

Cloud Computing for a Rainy Day

E-democracy - anything you can do in the presence of government you can do electronically without regard to walls or clocks, provided it is free to the citizen and intuitive to use.

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Information services are the utility services

1. Expected to always be on
2. Expected to deliver quality service
3. People rely on it, commerce, health care, education
4. Fundamental aspect of life

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Utility services must achieve the following to be sustainable

1. Solid infrastructure
2. Capacity
3. Dynamic routing of resources
4. Be costs conscious
5. No special training for the customer to use
6. Customer pay for what they use or subscribe to the service

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Utility services have a high correlation between costs and demand and capacity to meet that demand. No surprise.

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In the information technology business, various strategies to provide services have evolved. These evolved due to the requirements of providing utility like services.

1. Mainframe to client server to grid computing to cluster computing to cloud computing
2. What makes this evolution possible...a broadband network and virtualization
3. Cloud computing is the delivery of utility information services over the internet.

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Why the buzz about Cloud Computing?

1. It truly meets the definition of a utility service.
2. The consumer is....
 - abstracted from the need to control the infrastructure,
 - does not have expertise in planning or expanding capacity,
 - can pay for what they consume or subscribe to services for a fee,
 - do not know where the service is generated from, doesn't care
 - easy, convenient, flexible and inexpensive to get more computational resource,
 - costs are converted from capital outlay expenditures to operational,
 - device/software independent, all you need in many cases is a web browser,
 - availability from nearly anywhere at anytime,
 - cost predictive,

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Yet there are issues that must be addressed.....

- ownership, you are using a resource you don't own or control
- privacy, your data is in a shared environment, managed by someone you don't supervise
- privacy, your information is traversing the open internet
- security, your information is in a shared environment,
- reliability, is your cloud supplier doing all it can to provide accessible, available services when you need them, what service levels do they guarantee?
- sustainable, is your cloud provider doing all it can to remain a viable entity and sustain the service levels
- compliance, is your cloud provider up on all the regulations, will they help you meet the requirements of HIPPA or Sarbanes Oxley
- audits, will your cloud provider work with you to instill auditable control points such that you can meet your internal compliance and good business practices
- no standardization, up to the producer and consumer to write their own rules and make their own relationship

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Cloud Computing comes in various models.

commercial cloud

private cloud

public cloud

hybrid cloud