Mindtree

MUREX
on the Cloud

The Advent of
Cloud Computing
in Banks and Financial Institutions

A platform enabling convenient, on-demand network access and rapid provisioning of shared pool of configurable computing resources (such as applications, networks, servers, services and storage), with minimal dependency on technology.

Introduction

Financial institution and banking applications are experiencing increased data traffic, making it challenging to scale resources on the fly to meet the increased demand while reducing operational costs and increasing the effectiveness of IT processes. This mandates quick application implementation and deployment with laser sharp focus on development to reduce infrastructure overheads.

The advent of cloud has enabled capital market firms, banks and financial institutions to leverage an a-la-carte technology model for timely services/technology adoption, without the need for additional investments in internal infrastructure and personnel. Cloud-based solutions allow robust disaster recovery options with minimal dependency on technical expertise due to minimal complexity in maintaining on premises technology.

In essence, cloud is a cost-efficient solution available on a pay-as-you-go model, minimizing monitoring and maintenance costs while enabling timely scalability of infrastructure.

Addressing the Needs of
Capital Market Firms, Financial Institutions and Banks

Some of the major requirements that financial institutions, banks and capital market firms look to achieve while making technology investments include:

- Maintenance-free infrastructure
- Cost savings
- Business agility and high operational efficiency
- Scalability and robustness
- Emerging technologies adoption

Here's how cloud computing addresses their needs.

Maintenance-free infrastructure

Customized dashboards/reports, maintenance automation, dynamic allocation and recovery, enable resources to be extremely efficient.

- Disaster recovery
- Licensing and system/ software updates

Cost savings

Ability to convert a large up-front capital expenditure into a smaller ongoing operational cost.

- Pay-as-you-go model with reduced capital and licensing expense
- Lower operating, maintenance and technical consultant cost
- High level of redundancy and backup at lower prices
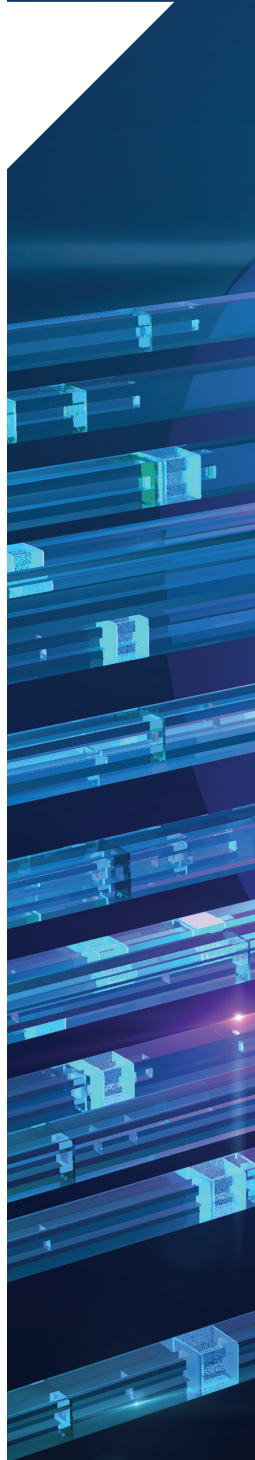
Business agility and high operational efficiency

Deeper focus on financial services - not on IT.

- Increased agility to support iterative development processes, leading to higher efficiencies
- Seamless integration with existing systems
- Access to quick and accurate data supporting decision-making for faster time to market
- Opportunity to try before buy
- Minimal operational risk in maintaining DR readiness

Scalability and robustness

Elastic scalability to handle fluctuating business needs.

- On demand scaling up or down of storage, cores, platform, software, services, etc.
- Robust fault tolerant systems
- Application and platform auto scalability

Why Murex on **Cloud?**

MX.3

Banks and financial institutions using Murex applications are unable to utilize the latest technologies because of legacy infrastructure. Emerging technologies offer industry players the potential to disrupt the competitive landscape and enable sustained competitive advantage, in addition future-proofing their ability to drive horizontal and vertical growth.

