		laaS Services	s Catalog	
Cloud Services	Service Type	AWS	Azure	GCP
Virtual Server	laaS	Amazon EC2	Azure Virtual Machine	Compute Engine
Bare Metal Server	laaS	Amazon EC2 Bare Metal Instance	Azure Bare Metal Servers (Large Instance Only for SAP Hana)	Bare Metal Solution
Vmware	laaS	VMC on AWS	Azure VMware Solution	Google Cloud VMware Engine
Virtual Dedicated Host	laaS	Amazon EC2 Dedicated Hosts AWS Nitro Enclaves	Azure Dedicated Host	Sole Tenant Node (Beta)
High Performance Computing	laaS	High Performance Computing AWS ParallelCluster AWS ParallelCluster Elastic Fabric Adapter Elastic Fabric Adapter NICE DCV NICE DCV	Azure High Performance Compute	High performance computing
Virtual Machine Disk Storage	laaS	Amazon Elastic Block Storage (EBS)	Azure Page Blobs / Premium Storage Managed Disks	Persistent Disk
Virtual Networking	laaS	Amazon VPC	Azure Vnet	Cloud Virtual Network
Virtual network connectivity	laaS	AWS Transit Gateway AWS VPC peering	Azure VPN Gateway	Cloud VPN
Content Delivery Network	laaS	Amazon CloudFront	Azure CDN Azure Front Door	Cloud CDN
DNS	laaS	Amazon Route 53	Azure DNS	Cloud DNS
Global Traffic Management	laaS	Amazon Route 53 Traffic Flow AWS Global Accelerator AWS App Mesh	Azure Traffic Manager	
Private Connectivity	laaS	AWS Direct Connect AWS Private Link	Azure Express Route	Cloud InterConnect
Load Balancers	laaS	Elastic Load Balancing	Azure Load Balancer	Cloud Load Balancing
Hybrid Cloud	laaS	AWS Outposts	Azure Arc	Google Anthos
Automated Disaster Recovery Services	laaS	AWS Disaster Recovery AWS Backup	Azure Site Recovery Azure Backup	

		PaaS Services Cata	log	
Cloud Services	Service Type	AWS	Azure	GCP
Shared Web hosting	PaaS	AWS Amplify	Azure Shared App Services	Firebase
Container Registration Service	PaaS	Amazon Elastic Container Registry (ECR)	Azure Container Registry	Container Registry
Container Management Service	PaaS	Amazon Elastic Container Service (ECS) Amazon Elastic Kubernetes Service (EKS) Red Hat Openshift on AWS Bottlerocket Bottlerocket	Azure Kubernetes Service (AKS) Azure Container Instances Azure Red Hat OpenShift	Kubernetes Engine
Serverless compute for containers	PaaS	AWS Fargate AWS Proton	Azure Container Instances	Google Cloud Run
Serverless container platform	PaaS	AWS App Runner		Google Cloud Run
Micro Services App Development Platform	PaaS	AWS Lambda	Azure Service Fabric Azure Functions Event GridEvent Grid	Google Cloud Functions
Serverless app repository	PaaS	AWS Serverless Application Repository	Azure App Service Environment	
Virtual Private Servers	PaaS	Amazon Lightsail		
Auto Scaling	PaaS	Auto Scaling	Azure Autoscale Virtual Machine Scale Sets	Auto Scaler
Batch Jobs	PaaS	AWS Batch	Azure Batch	Preemptible VMs
App Development/ Deployment (Java /.Net /PHP /Python)	PaaS	AWS Elastic Beanstalk	Azure Web Apps Azure Cloud Services	Google App engine
Event Driven Computing	PaaS	AWS Lambda	Azure Functions Event GridEvent Grid	Cloud Functions
Object Storage	PaaS	Amazon Simple Storage Service (S3)	Azure Blob Storage	Cloud Storage
File Storage (SMB Compatible)	PaaS	Amazon Elastic File System (EFS) Amazon FSx for Windows File Server Amazon FSx for Lustre	Azure File Storage Azure NetApp Files	File Store
Long Term Cold Storage	PaaS	Amazon Glacier	Azure Archive Storage Azure Cool Storage	Cloud Storage Archival Storage (NEARLINE & COLDLINE)
Hybrid Storage/Storage Gateway	PaaS	AWS Storage Gateway	Azure Storsimple	
Relational Database Management Service	PaaS	Amazon Aurora Amazon RDS	Azure SQL Database SQL Server Stretch DatabaseSQL Server Stretch Database Azure Database for MySQL Azure Database for PostgresSQL Azure SQL Database Edge	Cloud SQL Cloud Spanner
Non Relational Database Management Service	PaaS	Amazon DynamoDB Amazon DocumentDB (with MongoDB compatibility) Amazon DynamoDB Accelerator (DAX) Amazon Neptune	Azure CosmosDB Table Storage Azure Time Series Insights	Cloud Datastore Cloud Bigtable
Timeseries Database	PaaS	Amazon DynamoDB Amazon Managed Service for Prometheus (Preview) Amazon Timestream	Azure Time Series Insights	Cloud Bigtable

