



Whalley Computer Associates, Inc.

WHALLEY COMPUTER ASSOCIATES

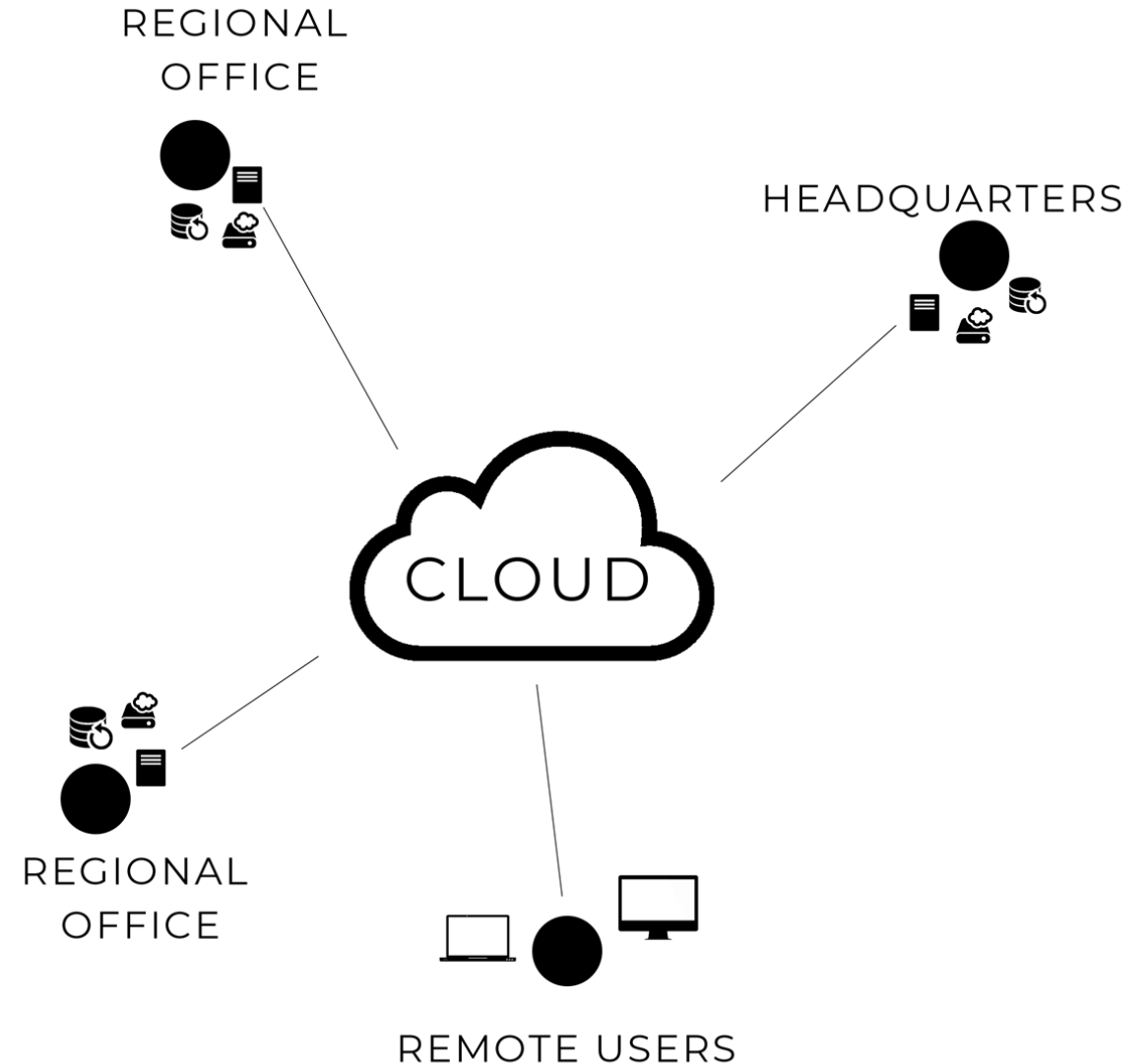
CLOUD SERVICES

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WHAT IS THE CLOUD?