While most enterprises today have a cloud presence, few maximize the myriad opportunities that cloud presents. There is growing pressure to accelerate company-wide cloud adoption or risk falling behind the competition.
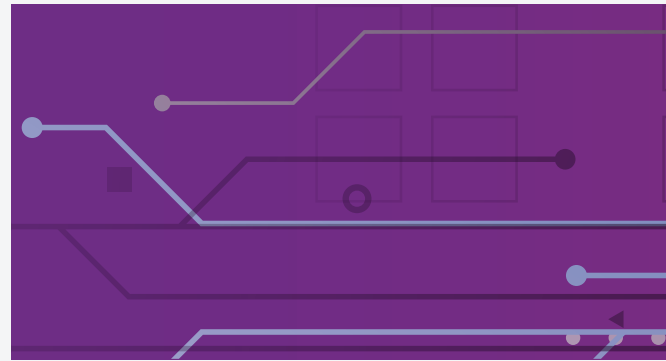
Mindtree
Murex Cloud
Service Offerings

Using Murex, we help organizations overcome the drawbacks of legacy infrastructure and leverage the latest technologies to gain competitive advantage.

Security

We help setup best-in-class security platforms for MX.3 infrastructure on private and hybrid cloud networks by implementing best practices around data security, regulatory compliance, intellectual property rights protection and monitoring algorithms. For instance, securing sensitive data as per FFIEC, FCA, CITC, MIIT, MIJ and European commission standards.

Self-managed solutions

Our team of experts deploy cloud infrastructure that offers self-driven maintenance, backup, recovery, scaling on IaaS, PaaS, and SaaS cloud service models. Auto scaling environment (GRID, load balancers, database) setup enables drastic changes in user access during critical times such as year-end, quarter-end, weekends, execution of larger simulation reports and so on.

### Timely plug-in environments

We offer user-friendly plug-ins that can be used for quick application spin up or spin down. For example - MX.3 development, UAT, pre-production, MIG, integration, disaster recovery, etc. When the MX.3 environment reaches a guideline level, supporting environments automatically spin up to offer support.

Shift support

We also provide solutions for MX.3 migration, lift and shift, new setup, models for OS, infrastructure, data for Murex GRID, load balancer, Sybase/Oracle Database, EOD, VAR, SVAR, application servers, interface servers, etc.

