



Cloud Platform Comparison

Microsoft Azure



| LIFT & SHIFT | CONSUME PAAS SERVICES | RE-ARCHITECT FOR CLOUD | LIFT & SHIFT | CONSUME PAAS SERVICES | RE-ARCHITECT FOR CLOUD | LIFT & SHIFT | CONSUME PAAS SERVICES | RE-ARCHITECT FOR CLOUD |
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COMPUTE

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|--------------------------|-------------------------------|--|---------------------------|-------------------|--------|------------------|----------------|-----------------|
| VIRTUAL SERVERS | Virtual Machines | | EC2 | | | Compute Engine | | |
| AUTOSCALE | VM Scale Sets | App Service Autoscaling | Autoscaling | | | Autoscaling | | |
| VIRTUAL SERVER DISK | Page Blobs Premium Storage | | Elastic Block Store (EBS) | | | Persistent Disks | | |
| CONTAINER MANAGEMENT | Container Service | | EC2 Container Service | | | Container Engine | | |
| BACKEND PROCESSING LOGIC | | Cloud Services (worker role) Functions Logic Apps Web Jobs Batch | | | Lambda | | | Cloud Functions |
| JOB | | Service Fabric | | | | | | |
| MICROSERVICES | | | | | | | | Cloud Functions |
| WEB APPLICATIONS | | Web Apps Cloud Services (web role) | | Elastic Beanstalk | | | App Engine | |
| API RUNTIME | | API Apps | | | | | | |
| DISASTER RECOVERY | | Site Recovery | | | | | | |
| PREDEFINED TEMPLATES | Azure Quickstart templates | | AWS Quick Start | | | | | |
| MARKETPLACE | Azure Marketplace | | AWS Marketplace | | | | Cloud Launcher | |

STORAGE & CONTENT DELIVERY

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|---------------------|---------------|--|------------------------|------------------------|--|--|--|----------------------------------|
| OBJECT STORAGE | | Blob Storage | | S3 | | | | Cloud Storage |
| SHARED FILE STORAGE | File Storage | | Elastic File System | | | | | |
| ARCHIVING & BACKUP | | Backup (software) Cool Blob Storage (storage) | | Glacier & S3 (storage) | | | | Cloud Storage Nearline (storage) |
| DATA TRANSPORT | Import/Export | | Import/Export Snowball | | | | | |
| CONTENT DELIVERY | | Content Delivery Network | | CloudFront | | | | Cloud CDN |

DATABASE

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|---------------------|--|-------------------------------|---------------|----------------------------|--|----------|--|-----------------------|
| RELATIONAL DATABASE | | SQL Database | | RDS | | | | Cloud SQL |
| NOSQL DATABASE | | | DocumentDB | | | DynamoDB | | Cloud Datastore |
| DATA WAREHOUSE | | SQL Data Warehouse | | Redshift | | | | BigQuery |
| TABLE STORAGE | | | Table Storage | | | SimpleDB | | Cloud Bigtable |
| CACHING | | Azure Redis Cache | | ElasticCache | | | | Memcache (App Engine) |
| DATABASE MIGRATION | | SQL Database Migration Wizard | | Database Migration Service | | | | |

ANALYTICS & BIG DATA

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|---------------------|----------|--|--|-----------------------|-------------------------|--|--|--|
| BIG DATA PROCESSING | | | HDInsight | | Elastic MapReduce (EMR) | | | Cloud Dataproc |
| DATA ORCHESTRATION | | | DataFactory | | Data Pipeline | | | Cloud Dataflow |
| ANALYTICS | | | Stream Analytics Data Lake Analytics Data Lake Store | | Kinesis Analytics | | | Cloud Dataflow |
| VISUALISATION | Power BI | | | | QuickSight | | | Cloud Datalab |
| MACHINE LEARNING | | Machine Learning | | | Machine Learning | | | Cloud Machine Learning Prediction API |
| INTELLIGENCE API | | Cognitive Services (Language, Speech, Vision, Knowledge) | | | | | | Translate, Speech, Vision |
| SEARCH | | Search | | Elasticsearch Service | | | | Search API (App Engine) |
| DATA DISCOVERY | | Data Catalog | | | | | | |
| GENOMICS | | | | | | | | Google Genomics |

INTERNET OF THINGS

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|--------------------|--|------------|--|-------------------------------------|--|--|--|----------------|
| STREAMING DATA | | Event Hubs | | Kinesis Firehose Kinesis Streams | | | | Cloud Dataflow |
| INTERNET OF THINGS | | IoT Hub | | IoT | | | | |

MOBILE SERVICES

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|----------------------------|-----------|-------------------|--|-----------------------------|--|--|--|------------------------|
| PRO APP DEVELOPMENT | | Mobile Apps | | Mobile Hub Cognito | | | | App Engine Firebase |
| HIGH-LEVEL APP DEVELOPMENT | PowerApps | | | | | | | |
| ANALYTICS | | Mobile Engagement | | Mobile Analytics | | | | |
| NOTIFICATION | | Notification Hubs | | Simple Notification Service | | | | |

