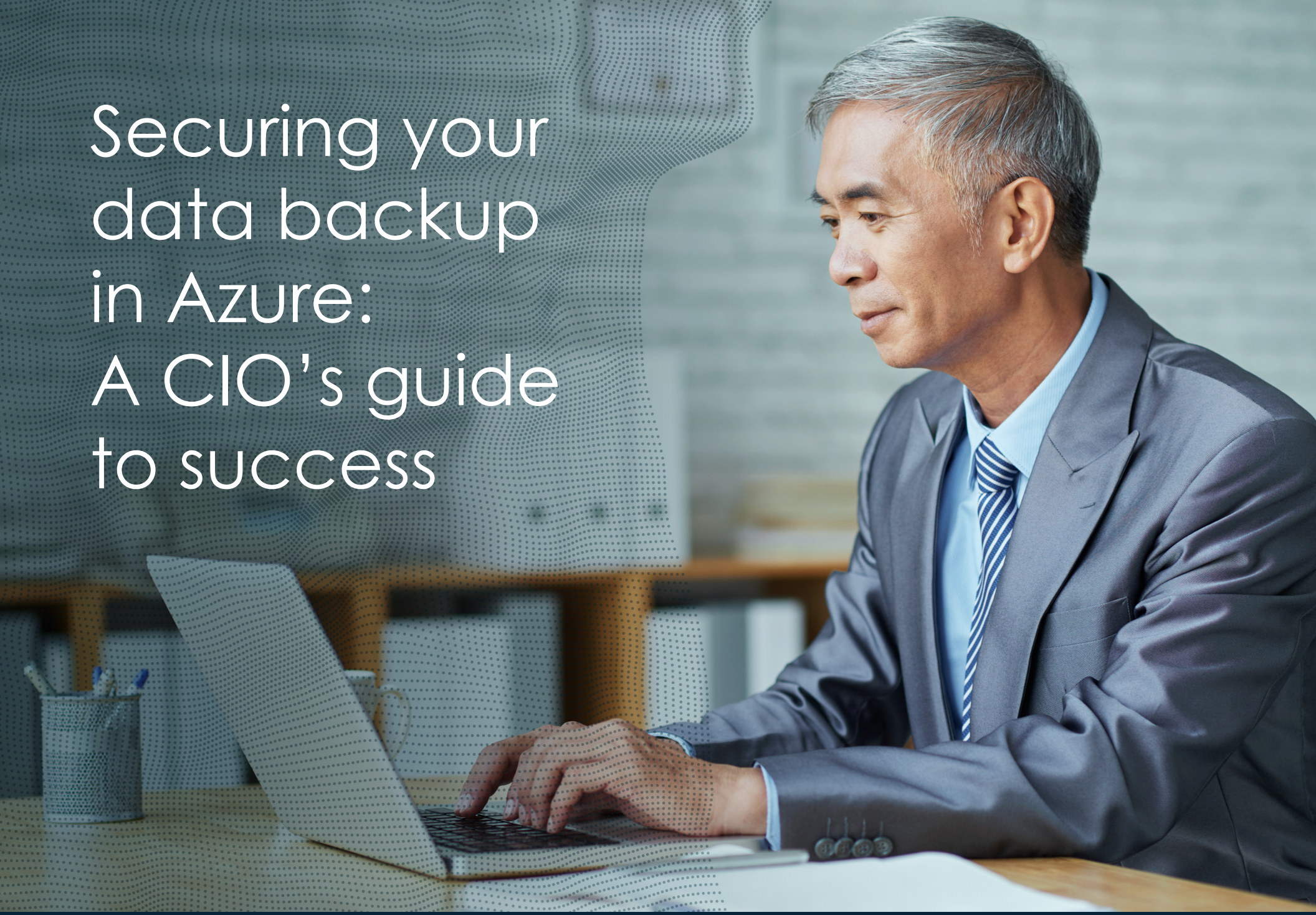
Securing your data backup in Azure: A CIO's guide to success



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5 key advantages of managed backup to Azure

Managed backup is an appealing proposition: Unload your obsolete tape drives and hire experts to handle your backups securely in the cloud. But then comes a perplexing question: Where do you put the critical data that compiles your backup?