MX.3 ON CLOUD
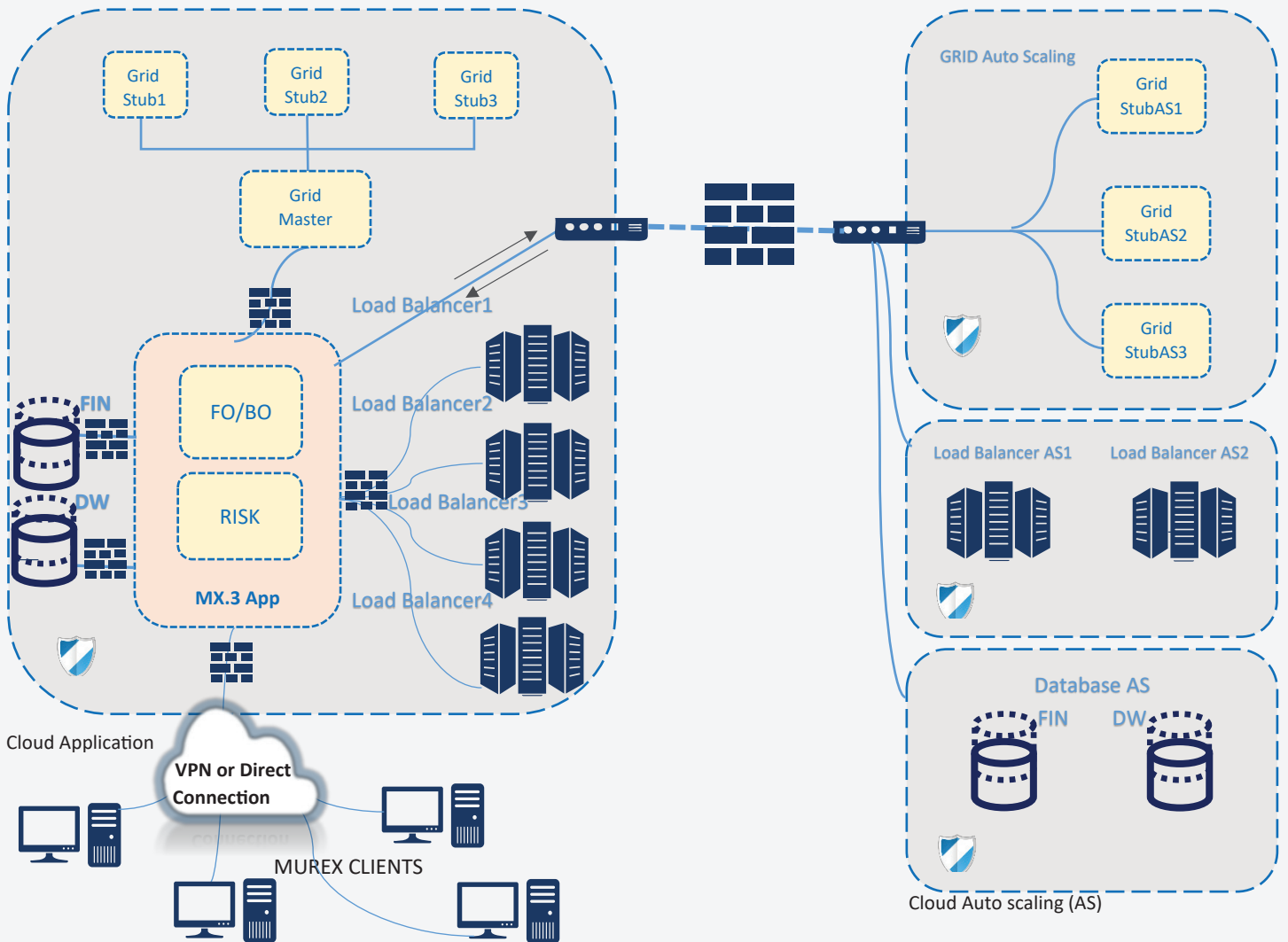
Accelerate Your Journey to the **Cloud with Mindtree Services**

Cloud strategy services

We help enterprises assess their cloud maturity. Our team of experts craft a roadmap and advice on the right cloud approach (public, private, and hybrid cloud), cloud type (IaaS, PaaS, and SaaS), reference architectures, cloud security, and cloud management

Cloud security and governance services

We help establish standards for consistency with defined processes, metrics and reporting, and integrate new processes with existing cloud governance policies, boards and tools.

## Cloud infrastructure and implementation services

We ensure seamless cloud adoption with built-in security, resiliency, availability and scalability. Our expertise spans Microsoft Azure and AWS implementations.

Cloud migration services

We also help you determine the cloud approach best suited for your organization - public, private or hybrid. Using our migration factory model, we provide faster, cost-effective and risk-free transition with minimal business impact.

Cloud management services

Our services enable high availability and continuous optimization of the cloud ecosystem with mWatch - our proprietary platform - enabling control of security, access to systems, and easy management of backup and disaster recovery processes.

Mindtree
Murex Cloud Delivery and Roadmap Development

Our delivery approach
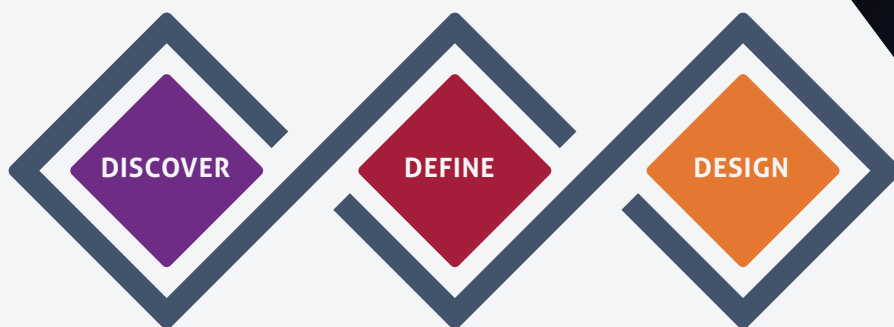
DISCOVER + DEFINE + DESIGN + INNOVATION = DELIVERY

We take a structured and analytical approach to help your business optimize your cloud investment.