In-Memory Data Store	PaaS	Amazon ElastiCache Amazon MemoryDB for Redis	Azure RedisCache	Cloud MemoryStore (Beta)
Data Warehousing	PaaS	Amazon Redshift	Azure Synapse Analytics	BigQuery
Database Migration Services	PaaS	AWS Database Migration Service AWS Migration Hub	Azure Database Migration Service	Database Migration Service
Server Migration Services	PaaS	AWS Server Migration Service AWS Application Migration Service AWS Migration Hub	Site Recovery Azure Websites Migration Assistant	Migrate for Compute Engine Migrate for Anthos Application Migration
Small Scale Data Transfer Service	PaaS	AWS Snowball AWS Transfer Family	Azure Import/Export	Storage Transfer Service
Large Scale Data Transfer Solution (Petabyte Scale)	PaaS	AWS Snowball AWS DataSync		Transfer Appliance
Large Scale Data Transfer Solution (Terabyte Scale)	PaaS	AWS Snowcone AWS Snowball Edge Compute Optimized AWS DataSync	Azure Data Box (Preview)	Transfer Appliance
Large Scale Data Transfer Solution (Exabyte Scale)	PaaS	AWS Snowmobile		
Application Discovery Services	PaaS	Application Discovery Service	Azure Active Directory	
Cloud Software Development Kit	PaaS	AWS Cloud9 AWS Code Star AWS CodeCommit AWS CodeBuild AWS CodeDeploy AWS CodePipeline AWS X-Ray Amazon DevOps Guru AWS Fault Injection Simulator	Azure Boards Azure Pipelines Azure Repos Azure Test Plans Azure Artifacts	Cloud Source Repositories
Cloud Software Development Kit	PaaS	AWS Tools & SDKs AWS Cloud Development Kit	Azure SDK Visual Studio	Cloud SDK Cloud Tools for IntelliJ Cloud Tools for Android Studio Cloud Tools for Powershell Google Plugin for Eclipse
Server Management Services	PaaS	Amazon EC2 Systems Manager	Azure Operational Insights	
Cloud Deployment Templates/ Infra as Code	PaaS	AWS CloudFormation AWS OpsWorks	Azure Resource Manager Azure Building Blocks	Cloud Resource Manager Cloud Deployment Manager
Logging & Monitoring	PaaS	Amazon CloudWatch AWS CloudTrail AWS X-Ray AWS Distro for OpenTelemetry (Preview) Amazon Managed Service for Grafana (Preview) Amazon Managed Service for Prometheus (Preview)	Log Analytics Application Insights	Google StackDriver Monitoring Logging Error Reporting TraceTrace Debugger
Resource / Configuration Inventory	PaaS	AWS Config AWS License Manager	Azure portal (audit logs)	Cloud Security Scanner Cloud Data Loss Prevention Api Access Transparency (Beta)
Server Automation	PaaS	AWS OpsWorks AWS Service Catalog	Resource Manager Azure Automation VM Extentions	,

