

**Optimize your cloud implementation
with trusted experts to help guide your path.**



Get guidance. Then, get going.

Moving to the cloud has many benefits, most of which are enthusiastically touted: greater scalability and storage options, and better visibility into business operations, to name just a few. Yet a move to the cloud doesn't always mean blue skies—at least, not if you don't have a guide to help you get the most out of your move.

Recently, a company began a migration to the cloud with high hopes. Yet, internal stakeholders began losing confidence when they saw what they believed to be skyrocketing costs. These issues nearly convinced the company to abandon the move to the cloud altogether and stay with the legacy on-premises system they already used and understood.

A consultation with DataEndure changed the game. DataEndure's cloud and storage experts helped this company understand how storage tiering worked, and the importance of capturing snapshots for data backups, both of which significantly reduced their cloud usage and spend. These optimizations led to a reduction in the company's cloud spend by a whopping 75%, allowing the company to continue to move towards the goals they had set when beginning their cloud migration project.

Cloud migration and optimization can create confusion. Though the flexibility and scalability of the cloud are enticing, businesses can sometimes stumble when first attempting to take advantage of cloud technologies. We often hear customers say, "I had no idea the cloud was so different than an on-premises environment." The reality is that cloud infrastructure *is* different. Simply "lifting and shifting" your on-premises databases to a new cloud server won't be enough to help you optimize the cloud's true value, like tiered storage models that can create significant savings. If you're expecting to be able to task your IT teams with migrating workloads to the cloud with the expectation that they'll instantly be optimized for the specifics of your environment, you may be

in for a rude awakening. Fundamentally, the cloud is another methodology for the consumption of compute resources—but to get the most from it, you need to know how to leverage cloud business models to get what you need for your business. A new environment demands new tools, and new knowledge, to get the most for your investment.

DataEndure can help assess your cloud readiness and business goals to find solutions that support you now—as well as set you up for future success.

DataEndure helps you determine the best solutions for your cloud implementation, including NetApp Cloud Data Services such as NetApp Cloud Volumes Service and NetApp® Cloud Volumes ONTAP®, powerful, cost-effective, and easy-to-use data management solutions available in Amazon Web Services (AWS) Marketplace.

The DataEndure Five-Level Cloud Maturity Model

DataEndure has developed a Five-Level Cloud Maturity Model that can help your organization understand where your applications are today, identify your ultimate business goals, and map out a plan for implementing cloud solutions to help you achieve those goals. Knowing where you are on that path is a critical first step in achieving your desired outcome.

The DataEndure Five-Level Cloud Maturity Model consists of the following levels:

LEVEL 0: DO NOTHING

Your application is not consuming cloud infrastructure services at all. All your data is stored in legacy, on-premises systems.

LEVEL 1: BACKUP ON THE CLOUD

You've started backing up and/or replicating application data to the cloud. You are opting to start removing tape from your backup and recovery process, and you are beginning to use cloud storage solutions such as Amazon S3 for backups and replication.

LEVEL 2: ARCHIVING AND STORAGE ON THE CLOUD

You use the cloud for archiving and consuming storage services like Amazon EBS, Amazon S3, and Amazon Glacier, as well as NetApp Cloud Volumes Service or Cloud Volumes ONTAP. Technically this phase is still a replication, as you are not yet putting production storage on the cloud.

LEVEL 3: COMPUTE ON THE CLOUD

You've started to consume compute resources on the cloud for your application, such as bringing databases to a cloud environment. With the addition of Cloud Volumes Service or Cloud Volumes ONTAP, you now have the ability to capture snapshots, replicate storage, and have disaster recovery workloads on the cloud. You can use the enterprise storage services you are familiar with to bring production data to the cloud and create copies of servers on the cloud. You're up and running, but you have not yet truly optimized your implementation.

