

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: