rubrik Microsoft World Wide Technology

Moving to the Cloud Takes More Than the Right Data Management Solution

Be in control of your most valuable asset, wherever it resides, and align your company and processes with the best Cloud Smart strategy for using the right cloud technology every time.

An eBook written by World Wide Technology (WWT) with an introduction from Rubrik & MIcrosoft.

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by Rubrik & Microsoft

When we think about managing data, we might use the analogy of an air traffic control tower. The control tower – the airport's brain and central nervous system – is designed to organize what would be chaos, and it keeps incoming and outbound air traffic moving in an organized, smart, and safe manner.

Even in today's pandemic world, our supply chains, logistics systems and movement of goods are heavily reliant on a globally connected and sophisticated air traffic system for management and governance. Air traffic control can determine priorities for landing and departing, altitudes, speeds, and even where planes should be parked when not needed.

Data Smart, Cloud Smart

In a similar fashion, when it comes to your data and the cloud, there is no "one-size-fits-all." Public cloud, private cloud, hybrid cloud, co-location (near cloud) and more are all viable considerations. Businesses can do amazing things with new technologies such as Artificial Intelligence (AI) and Machine Learning (ML), but only if they have their data in an agile, mobile, economical and resilient format to support those initiatives. By readying your data management with the right Cloud Smart strategy, you have a clear path forward toward the modernization of all aspects of your organization.

Mitigate Risk with the Advanced Technology Center

Cloud data management is an indispensable tool in today's data-driven world. This eBook explores the risks and challenges facing organizations today as they move to the cloud, and offers concrete advice on how to overcome barriers to digital transformation. WWT's Advanced Technology Center is the ultimate risk-mitigating, cloud-enabled lab environment for any enterprise. It lets you try before you buy – consider it a customized test-drive loaded with the technology that you use.

We hope you enjoy this eBook from WWT about how to think about and protect your data.

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CHAPTER ONE

The Data Management Gap

Walgreens makes it possible for customers to use their Apple watches[1] to manage their medication schedules, and earn loyalty points when they pay using Apple Pay. Anheuser-Busch (InBev) developed a mobile app[2] for retailers to not simply automate the re-ordering process, but to also make replenishment suggestions so that salespeople can focus on product education and relationship-building. And a large mid-western hospital[3] was able to support chronic-care patients at home through an Internet of Things (IoT) platform that creates alerts for physicians based on data collected from sensors in hospitals, remote clinics, and patients' homes.

These stories of digital transformation are possible because these businesses are able to manage their data.

The right cloud data management solution is clearing the path for organizations to become more agile, innovative, automated, and resilient. By modernizing your data management protection and processes, you will:

- increase your agility, impacting innovation and competitiveness,
- limit risk due to any exposures such as breaches or human error,
- support your business initiatives while addressing all compliance requirements, and
- benefit from speed of execution, flexibility, and scale.

Data Management is Much More Than Backup and Recovery

Often when we speak with clients about data management, they immediately think about their backup and recovery systems. But when looking at how you manage data, using the term “backup” describes just one of many possible related functions associated with next-generation data management. For example, today it is table stakes for data protection solutions to recover production data from a backup. But what if you had a data management platform that:

- indexed all ingested data for easy Google-like searchability,
- could instantly recover data locally or remotely for DR or dev/ops or audits,
- could automatically tier data location according to its diminishing value,
- could run AI and ML for QA or compliance or ransomware remediation etc

Now you are moving beyond legacy backup and into true data management.

Data is Heavy and Often Difficult to Move

If we go back to the air traffic control analogy in the introduction, airports have an intelligent data management system developed to optimize runways and airspace. Airports auction landing slots off to the highest-value users (think critical data), and conscientiously manage takeoff and landing times and flight trajectories to guarantee that aircraft depart and arrive in the proper sequence, at the proper time. The takeoff and landing queues are the peak of efficiency.
A plane taking off or landing every two minutes is smart management of limited space and time. Now, apply those same principles to your data management. Imagine that the airplanes equate to 700TB of data tied to multiple departments, applications, and other dependencies, and include files that users will never ever delete.