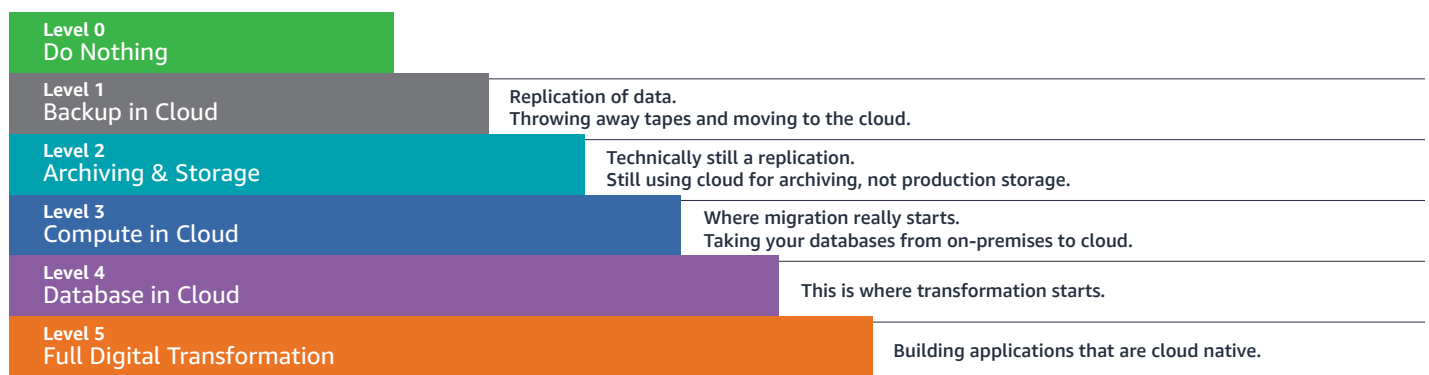
LEVEL 4: DATABASES ON THE CLOUD

You are consuming cloud-native databases and other cloud native services, allowing you to move your applications to the cloud while avoiding the pitfalls associated with a traditional "lift and shift" of legacy database infrastructure that could result in cloud inefficiencies. This is the level at which digital transformation begins.

LEVEL 5: FULL DIGITAL TRANSFORMATION

You are now building applications that are fully cloud native. This is the level of full-stack digital transformation. Very few organizations, with the exception of born-in-the-cloud startups, have reached this level of true cloud optimization for all their applications—but once you've done so, you're fully ready to take advantage of all the benefits of cloud infrastructure for every part of your organization's workflow.

CLOUD MATURITY MODEL: INCREMENTAL AND ITERATIVE



Applying the DataEndure Cloud Maturity Model to your business

DataEndure helps ensure that your move to the cloud progresses in step with your organizational goals. Using the Five-Level Cloud Maturity Model, we help you understand where you are today, and map out your optimal cloud environment.

DataEndure acts as a translator and a trusted guide, helping to break down “cloud-speak” into easily understood concepts that convey how individual cloud business models such as storage tiering work, and why. In addition, DataEndure can help you assess your specific technical needs, and how best to migrate your workloads to a cloud environment for the highest level of performance and the lowest costs.

DataEndure is a solution provider and managed security services provider, with a portfolio that supports your cloud, infrastructure, and security needs. This includes:

ARCHITECTURE DESIGN, DEPLOYMENT, AND MIGRATION SERVICES

DataEndure leverages extensive NetApp Cloud Data Services on AWS and data storage experience to ensure that your cloud storage purchase is sized correctly, meets all requirements, can scale as the environment grows, and is deployed correctly from the start.

APPLICATION OPTIMIZATION EXPERTISE

Today’s application environments are far too demanding to address with legacy storage methodologies. You need specific application expertise to size and tune your cloud storage environment. DataEndure helps you optimize your NetApp Cloud Data Services on AWS purchase so that you always get the performance and availability needed to meet your business objectives.

