

Connections Lost – Lessons from New York, September 11, 2001

Wednesday, December 5, 2001

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This presentation is dedicated to the people who perished in the September 11 attack, in the hope that the lessons of September 11 will help us to deal with future adversity.

The WTC Event –

Impact:

- One World Trade Center (North Tower)
AA #11 –
 - Impact: 0845 EDT
 - Collapse: 1029 EDT
- Two World Trade Center (South Tower)
UA #175 –
 - Impact: 0903 EDT
 - Collapse: 0950 EDT

Fatalities – 3,533(b)

North Tower	1,448
South Tower	460
Emergency Personnel	480
AA #11	90
UA #175	65

a – The New York Times, September 16, 2001

b – The New York Times, December 2, 2001

Damage –

- All WTC 1 – 7 Destroyed
- All surrounding buildings damaged/evacuated
- No power – substations destroyed
- No telephone – Central Office damaged
- Cellular, Pager infrastructure destroyed

Casualties –

- Largest groups above points of impact
 - North Tower –
Cantor Fitzgerald (700)
Windows on the World (305)
Marsh & McLennan (300)
 - South Tower –
Aon (200)
Fiduciary Trust (90)
Sandler O’Neill & Partners (68)

Infrastructure –

- Power out
- Phones out
- Bridges/Tunnels – closed
- Air Transport – shutdown
- All of Manhattan affected

Lesson –

- “Pride goeth before the fall”
- “Fail on hazard”
- “Don’t Wait – Evacuate”
- People are most important;
functions are second;
equipment is always replaceable

“Fail on Hazard”

- Effort is best spent on making role switch painless
- Better to “hand off” operations while still in control
- Do NOT expose personnel
- Automate procedures

Outages are neither local nor short-term –

- under estimated manpower and logistics
- multiplicity of victims
- external resources

If you can get to the backup site –

- no reserve available
- no reinforcements
- no external logistics
- suppliers also affected
- customers are also affected

Concrete issues –

- DNS
- MX hosts
- WWW servers
 - Intranet
 - Internet

DNS –

- diverse locations
- connection to de-list impacted servers
- delays in propogation
- updates authority for Internet root servers
- MX updates

MX Hosts –

- transport failover
- mail in known place
- correspondents unaffected
- more than a disaster issue
- network connectivity hazards

WWW (Intranet)–

- primary mechanism to communicate with insiders
- primary mechanism for distributing company internal information
- personnel to update and maintain www site
- software tools required to update site

WWW (Internet) –

- Point of contact for customers
- Be prepared to triage
- Bandwidth availability
- Information availability
- Authority to Triage

Triage –

- Lives first
- Data
- Operations
- Equipment
- Management authority

Critical Hardcopy Documents –

- Encryption Keys
- Recovery Media
- Telephone/Address Lists
 - Staff
 - Vendors
 - Trading Partners
- Operating/Hardware manuals

Test, Test, and Test again –

- Lateral links
- Licenses
- Floor space
- Security
- Standing watch
- Unannounced drills

Summary –

The lessons of September 11 are that organizations that were diligent in their planning and preparation survived this event with the least damage.

Questions?

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Session Notes & Materials:

<http://www.rlgsc.com/encompass/carts/2001-12/index.html>