There are a plethora of options when it comes to data backup and with so much at stake it can be a daunting task to get it right the first time because failure could be very costly. Choosing the right consumption model and infrastructure environment for managed backup comes down to weighing the respective capabilities, costs, and limitations in the context of your unique business challenges.

In our experience, Microsoft Azure rises to the top for managed backup because it has five key advantages:

- **Availability.** A global network of Azure data centers ensures your data is there when you need it.
- **Compatibility.** Azure deftly dovetails with Microsoft Network technologies. It also supports Linux and multiple virtualization and containerization solutions.
- **Security and compliance.** Data is encrypted in route and at rest with managed Azure, which can address a broad range of regulatory requirements.
- **Testing.** Managed Azure backup can simplify the process of validating that a backup has been properly designed and configured.
- **Economy.** Pay-as-you-go billing can cost far less than an in-house solution.

This eBook from CTBS explores the many facets of choosing Microsoft Azure for managed backups. Let's get started.

Part 1: Availability

Challenges:

- Organizations prefer data centers located within their geographic region. Indeed, many regulations require backup storage within the borders of a specific nation.
- Many companies need offsite data replication for recovery from events and incidents such as malware or ransomware.
- Data must be recoverable within well-defined points in time to ensure the business can recover as quick as possible and resume normal operations.

Managed Azure advantages:

Azure uses Microsoft data centers across North America, Europe, Asia, and Africa. In addition to data centers throughout the United States and Canada, Azure has locations in Brazil, the UK, Germany, France, the United Arab Emirates, India, Australia, China, Japan, and South Africa.

This expansive regional coverage allows Azure to provide offsite data backup services to nearby regional data centers that can keep your data in the region you require but far enough away as to be protected from your primary production environment. For instance, data stored in the north central U.S. can be replicated to the south central U.S. Or, data in eastern Canada can be replicated to central Canada.

Backup to Azure also can be configured for recovery time objectives (RTOs) and recovery point objectives (RPOs) based on your priorities for data that must be available as soon as possible.

Backup and restoration pose technical complications and cost issues best resolved by experts. Thus, to get the most performance from these features, you need a managed backup partner with broad experience in Microsoft technologies.

Best candidates for Azure Managed Backup

- Companies already using a broad suite of Microsoft technologies.
- Small to midsized companies that need to upgrade their data protection and security.
- Organizations looking to offload their backup duties to an expert.
- Enterprise's looking to replace aging tape-drive systems with modern cloud backups.
- Companies that want to avoid the cost of duplicate data centers.

Part 2: Compatibility

Challenges:

- Organizations have strong commitments to technologies like Microsoft Network and Office 365.
- Companies need support for the Windows and Linux operating systems, plus technologies like Python, Java, PHP, and Node.js.
- IT departments require access to popular services like virtualization and containerization.

Managed Azure advantages:

If you're already using Office 365 and Microsoft Network, your IT people understand the underlying technologies. Staying in the same software family streamlines the process of backing up to Azure and simplifies everything if you need to restore quickly in a crisis.

Like any large technology provider, Microsoft has its own ways of supporting third-party and open-source solutions. When you partner with a managed backup provider who uses Azure, make sure they have extensive experience and certifications in multiple Microsoft technologies.

Part 3: Security and compliance

Challenges:

- Organizations need encryption in transit and at the final backup site when at rest.
- Highly regulated companies require long term storage solutions specific to their region and industry.
- Making sense of security and compliance requires substantial knowledge and experience.

Managed Azure advantages:

Microsoft's expertise in enterprise-level compliance extends to the Azure cloud. The protocols developed working with government agencies and regulators around the world are integrated into the Azure ecosystem.

For starters, Azure relies on a secure, encrypted tunnel to retrieve data from its clients. Data also can be encrypted in the Azure cloud. Again, Microsoft's global network of data centers ensures region- and country-specific backup as required by regulations.

Azure also complies with a wide range of regulatory frameworks including:

- HIPAA
- IRS 1075
- ISO/IEC
- ITAR
- Canadian Privacy Laws
- DoD
- FERPA

There are dozens more. Here's a complete list of Microsoft compliance offerings.

If you visit Microsoft's Introduction to Azure Security, it's easy to be overwhelmed by all the facets of protecting data backups in the cloud. These issues illustrate the advantages of working with a managed backup provider staffed with experts trained, certified, and motivated to know the subtleties and nuances of cloud security.

