

Azure Databricks
Shared
Responsibility Model

For the Azure classic data plane

Databricks February 2025





Security and compliance are a shared responsibility between Azure Databricks and the Azure Databricks customer. For their part, Azure has formalized their shared responsibility model.

Azure Databricks Responsibilities

Azure Databricks Platform and Services

- Secure the Azure Databricks Control Plane
- Utilize industry standards and best practices to protect cloud infrastructure
- Publish CIS level 1 hardened control plane and data plane images
- Maintain a public bug bounty program
- Maintain the Azure Databricks Control Plane with updated code and images

Azure Databricks Managed Resources

- Securely deploy and terminate Azure Databricks managed systems
- Track security configurations against industry standard baselines for systems
- Deploy the latest applicable source code and system images when new instances are launched

Cloud Service Platform and Services

• Maintain a security management program that maintains reasonable security measures to protect customer data and services

• Configure cluster management policies and personal compute

Identity and Access Management

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- Authenticate Azure Databricks personnel using industry best practices
- Set employee privileges consistent with least privilege principles
- Limit access to systems processing customer data to employees with roles that warrant access
- Restricts access to customer content based on the principle of least privilege and segregation of duties
- Secure interactions with the customer-managed cloud account
- Secure storage and policy enforcement of secrets scope



Platform Security

IAM Security

Customer Responsibilities

Account and Workspace Management

- Manage account configurations, including account setup and administration, subscription management and cloud resources (Azure)
- Workspace management, including workspace creation, update, and deletion, and workspace resource access (Azure)

Cluster Policies

policies (Azure)

Identity and Access Management

- Enable multi-factor authentication via your Azure AD provider
- Enable System for Cross-domain Identity Management (SCIM) integration with your identity provider (Azure)

Identity, Service Principal and Access Management

- Manage users, groups, personal access tokens, and service principals (Azure)
- Set Access Control Lists to restrict resource access (such as workspace objects, clusters, pools, jobs, tables) (Azure)
- Secure management and use of secret scopes (Azure)





Security and compliance are a shared responsibility between Azure Databricks and the Azure Databricks customer. For their part, Azure has formalized their shared responsibility model.

Azure Databricks Responsibilities

Azure Databricks Managed Data

- Transmit customer content using TLS 1.2 or higher between the Customer and the Azure Databricks Control Plane and the Azure Databricks Control Plane and the Data Plane
- Encrypt customer data-at-rest within the Azure Databricks Control Plane using AES-256 bit equivalent or higher
- Delete customer content contained within a customer workspace within thirty (30) days of the workspace cancellation
- Maintain encryption hardware and services
- Encrypt data in transit and at rest, where configured
- Maintain the confidentiality, integrity and availability of data stored on CSP services

Customer Responsibilities

Data Governance

- Enable <u>Unity Catalog</u> within your Azure Databricks account
- Follow data governance best practices, as per your organization's requirements (<u>Azure</u>)

Customer-managed Data

- Secure management of data infrastructure (Azure):
- o Secure connectivity to customer-managed resources
- o Secure service integration with Azure Databricks (Azure)
- o Enable Data Plane <u>local disk encryption</u> or <u>inter-cluster encryption</u>

Customer-managed Encryption Keys

- Deploy customer-managed encryption keys (CMK) (Azure)
- Enable CMK for managed services
- Enable CMK for workspace storage

Secure Network Communications

- Separate the Azure Databricks Control Plane from the Customer Data Plane and workspaces within the Azure Databricks Data Plane using multiple layers of network security controls
- Deploy local firewalls or security groups within the Customer Data Plane to isolate clusters
- Enable secure defaults for network access controls and security groups within the Control Plane
- Secure the physical and logical security of cloud service networking
- Maintain secure network communications for cloud services, including APIs



Data

Security

Network Security

Cloud Network Security

- Configure Secure Cluster Connectivity (Azure)
- Enable customer-managed networks (<u>Azure VNet</u>)
- Configure Data Exfiltration Protection according to your organization's data protection policy (<u>Azure</u>)

IP Access Control Lists and Private Link

- Configure Azure Databricks workspace IP access lists (<u>Azure</u>)
- Configure Private Link access for Users \rightarrow Control Plane and Control Plane \rightarrow Data Plane connections (<u>Azure</u>)





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Azure Databricks Responsibilities