The Value of an Enterprise Try-Before-You-Buy

That is why it is critical not to go blindly into the cloud. You don't want to go through the process of building an airport only to find that the planes can't effectively land there, or that the cost of landing and parking in the hangar exceeds your budget. Ideally, you want to reduce your risk and prove out the value. This is where our WWT Advanced Technology Center (ATC) can be a useful laboratory for you to test and learn where your data and applications should reside. The ATC can help you design your own Cloud Smart strategy.

CHAPTER TWO

Empower Your Data-Driven Business

There are three key enablers to the success of data-driven businesses:

- Cloud (we define this as public, private, hybrid, and near-cloud)
- Automation
- Data resiliency

Each pillar addresses a specific challenge that companies face, as well as a prospect for growth, operational efficiency, and innovation. To elaborate, cloud mandates are plentiful but strategies are few. However, once cloud strategies are appropriately planned and suitably executed, the cloud presents massive opportunities for businesses to be agile and innovative, and to scale up and down as necessary in the digital economy.

Cloud Smart = Unlimited Data, Unlimited Cloud, Unlimited Backup

To say that data is generated at a high volume is an understatement. An estimated 175 zettabytes of data will be created globally by 2025.[4] It's difficult to store that amount of data in a secure and compliant way while keeping it accessible for business needs. Companies that back up on-premises face growing infrastructure costs and missed backups due to latency or human error and slow recoveries, and leave data susceptible to physical harm and natural disasters.

The cloud was built to safely and affordably store data, and your Cloud Smart strategy can take advantage of this.

Public cloud IaaS workloads suffer at least 60 percent fewer security incidents than those in traditional data centers.[5] And, with data growing exponentially, cloud data management is a necessary economic reality for most businesses. But this does not mean that the public cloud is right for every workload.

"When the digital transformation is done right, it's like a caterpillar turning into a butterfly, but when done wrong, all you have is a really fast caterpillar."

– **GEORGE WESTERMAN**, PRINCIPAL RESEARCH SCIENTIST
MIT SLOAN INITIATIVE ON THE DIGITAL ECONOMY

Do You Have a Cloud Smart Strategy?

It's forecast that by 2022, 70 percent of organizations will have a formal cloud strategy in place.[6] That means most companies currently have a cloud mandate but not necessarily a plan concerning how to achieve the directive.

The goals of digital transformation don't need to be colossal and earth-shaking. In fact, the bulk of companies have "modest and incremental (34 percent) or moderate and extended (39 percent) ambitions for their digital transformations. Only 19 percent say their efforts are leading to something "disruptive and fundamentally new."[7]

A straightforward place to start your cloud journey is to simply use it correctly for data backup. Once a copy of your data is in the cloud, you can test the impact of cloud economics on your application, but, more importantly, you can reimagine how dev/ops, DR, application refactoring, etc. can benefit from a mobile, agile, and easily scalable architecture.

