencies
Used on a regular basis for Planned Events & Emergencies
Used on a regular basis for Planned Events & Emergencies
Used on a regular basis for Planned Events & Emergencies
To be Developed
Limited interoperability leadership, planning and collaboration with minimal investment across the five lanes of the interoperability continuum
High degree of interoperability Leadership, Planning and Collaboration Among Areas With Commitment to and investment in Sustainability of Systems and Documentation