Customer Responsibilities



Security Monitoring

Security Monitoring

- Deploy security detection capabilities, including those provided natively by Cloud Service Providers
- Generate audit logs from customer's use of the platform services and retain them for at least one year
- Deliver audit logs from the customer's use of the platform services based on the customer's configuration (Premium subscriptions and above)
- Deploy a dedicated Detection engineering team that develops intrusion detection monitoring across its computing resources
- Employ an incident response framework to manage and minimize the effects of unplanned security events
- Notify customers of security breaches in accordance with data protection laws and customer agreements

Audit Log Configuration

- Enable Azure Databricks System Tables for system and performance monitoring (<u>Azure</u>)
- Alternatively, configure Azure Databricks diagnostic log delivery to your cloud storage (<u>Azure</u>)
- Configure verbose audit logs for your workspace(s) (Azure)

Account and Workspace Security Monitoring

- Deploy account and workspace security monitoring
- Deploy cloud service security monitoring
- Investigate and respond to potential security incidents related to customer-managed features, services and resources



Code Execution / Jobs

Secure Code Execution

- Maintain secure cloud infrastructure
- Maintain availability and security of the job scheduler
- Secure delivery of customer code (such as notebooks, repos and models, queries) from the control plane to the data plane

Application Security

• Perform security reviews of your code, libraries and jobs, such as notebooks (<u>Azure</u>), <u>Terraform</u>, and third-party libraries (<u>Azure</u>)

CI/CD Pipeline and Repo Integration

- Integrate Git with Azure Databricks repos (Azure)
- Manage CI/CD Pipeline integration with Azure Databricks (<u>Azure</u>)



Vulnerability & Patch Management

Vulnerability and Patch Management

- Maintain a vulnerability management program that follows industry best practices, performs daily and weekly authenticated vulnerability scans against Databricks infrastructure and services
- Regularly release updated data plane images with patches that meet Security Addendum patch SLAs

Vulnerability and Patch Management

- Restart active clusters to deploy instances with the latest patches (Azure)
- Optionally, configure Automatic cluster update to automate cluster restarts during maintenance windows (<u>Azure</u>)



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Azure Databricks Responsibilities

Customer Responsibilities



Core Compliance

Standards and Compliance

- Maintain independent third-party audits, standards, and certifications that apply to all customer environments:
 - o ISO 27001, 27017, 27018
 - SOC 2 Type II, SOC 1 Type II, SOC 3
- Provide tools and configurations that enable use of services in compliance with applicable laws (such as GDPR and CCPA)

* Additional compliance standards covered later, such as HIPAA, FedRAMP, PCI



Disaster Recovery

Maintain Disaster Recovery Capabilities* For:

- Review Business Continuity and Disaster Recovery plans annually
- Conduct Business Continuity and Disaster Recovery drills annually
- Conduct periodic backups of the Azure Databricks Control Plane*
- Maintain the cloud service availability and capacity

Maintain Adherence to Relevant Compliance and Standards:

- When using Azure Databricks to process sensitive data such as PII,
- Review your compliance needs and add optional compliance service offering where required (such as for FedRAMP, PCI-DSS, HIPAA)

adhere to relevant privacy regulations such as the GDPR and CCPA

 Comply with applicable laws when using Azure Databricks, including by implementing any required configurations in accordance with Azure Databricks documentation

Data Backups

- Backup of your organization's account and workspace
- Set <u>Recovery Point Objectives</u> (RPO) and <u>Recovery Time Objectives</u> (RTO) using best practices (<u>Azure</u>)

Multi-region Workspace Deployment

- Perform a Disaster Recovery Impact Assessment
- Deploy Disaster Recovery services for Azure Databricks to meet the organization's DR requirements (<u>Azure</u>)

Employ Security Best Practices

- Periodically review cryptographic standards to select and update technologies and ciphers in accordance with assessed risk and market acceptance of new standards
- Conduct third-party penetration tests at least annually
- Employ an in-house offensive security team

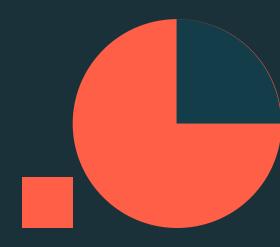
Multi-region Workspace Deployment

- Adopt Azure Databricks security best practices based on the organization's cybersecurity requirements (<u>Azure</u>)
- Follow security best practices for the customer's cloud environment (<u>Azure</u>)





Azure Serverless Shared Responsibility Model





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Azure Databricks Responsibilities

Customer Responsibilities

Databricks Platform and Services

- Secure the Databricks Control Plane
- Utilize industry standards to harden images and operating systems deployed under our control
- Maintain a public bug bounty program
- Maintain the Databricks Control Plane with updated code and images