Discover – Our experts talk to stakeholders, ask questions And analyze every piece of relevant data (business requirement)

- Strategy and its Impact
- Architecture
- Cloud patterns
- Customer/transaction data review
- Research

Define – We leverage a collaborative and iterative process to define strategic direction and gather actionable insights. At the end of the process, we present a plan that typically includes

- Critical touchpoints
- Performance objective and metrics
- Creative strategies and tactics
- Accelerators, proposition and key appeals

Design – This involves not only creative expression but also an understanding of the context - Depending on business needs

- Integrated communication plans
- Security design
- Network design
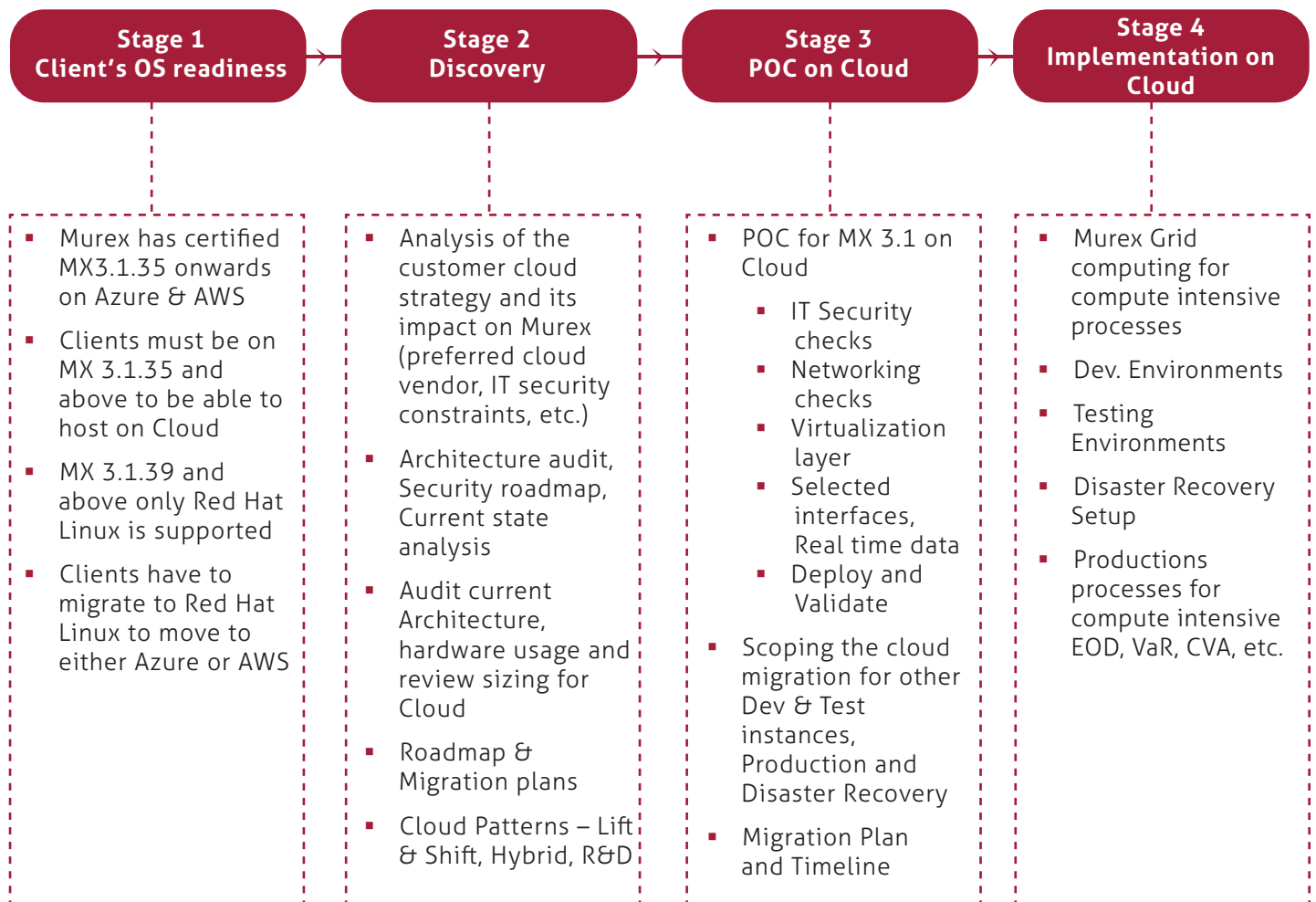- Hardware and server design
- Interface design
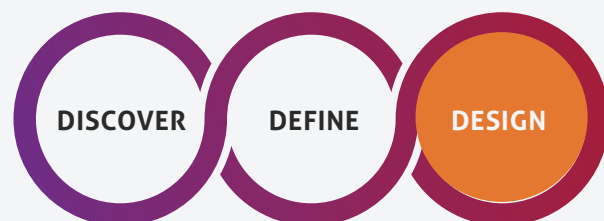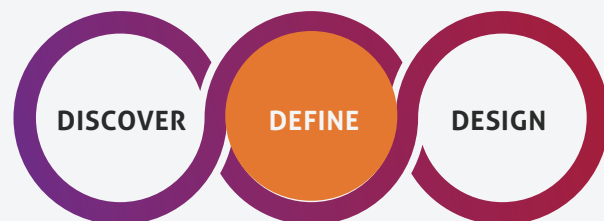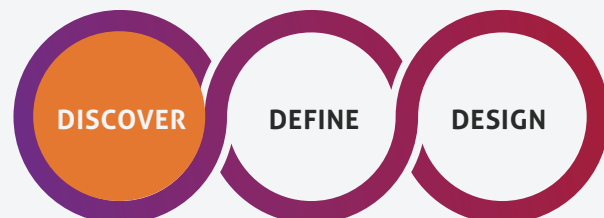
Murex
Cloud Roadmap