In the simplest terms, cloud computing means storing and accessing data and programs over the Internet instead of your computer's hard drive.





CLOUD COMPUTING: THE NEW NORM

In the last 5 years, SMB cloud adoption nationwide has gone from...

Under **20% of firms** to more than **70% for small companies** (<100 employees) and more than **90% for midmarket firms** (100-999 employees).

WHAT'S DRIVING ADOPTION?

- A desire for cloud storage, including cloud-based backup, disaster recovery and archiving
- The continued presence of employee-owned mobile devices
- The adoption of mobile email and basic collaboration applications like Microsoft Office 365
- Servers moved to the cloud to lower CapEx and simplify multi-site companies
- Compliance and security requirements

CONSIDERATIONS WHEN CHOOSING A CLOUD VENDOR



SECURITY



PRICING & BILLING
STRUCTURE



SUPPORT SERVICES



SCALING FOR GROWTH

ARE ALL CLOUDS THE SAME? YES... AND NO.



GREEN CLOUD

- Ideal for small, medium and large businesses
- Production workloads
- Support included
 - 100% SLA



AMAZON, AZURE, ETC.

- Ideal for developers, easy SaaS applications
- Ideal for enterprises with large IT departments
- Support purchased separately
 - 99.95% SLA



WHY WCA USES GREEN CLOUD TECHNOLOGIES AS A CLOUD SERVICE PROVIDER

“Green Cloud’s infrastructure was designed from the ground-up to be highly secure and offer unmatched performance and reliability.”

- Infrastructure as a Service (IaaS)
- Desktop as a Service (DaaS)
- Disaster Recovery as a Service (DRaaS)
- Backup as a Service (BaaS)
- Professional Services
- Pre-Sale Design & Post Sales Support
- Network & Security Services



veeam

Zerto



DRaaS WITH ZERTO

Recovery Time Objective (RTO): Seconds	Minimum Recovery Point Objective (RPO): < 15 minutes	Retention Period: ~24 hours	Automated Failover	Protects Virtual Servers	Best Replication Time: Semi-synchronous
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Failover and failback your VMs in the cloud for testing, compliance, and disaster recovery.

As a cloud-based DRaaS offering, Green Cloud DRaaS with *Zerto* offers the fastest, most flexible failover of your environment.

Perform failover testing or execution with the click of a button with Zerto automation.

Eliminate data center costs including space, power, network and equipment.

Zerto



DRaaS WITH VEEAM

Recovery Time Objective (RTO):	Minimum Recovery Point Objective (RPO): Last Replication Point	Retention Period: 7-14 Replication Points	Automated Failover	Protects Virtual Servers	Best Replication Time: Once every 60 minutes
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- Failover and failback your VMs in the cloud for testing, compliance, and disaster recovery.
- As a cloud-based DRaaS offering, Green Cloud DRaaS with Veeam offers fast, flexible failover of specific virtual machines or an entire site.
- Eliminate data center costs including space, power, network, and equipment.
- Obtain compliance requirements including long term retention while taking archive data off of high performance storage

DESKTOP AS A SERVICE TOP BENEFITS

*Separates
the work
desktop from
the personal
desktop*

*Centralized
image/
application
mgmt.*

*Minimizes
operations
integration
time*

*Extends the
lifetime of
existing CapEx
and new
hardware
investments*

*Enhanced
security, data
protection
and recovery*

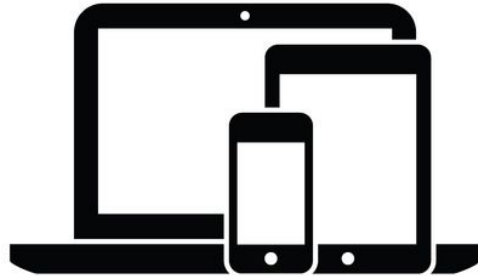
*Outsourcing
of day-to-day
desktop
management*