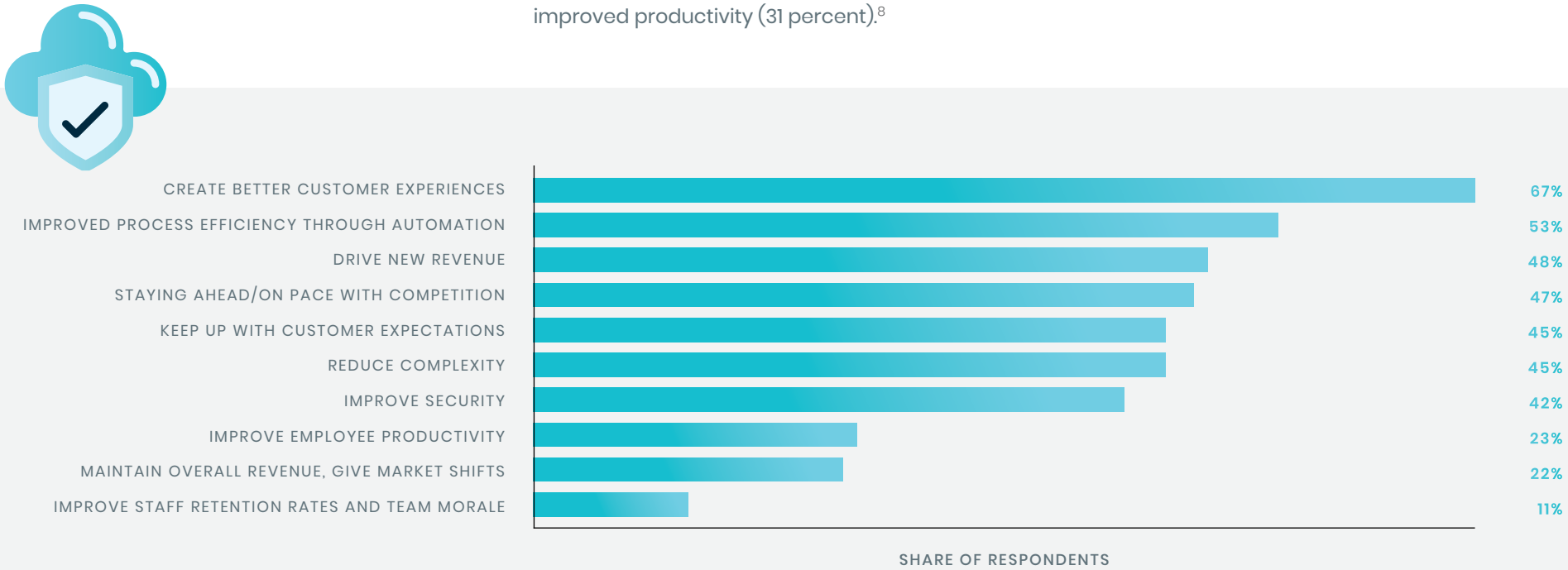
The Power of Automation

Companies often lack the resources to properly manage, secure, and back up their escalating data. Coinciding with the increased data are increased demands on employees' time. If your organization is relying on manual scheduling processes to complete hourly/daily/weekly/monthly/yearly backup tasks, then you're only compounding the data management crisis.

Automation tools offer considerable value towards both innovation and the bottom line. The more your organization can automate repeatable manual processes, like data backup, the more it frees employees to perform higher-value activities. The primary reasons for using automation tools are cost (42 percent) and improved productivity (31 percent).[8]

According to the most recent IDC Digital Worldwide Survey of 702 respondents within organizations that have plans to adopt or have already launched a "digital first" approach, automation is the second-highest objective for seeking the benefits of digital transformation initiatives.[9]