Mindtree takes a phased approach to Murex Cloud migration

- Stage1 - Client's OS readiness assessment
- Stage2 - Discovery
- Stage3 - Proof of Concept (PoC) on cloud
- Stage4 - Cloud implementation

Stage 1 Client's OS readiness	Stage 2 Discovery	Stage 3 POC on Cloud	Stage 4 Implementation on Cloud

Stage 1 – Client's OS readiness

- Murex has certified MX3.1.35 onwards on Azure & AWS
- Clients must be on MX 3.1.35 and above to be able to host on Cloud
- MX 3.1.39 and above only Red Hat Linux is supported
- Clients have to migrate to Red Hat Linux to move to either Azure or AWS

Stage 2 – Discovery

- Analysis of the customer cloud strategy and its impact on Murex (preferred cloud vendor, IT security constraints, etc.)
- Architecture audit, Security roadmap, Current state analysis
- Audit current Architecture, hardware usage and review sizing for Cloud
- Roadmap & Migration plans
- Cloud Patterns – Lift & Shift, Hybrid, R&D

Stage 3 – POC on Cloud

- POC for MX 3.1 on Cloud
  - IT Security checks
  - Networking checks
  - Virtualization layer
  - Selected interfaces, Real time data
  - Deploy and Validate
- Scoping the cloud migration for other Dev & Test instances, Production and Disaster Recovery
- Migration Plan and Timeline

Stage 4 – Implementation on Cloud

- Murex Grid computing for compute intensive processes
- Dev. Environments
- Testing Environments
- Disaster Recovery Setup
- Productions processes for compute intensive EOD, VaR, CVA, etc.