Cloud Cost / Performance / Security Advisor	PaaS	AWS Trusted Advisor	Azure Advisor	Google Cloud Platform Security
		AWS Well-Architected Tool	Azure Cost Management	
		AWS Cost Management		
		AWS Cost Explorer		
		AWS Compute Optimizer		
Alerts and Remediation guidance Service	PaaS	AWS Personal Health Dashboard	Azure Monitor	
-		Amazon CloudWatch	Azure Operations Management Suite (OMS)	
		AWS Security Hub		
		AWS Audit Manager		
Cloud Management Tools	PaaS	AWS Command Line Interface	Azure Command Line Interface	Cloud Shell
		AWS CloudShell	Azure Powershell	Cloud Console
		AWS Management Console	Azure Management Console	Billing API
		AWS Console Mobile Application	Azure Cloud Shell	Cloud APIs
		AWS Tools & SDKs		
Automated Infra Management Services	PaaS	AWS Managed Services		
, and the second		AWS Cloud Map		
Identity & Access Management	PaaS	AWS Identity and Access Management (IAM)	Azure Active Directory	Cloud IAM
				Cloud Identity-Aware Proxy
Cloud Security Assesment Service	PaaS	Amazon Inspector	Azure Security Center	
		Gaurd Duty		
Secured Socket Layer (SSL) Certificates	PaaS	AWS Certificate Manager	App Service Certificate	
Hardware Based Security Module	PaaS	AWS CloudHSM	Azure Key Vault	Cloud Key Management Service
		AWS Secrets Manager		
Directory Services	PaaS	AWS Directory Service	Azure Active Directory	Cloud IAM
			Azure Active Directory B2C	Cloud Identity-Aware Proxy
			Azure Active Directory Domain Services	Security Key Enforcement
			Azure Active Directory Multi Factor	
			Authentication	
Key Management Services	PaaS	AWS Key Management Service	Azure Key Vault	Cloud Key Management Service
Consolidated Management of Multiple Cloud Accounts	PaaS	AWS Organizations	Azure Management Groups	
		AWS Control Tower		
		AWS Resource Access Manager		
DDos Protection Service	PaaS	AWS Shield	Azure DDoS Protection	Cloud Armor (Beta)
Web Application Firewall	PaaS	AWS WAF	Azure WAF	
Firewall	PaaS	AWS Firewall Manager	Azure Firewall Manager	
		AWS Network Firewall		
Compliance	PaaS	AWS Artifact	Azure Security & Compliance	Cloud Security Command Center (Alpha)
Sensitive Data discovery and protection	PaaS	Amazon Macie		
Big Data Query as a Service	PaaS	Amazon Athena	Azure Data Lake Analytics	BigQuery
		AWS Lake Formation		
		Amazon HealthLake (Preview)		
Big Data Managed Cluster as a Service	PaaS	Amazon EMR	Azure HDInsight	Cloud DataProc
Cloud Search	PaaS	Amazon CloudSearch	Azure Search	
		Amazon Elastic Search Service		
Streaming Service	PaaS	Amazon Kinesis	Azure Stream Analytics	Cloud Dataflow
		Amazon Kinesis Video Streams	Azure Event Hub	
Data Warehouse	PaaS	Amazon Redshift	Azure SQL Data Warehouse	BigQuery

Business Intelligence & Data Visualization	PaaS	Amazon QuickSight	PowerBl	Google Data Studio
				Looker
Cloud ETL	PaaS	AWS Data Pipeline	Azure Data Factory	Cloud DataPrep
		AWS Glue	Azure Data Catalog	Cloud Data Fusion
		Amazon Simple Workflow Service (SWF)	Logic Apps	Cloud Composer
Third party data exchange	PaaS	AWS Data Exchange	Azure Data Share	
Language Processing AI	PaaS	Amazon Lex	LUIS (Language Understanding Intelligent	Natural Language API
		Amazon Comprehend	Service)	Cloud Text-to-Speech (Beta)
			Azure Bot Service	DialogFlow Enterprise Edition (Beta)
			Azure Text Analytics	
Speech Recognition AI	PaaS	Amazon Polly	Speaker Recognition	Translation API
		Amazon Transcribe	Speech To Text	Speech API
		Amazon Translate	Speech Translation	
Image Recognition AI	PaaS	Amazon Rekognition	Emotion API	Vision API
			Face API	Cloud Video Intelligence
			Computer Vision	
Machine Learning	PaaS	Amazon Machine Learning	Azure Machine Learning	Cloud DataLab
•		Amazon SageMaker	Azure Machine Learning Workbench	Cloud AutoML
		AWS Neuron	Azure Machine Learning Model Management	Vertex Al
Machine Learning Frameworks	PaaS	TensorFlow on AWS		Vertex AI (TensorFlow, PyTorch, XGBoost, Scikit-Learn)
		PyTorch on AWS		
		Apache MXNet on AWS		
Business analysis	PaaS	Amazon Forecast	Azure Analysis Service	Vertex AI (TensorFlow, PyTorch, XGBoost, Scikit-Learn)
		Amazon Fraud Detector	Azure Metrics Advisor	
		Amazon Lookout for Metrics	Personalize	
		Amazon Augmented AI (Amazon A2I)		
		Amazon Personalize		
Machine Learning Inference	PaaS	Amazon Elastic Inference		Vertex AI Predictions
Intelligent Search / Search with ML	PaaS	Amazon Kendra	Azure Cognitive Search	Vertex Matching Engine
API Management Service	PaaS	Amazon API Gateway	Azure API Management	Apigee API Platform
				API Monitization
				API Analytics
				Apigee Sense
				Cloud Endpoints
Application Services	PaaS	AWS Step Functions	Microsoft Flow	App Engine
		Amazon EventBridge	Logic AppsLogic Apps	
		Amazon AppFlow	Azure Functions	
		Amazon Managed Workflows for Apache Airflow	Event Grid	
		(MWAA)	Azure App Service WebJobs	

