CLOUD COMPUTING CONCEPTS

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DATACENTER OUTAGE STUDIES

Lecture D

THE PLANET OUTAGE

Overview

- Outage occurred on 31st May, 2008
- Source:
  http://www.availabilitydigest.com/public_articles/0309/planet_explosion.pdf

- The Planet – 4th largest web hosting company, supported 22K websites
  - 6 datacenters: Houston (2), Dallas (4)
- Took down 9K servers and 7.5K businesses

Timeline

- 5.55 pm: Explosion in H1 Houston DC
    - Short circuit in transformer set it on fire
    - Caused an explosion of battery-acid fumes from UPS backup
    - (Cascading failures)
    - Blew out 3 walls of first floor

TIMELINE (2)

- No servers were damaged, but 9K servers brought down
- Fire department evacuated building
  - Directed that backup generators could not be turned on
  - Due to fire hazard, no staff allowed back in until 10 pm
- The rumor is that the Planet staff had to physically ship some critical servers to their other DCs (on pickups)
  - But limited by power and cooling at other DCs

Timeline (3)

- 5 pm Jun 2: Power restored to second floor
- Jun 4: First floor servers were being restored one rack at a time

- All the while: The Planet provided frequent updates to customers (15 min to 1 hour)

- Backup data & services across DCs, perhaps across different providers
  - "Business Continuity Plans"
  - Whose responsibility would this be?
  - Provider?
  - Customer? More difficult due to extra work and data lock-in across providers.
- May cost customers more
  - Like insurance premiums?