



The Hybrid Cloud Approach: CA ARCserve® D2D On Demand

Small businesses benefit from a hybrid cloud solution for data backup and recovery

White Paper

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Applies to: Microsoft Windows Azure

Abstract

In their quest to enable small businesses to benefit from cloud technology, Microsoft and CA Technologies have introduced a Software-as-a-Service (SaaS), hybrid data protection and disaster recovery solution for Microsoft Windows environments. CA ARCserve D2D On Demand is for small organizations or remote offices that need fast and easy onsite system and data protection, as well as a trusted and secure remote location and resources for disaster recovery purposes. The hybrid approach leverages on-premise resources for system and data backup and recovery due to day-to-day data loss or system outages, and uses bundled and integrated Windows® Azure™ cloud storage for offsite protection and archiving of critical files. It is a secure, affordable, easy-to-use and flexible turnkey solution that empowers small businesses to meet demanding backup windows while protecting the integrity and availability of their critical systems, applications and information.

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Introduction to Cloud Technology

“If there’s been one theme dominating chatter about computing and small and mid-sized businesses in 2011, it’s been ‘the cloud,’” reported Matt Warman, Consumer Technology Editor for the U.K.’s Telegraph newspaper in December 2011.

A 2011 study published by Edge Strategies and sponsored by Microsoft found that 74% of SMBs (small and medium businesses) in 16 countries plan to use at least one cloud service in the next three years.

There is no doubt: “the cloud” is here to stay — yet many small business owners remain unclear as to how they can best benefit from the technology. Others have decided to invest in a cloud solution, but they are still unsure of which solution to choose. A private cloud or a public cloud? Which solution is best for small and mid-sized organizations?

Decoding the Cloud

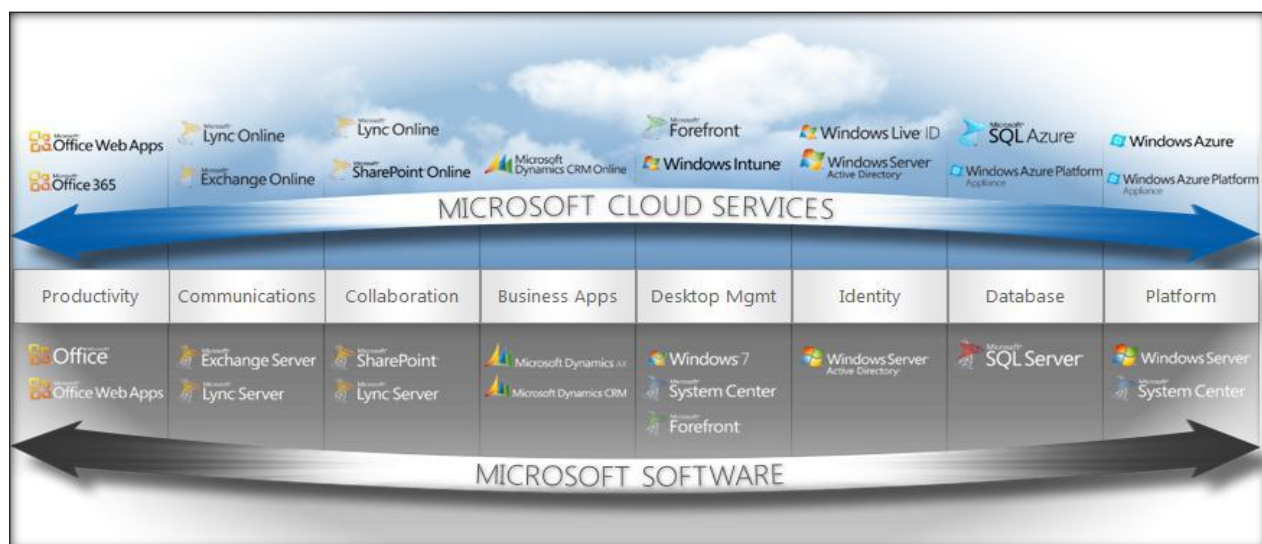
What is cloud technology?

The term “cloud technology” refers to the provision of computing as a *service*. Computing resources such as power, storage and software applications are provided to computers and other devices as a metered service over a network — most often via the Internet. The network itself is “the cloud.”

