Agility, the Cloud, and Accountability: What you can't know can kill you

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If it makes a sound, SET IT ON SILENT (e.g., mobiles, pagers, PDA, smartphone)

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"Cloud" Computing:

- Infinitely expandable
- Always available
- Agile
- No worries

Is this reality?

- First: I am "cloud" agnostic.
- Who is reponsible?
- What gives rise to this?
- What are the dependencies?
- What are the risks?

Do you believe in "magic"?

- Physics/math is different
- Underpinnings may be unstated
- The unstated is merely shorthand
- Other fields are not always so careful
 - Don't worry
 - It has never failed -- yet
 - Unstated/unexplicable presumptions

Infinity Presumption

- demand << capacity</p>
- The "Efficient Market"
- Demand excursions "Bank Run"
- Is this a valid presumption?
 - Victoria's Secret Fashion Show

Upon what does "The Cloud" presume?

- CPU Demand (always) << Capacity
- Bandwidth Demand << Capacity</p>
- Software presumptions
- Connectivity
 - End-users
 - Provider
 - Intra-provider

CPU Capacity

- Triggers?
- Cycles guaranteed/"as available"
- Tremendous cost difference
- Is utilization disclosed?
- Multiplier effect

Bandwidth

- Hosting providers aggregate
- Spike demand
- Individual usage << capacity</p>
- Incentive to match expected demand and capacity
 - utilization presumption
 - similar to "fractional reserve banking"
 - "Bank Runs" -- liquidity crisis

Software

- What software is required?
- What versions?
- Dependencies
- Update schedules

Connectivity

- Degree of connectivity
- Routing
- Bandwidth
- When problems happen
 - Red Sea cables
 - 9/11 Lower Manhattan AT&T switching center
 - Hinsdale/Second Avenue fires

Is "Cloud" Computing useful?

- Undoubtedly
- Establish responsibility
- Are risks aligned
- Seductiveness of underprovisioning
 - overbooking
 - overselling
 - economic incentives

Questions?

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Session Notes & Materials: http://www.rlgsc.com/trentoncomputerfestival/2011/index.html

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