



# Cloud for Credit Unions

Leveraging New Solutions to Increase  
Efficiency & Reduce Costs

*Presented by:*

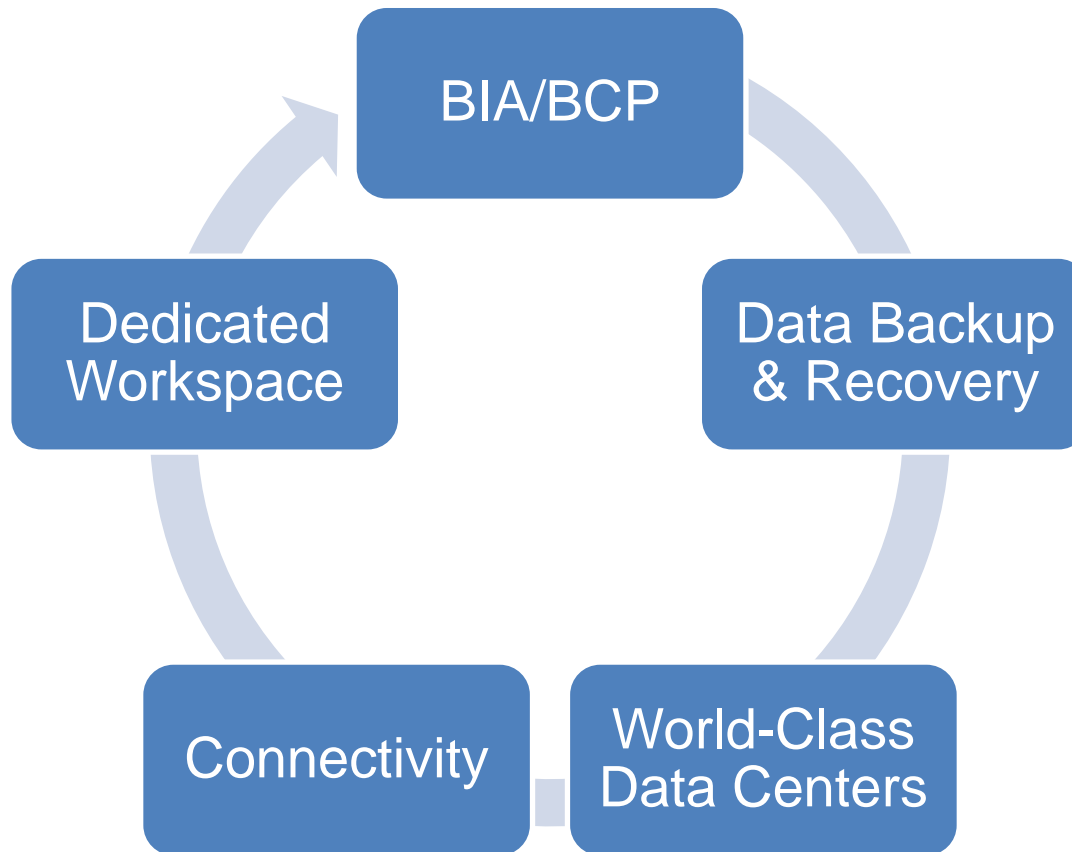
*Hugh Smallwood, Chief Technology Officer*

Plan. Prepare. Protect.

# About Us

- Formed by a Group of DC Metro Area Credit Unions after September 11th
- Began development of the CUSO in 2003
- Full operations began in 2006
- Today, we're the leading provider of business continuity services to credit unions nationwide – *protecting 21.5% of industry assets*

# Goal: Build a Complete Solution



# The Cloud Buzz



“Wilber is probably taking this Cloud computing too seriously.”

# Where did Cloud Come From?

- “Computation may someday be organized as a public utility” - John McCarthy 1960
- The Challenge of the Computer Utility