Public and Private Clouds

Public cloud. A public cloud is a cloud infrastructure shared by the general public or an industry, typically owned and managed by an organization that sells cloud services on a subscription basis. Public clouds are often chosen by small businesses that have limited in-house IT expertise and budgets, yet wish to respond to market changes with greater agility. Public clouds have multiple tenants, meaning that multiple companies can access them. For this reason, some business owners have voiced concerns about security and privacy due to possible data leaks.

Private cloud. In this model, cloud resources are confined inside a firewall with proprietary control over the cloud infrastructure. Private clouds are often deployed by large enterprises whose IT staffs build and manage the company’s network. Such clouds require large budgets and IT staffs with a high degree of expertise. Private clouds offer greater control over data and tighter security, but the services that a company can offer through a private cloud are limited to what its IT staffs can develop or deploy.



The Microsoft ecosystem of cloud services.

Data Backup and Recovery and the Case for the Cloud

While most organizations use on-premise technology and resources for the fastest backup and recovery, disaster recovery planning is one of the primary reasons many companies are investing in cloud technology. With the tremendous volumes of data that modern businesses create and manage each day, it is imperative that they are equipped to resume operations quickly in the event of a major disaster or disruption. Storing data off premises is an excellent way to safeguard against on-premise disasters such as fire or flood, and even theft.

Small Business Concerns with the Cloud

Cloud technology may have taken off, yet many small businesses have yet to invest in a cloud solution for data backup and recovery — often due to concerns about security, affordability, ease of use and flexibility.

- Security.** Small businesses must have dependable backup and storage. System downtime and data loss can cripple a small business. Before investing in a cloud solution for data backup and recovery, many business owners want to know: is the cloud secure and reliable? How is data secured at a cloud provider's facility? How long does it take to send and retrieve data over the WAN to the cloud? Will businesses be able to meet their backup windows? Is there a way to combine local protection and cloud protection in a single solution?
- Affordability.** In tough economic times, small businesses must lower their operating costs while simultaneously boosting performance. Cost effectiveness is a major concern of small businesses. For this reason, some small organizations have been hesitant to invest in a private cloud solution for data backup and recovery, and many businesses are turning to SaaS models — according to a Gartner survey, nearly 90 percent of organizations expect to maintain or grow

their usage of software-as-a-service in order to save financial resources. SaaS solutions for data backup and recovery can be very cost-effective because they are easy and fast to deploy, they reduce the need for extra IT staff and hardware while ensuring that internal SLAs are met and they enable businesses to use their operational budgets rather than capital expenditures to pay *only* for the service they use.

- ***Ease of Use.*** Small businesses want streamlined, easy-to-manage IT solutions.

In an effort to save resources, today's businesses are looking to simplify their IT solutions. Many small businesses lack the time, resources or knowledge to build their own private clouds, and those that do have IT teams wish to relieve their IT maintenance and management workloads — not add to them. What will a cloud solution for backup and recovery involve? Will it truly save time and resources?

- ***Flexibility.*** Small businesses require a flexible solution that can meet all of their data management needs.

When it comes to data management, small businesses are looking for a solution that is flexible enough to meet all of their needs — from fast backup and restore so that they can meet their backup windows to full system recovery in the event of unplanned outages. Many business owners are asking themselves: do they need the cloud for offsite data protection? In order to archive old files? To reduce onsite storage costs? Or for all three reasons?

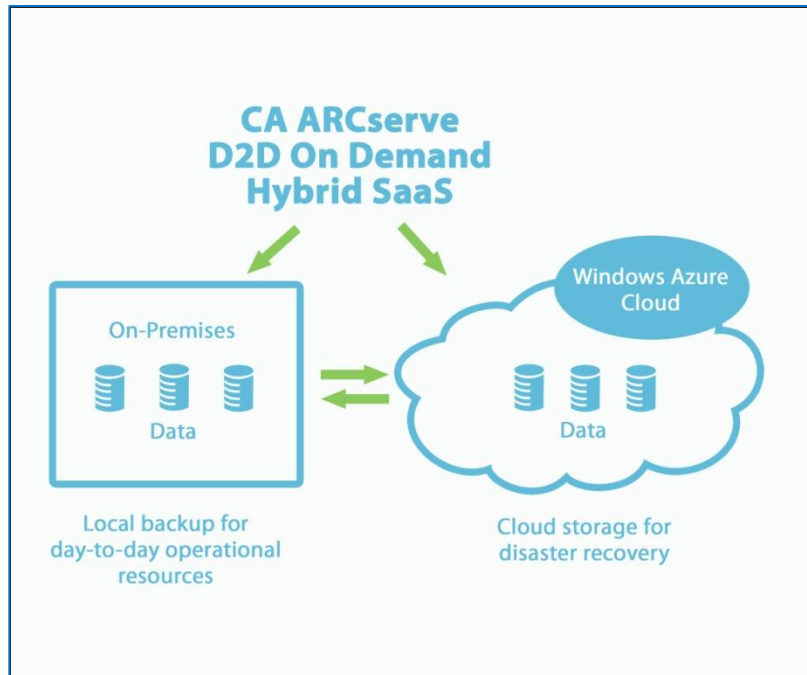
The Hybrid Data Protection Solution for Small Businesses