Databricks Managed Resources

- Securely deploy and terminate Databricks managed systems
- Track security configurations against industry standard baselines for systems under Databricks control
- Deploy the latest code and system images upon launch of customer Compute Plane hosts

Cloud Service Platform and Services

Maintain security of the cloud service infrastructure

Account and Workspace Management

- Manage account configurations, including account setup and administration, subscription management and cloud resources (Azure)
- Workspace management, including workspace creation and update, and workspace resource access (Azure)



Platform Security

IAM Security

Identity and Access Management

- Authenticate Databricks personnel using industry best practices
- Set employee privileges consistent with least privilege principles
- Limit access to systems processing customer data to employees with roles that warrant access
- Restrict access to customer content based on the principle of least privilege and segregation of duties
- Secure storage and policy enforcement of secrets scope
- Maintain access controls required to restrict access to authorized customer resources
- Restrict employee access to customer resources`

Identity and Access Management

- Enable multifactor authentication via your SSO provider
- Enable SCIM integration with your identity provider (<u>Azure</u>)

Identity, Service Principal and Access Management

- Manage users, groups, personal access tokens, and service principals (Azure)
- Set Access Control Lists to restrict access (such as workspace objects, serverless endpoints, jobs, tables) (Azure)
- Secure management and use of secret scopes (Azure)







Security and compliance are a shared responsibility between Azure Databricks and the Azure Databricks customer. For their part, Azure has formalized their shared responsibility model.

Azure Databricks Responsibilities

Databricks Managed Data

- Encrypt Databricks communications between the Databricks Control Plane and the customer workspace using TLS 1.2 or higher
- Encrypt customer data-at-rest within the Databricks Control Plane using AES-256 bit equivalent or higher
- Delete customer content contained within a customer workspace within thirty (30) days of the workspace cancellation
- Enable local disk encryption for serverless drives
- Maintain encryption hardware and services
- Maintain the confidentiality, integrity and availability of data stored on CSP services

Customer Responsibilities

Data Governance

- Enable Unity Catalog within your Databricks account
- Follow data governance best practices, as per your organization's requirements (<u>Azure</u>)

Customer-Managed Data

- Secure management of data infrastructure (<u>Azure</u>):
- Secure service integration with Databricks (Azure)
- Configure the Azure Storage Firewall (Azure)

Customer-Managed Encryption Keys

- Enable customer-managed encryption keys (CMK), where required (Azure)
- Enable CMK for managed services
- Enable CMK for workspace storage

Cloud Network Security

• Configure Private Link from Control Plane to the Serverless Compute Plane

Secure Network Communications

- Separate the Databricks Control Plane from the Databricks Compute Plane and workspaces within the Databricks Compute Plane using multiple layers of network security controls
- Deploy local firewalls or security groups within the Databricks Compute Plane to isolate clusters
- Enable secure defaults for network access controls and security groups within the Control Plane
- Secure the physical and logical security of cloud service networking
- Maintain secure network communications for cloud services, including APIs

IP Access Control Lists and Private Link

- Configure Databricks workspace IP access lists (<u>Azure</u>)
- Configure Private Link for user access to the Control Plane (Azure)



Data

Security

Network Security





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Azure Databricks Responsibilities

Customer Responsibilities



Security Monitoring

Security Monitoring

- Monitor for security violations of the underlying cloud service infrastructure and services
- Generate audit logs from customer's use of the platform services and retain them for at least one year (Premium subscription required)
- Deliver audit logs from the customer's use of the platform services based on customer configurations (Premium subscription required)
- Deploy a dedicated Detection engineering team that develops intrusion detection monitoring across its computing resources
- Employ an incident response framework to manage and minimize the effects of unplanned security events
- Notify customers of security breaches in accordance with data protection laws and customer agreements
- Deploy security monitoring for tenant isolation in the serverless compute plane

Audit Log Configuration

- Enable Azure Databricks System Tables for system and performance monitoring (<u>Azure</u>)
- Alternatively, configure Azure Databricks diagnostic log delivery to your cloud storage (<u>Azure</u>)
- Configure verbose audit logs for your workspace(s) (Azure)

Account and Workspace Security Monitoring

- Deploy account and workspace security monitoring
- Investigate and respond to potential security incidents in your
 Databricks account and workspace(s) for systems under your control



Code Execution / Jobs

Secure Code Execution

- Maintain secure cloud infrastructure
- Maintain availability and security of the job scheduler
- Secure delivery of customer code (such as notebooks, repos and models, queries) from the control plane to the compute plane

