

Cloud Security Assessment Checklist

1. Assessment Scope

- ☐ Assessment scope is clearly defined (environments, cloud providers, accounts, regions)
- ☐ Compliance requirements are documented (SOC 2, ISO 27001, PCI DSS, HIPAA, etc.)
- ☐ Assessment type and frequency are identified (configuration review, compliance, penetration testing; point-in-time or continuous)

2. Asset Inventory

- ☐ All known cloud assets are cataloged (compute, storage, networking)
- ☐ Asset discovery to identify shadow IT is completed
- ☐ Asset owners, criticality levels, and dependencies are documented

3. Threat Modeling

- ☐ Crown jewel assets are identified
- ☐ Potential attack paths and threat categories are documented (misconfiguration, privilege abuse, lateral movement, API abuse)

4. Network Security

- ☐ Security groups and firewall rules follow least privilege (IaaS)
- ☐ No unnecessary ports are open to the internet (0.0.0.0/0) (IaaS)
- ☐ Network segmentation exists between critical workloads (IaaS)
- ☐ Public endpoints are intentional and justified (all models)
- ☐ Network access controls and IP whitelisting are configured appropriately (PaaS/SaaS)

5. Storage Security

- ☐ No storage buckets or objects are publicly accessible (unless intentional)
- ☐ Encryption at rest is enabled for all sensitive data
- ☐ Encryption in transit is enforced
- ☐ Backup and versioning are configured and work as expected
- ☐ Storage access permissions follow least privilege

6. Access Management

- ☐ IAM policies follow least privilege principle
- ☐ MFA is enforced for all privileged accounts
- ☐ No unused or stale accounts exist
- ☐ Root/admin account usage is monitored and restricted
- ☐ Secrets are stored in proper vaults (not hardcoded)

7. Platform-Specific Services

- ☐ Container images are scanned for vulnerabilities
- ☐ Databases are not publicly accessible (unless required)
- ☐ Database encryption and backup are enabled
- ☐ API gateways have authentication and rate limiting configured

8. Vulnerabilities and Configuration

- ☐ Known vulnerabilities are identified and prioritized
- ☐ Everything that needs patching is catalogued and prioritized
- ☐ Third-party dependencies are current and scanned for vulnerabilities

9. Logging and Monitoring

- ☐ Cloud audit logs are enabled
- ☐ Logs are centralized and retained per policy
- ☐ Security alerts are configured and tested
- ☐ Incident response procedures are documented and up to date

10. Compliance and Governance

- ☐ Security controls map to required compliance frameworks
- ☐ Security policies are documented and enforced
- ☐ Audit trails are complete and protected

11. Post-Assessment

- ☐ All findings are risk-scored based on likelihood, severity, and business impact
- ☐ Remediation plan exists with clear ownership and timelines
- ☐ Continuous monitoring is configured for ongoing posture management
- ☐ Next assessment date is scheduled

Assessment Date: _____

Completed By: _____

Next Assessment: _____