*Subscription-
based pricing
and lower
TCO*

TOP USE CASES FOR DaaS

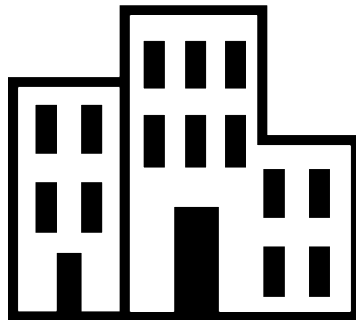
Mobile-Secure Desktop (BYOD)

- Work from Home
- Traveling



Branch Office Desktop

- Retail Sites
- Local Sales Office



Contract Employees

- Call Centers
- Outsourced Development



Seasonality

- Interns
- Tax Season
- Holiday Seasons





Whalley Computer Associates, Inc.

Massachusetts Property Insurance Underwriting Association

(MPIUA) is a residual market insurance association in which all companies writing basic property insurance in the Commonwealth are required to participate with losses shared among the member companies on a premium volume basis.

David Andrews

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Business Continuity Challenges

Cost

Accessibility

Off-Site Back-ups



COST

- *The TCO of Disaster Recovery hardware, software and hosting services*
- *Predicting the size and scope of technology required over a 5-year period*
- *Managing the virtualization and server operating systems coupled with connectivity*
- *Already invested in Zerto licensing*



THE SOLUTION

- *A mirrored suite of Compute, RAM and Storage in a Tier 3 Data Center*
- *Predictable budget and scalable flexible model to address changing needs*
- *Eliminates server and virtualization maintenance tasks*
- *BYOL with Zerto*
- *Extended testing window to verify and validate environment*



ACCESSIBILITY

- How do users access the disaster recovery servers in the event of a failover?
- Typical access method is VPN which demands local laptop software latest versions – 150 laptops
- Need to regularly vent out the end user experience during server failover testing
- Simple, easy to use access for non-technical associates
- Where do the employees go and what equipment can they use during a failover?



THE SOLUTION

- Build out a DaaS solution with a minimum number of users to facilitate testing from each department
- Maintain only 1 Gold Pattern versus loading current software versions on every laptop
- Have the ability to expand the desktop pool to an as needed basis in the event of a failover
- Simple one-click icon with MFA



OFF-SITE BACKUPS

- Get the off-line tape backups to an Overland Data device to secure an “Air Gap” solution
- Get the Veeam backup of entire environment near the DRaaS for local restores for non-replicated servers



THE SOLUTION

- Set up the 6U Overland Data storage repository within the DRaaS instance as a co-location device
- Arrange networking to automatically send completed tape jobs to the remote storage



SERVER OPTIONS TO FIT YOUR NEEDS

PUBLIC SERVER: Multi-tenant solution features shared storage, CPU, memory and network resources for dependability, scalability and ease-of-use in a VMware computing environment-ideal for deploying classic and cloud-based applications.

PRIVATE SERVER: This single-tenant solution is comprised of dedicated storage, CPU and memory along with private network bandwidth and connectivity. Includes Microsoft OS and VMware licensing.

HYBRID SERVER: You can mix and match shared and dedicated resources to keep data in the most efficient environment. Powered by VMware, applications and workloads can be moved between clouds.



IAAS

ON-PREMISE SOLUTION

HARDWARE	Low-cost, frequent upgrades, performed seamlessly	Costly incremental upgrade cycles and capital expenditures
SOFTWARE	Flexible, monthly licensing	Costly upfront expense for licensing; no flexibility when downsizing
ACCESS	Significantly higher reliability across multiple paths; data is available and accessible in the event your facility is compromised	Redundant paths are available only with additional costs
WARRANTY	Covered by Green Cloud	Extended vendor warranty and additional expense required
PERFORMANCE	Easily adjusted to match changing requirements	Must consider any future requirements ahead of time
SECURITY	Higher levels of both physical and network security	Higher levels of data control; greater risk of data breach or theft
SCALABILITY	Cost efficient and expeditious	Likely to require purchase of additional hardware and licenses
LIABILITY	Insurance is included in monthly cost; policies cover data breach, extortion, business interruption, etc.	Requires additional expense
COOLING	Included in monthly cost	Requires additional expense
POWER	Included in monthly cost	Requires additional expense
BACKUP	Included in monthly cost; additional security because the data is housed offsite	Requires additional hardware or service
REDUNDANCY	High levels of redundancy included (power, network, data center...)	Significant capital expenditure requirements
DR	Included backup stored in a secure SOC 2 Type II data center	Additional operational overhead and potential capital expense required



