

Parameter	Microsoft Azure	Amazon Web Services (AWS)	Google Cloud Platform (GCP)
IAM	Azure Active Directory (Azure AD), Role-Based Access Control (RBAC)	AWS Identity and Access Management (IAM), AWS Organizations, Service Control Policies (SCP)	Google Cloud IAM, Organization policies, Cloud Identity
Data Encryption	Encryption at rest using Azure Storage Service Encryption (SSE), Azure Disk Encryption, Key Vault	AWS Key Management Service (KMS), Server-Side Encryption (SSE), AWS CloudHSM	Cloud KMS, Encryption at rest and in transit, Customer-Supplied Encryption Keys (CSEK)
Network Security	Azure Virtual Network (VNet), Network Security Groups (NSG), Azure Firewall, Distributed Denial of Service (DDoS) Protection	Amazon Virtual Private Cloud (VPC), Security Groups, Network Access Control Lists (ACLs), AWS Shield (DDoS protection)	Virtual Private Cloud (VPC), Firewall Rules, Cloud Armor (DDoS protection)
Compliance Certifications	ISO 27001, SOC 1/2/3, GDPR, HIPAA, FedRAMP, etc.	ISO 27001, SOC 1/2/3, GDPR, HIPAA, FedRAMP, etc.	ISO 27001, SOC 1/2/3, GDPR, HIPAA, FedRAMP, etc.
Security Management Tools	Azure Security Center, Azure Sentinel, Azure Policy, Microsoft Defender for Cloud	AWS Security Hub, Amazon GuardDuty, AWS Config, AWS Shield, AWS Firewall Manager	Security Command Center, Cloud Security Scanner, Forseti Security
Identity Federation	Supports federation with on-premises Active Directory, SAML, OAuth	Supports federation with on-premises directories, SAML, OpenID Connect	Supports federation with on-premises directories, SAML, OpenID Connect
Threat Detection & Response	Azure Advanced Threat Protection (ATP), Azure Security Center	Amazon GuardDuty, Amazon Macie, AWS Security Hub, AWS Shield	Google Cloud Security Command Center, Cloud Armor, Event Threat Detection
Logging and Monitoring	Azure Monitor, Azure Log Analytics, Application Insights	Amazon CloudWatch, AWS CloudTrail, AWS Config	Stackdriver Logging, Stackdriver Monitoring, Cloud Audit Logs

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Access Management	Azure RBAC, Azure AD Privileged Identity Management (PIM)	AWS IAM, AWS SSO, AWS Identity Center	Google Cloud IAM, Cloud Identity, BeyondCorp for zero trust
Key Management	Azure Key Vault, Managed HSM, BYOK (Bring Your Own Key)	AWS KMS, AWS CloudHSM, AWS Secrets Manager	Google Cloud KMS, Cloud HSM, Secret Manager

Summary:

- **IAM:** Each platform offers robust IAM solutions, with Azure using Azure AD and RBAC, AWS using IAM and Organizations, and GCP using Cloud IAM.
- **Data Encryption:** All three provide encryption at rest and in transit, along with key management services.
- **Network Security:** Each has a VPC equivalent and DDoS protection services, with specific tools like Azure Firewall, AWS Shield, and Google Cloud Armor.
- **Compliance:** All platforms hold key compliance certifications like ISO 27001, SOC 1/2/3, GDPR, HIPAA, and FedRAMP.
- **Security Management Tools:** Azure has Security Center and Sentinel, AWS has Security Hub and GuardDuty, and GCP has Security Command Center.
- **Threat Detection & Response:** Each platform offers advanced threat detection and response tools.
- **Logging and Monitoring:** Azure uses Monitor and Log Analytics, AWS uses CloudWatch and CloudTrail, and GCP uses Stackdriver Logging and Monitoring.