Five Best Practices for Cloud Security

Strengthen access control

Traditional security takes a broad, defensive posture focused on perimeter security. However, with a cloud deployment, the network perimeter is non-existent. The security posture needs to expand from the network to encompass all access points and data in transit and at rest. Hence, a cloud-based approach is needed.

Key initiatives in access control include:

Secure identity and access management

- Implementing multi-factor authentication
- Automating access based on roles
- Managing access strategically across workloads
- Enabling conditional access policies

Improve security posture

With more and more recommendations and security responsibilities distributed, it is harder to define comprehensive and consistent security standards and operationalize them to ensure continuous compliance with evolving standards and threats.

Key initiatives in improving the security posture include:

- Security configuration management
- Security testing and vulnerability scanning
- Security monitoring and incident response
- Security training and awareness

Secure apps and data

Cloud applications and data are more accessible and more critical to business operations. As a result, they require greater protection.

Key initiatives in securing apps and data include:

- Implementing cloud-native security
- Enforcing strong encryption
- Automating compliance checks
- Monitoring data usage

Mitigate threats

While the cloud itself is more secure than on-premises deployments, the shared responsibility model between the cloud provider and customer means that the customer is still responsible for ensuring the security of their data and applications.

Key initiatives in mitigating threats include:

- Implementing a zero-trust model
- Implementing a Service Oriented Architecture (SOA)
- Implementing a DevSecOps strategy
- Implementing a Cloud Security Posture Management (CSPM) solution

Protect the network

With traditional security technologies no longer viable in the cloud, security needs to be built into the cloud services themselves. Cloud services can offer built-in security features that are more effective and easier to manage than traditional security solutions.

Key initiatives in protecting the network include:

- Implementing a cloud-native firewall
- Implementing a cloud-native intrusion prevention system
- Implementing a cloud-native intrusion detection system
- Implementing a cloud-native DoS prevention system

What's next?

Now you’re a security architect:

- Explore the Azure portal
- Explore the Azure documentation
- Explore the Azure community
- Explore the Azure blog

Microsoft Azure Cloud Security provides comprehensive cloud security services and solutions to help you protect your cloud applications and data. Our services include Azure Security Center, Azure Firewall, Azure Security Center for IoT, Azure Advanced Threat Protection, and Azure Security Intelligence. To learn more about our cloud security solutions, visit the Azure Security website.

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