High Assurance Messaging as Part of a Risk Management Programme in a Civil Contingency Context
Agenda

- Homeland Security & Civil Contingency Context
  - International perspectives
  - A homogenous view
- Threat Variety
- Business Continuity Model
- Critical System Requirements
- Nexor Context
US Perspective

“Homeland Security Agency …..a concerted national effort to prevent terrorist attacks within the United States, reduce America’s vulnerability to terrorism, and minimize the damage and recover from attacks that do occur.”
The creation of Public Safety and Emergency Preparedness Canada (PSEPC) fulfills the fundamental role of government to secure the public's safety and security. PSEPC is dedicated to minimizing a continuum of risks to Canadians – from risks to personal safety from crime or naturally occurring events such as severe blizzards, floods or forest fires, to threats to national security from terrorist activity.
British Perspective

The Civil Contingencies Secretariat CCS was set up to improve the UK's resilience against disruptive challenges through working with others to anticipate, assess, prevent, prepare, respond and recover. We define resilience as the ability at every level - national, regional and local - to detect, prevent and if necessary handle disruptive challenges. These could range from floods, through outbreaks of human or animal disease, to terrorist attacks.
Overall Context

Protecting critical infrastructure and responding to emergencies is a shared responsibility, requiring the full co-operation and effort of Governments, of departments and agencies, states, provinces and territories, municipalities and the private sector.
Possible Scenarios

- **Border Alert**
  - Potential terrorist attempting infiltration into US through Canada with Anthrax / Small Pox
  - Alert all border control points, Health agencies, and first responders

- **Critical Infrastructure Alert**
  - Information received on new worm/ Virus about to be launched
  - Alert all sectors to download patch

- **Coast Guard Alert**
  - Massive earthquake requires immediate evacuation due to Tsunami threat
<table>
<thead>
<tr>
<th>Threat Event</th>
<th>Pressure</th>
<th>Objective is: graceful degradation of service, minimum downtime, faster recovery.</th>
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<tbody>
<tr>
<td>Security</td>
<td>Measures</td>
<td>Pressure</td>
</tr>
<tr>
<td>Time</td>
<td>Level of Service</td>
<td>Normal (delivered) Service Level</td>
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<tr>
<td></td>
<td>BCP</td>
<td>Minimum Service Level</td>
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<td></td>
<td>RM</td>
<td>Threat event occurs</td>
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<td></td>
<td>IR</td>
<td>Maximum Allowable Downtime</td>
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<td>BRP</td>
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Critical System Requirements

- Cross domain interoperability
- Seamless integration of e-mail and critical messaging capabilities
- Maximize re-use of existing architectures

- Role and Organization based message addressing
- Guaranteed delivery and action of critical traffic
- Timeliness
- Non-repudiation of origin and receipt

- Industry Standard interfaces enhancing usability

- Compatibility and preservation of multiple security policies
- Fully auditable

In a word Nexor
Nexor Deployments

UNITED STATES
- Navy
- Army
- DMS
- Intelligence Community
- Federal Government
- Law Enforcement

UNITED KINGDOM
- Intelligence Community
- Strategic and Tactical MMHS
- Central Government
- Ministry of Defence
- Combined Warrior

EUROPE
- NATO (NMS)
- Italian and Dutch Navy
- Slovakian Army
- Luxembourg MMHS
- Portuguese MSDP
- European Central Banks

AUSTRALIA & NEW ZEALAND
- New Zealand MoD
- Australian DoD
- Queensland Government