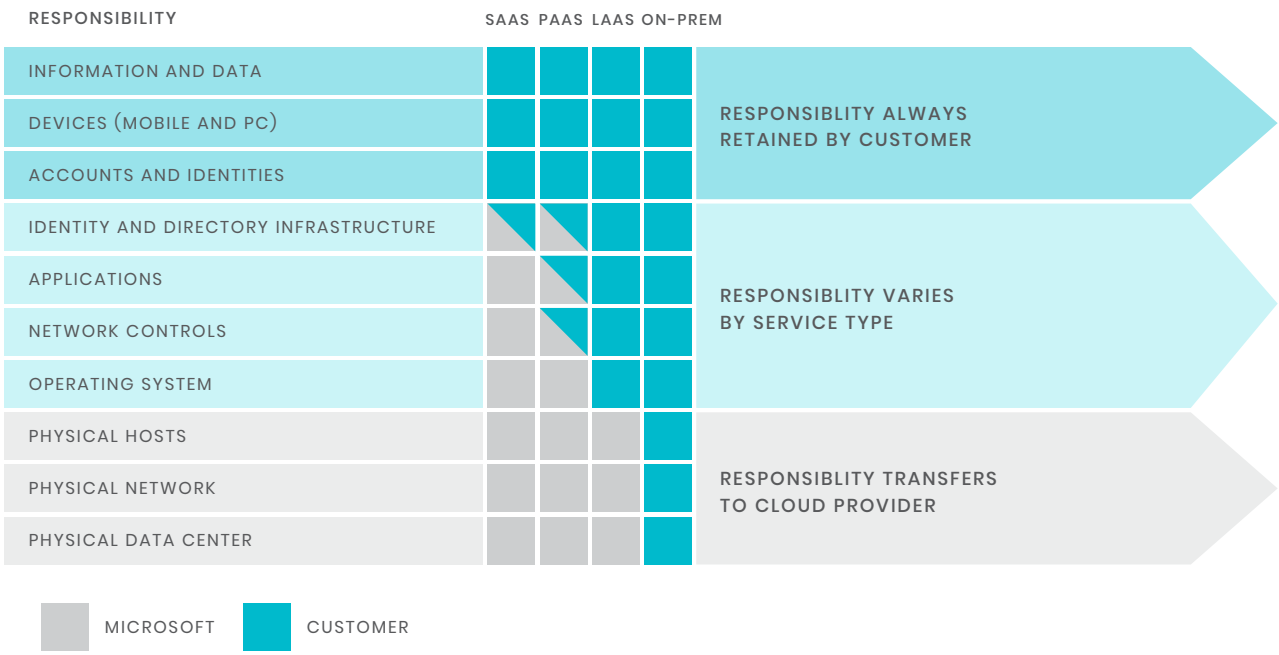
It's not just about increasing the good... more often it is a discussion of using automation to improve production and negate the bad associated with legacy solution costs and insufficient resiliency. Studies show that inefficient processes and consequent failures to achieve RPOs/RTOs can actually cost organizations between 20-30 percent of their annual revenue.[10]



Protecting Your Assets with Rapid Data Recovery

Worldwide spending on digital transformation technologies will be more than $6 trillion over the next four years, and will create massive amounts of data and an escalation in cyber threats, attacks, and breaches.[11] If organizations are not prepared to manage and protect this data in a resilient manner, they are effectively putting their businesses at risk, which manifests in two crucial ways: financial impact (both short- and long-term) and loss of competitive advantage. The time from a threat actor's first action in a breach event chain to the initial compromise of an asset is measured in minutes, while the time to breach discovery is likely weeks or months[12] (on average, 206 days to detection).[13]

SHARED RESPONSIBLITY MODEL



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With high security and compliance requirements, along with their corresponding penalties, protecting data is highly important. Sixty-nine percent of organizations still incorrectly believe data protection, privacy, and compliance are the responsibility of their cloud provider.[15] Instead, cloud providers generally operate on a basis of shared responsibility for security, availability, and data protection alike.

Companies must ensure data is protected from disaster events such as cyber threats, including malware and ransomware, internal threats such as human error, and outside threats such as natural disasters. A survey shows 94 percent of companies that suffer from a catastrophic data loss do not survive – 43 percent never reopen and 51 percent close within two years.[16]

Fifty-two percent of those organizations had a malware-related security breach,[17] while 16 percent of survey respondents say their companies lost intellectual property or confidential data as the result of a data breach.[18] Statistically speaking, you are going to be breached – the question is, how quickly can you recover?

That's why organizations turn to immutable cloud management platforms to augment their defense - in-depth strategies to minimize data loss in the event of a failure or ransomware attack. An immutable cloud management platform cannot be changed once deployed. When modifications are made, they are made on top of the immutable infrastructure but without altering the original. Therefore, if your data is maliciously altered or modified in any way, it is fast to recover from a point before modification.

Choosing the right cloud data management platform gives your organization the multitude of benefits that the cloud offers, and makes digital transformation a simple and straightforward process.