SCHOOL DISTRICT (K-12) IaaS SUCCESS STORY

CHALLENGE

- School District had an aging server farm with a large pending backup device renewal.
- The environment was constantly changing with the addition and subtraction of applications and required resources.
- IT resources were stretched thin with projects and typical data center maintenance and support.



SCHOOL DISTRICT (K-12) IaaS SUCCESS STORY

SITUATION

- The data center was expected to be available 100% of the time for the 2100 students and 300 staff members.
- Virtualization and server operating system licensing was a burden to maintain and optimize investment.
- Data Center hardware refresh cycle demanded over \$150k every 5 years to stay current with ever increasing application requirements



SCHOOL DISTRICT (K-12) IaaS SUCCESS STORY

SOLUTION

- Move the applications to the cloud via a secure VPN tunnel with a fine tuned process to maximize CPU, RAM and Storage with minimal bandwidth with 100% SLA.
- Provide both daily SAN replication snapshots and a remote backup strategy for additional security and eliminate costly in-house backup appliances.
- Migrate the environment VM by VM into a testing model to confirm performance before going live.
- Have senior level engineers available to support the environment as an extension of the IT support team.



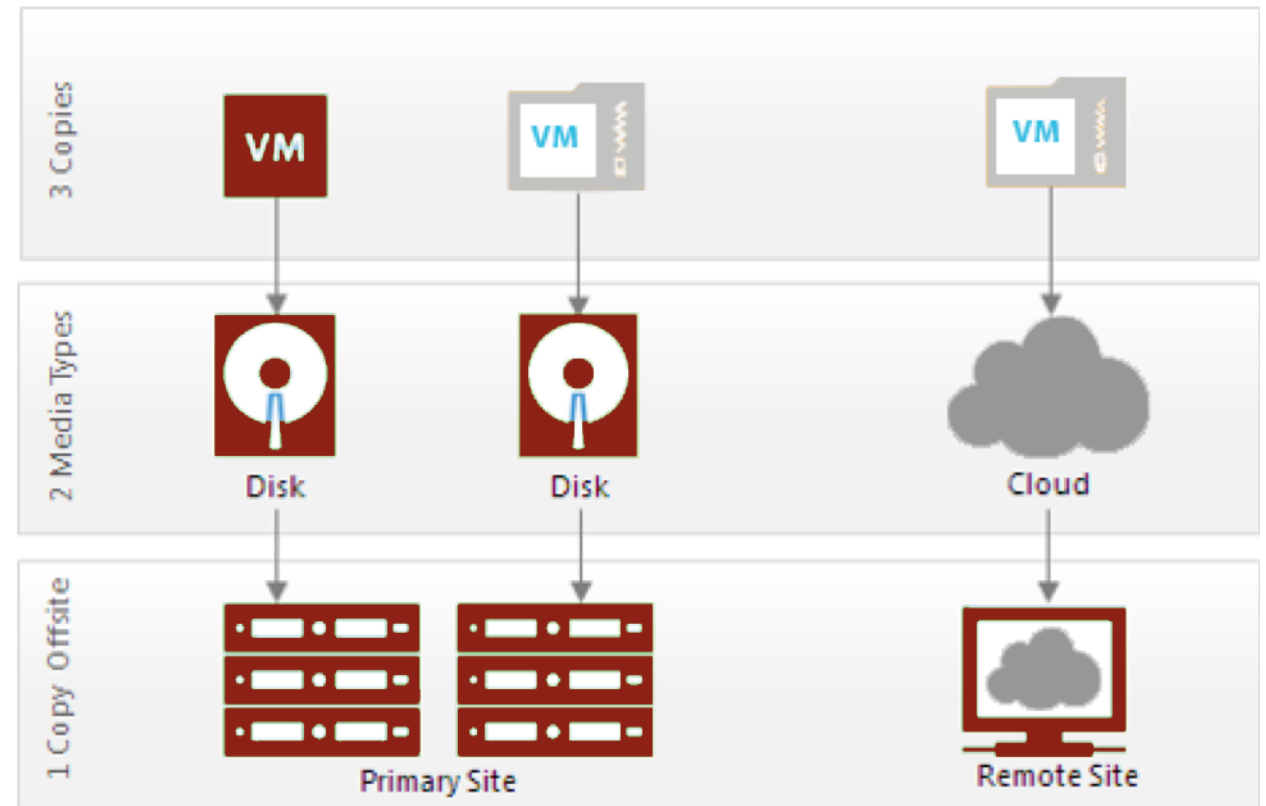
SCHOOL DISTRICT (K-12) IaaS SUCCESS STORY