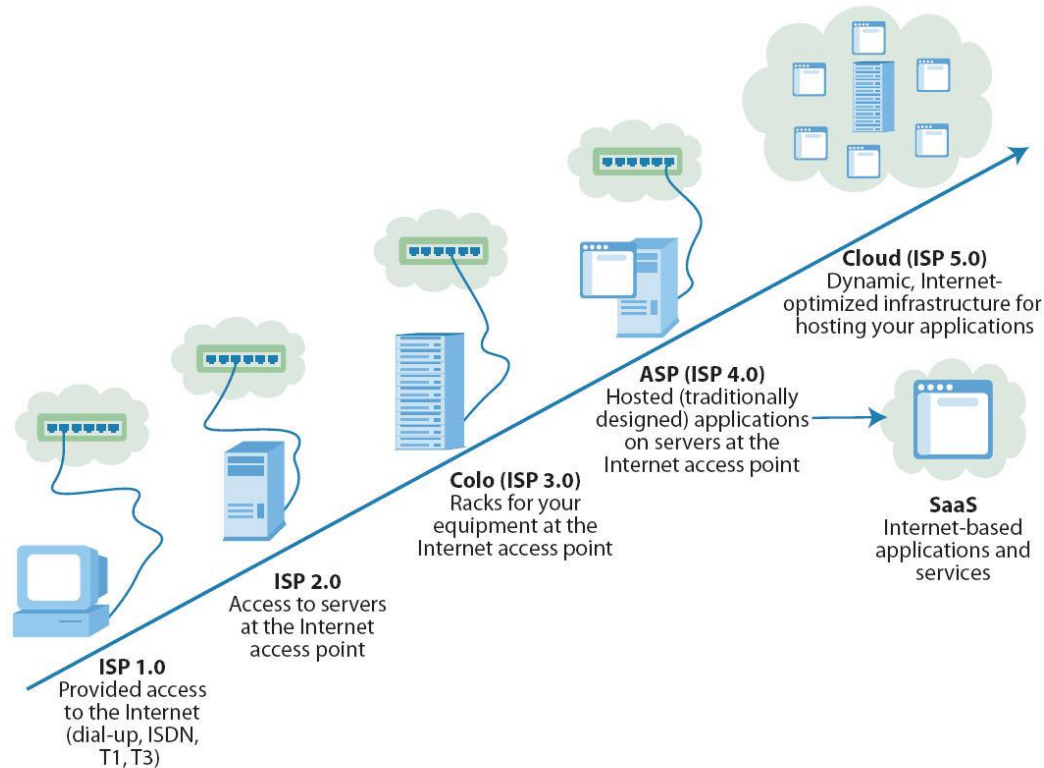
# The History Of Cloud

The term "cloud" is used as a metaphor for the Internet, based on the cloud drawing used in the past to represent the telephone network.



# How Did Cloud Evolve?

**Figure 3** Cloud Computing: The Latest Evolution Of Hosting



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Source: Forrester Research, Inc.

# Defining “Cloud”



# Cloud for Credit Unions

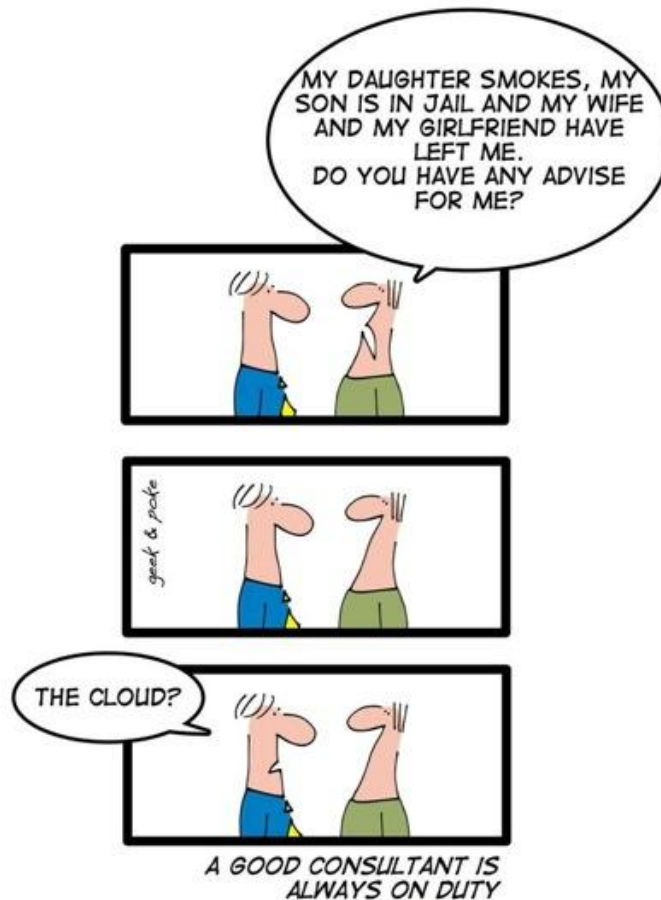
The definition of “Cloud Computing” varies widely. Gartner defines it as: *A style of computing where massively scalable IT resources are offered as a service delivered across the internet and paid for on an as used basis*

