# A Cloud that Works for the Enterprise
## How CBTS can deliver on the promise of a managed public cloud on AWS

# cbts

Consult   Build   Transform   Support

## Introduction

The enterprise is facing a critical stage in its evolution from a traditional product and services provider to an agile digital entity capable of fulfilling the data-driven needs of the modern economy. While legacy infrastructure still plays a vital role and represents a significant investment in time, expertise, and capital, the future belongs to a more flexible, scalable, and efficient model that can better support digital services-based revenue streams.

These twin demands have left many enterprise executives in a bind. For decades, the natural order of IT has been to build on existing infrastructure to provide greater performance to current systems and processes. In this era of digital transformation, however, the focus will be on developing new sources of revenue through connected services, starting with mobile apps but very quickly encompassing connected devices on the IoT.

Digital transformation demands an all-new approach to cloud-native applications and automated infrastructure, one that brings the dynamic performance and scalability of the cloud into the data center. At the same time, on-premises infrastructure needs to extend outward to the public cloud, creating a digital loop to drive massive scalability, improved resource efficiency, and ultra-low operating costs.

In this white paper, we will examine how a managed public cloud powered by Amazon Web Services (AWS) can fulfill this mandate for today's enterprise, and how an experienced guide like CBTS can remove the pain points in this transition, and afterward in working production environments.

## The Public Cloud advantage

Enterprise organizations today are looking to harness the power of AWS public cloud and the benefits can be transformative to your bottom line. As Gartner noted in its most recent Magic Quadrant report, no other hyperscale provider receives more substantial financial commitments and deployment of mission-critical workloads than AWS, and none sport a broader range of startups, SMBs, and large enterprises. The massive adoption of AWS is because it's the most mature provider in the market and has the strongest track record of success. AWS has learned how to minimize risk when launching new services and pushing them into the mainstream.

Also, AWS has proven itself to be an innovative provider by maintaining a commanding lead in the introduction of new capabilities and services to enterprise customers. IT buyers view AWS as the vanguard of new Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) delivery models, driven primarily by the company's global footprint and commitment to world-class security, governance and compliance standards. By aligning with a managed public cloud solution from CBTS powered on AWS, organizations can lessen the risks inherent in deploying and maintaining cutting-edge infrastructure, even as it expands across a global footprint.

## The CBTS factor

CBTS streamlines and enhances the AWS adoption experience in several ways. As a seasoned provider for digital modernization, we bring numerous critical capabilities to the development of hybrid cloud infrastructure and in the AWS environment in particular.

Our process consists of four essential elements to ensure the right environment is put in place to suit the unique needs of each client.

## Assessment

To begin, we provide a detailed analysis of existing infrastructure, business models, and other elements to understand the current IT topology and how it supports existing workload dynamics. The assessment is used to document the existing environment and determine the best fit for each workload and the ideal cloud solution based on the application demands and the use case scenario.

## Design

During the design stage, our certified AWS experts lay out the most cost-effective and efficient cloud environment, including the possibility of refactoring existing applications for the new infrastructure. One of the most glaring mistakes organizations make on their cloud journey is to migrate legacy apps to the cloud without considering the changes this brings to resource allocation and utilization or the efficiencies that can be gained by automating these processes.

## Migration

Once the design is complete, CBTS engineers and architects transform existing applications and infrastructure and then oversee the migration to AWS. This step ensures that the process proceeds securely and efficiently, with minimal or no disruption to ongoing data operations.

## Management

Finally, CBTS provides a fully managed AWS environment, taking care of ongoing operations and day-to-day monitoring and adjustment. Fully managed means that your internal development and operations teams can focus on your core business objectives, such as developing new capabilities and tapping into new markets and revenue streams. In this way, IT is removed as a cost center and becomes a value-added asset to the business.

In most cases, CBTS will recommend a tiered approach to a managed public cloud powered by AWS. This method has proven effective at maintaining maximum efficiency while providing full support for a wide variety of enterprise workloads. Implementation typically follows a process comprising:

### Tier 1: Foundational AWS

This architecture consists mainly of managed infrastructure for compute and storage applications. CBTS will configure, support, and maintain a multitude of AWS services designed to provide foundational support for the broader AWS ecosystem. These services range from security, identity, and compliance to network and content delivery, management and governance, and underlying compute instances like EC2 and Lightsail.

### Tier 2: Advanced AWS

This step is where we start to build support for more advanced features and cloud-native services available within AWS. These include higher-level management and governance tools like Opsworks and Trusted Advisor, as well as customer engagement services like Pinpoint and Simple Email Service. Some application refactoring may be necessary on this tier to take advantage of automation and optimization tools.

## Tier 3: AWS PaaS DevOps

This phase is where we deploy a truly next-generation platform featuring Infrastructure-as-Code, automated deployments, and broad integration between applications and infrastructure. The goal is to provide seamless implementation for DevOps and CI/CD workflows, which enable higher quality and faster time to market, both for the initial release and subsequent enhancements. This tier also allows containerization and serverless compute options to optimize performance at the lowest possible cost.

Additionally, CBTS provides a shared security model powered by the AlertLogic security platform. Working directly with the enterprise, CBTS helps to maintain security for data and applications in the cloud using tools like client-side and server-side encryption as well as network traffic protection. At the same time, CBTS and AlertLogic collaborate with AWS to provide security of the cloud architecture itself on all compute, storage, networking, and database layers while also leveraging AWS' global infrastructure spanning multiple regions, availability zones, and edge locations.

It is this commitment to excellence that has allowed CBTS to become a certified partner under AWS' Well Architected Framework (WAF), with over 50 certifications on our team of experts. By stressing the five pillars of the WAF framework—operational excellence, security, reliability, performance efficiency, and cost optimization—CBTS ensures all clients are rewarded with a secure, high-performing, resilient, and efficient infrastructure for their applications.

Digital transformation is too vital for the future of the enterprise to take unnecessary risks. Leveraging CBTS managed services, on AWS, brings leading capabilities in advanced cloud services and platforms to your side. CBTS' world-class expertise in designing and managing advanced data architectures ensures the transition phase and ongoing operations will run as smooth as they possibly can.

For information on implementing a managed public cloud powered by AWS, contact CBTS at **cbts.com**