Media Transcoders	PaaS	AWS Elemental MediaConnect	Azure Media Services	Transcoder API
		AWS Elemental MediaConvert	Live On Demand Streaming	
		AWS Elemental MediaLive	Azure Media Player	
		AWS Elemental MediaPackage	Content Protection	
		AWS Elemental MediaStore	Media Analytics	
		AWS Elemental MediaTailor		
		Amazon Kinesis Video Streams		
		AWS Elemental Live		
		AWS Elemental Server		
		AWS Elemental Conductor		
		AWS Elemental Link		
		AWS Elemental Delta		
Queuing Services	PaaS	Amazon Simple Queue Service (SQS)	Service Bus queues	Cloud Pub/Sub
		Amazon MQ	Queue Storage	
			Service Bus topics	
			Service Bus relay	
Mobile Analytics	PaaS	Amazon Pinpoint	Mobile Engagement	
Email Services	PaaS	Amazon SES		
Notification Services	PaaS	Amazon SNS	Azure Notification Services	Firebase Cloud Messaging
Chatbot	PaaS	Amazon Lex	Azure Bot Service	Dialogflow
		AWS Chatbot		
		Alexa for Business		
Blockchain Services	PaaS	Amazon Managed Blockchain	Blockchain	
		Amazon Quantum Ledger Database (QLDB)	Blockchain Workbench	
			Azure Blockchain Tokens	
Robotics Development	PaaS	AWS RoboMaker		
Development & Testing	PaaS	AWS Dev/Test	Azure Dev/Test	
Web/Mobile Authentication Services	PaaS	Amazon Cognito	Azure Mobile SDK,Offline/Sync	Firebase Authentication

SL No.	MaaS Service Catalogue
1	Cloud Infrastructure
1.1	Cloud Strategy & Advisory
1.2	IaaS, PaaS
1.3	Cloud Security
1.4	Cloud Cost Optimization
1.5	Cloud Monitoring
1.6	Cloud Performance
1.7	Cloud Solution Architecture
1.8	Public, Private and Hybrid Cloud Solutions
1.9	Cloud Infrastructure and Application Deployment Architecture
2	Cloud Application Modernization
2.1	Cloud Application Modernization
2.2	Cloud Solutions Deployment Architecture (IaaS, PaaS, Integration)
2.3	Cloud Native Application Development
3	Cloud Assessment
3.1	Discovery of customer landscape using tools
3.2	Assess customer existing infrastrucuture and application environment and disovery data
4	Cloud Migration
4.1	Prepare Cloud Migration Strategey
4.2	Migrate customer application to cloud using Cloud Migration tools
4.3	Perform Application / Sanity testing
4.4	Application Reconfiguration & Testing
5	Cloud Implementation
5.1	Provisioning and deprovisioning of cloud resources and services
5.2	Application Setup, Reconfiguration & Testing
6	laaS
6.1	Infrastructure component deployments, configuration
6.2	Manage day 2 day operations - Cloud NOC
6.3	Installation, Configuration & Management of Operating System (Windows, Linux, SUSE, Ubuntu, RHEL, Federo, Debian, CoreOS)

Installation, Configuration & Management of database (SQL, NoSQL)
Installation, Configuration & Management of middleware (NGINX, Tomcat etc)
Installation, Configuration & Management of Storage
Installation, Configuration & Management of Backup
Installation, Configuration & Management of Disaster Recovery (DR)
Installation, Configuration & Management of Network
Installation, Configuration & Management of firewall
Installation, Configuration & Management of load balancers
Installation, Configuration & Management of SSL certificates
Installation, Configuration & Management of office connectivity with cloud
Installation, Configuration & Management of Security Components
Installation, Configuration & Management of Cloud Virtual Desktops
Patch Mangement - 05, Network Devices, Switches, Routers
PaaS
Platform Provisioning and deprovisioning
Manage day 2 day operations
DevOPs - CI/CD for platform deployment
Application Development using PaaS Services
Application Integration and Testing
Cloud & Infrastructure Service Desk
Manage customer requests via Phone, Email, or any Tools
Manage infrastructure or application incidents or problems
Manage customer Escalations
Perform L1 / L2 infrastructure and application activities
Perform L1/L2 infrastructure and application activities DevOps / DevSecOps
DevOps / DevSecOps
DevOps / DevSecOps DevOPs - CI/CD for platform deployment
DevOps / DevSecOps DevOPs - CI/CD for platform deployment DevOPs - CI/CD for application deployment
DevOps / DevSecOps DevOPs - CI/CD for platform deployment DevOPs - CI/CD for application deployment DevOPs - CI/CD for IaC