Application Security

• Perform security reviews of your code, libraries and jobs, such as notebooks (<u>Azure</u>), <u>Terraform</u>, and third-party libraries (<u>Azure</u>)

CI/CD Pipeline and Repo Integration

- Integrate Git with Databricks repos (Azure)
- Manage CI/CD Pipeline integration with Databricks (Azure)



Vulnerability & Patch Management

Vulnerability and Patch Management

- Maintain a vulnerability management program that follows industry best practices, performs daily and weekly authenticated vulnerability scans against cloud serverless infrastructure and services
- Regularly release updated data plane images with patches that meet patch management SLAs
- Restart active serverless clusters after seven days to deploy instances with the latest patches

Vulnerability and Patch Management

 Restart active serverless clusters to deploy instances with the latest patches (if required before the cluster is active for seven days) (<u>Azure</u>)



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Azure Databricks Responsibilities

Customer Responsibilities



Core Compliance

Standards and Compliance

- Maintain independent third-party audits, standards, and certifications that apply to all customer environments:
 - o ISO 27001, 27017, 27018
 - SOC 2 Type II, SOC 1 Type II, SOC 3
- Enable compliant workflows supported by Databricks

Maintain adherence to relevant compliance and standards:

- Comply with applicable laws and regulations
- When using Databricks to process sensitive data such as PII, adhere to relevant privacy regulations such as the GDPR and CCPA



Disaster Recovery

Maintain Disaster Recovery* capabilities for:

- Review Business Continuity and Disaster Recovery plans annually
- Conduct Business Continuity and Disaster Recovery drills annually
- Conduct periodic backups of the Databricks Control Plane*

Data Backups

- Backup of your organization's account and workspace
- Set Recovery Point Objectives (RPO) and Recovery Time Objectives (RTO) using best practices (Azure)

Multi-region Workspace Deployment

- Perform a Disaster Recovery Impact Assessment
- Deploy Disaster Recovery services for Databricks to meet the organization's DR requirements (Azure)



Security Best Practices

Employ security best practices

- Periodically review cryptographic standards to select and update technologies and ciphers in accordance with assessed risk and market acceptance of new standards
- Regularly run authenticated vulnerability scans against representative hosts in the SDLC pipeline
- Conduct third-party penetration tests at least annually
- Employ an in-house offensive security team

Multi-region Workspace Deployment

- Adopt Databricks security best practices based on the organization's cyber risk appetite (Azure)
- Follow security best practices for the customer's cloud environment (Azure)



Databricks ESM/CSP Shared Responsibility Model





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Azure Databricks Responsibilities

Customer Responsibilities



Enhanced Security Monitoring

Databricks Enhanced Security Monitoring (ESM) Responsibilities

- Deploy ESM instances with enhanced CIS Level 1 hardening
- Deploy antivirus, behavior-based malware and file integrity monitoring
- Provide vulnerability reports of the host OS upon request
- Enable FIPS 140-2 Level 1 mode encryption on ESM instances
- Maintain security of the cloud service infrastructure

Customer Enhanced Security Monitoring Responsibilities

- Enable Enhanced Security Monitoring on relevant workspace(s)
- Monitor enhanced event logs for for security incidents
- Restart ESM clusters to deploy the latest patched instances and agent signatures
- Provide the destination Email for vulnerability reports delivery



Compliance Security Profile

Databricks Compliance Security Profile (CSP) Responsibilities

- Enable ESM security enhancements (listed above)
- Restart clusters that run past the maintenance window to deploy the latest patches
- Enumerate preview features that are usable within HIPAA, PCI
- Maintain security of the cloud service infrastructure

Customer Compliance Security Responsibilities

- Prepare workspace(s) for the compliance security profile
- Enable the Compliance Security Profile on relevant workspace(s)



HIPAA, PCI

Databricks HIPAA and PCI Responsibilities

- Complete annual HIPAA, PCI-DSS audits (region and cloud specific)
- Provide HIPAA and PCI compliant internal services
- Enforce Enterprise Security Monitoring and Compliance Security Profile features

Customer HIPAA and PCI Responsibilities

- Enable Compliance Security Profile on relevant workspaces
- Use only supported preview features (PCI)
- Comply with compliance-specific requirements (<u>Azure</u>)
- Comply with the PCI Shared Responsibility Model requirements



Databricks GDPR/CCPA Service Responsibilities

Provide service that are GDPR/CCPA compliant (subject to customer responsibilities)

Customer GDPR/CCPA service Responsibilities • Maintain GDPR/CCPA compliant usage of Databricks of

• Maintain GDPR/CCPA compliant usage of Databricks services

GDPR/CCPA