After considering their data classification, security, privacy and business requirements, many small business owners have decided that their best approach for dependable, secure and affordable data backup and recovery is a hybrid solution. A hybrid model provides an easy way for companies to ease into using the cloud because it combines aspects of both local protection and public cloud structures, enabling businesses to achieve fast onsite backup and recovery *and* secure offsite data protection and archiving via a public cloud.

The Hybrid Cloud for Data Backup and Recovery

When it comes to data backup and recovery, the hybrid cloud approach has many benefits. Because it leverages on-premise, disk-based resources for fast system and data backup and recovery due to day-to-day data loss or system outages, using the cloud only for disaster recovery, archiving and remote data access purposes, businesses can meet demanding backup windows and recovery service level agreements (SLAs). Yet in the event of a man-made or natural disaster that causes a company to rebuild some or the entirety of its data center, critical information can be recovered from the cloud.

ARCserve D2D On Demand



How it works: diagram of CA ARCserve On Demand.

Microsoft and CA Technologies, a Microsoft Gold Partner and 2009 ISV Partner of the Year, have worked together for more than 20 years to help businesses maximize the value of their IT investments. The two companies are now offering customers a way to protect their Windows-based systems, applications and data safely and affordably with a hybrid data protection solution: CA ARCserve D2D On Demand.

CA ARCserve D2D On Demand is a SaaS-model solution that provides businesses with subscription-based, comprehensive data protection service that secures full systems, applications and data both on premises and in the Window Azure cloud. Businesses attain the level of data protection they need, when and how they need it. The solution is ideal for small companies, as it addresses four major small business concerns: ease of use, security, affordability and flexibility.

Easy to Use

CA ARCserve D2D On Demand is a turnkey solution that requires minimal configuration, making deployment simple and quick. CA ARCserve D2D On Demand's Wizard-driven user interface provides seamless access to Windows Azure, which helps to streamline operations and reduce the time it takes to protect data. CA ARCserve D2D On Demand also features single-snapshot backup, so companies can perform frequent backups and reduce storage requirements, processing power and network bandwidth. Users can restore files, application data, volumes or entire systems to any server in physical or virtual environments quickly and efficiently. The software's unique I² Technology™ boosts efficiency by performing infinite incremental block-level backups so that only updated, necessary information is stored, and its

Bare Metal Restore offers more capability by allowing businesses to recover crashed servers quickly to the same or dissimilar hardware. Through the CA ARCserve On Demand Portal, users and partners can also easily obtain information on when the last backup occurred, the total number of machines licensed, the amount of time and storage remaining on the contract and many other helpful resources for managing the subscription account.

Secure

Because CA ARCserve D2D On Demand was built on the Microsoft Windows platform and designed for Windows Azure, it delivers a seamless, dependable solution. The software reduces security issues further by encrypting backup data and transferring it electronically to the Windows Azure cloud platform rather than relying on physical tape — which is susceptible to physical theft, damage or loss due to improper storage. Finally, companies can decide for themselves who will control the solution; they can manage it on their own, or hire a third party to manage it for them.