9.7	Design and Implement Security and Quality Gates
10	Site Reliability Engineering (SRE)
10.1	System and Application Traceability & Observability using Tools
10.2	Performance Engineering using APM Tools
10.3	Open Source Tools Management
10.4	Implement Chaos Engineering & Testing using CI/CD Tools
11	Configuration Management
	Development of System and Application configuration using Configuration Management tools like Ansible, SaltStack, Chef,
11.1	Puppet etc
11.2	Install, configure and manage Configuration Management Tools and Platform
12	Container / Kubernetes Management
12.1	Container Platform / Cluster Provisioning and deprovisioning
12.2	Install, configure and manage Platform / Cluster Configuration
12.3	DevOPs - CI/CD for platform deployment
12.4	DevOPs - CI/CD for application deployment
12.5	Install, configure and manage Security Configuration
12.6	Manage Respositories - Application Code, Docker Registry, Artifact Manager
13	Cloud Security Assessment and remediation
13.1	Vulnerability Assessment and Penetration Testing (VAPT) Scaning, Assessments and Remediation
13.2	Baseline App Vulnerability Assessment (BAVA) Scaning, Assessments and Remediation
13.3	Source Code App Vulnerability Assessment (SCAVA) Scaning, Assessments and Remediation
13.4	Cloud Security Assessment and remediation
14	Infrastructure as Code (IaC)
14.1	Development of Infrastructure as Code (IaC) tools like Terraform, Chef, Puppet, Pulumi etc
14.2	Install, configure and manage Infrastructure as Code (IaC)
15	Integration Services
15.1	Development of Cloud Integration interfaces or Services and their configuration
15.2	Install, Configure and Manage Integration Services Platforms
16	Orchestration Services
16.1	Development of Cloud Orchestration or Services and their configuration
16.2	Install, Configure and Manage Orchestration Services Platforms

17	Cloud Application Monitoring / APM Tools
17.1	Configure and Manage Cloud Providers Application Monitoring tools
17.2	Install, Configure and Manage Third-Party Application or APM Monitoring tools
17.3	Develop any custom plugins or automation integration with customer external interface
18	Cloud Infrastructure Monitoring Tools
18.1	Configure and Manage Cloud Providers Infrastructure Monitoring tools
18.2	Install, Configure and Manage Third-Party Infrastructure Monitoring tools
18.3	Develop any custom plugins or automation integration with customer external interface
19	Application Logging & Log Analytics Tools
19.1	Configure and Manage Cloud Providers Application Logging and Analytics tools
19.2	Install, Configure and Manage Third-Party Application Logging and Analytics tools
19.3	Develop any custom plugins or automation integration with customer external interface
20	Open Source and License Tools
20.1	Install, Configure and Manage Tooling Infrastructure
20.2	Develop any custom plugins or automation integration with customer external interface
21	ITSM Tools
21.1	Install, Configure and Manage ITSM Tooling Infrastructure or Services
21.2	Develop any custom plugins or automation integration with customer external interface
21.3	Install, Configure and Manage Data Infrastructure on Cloud
21.4	Data Migration from on-prem to Cloud using Tools
21.5	Design & Development of ETL or Spark Jobs
21.6	Design & Development of Dashboards
21.7	Develop any custom plugins or automation integration with customer external interface
21.8	DevOPs - CI/CD for platform deployment
21.9	DevOPs - CI/CD for application deployment
21.10	Install, Configure and Manage AI/ML/NLP Infrastructure on Cloud
21.11	Design & Development of AI/ML/NLP
21.12	Develop any custom plugins or automation integration with customer external interface
21.13	DevOPs - CI/CD for platform deployment
21.14	DevOPs - CI/CD for application deployment
21.15	Install, Configure and Manage BigData & & Advanced Analytics Infrastructure on Cloud
21.16	Design & Development of BigData Query

21.17	Design & Development of Data Visualization	
21.18	Develop any custom plugins or automation integration with customer external interface	
21.19	DevOPs - CI/CD for platform deployment	
21.20	DevOPs - CI/CD for application Code deployment	

SL No.	MaaS Service Catalogue
1	Cloud Broker Services
1.1	Procurement of Cloud Provider Accounts or Subscriptions
1.2	Manage Vendor Relationship / Partnership
1.3	Invoice and Billing Management
1.4	Monthly Utilization reports
1.5	Cloud Management Portal Configuration & Management