APPLICATION SERVICES

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|-----------------------|-----------|--|----------------|---|--|-------------|--|--|
| EMAIL ADDRESS | | | | Simple Email Service | | | | Email Service (App Engine) |
| MESSAGING | | Queue Storage Service Bus Queues Service Bus Topics Service Bus Relay | | Simple Queue Service Simple Notification Service | | | | Cloud Pub/Sub Task Queue (App Engine) |
| WORKFLOW | | Logic Apps | | Simple Workflow Service | | | | |
| APP TESTING | | Xamarin Test Cloud (front end) Azure DevTest Labs (back-end) | | Device Farm (front end) | | | | Cloud Test Lab (front & back-end) |
| API MANAGEMENT | | | API Management | | | API Gateway | | Cloud Endpoints |
| APPLICATION STREAMING | RemoteApp | | | App Stream | | | | |
| SEARCH | | Search | | CloudSearch | | | | Search API (App Engine) |
| MEDIA TRANSCODING | | Encoding | | ElasticTranscoder | | | | |
| MEDIA STREAMING | | Live and on-demand streaming | | | | | | |
| OTHER MEDIA SERVICES | | Media Player Media Indexer Content Protection | | | | | | |

NETWORKING

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|--------------------------|--------------------------------------|--|------------------------|--|--|--|--|-----------------------|
| NETWORKING | Virtual Network | | Virtual Private Cloud | | | | | Cloud Virtual Network |
| DOMAIN NAME SYSTEM (DNS) | DNS Traffic Manager | | Route 53 | | | | | Cloud DNS |
| DEDICATED NETWORK | ExpressRoute | | Direct Connect | | | | | Cloud Interconnect |
| LOAD BALANCING | Load Balancer Application Gateway | | Elastic Load Balancing | | | | | Cloud Load Balancing |

SECURITY & IDENTITY

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|--------------------------------|--|--|---|--|--|--|--|--|
| AUTHENTICATION & AUTHORISATION | Azure AD RBAC Multi-Factor Authentication | | Identity and Access Management Multi-Factor Authentication | | | | | Google IAM Cloud Resource Manager Google Identity Toolkit Google Signin |
| ENCRYPTION | Key Vault BYOK | | Key Management Service CloudHSM BYOK | | | | | Platform level encryption BYOK |
| FIREWALL | | | Web Application Firewall | | | | | |
| SECURITY | Security Center | | Inspector | | | | | Cloud Security Scanner (App Engine) |
| DIRECTORY | Azure Active Directory Azure Active Directory B2C Azure Active Directory Domain Services | | Directory Service | | | | | |

MANAGEMENT & MONITORING

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|--------------------------|---|--|-----------------------------------|--|--|--|--|--|
| DEPLOYMENT ORCHESTRATION | Resource Manager Automation VM Extensions | | OpsWorks CloudFormation | | | | | Cloud Deployment Manager |
| MANAGEMENT & MONITORING | Log Analytics Azure Portal Application Insights | | CloudWatch CloudTrail | | | | | Cloud Console Stackdriver Logs API (App Engine) Cloud Mobile App Cloud Shell |
| OPTIMISATION | | | Trusted Advisor | | | | | |
| JOB SCHEDULING | Scheduler | | | | | | | Cron Service (App Engine) |
| CATALOGUE SERVICE | | | Service Catalog | | | | | |
| SOURCE CODE MANAGEMENT | Visual Studio Team Services | | CodeCommit | | | | | Cloud Source Repositories |
| ADMINISTRATION | Azure Portal (audit logs) | | Config | | | | | Audit Logs |
| PROGRAMATIC ACCESS | Azure Command Line Interface Azure PowerShell Azure SDK | | Command Line Interface AWS SDK | | | | | Command Line Interface Google Cloud SDK |

HYBRID

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|-------------------------|-----------------------------|---|-----------------------------|--------------------------|--|--|--|-----------------------------|
| NETWORK | Virtual Network / VPN | | Virtual Private Cloud / VPN | | | | | Cloud Virtual Network / VPN |
| MESSAGING | | Service Bus Relay | | | | | | |
| APPLICATIONS | | Hybrid Connection Manager | | | | | | |
| DATABASE | | SQL Server Stretch Database SQL Database Replication | | RDS Database Replication | | | | Cloud SQL Replication |
| DATA INGESTION | | Data Management Gateway | | | | | | |
| IDENTITY | AAD Connect / ADFS | | AD Connector | | | | | |
| STORAGE | | StorSimple | | | | | | |
| MANAGEMENT & MONITORING | Operations Management Suite | | | | | | | Slackdriver (AWS) |