RESULTS

- Move the applications to the cloud where this streamlined solution resulted in a more cost effective and efficient way to ensure application delivery and budgeting.
- Moving the environment removed costly upgrade cycles, capital expenditures, more efficient project planning flexibility, better utilization of resources.
- Paying for what is needed versus projecting 3 to 5 year future requirements.
- Higher levels of redundancy and security included for power, cooling and networking in a secure SOC 2 Type III data center.
- Removed the cost and maintenance of virtualization, server OS and hardware warranty and support.

3-2-1 RULE FOR BACKUP

- Have at least **3** copies of your data
- Store the copies on **2** different media
- Keep **1** backup copy offsite





BaaS USER BENEFITS

Hosted off-site backups: Get backups off-site to a hosted cloud repository through a secure SSL connection with no additional Veeam licensing required.

Complete visibility and control: Access and recover data in hosted backup repositories directly from the backup console; track cloud repository consumption and receive reminders for hosted storage renewals.

A modern backup architecture: Leverage Veeam's modern backup technology, including backup copy jobs with built-in WAN acceleration, forever incremental backups, GFS (grandfather-father-son) retention policies and more — all built into one product.

End-to-end encryption: Rest easy by encrypting data at source (before it leaves your network perimeter), in flight and at rest, without negatively impacting the data reduction ratios of built-in compression and WAN acceleration.



BaaS WITH VEEAM

Recovery Time Objective (RTO): <24 hours	Minimum Recovery Point Objective (RPO): Last Backup	Retention Period: Unlimited	Protects Virtual Servers	Powered by Veeam Cloud Connect	Veeam Backups offsite, completely archival
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- Reduce the capital cost of backup equipment and the resources system – without the required for onsite, manual backup
- Meet compliance and security mandates in fields such as healthcare, education, financial services and e-commerce
- Augment business continuity – backups can be restored in the cloud and run as cloud servers
- Experience the 100% continuity and protection of a fully redundant copy of your data



ACQUIRING CLOUD SERVICES

STEPS

Whalley Computer Associates will:

1. Evaluate your needs
2. Educate you on the possibilities
3. Identify benefits and determine solutions
4. Provide pricing
5. Provision services – both new resources and migration of existing data
6. You consume cloud services – from anywhere, at any time on any device



Whalley Computer Associates, Inc.

Let WCA Be Your Helpdesk

Unlimited Remote Support Monday Through Friday 7am – 6pm

Tracking of all tickets

Monthly reporting of tickets

Review of tickets to discover trends

Unlimited Emergency After Hours Support

After hours support for end user emergency support issues

*After hours response to any emergency alerts. Network outages,
System down, etc.*

24x7 Monitoring, Alerting and Reporting

24 x 7 x 365 monitoring of your entire environment

Immediate alerting when issues arise

Long-term trend analysis and best practices solutions

Best Engineer for the IT challenge

Detailed monthly reporting



Whalley Computer Associates, Inc.

THANK YOU!

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