CHAPTER THREE

Back Up to Go Forward

Enterprise users may already think they are backing up their data securely and effectively, or maybe they (erroneously) aren't convinced they need to back it up at all. They assume that, because they have purchased cloud-based applications outside of sponsored IT initiatives, they come with backup, without considering the enterprise's governance, compliance, or operational backup needs.

There is a lot of confusion around the enterprise water cooler about cloud storage, cloud sync, and cloud backup. Are any, or all, of these really necessary for your company? In the world of escalating data, remote workers, online collaboration, cyber threats, natural disasters, and human error – the short answer is yes.

Cloud storage, cloud sync, and cloud data management all help to protect data and ensure business continuity. But many users are unaware of what each of these solutions does for your data:

- Cloud data management saves your data in case of loss or damage to the primary copy.
- Cloud storage creates a gateway to access information from anywhere.
- Cloud sync is for multiple users to access data, and to make changes across the board from different devices.

Some software provides features on a single platform, offering enterprises that require it a chance to use all three.

If you have a cloud mandate, archiving to the cloud can provide immediate, massive value to your enterprise – an easy way to quickly "check the box." More importantly, once your data is in the cloud, then it's exponentially easier to pursue high-value initiatives like accelerating dev/ops, experimenting with on-demand DR, and layering in robust data analytics based artificial intelligence (AI) and machine learning (ML) solutions.

Seventy-four percent of CFOs in the technology industry report that the cloud will have the greatest measurable impact on their business, beating out other technologies like Blockchain and AI. [19]

Nevertheless, leaping into the cloud or increasing cloud reliance without a clear plan leads to operational inefficiencies. Companies of all sizes, across all industries, can realize both immediate ROI and long-term benefits through a thorough cloud data management strategy.

A nationwide insurance provider worked with us to create and implement a sound cloud strategy. They wanted a more secure home for their data, and to simplify operations at scale while saving money. Together, we created a smart approach to their cloud mandate that ensures faster restore and recovery of critical databases and scalability through seamless integration with an automation suite. Moving the data backup to the cloud also saved them $3 million in cost savings, with lower TCO from converged infrastructure.

To be a leader in the digital economy, organizations need to leverage business data to drive decisions and run everyday operations. Proper use of the cloud and cloud data management can decrease in-house infrastructure and software licensing expenses, and increase IT personnel ROI – it can also mean fewer operational inefficiencies and more data resilience by combatting:

- Data silos
- Tool sprawl
- Data vulnerability
- Data storage limitations
- Ineffective resource allocation
- Backup RPOs and RTOs that do not meet current business SLAs

To start the process of creating a comprehensive Cloud Smart data strategy, first gauge where your organization is and identify where you want your company to go. Question what, specifically, is driving your business towards cloud adoption.

Whether it is data center modernization, improving agility, increasing productivity, cost savings, reducing backup time and management, or streamlining processes, the right cloud solution can help you back up to move forward. It's not just about buying a solution; it's about reaching a business outcome.

CHAPTER FOUR

Limiting Your Transformational Risk

We've entered the age of data and analytics for everything.

Global revenue for big data and business analytics (BDA) solutions reached $189.1B in 2019.[20] Ninety percent of enterprise professionals say that data and analytics will be key to their organization's digital transformation initiatives by the end of 2020.[21]

IDC says that "Digital transformation is a key driver of BDA spending, with executive-level initiatives resulting in deep assessments of current business practices and demands for better, faster, and more comprehensive access to data and related analytics and insights." IDC continues, "Enterprises are rearchitecting to meet these demands and investing in modern technology that will enable them to innovate and remain competitive. BDA solutions are at the heart of many of these investments."[22]

"Information is the oil of the 21st century, and analytics is the combustion engine. Pursuing this strategically will create an unprecedented amount of information of enormous variety and complexity," states a Gartner report.[23] Too many organizations rush to fulfill a cloud mandate and end up placing an innovative technology platform on top of a flawed foundation. A weak foundation inevitably leads to disappointing results and diminished ROI.