Ongoing Operation defines it as: Off-site, scalable management of critical IT infrastructure with built-in DR accessed securely via the internet

# What is Ongoing Operations' Interest in Cloud Computing?

- Natural progression of our core business of Business Continuity & Disaster Recovery
- More efficient to run in the cloud vs. recover to it
  - Unitrends
  - Double Take

# How Do I Get In The Cloud?



# Cloud Service Models

- *Software as a Service (SaaS)*. Use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through a thin client interface such as a web browser (e.g., web-based email).
- *Platform as a Service (PaaS)*. Deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages and tools supported by the provider.
- *Infrastructure as a Service (IaaS)*. Provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications.

Source: NIST

# Deployment Models

- *Private cloud.* Operated solely for an organization. It may be managed by the organization or a third party and may exist on premise or off premise.
- *Community cloud.* Shared by several organizations and supports a specific community that has shared concerns (e.g., mission, security requirements, policy, and compliance considerations).
- *Public cloud.* Made available to the general public or a large industry group and is owned by an organization selling cloud services.
- *Hybrid cloud.* A composition of two or more clouds (private, community, or public) that remain unique entities but are bound together by standardized or proprietary technology that enables data and application portability (e.g., cloud bursting).

Source: NIST

# Existing Cloud Options

- Initial concentration of most providers has been on SaaS (Software as a Service)
- Many solutions focus on providing elastic resources for software developers as cheaply as possible
- Solutions like Amazon's EC2 are not compatible with CU's security & regulatory needs
- Need a partner who knows the CU business

# Example #1: Amazon EC2



- Public Cloud
- Designed for developers
- Quickly scale capacity up and down
- Self-service tool
- Pricing is key selling point

# Example #2: Sales Force



- Software as a Service
- Entirely web-based
- Easy access for anyone, anywhere
- New social networking component (Chatter - “facebook for the enterprise”)

# Key Benefits of Cloud

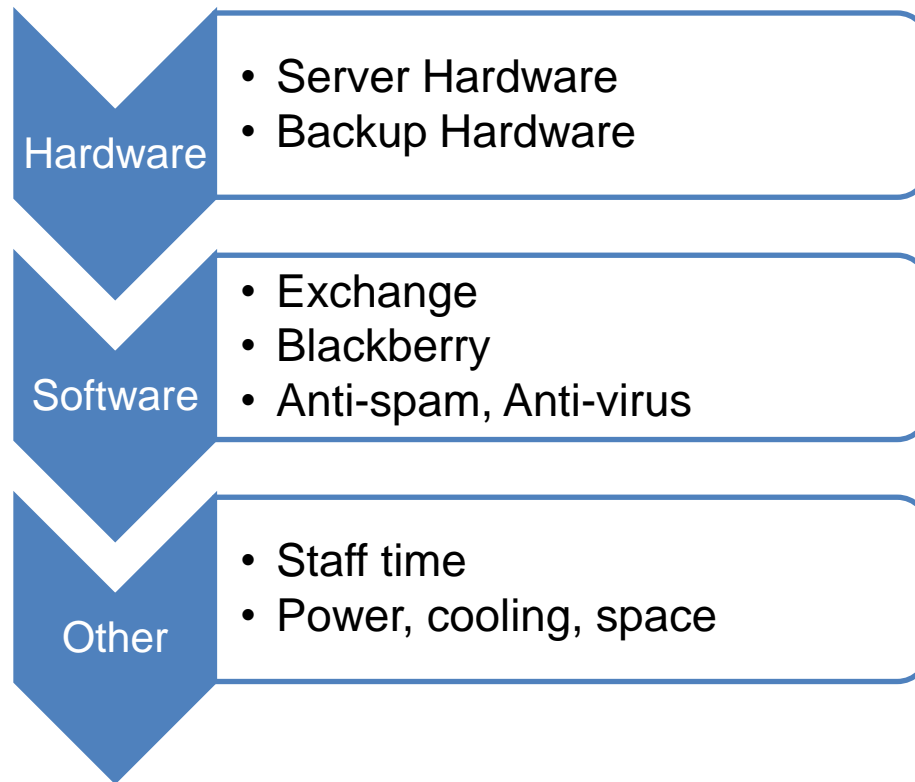
- Shift IT costs from large capital expenditures to a more standardized monthly cost based on real usage
- Greater business agility – instead of waiting for servers to arrive and be configured, spin up virtual resources in minutes
- Reduce time spent on maintenance & upgrades
- Ability to re-purpose human resources around core business needs in order to better serve your members

# Potential for Real Benefits

- Reduce Capital Expenditures
  - "Of the 76% of cloud customers that reported real, measurable cost savings, the single most common level of CapEx reduction was between 11-20%."