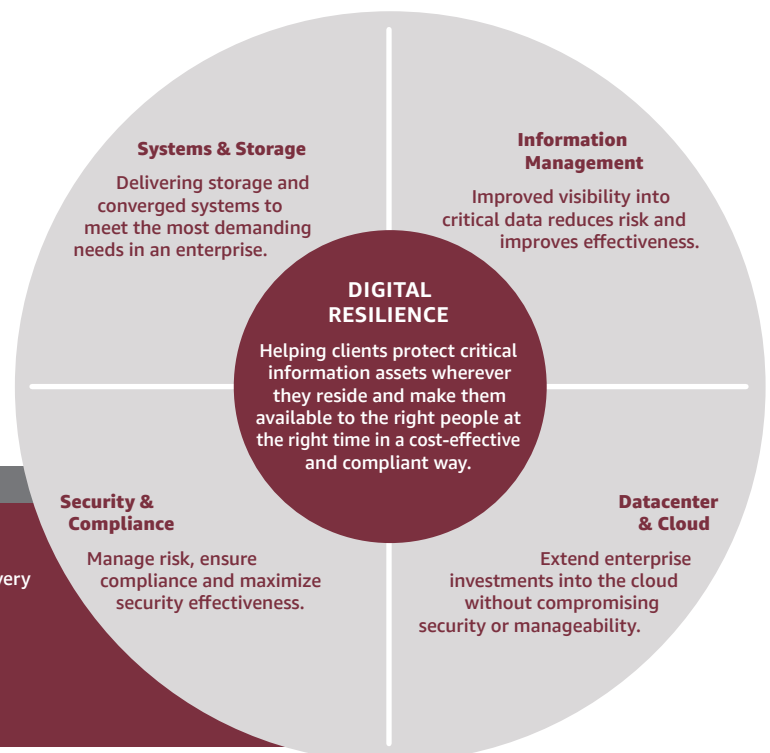
CLOUD AND HYBRID SOLUTIONS WITH NETAPP CLOUD VOLUMES SERVICE AND CLOUD VOLUMES ONTAP

After provisioning virtual servers on AWS, your IT teams need the ability to enforce data governance and security, as well as the ability to leverage enterprise functionality such as application integrated snapshots, data replication, and deduplication, all managed in a single pane of glass. DataEndure leverages NetApp Cloud Volumes Service and NetApp Cloud Volumes ONTAP to provide enterprises with a common data management framework to help enforce current data governance and security protocols, regardless of where data is located.

DataEndure can also support your business in the following areas:

- › Application dependency mapping
- › Application right-sizing
- › Hyper-scaler spend forecasting
- › Migration services around every tier
- › Cloud-health monitoring
- › AWS cost containment and management
- › Cloud billing and optimization

SERVICES		
Healthcheck <ul style="list-style-type: none">• Storage• Archiving• Backup• Virtualization• Vulnerability• Compliance• Cloud Readiness• Data Risk	Assessments <ul style="list-style-type: none">• Dark Data• Application Discovery Design & Implement <ul style="list-style-type: none">• Network• Storage archiving• DRP• BCP	Managed <ul style="list-style-type: none">• Backup• Email Archive eDiscovery• Compliance (GRC)• SOCaaS• Endpoint Security



Move to the cloud with confidence with DataEndure, NetApp, and AWS

Regardless of where you are in your cloud maturity journey, DataEndure can help you understand your opportunities, migrate to the cloud, optimize your applications, and help with the implementation. DataEndure takes a holistic approach to architecting and delivering a cloud data management strategy, leveraging integrated and interoperable solutions with a focus on delivering our clients' desired business outcomes.

DataEndure supports you in every step of your journey, from solution recommendations, to engineering, to deployment. With more than 15 years of cloud expertise and a specialization in migration and disaster recovery projects, DataEndure can help you evaluate your current enterprise workloads, and identify and implement solutions that fit your business needs.

DataEndure is a NetApp STAR Partner and a Cloud First partner.

Already in the cloud? Contact DataEndure for a free [Cloud Health Check](#).

Or, if you're just getting started, reach out to learn about our [Application Dependency and Discovery Mapping service](#).

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About NetApp and AWS

NetApp and AWS share a common vision of obsessing over customers and delighting them with innovation. We continue to listen to what our customers need to achieve their cloud mandates and deliver solutions that outpace an evolving landscape of cloud data management requirements. We care deeply about providing technologies for workloads that are highly secure, scalable, and flexible; while providing customers with a variety of purchase and deployment options.

NetApp Cloud Volumes Service is a fully managed cloud file service that provides Cloud Architects with the advanced data capabilities that Developers and users want, while simplifying operations and controlling the cost of moving to and using data on the cloud. We do this by providing cloud-native, multiprotocol storage with extremely fast performance, so companies can move applications to the cloud and run them there months, even years, sooner.

NetApp Data Fabric is an architecture and set of data services that provide consistent capabilities across a choice of endpoints spanning on-premises and cloud environments. It simplifies and integrates data management across cloud and on-premises environments to accelerate digital transformation.

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