Register and Use the WWT ATC for Yourself

World Wide Technology (WWT) offers a state-of-the-art technology innovation ecosystem for customers looking to transform. The WWT Advanced Technology Center (ATC) is a collaborative ecosystem to design, build, educate, demonstrate, and deploy innovative technology products and integrated architectural solutions for WWT customers. At the ATC, customers can "test drive" the cloud and evaluate not only the effectiveness of their strategy but the impact the changes will have on people's roles and organizational processes. This helps take the risk out of the transformation.

One of the most significant risks to the success of digital transformation is a misalignment between a company's technology, goals, people, and processes. In a survey of enterprise executives, the most significant impediments to delivering results through data and analytics were identified as a lack of leadership support, ill-fitting organizational structures, and the wrong mix or lack of internal talent.[24] Ensuring that the right data analytics operating and governance model is implemented frees your business to capitalize on its data assets fully. Yet, according to Gartner, only eight percent of company leaders report engaging in practices identified as critical enablers for analytics at scale.[25]

Be Confident in Your Cloud Smart Strategy

It's not enough to buy the right cloud data storage solution; you also need to support the solution with proper governance, processes, and people. That's why the ATC environment and WWT's Cloud Smart Strategy and Architecture offerings can be critical factors in containing risk and sustaining a successful digital transformation. The WWT ATC is an interactive showcase that bridges the world's top technology companies and the world's leading public cloud providers. The ATC offers a multi-vendor, multicloud environment where customers can validate and compare solutions in real time, building out their own Cloud Smart strategy.

It's not just the technology that customers can experience: WWT's experienced architects and consultants are here to help customers hone their cloud vision, develop their strategy, and deliver their business outcomes.

At WWT, they know it's not just about the technology, but the business outcomes that technology drives.

CONCLUSION

Test Drive Modern Cloud Data Management

With WWT your organization can achieve:

WWT – Our Partnership with Rubrik and Microsoft

Cloud storage and data management are indispensable tools in today's hyper-connected and data-driven world. WWT is invested in partnering with the top technology leaders. In particular, our partnership with Rubrik & Microsoft Azure makes for a powerhouse team, ensuring that your data is stored securely and efficiently. Data backup to the cloud is a "no-brainer" way to check your "using the cloud right" box.

The WWT, Rubrik & Microsoft Azure approach deploys in minutes. It enables a continuous stream of recovery points to minimize data loss in the event of a failure or ransomware attack. It offers near-zero RPOs with single click CDP, and minimizes ransomware downtime with Rubrik Radar and Instant Recovery. Rubrik Intelligent Data Tiering helps customers optimize Microsoft Azure storage consumption.

Moving Beyond Table Stakes and Proving the Value at the ATC

The intelligence and logic that is built into Rubrik's **Instant Tiering and Smart Tiering** technologies will help solve common problems and provide cost savings in the public cloud. Smart Tiering is the best option for a complete, automated data lifecycle solution, and Instant Tiering allows for getting a snapshot to the Archive tier for long-term retention. Rubrik makes moving and tiering snapshots to Azure simple and efficient while also giving you more control over your cloud storage consumption and costs.

Automation frees employees to work on higher-priority tasks, while our solution takes care of your data. Explore at the Advanced Technology Center (ATC) what WWT, Rubrik & Microsoft Azure can do to help increase your business value and profits through improved efficiency.

Visit WWT's Advanced Technology Center. We can provide you with a virtual tour and discuss your options for how the ATC can help you. Discover what WWT, Rubrik & Microsoft Azure are doing together to modernize your backup and help move your company forward.

REGISTER TODAY

Sign up for a free WWT Digital Platform account for access to the ATC, as well as a tremendous set of resources and collaboration tools built to help you develop and deliver innovative technology solutions.

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