EB4: Emergency Health Services of Nova Scotia’s Approach to Continuous Availability

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Emergency Health Services
Province of Nova Scotia
Who we are

• **EHS is responsible for pre-hospital care for the Province of Nova Scotia, Canada**

• **Oversight for 160 Ground Ambulances, Paramedics, LifeFlight Air Medical Transport, Provincial Trauma Program and the Medical Communications Center**
A quick reference point!!
The Facts

- Total landmass is 52,840 km², with approximately 25,000 km of paved highways.
- Population is approximately 978,000
- 104,000 requests for ambulance transport, 95,000 responses, 85,000 transports per year via ground ambulance. 154 vehicles traveled 9.6 million kilometers last year
We are it !!

• There is no other provider of Emergency Medical Services in the Province of Nova Scotia !!

• We have to attempt to eliminate any single point of failure !!
I will cover ..

- Evolution of our Evacuation Plan
- Technology and support process
- A review of where we have been and where we still need to go
- Lessons Learned
The questions we asked ourselves

- What would we do if some type of emergency forced us to leave our Communications Centre?
- Do we build a back-up site?
- Do we make a “mobile site”
- Do we have a plan to get there?
- Are we able to transfer operations from your primary site to the back up site?
- Will the public ever know?
- How do we mitigate risk and assure business continuity?
In the end

- We chose a fixed Back Up Site
- Attainable with the infrastructure available in NS at the time
- Provided us with a location to Train our staff, to practice Evacuation procedures and to test new technology prior to implementation
What was Key to the success

- Support of the Government Agency responsible for EHS
- Physical location - power/ phone grid
- Vendor support – Tritech, Stratus, Motorola
What we did

• We added more technology and attempted to take our “cold” site to as close to “hot“ as possible
• Used an ever greening process to cascade equipment
• Back up licensing
• It is basically a mirror to our Primary site
• Management , Responsibility and “response readiness” are a team sport with the “Operations and IT Dept’s
We needed a plan

- Once the site became Operational.. We needed to develop a “tight “ process on how we would get there

- 1st we identified what would force us to leave our Primary site

- What were the scenarios?
Once the “triggers were identified”

We need a way to ensure the Back Up site was ready in the case of Evacuation from the Primary site.

Used software to replicate data between both locations.

Had built in redundancy in our Radio systems.

We chose not to “mirror“ the phones so we could use the site for yearly training.. We use a “script system” with the Phone vendor as part of our plan.
The Plan

• As a Best Practice we wanted to ensure the “Evac plan“ did not become a binder on a shelf “ that was not tried, tested and true
• Basically there are four identified levels for us to Evacuate

• 1. Planned relocation of services
• 2. Impending threat
• 3. Loss of Critical components
• 4. Primary site Disaster
Category # 1 Planned relocation of services

• As required by EHS we perform biannual planned evacuations to the Back up site.

• Each time this occurs we assign a different Communications Supervisor to execute and manage the move.
Category # 2 - Impending Threat

Hurricane Juan
September 28 & 29, 2003

CPM
2008 WEST
Category # 3 - Loss of Critical Components
The worst !! Category 4

"I think retrieving the info from that hard drive might be a little tricky."
Overall we had been very fortunate

We had never had a “true emergency“ .. We had never had to evacuate under duress..

Although…One day the fire alarm went off .. and my staff gave me the deer in the headlights look…
Bottom Line is we needed to be ready

- It occurred to us that we practiced this for about 3 years then we decided to “kick it up a notch”

- In January 2007 we began planning for a “live exercise” that we would conduct in the middle of a “June” day

- This was referred to as ‘Operation Firestone“
The Plan

- We needed to “sell” the idea to the SMT that it would be a good idea to conduct a ‘live” Evac in the middle of a busy spring day..
- At first I am sure they thought we were crazy..
Next steps

1. Develop a “metric” to gauge the success.

2. Develop a team to monitor, observe and evaluate the entire process... without interruption to Ambulance Operations..
We were able to conduct Firestone without incident
At the end of the exercise we held a full debrief with our team and staff.
What did we learn

- From “go live” until completion it took 22 minutes. (18 mins drive time between sites)
- Because of the process and the reliable technology we used we were able to maintain continuous availability
- The IT dept can “break” the Replistor link.. in about 15 and the phone switch takes about 4 minutes
- Overall the system would have been protected
What went well

• Technology worked well… very pleased with replication software.. Minimized “start up time when crew arrived”

• Overall our Evac plan worked well.. It was easy to understand .. Our documented process was easy to follow

• Everyone gained an increased awareness on managing an “event”

• We learned a number of things we need to improve on in order to make the transition improve… possibly the use of “virtual environments”
Opportunities to improve

• We felt that the system was protected. But we still had some confusion with our staff.

• The question of what to do when the Fire alarm goes off was still not clear to all.

• So we developed an expectations chart with each assigned operational position in our Center.
Now what…

- We worked off the “lessons learned” document over the last year to ensure we can maintain the integrity of the system while keeping the safety of our staff as a primary focus.
And to ensure we stay on top of our game

- We are seeking approval to conduct a Firestone II for August 2008.