



# DEPLOYMENT OF IAAS ON AWS

Delivering Amazon cloud infrastructure to support existing workloads and enable new applications.

## PIVOT'S UNIFIED PORTFOLIO OFFERING

Through our Unified Portfolio, we deliver solutions across the full lifecycle of our customer's technology investments.

### SERVICE CHANNELS

- Integration
- Professional
- Deployment
- Workforce
- Managed

### SOLUTION DISCIPLINES

- Workplace Experience
- Application Modernization
- Network Optimization
- Security Fortification
- Cloud & Datacenter Transformation
- Customer Experience

### SERVICES VALUE STREAM



Cloud-based Infrastructure-as-a-Service (IaaS) solutions have revolutionized the way workloads are implemented and managed. Freed from the capital cost and operational overhead of deploying and maintaining on-premises infrastructure, organizations can create a more agile and responsive IT environment to meet changing demands.

Gartner defines IaaS as “a standardized, highly automated offering in which computing resources owned by a service provider, complemented by storage and networking capabilities, are offered to customers on demand.” However, that simple definition belies the complexity of deploying and managing an IaaS solution in the Amazon public cloud.

Amazon Web Services offers a wide range of solutions and services to help customers create an IaaS platform within a virtual private cloud (VPC). Given the sheer breadth of options, many organizations lack the expertise to select the right services and configure them to meet business and IT requirements.

Pivot Technology Services helps organizations take full advantage of AWS while accelerating their IaaS deployments. Our team has the expertise to architect IaaS solutions that create a solid foundation for migrating on-premises workloads and supporting new applications. We also provide a governance framework for managing and optimizing IaaS resources, and an automated service catalog for user self-provisioning.

Key activities include:

- ▶ Application rationalization analysis
- ▶ Assessment of existing architecture
- ▶ Review of AWS account and tagging strategy
- ▶ Detailed migration planning and testing
- ▶ Proof of Concept and migration demonstration
- ▶ Migration modeling and wave planning
- ▶ Creation of an automated migration factory
- ▶ Automation of IT operational processes



These services are delivered by our Cloud Transformation practice, leveraging a data-driven, five-step framework. Our team enables a strategic approach to IaaS deployment while ensuring that operational requirements continue to be met.

## Architecting an IaaS Platform on AWS

The IaaS environment is set up within a VPC, a logically isolated section of the AWS cloud where AWS resources are launched. A typical configuration might include:

- ▶ **Amazon Elastic Compute Cloud (EC2)**, which provides secure and scalable compute resources for both legacy and born-in-the-cloud applications
- ▶ **Elastic Load Balancer (ELB)**, which automatically distributes application traffic across EC2 instances, containers and other targets to meet availability requirements
- ▶ **Simple Storage Service (S3)**, a highly available, scalable and secure object storage service that's easy for developers to access and use
- ▶ **Relational Database Service (RDS)**, which enables easy setup, operation and scaling of databases leveraging familiar database engines
- ▶ **CloudTrail**, a logging and continuous monitoring service that facilitates governance, compliance and auditing
- ▶ **CloudWatch**, which collects data from logs, events and other sources to provide greater visibility and help detect anomalies and troubleshoot issues
- ▶ **CloudFormation**, which enables the automated modeling and provisioning of resources using scripts or programming languages

## Use Cases

**Consumption Model and Consolidation.** IaaS facilitates the transition from a traditional capex data center model to an opex, consumption-based model. The migration to an IaaS platform also affords an opportunity to consolidate physical servers and virtual machines to reduce costs and complexity, mitigate risks, and simplify management.

**Automated Provisioning.** The ability to use automated tools to provision compute, storage and networking resources in the IaaS environment reduces the time required to deploy infrastructure from days to hours. Automation also greatly reduces the risk of human error and helps ensure consistency across the environment.

**Disaster Recovery and Data Protection.** The IaaS platform can serve as a disaster recovery "hot site," eliminating the immense cost of building out and maintaining a secondary data center. IaaS also simplifies the buildout of the data protection environment and provides near-infinite storage capacity for backup and archival operations.

**Remote Access.** Whether users are working in the office, on the road or from home, they can access business services, applications and data hosted on an IaaS platform from virtually any desktop or mobile device.

**Development and Testing.** IaaS provides programmers with the resources they need to develop and build software and run and manage various types of tests, while eliminating the operational overhead of an in-house dev/test environment. Automated tools allow software developers to provision and release cloud instances as needed without the involvement of in-house IT teams.