Microsoft Windows Azure provides nearly limitless processing power on demand and ensures data security in a myriad of ways:

- Microsoft-owned and -operated data centers are located around the globe and feature a “defense in depth” security process managed by the Online Services Security and Compliance Team.
- Windows Azure customers can choose single-location or geo-distributed data centers.
- Microsoft data centers are equipped with redundant power supplies from separate providers, battery and diesel backup generators, climate control and fire prevention and suppression.
- Microsoft’s cloud infrastructure has achieved both SAS 70 Type I and Type II attestations and ISO/IEC 27001:2005 certification.
- The Windows Azure platform provides logical separation of tenants via dedicated VMs.
- Windows Azure storage data is replicated multiple times.
- Windows Azure provides multiple layers of protection supported by flexible Code Access Security policies.
- Firewalls, application gateways and IDS are used to protect the network.
- Windows Azure requires authentication and authorization of persons or processes that request access to data.

Affordable

CA ARCserve D2D On Demand is offered as monthly and annual subscription licensing for each protected server/workstation that includes 25GB of Windows Azure cloud storage. Additional cloud storage is available in tiered capacity bands. All cloud storage is pooled across all protected machines in a business’s organization. The Windows Azure platform provides near-limitless cloud storage so that businesses can protect their data in the cloud without having to invest in their own processing, storage and network infrastructures. In addition, the on-

demand nature of CA ARCserve D2D On Demand means that companies pay only for the Windows Azure cloud storage for which they have contracted. This allows businesses to tap operating budgets instead of capital expenditures and often speeds time to protection. The hybrid data protection solution saves financial resources in other ways, too:

- CA ARCserve D2D On Demand streamlines data management processes, reducing the need for extra IT staff while making the most of resources, all with a known SLA.
- Microsoft Windows Azure is highly scalable, so businesses can accommodate large increases of data affordably.
- The hybrid solution leverages on-premise resources in order to meet demanding backup windows and achieve faster system and data recovery.
- The hybrid solution reduces TCO further because businesses do not have to invest in complex and expensive onsite storage hardware and ongoing storage management costs.

Flexible

CA ARCserve D2D On Demand powered by Windows Azure is by its very nature a flexible solution, combining the benefits of onsite protection with the advantages of a public cloud for offsite data protection, archiving and disaster recovery. Businesses gain comprehensive protection of their systems, applications and data while they reduce time-to-protection. CA ARCserve D2D On Demand offers monthly and annual subscription models to help convert CAPEX TO OPEX, and offers flexible Windows Azure cloud storage options to meet changing storage requirements.

Businesses can also control who will manage the solution for them — dedicated staff members or a third party — and whether their offsite data should be stored in a single location or in geo-distributed Microsoft data centers. By deploying CA ARCserve D2D On Demand on the Windows Azure platform, small businesses obtain a data management solution that is flexible enough to meet all of their needs.

Conclusion

With the tremendous volumes of data that modern businesses create and manage each day, it is imperative that they are equipped to resume operations quickly in the event of a simple server or storage crash, as well as a major disruption or disaster. Storing data off premises in the cloud is an excellent way to safeguard against on-premise disasters such as fire or flood, but some small businesses are reluctant to invest in a public cloud solution due to concerns over security. Private clouds offer a secure alternative to public clouds, but they are often too expensive for small businesses to build and maintain.

CA ARCserve D2D On Demand with Microsoft Windows Azure is a SaaS, hybrid data protection and disaster recovery solution that combines the benefits of both public and private clouds,

while addressing small business concerns of security, affordability, ease of use and flexibility. By choosing the hybrid data protection solution designed by Microsoft and CA Technologies, businesses that run Windows-based environments obtain fast and easy onsite system and data protection and recovery *and* dependable offsite data protection for disaster recovery. CA ARCserve D2D On Demand enables businesses to meet demanding backup windows while protecting the integrity and availability of their critical systems, applications and information. It is an easy-to-use, affordable, secure and flexible solution for data backup and recovery.

Additional Information

About CA Technologies

CA Technologies (NASDAQ: CA) is an IT management software and solutions company with expertise across all IT environments — from mainframe and distributed, to virtual and cloud. CA Technologies manages and secures IT environments and enables customers to deliver more flexible IT services. CA Technologies innovative products and services provide the insight and control essential for IT organizations to power business agility. The majority of the Global Fortune 500 relies on CA Technologies to manage evolving IT ecosystems. For additional information on CA ARCserve® D2D On Demand, visit arcserve.com/d2dondemand.

About Microsoft

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We run our business in much the same way, and believe our five business divisions — Windows and Windows Live, Server and Tools, Online Services, Microsoft Business and Entertainment and Devices — offer the greatest potential to serve our customers.

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