\* Source: Datacenterknowledge.com, EMA's *The Responsible Cloud Report*

# Determining Total Cost of Ownership (TCO) - Exchange



# Determining Total Cost of Ownership (TCO)

## *Estimated In-House Costs*

### **HARDWARE COSTS**

Mailbox Server Hardware (1)	\$7,800.00
Front End Server Hardware (7)	\$5,100.00
Backup Server and Storage	\$6,600.00
<b>Total Costs</b>	<b>\$19,500.00</b>

### **SOFTWARE COSTS**

MS Windows Server 2008 R2 Std. (3)	\$1,700.00
MS Exchange 2010	\$1,700.00
Additional MS Exchange CALS	\$3,350.00
Blackberry Enterprise Server	\$5,100.00
Blackberry Enterprise CALs	\$500.00
Backup Software per Server (4)	\$2,600.00
Antivirus/Antispam Software	\$5,500.00
Secure Messaging	\$5,000.00
Email Journaling	\$10,000.00
<b>Total Costs</b>	<b>\$35,450.00</b>

### **MANAGEMENT COSTS (ONGOING)**

Management (5)	\$1,400.00
<b>Total Costs</b>	<b>\$1,400.00</b>

### **MONTHLY OPERATIONAL COSTS per SERVER**

Space/Power/Cooling (6)	\$78.84
<b>Total Costs per Server</b>	<b>\$78.84</b>

# Costs of a Managed Solution

## *Monthly Per User Fee Example*

### Ongoing Operations' Cloudworks HOSTED EXCHANGE COSTS

*Predictable Monthly Fees per User*

Exchange Mailbox	\$11.95
Blackberry	\$9.95
Secure Messaging	\$7.00
Email Journaling	\$4.95
One-Time Setup/Migration	\$4,000.00

# Potential Savings

*Based on Forrester's research, hosted email is more cost-effective for organizations with **less than 15,000 users.***

-Average cost per user, per month based on **5,000 users is \$28.22**

Source: Should Your Email Live in the Cloud? A Comparative Cost Analysis. Forrester Research, Inc.

# Can it Truly Be Secure?

- Can Cloud Services be PCI Compliant?
- PCI DSS Requirement 12.8 address the requirements from service providers.
  - 12.8 If cardholder data is shared with service providers, maintain and implement policies and procedures to manage service providers, to include the following:
    - 12.8.1 Maintain a list of service providers.
    - 12.8.2 Maintain a written agreement that includes an acknowledgement that the service providers are responsible for the security of cardholder data the service providers possess.
    - 12.8.3 Ensure there is an established process for engaging service providers including proper due diligence prior to engagement.
    - 12.8.4 Maintain a program to monitor service providers' PCI DSS compliance status.

# Cloud Computing Horror Stories

- Google Apps Security Issues
  - Twitter email breach yields access to Google Apps
- Amazon Cloud Hacked
  - BotNet software installed on Amazon site setup to steal password data
- QuickBooks Online
  - Power outage affects service for over 24 hours
- Service issues will occur, they occur today. Understand their impact with a proper Business Impact Analysis

# How will the Cloud change operations?

*Gartner's*, predictions for 2010 and beyond:

**By 2012, 20 percent of businesses will own no IT assets.**

# Enabling Cloud for Credit Unions

*We believe there are several core strengths required to effectively deliver a cloud solution for credit unions:*

- Virtualization Expertise
- Connectivity/Datacom Management
- State of the Art, Secure Data Centers
- Deep Understanding of Credit Union Requirements

# What will your IT department look like in the future?



More of an architectural alternative than a technical solution

Staff focuses on business needs not infrastructure support

Your new workforce is using cloud tools already

# The Key Question

- Is IT a core competency for most credit unions (or any small to medium sized business for that matter)?
- If the answer is No, it may be time to consider outsourcing
- Another opportunity for collaboration

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# Questions & Discussion