A knowledge gap in any of a dozen security disciplines could be the one that costs your company dearly.

Part 4: Testing

Challenges:

- The multiple moving parts in a backup create opportunities for errors and glitches that show up only in the restoration phase—which often is a crisis and therefore the worst possible time.
- Careful design and implementation of backups requires comprehensive testing, validation, and documentation to ensure a backup works when needed.

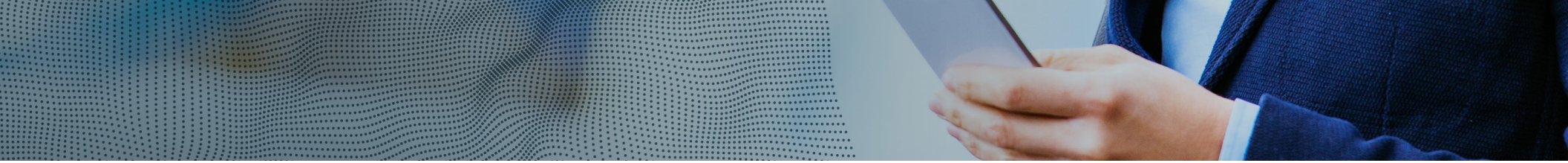
Managed Azure advantages:

Because Azure is a native enterprise environment, it's built to handle sophisticated backups including VMs, containers, and all manner of size and complexity.

That's important because effective backups require a smart strategy and sound design that accounts for precisely what you want to back up and how you will need to recover it. Once you have that design in hand, it's crucial to test it for bugs and document the entire backup process and refresh it on an annual basis, at a minimum.

Testing your Azure backups typically means picking a data set that most represents the type of critical data that would have a material impact on your business and then performing a restore to ensure you can infact recover and at the same time meet your RTO and RPO objectives. Also, Azure testing should be done at least annually, though quarterly is even better.

An experienced managed backup provider can ensure your data is replicated, secured, and accessible according to your business needs.



Part 5: Economy

Challenges:

- High availability and secure data centers are expensive to design, equip, manage, and maintain.
- Traditional enterprise backups often consume resources but provide a false sense of security as they have never been tested.
- Tape-drive archives are slow, unwieldy, and obsolete for many use cases.
- Replacing data center equipment may oblige companies to pay for more power and performance than their business requires.

Managed Azure advantages:

Azure solutions share the benefits of most cloud environments. Companies can stop paying millions to equip data centers for backup and computing power they do not need. Instead, they switch to a consumption based model which bills them only for the resources they use and no more.

Switching to Managed Azure for cloud backup also allows companies to move beyond their aging tape-drive systems. While some extremely large datasets work best with tape backup, the declining costs of bandwidth and disk space make cloud backup more attractive for most use cases.

Indeed, the savings in hardware costs often make it practical for organizations to partner with a managed backup provider who will ensure their backups work as expected and deliver in a crisis.

A better way to back up your systems and data

Backup used to be a chore people endured or neglected (or both). Then they wished they'd had better options after an expensive system crash.

Azure in the cloud gives leading organizations an opportunity to use best-in-class backup technology that once was the sole domain of corporate giants. For all this potential, Azure and its cloud brethren pose a dilemma: Use a fraction of their capabilities with in-house expertise, or partner with a managed backup provider who takes care of everything.

Working with a managed backup provider requires you to cede some control of your backups. But the benefits far outweigh the costs: You have access to the best Azure cloud-backup talent, and you can deploy your IT brainpower where it does the most good—optimizing technology to strengthen your core business.

CBTS has helped a wide range of organizations hand off their backup duties, saving money and improving security along the way. Our IT specialists have comprehensive training and multiple certifications in cloud, Microsoft, and cybersecurity technologies. Let us help you find the best Azure managed backup solution for your business.

About CBTS

CBTS is a wholly owned subsidiary of Cincinnati Bell (NYSE:CBB) that serves enterprise and midmarket clients in all industries across the United States and Canada. From Unified Communications to Cloud Services and beyond, CBTS combines deep technical expertise with a full suite of flexible technology solutions that drive business outcomes, improve operational efficiency, mitigate risk, and reduce costs for its clients.

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