Modernizing Mainframe Applications with AWS

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WHAT SHOULD YOU EXPECT IN THE SESSION?

Why?

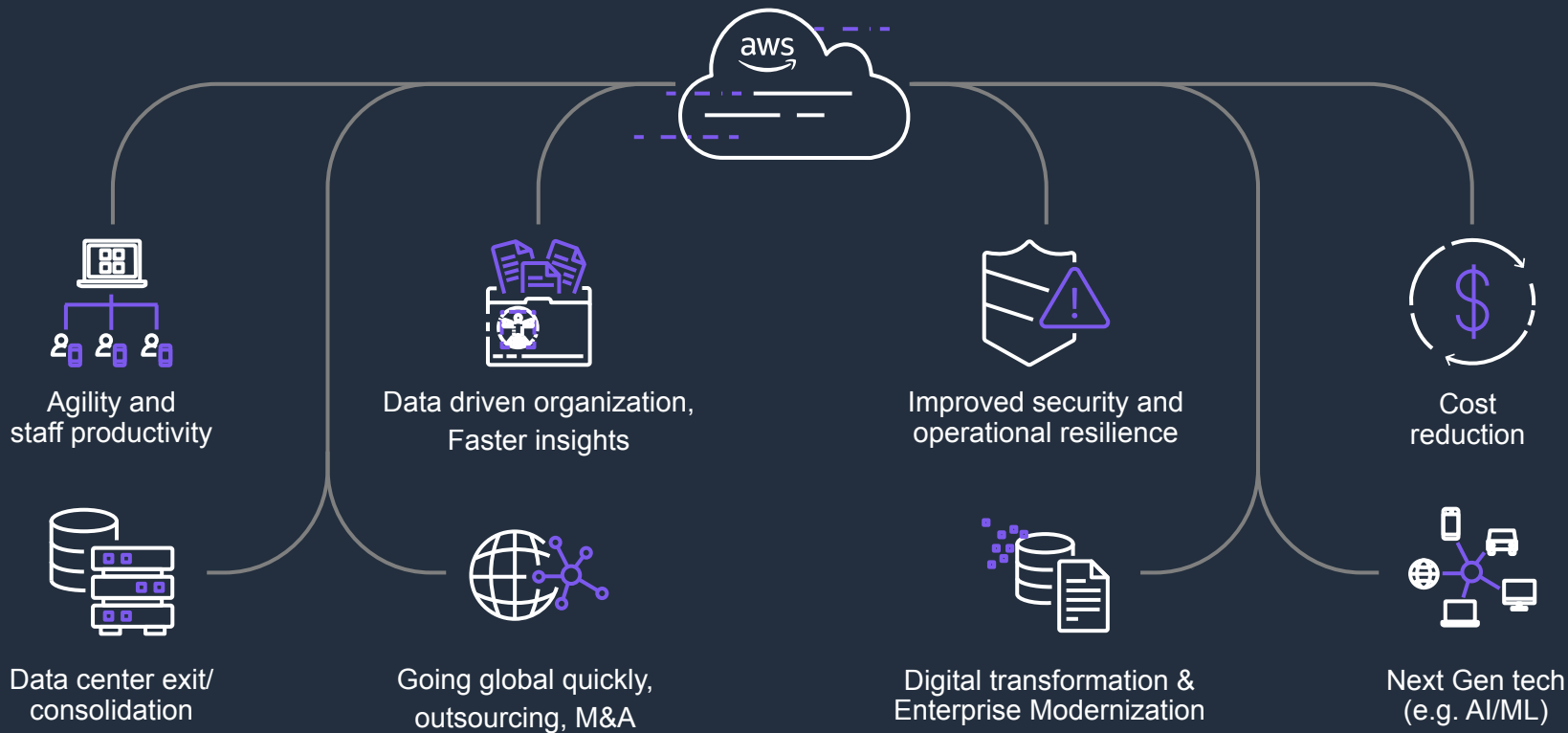Why are organizations looking to modernize Mainframe and other distributed applications

What?

What is AWS value proposition to help modernize Mainframe applications

How?

How do we help customers help modernize Mainframe applications

Business drivers for cloud migration & modernization

Agility and
staff productivity

Data driven organization,
Faster insights

Improved security and
operational resilience

Cost
reduction

Data center exit/
consolidation

Going global quickly,
outsourcing, M&A

Digital transformation &
Enterprise Modernization

Next Gen tech
(e.g. AI/ML)

AWS Leadership is Committed to Mainframe Application Modernization

Our customers asked,

"What about my Mainframe?"

AWS has continually invested in modernization

INNOVATIONS AND COLLABORATIONS TO MODERNIZE MAINFRAME APPLICATIONS

More automation and optimized process
for every facet of the modernization journey

More AI and Gen AI
to accelerate modernization steps

More modernization patterns and
more source platforms support

AI &
Generative AI
2024

Modernization patterns
Data Integration
Application Testing

AWS Mainframe Modernization
Service launch

Acquisitions

AWS Competency
Mainframe Partners

2022

Dedicated Headcounts
Partnerships
Acquisitions

2017

aws Partner Network

UniKix
by NTT DATA

precisely

bmc

MLOGICA

model

BLU AGE

MICRO FOCUS

Highest in portfolio attractiveness and competitive strength

ISG recognizes

AWS as a Leader in Mainframe Modernization

ISG Provider Lens™

Source: ISG RESEARCH

Mainframes – Services and Solutions
Mainframe Application Modernization Software

U.S. 2024

PORTFOLIO ATTRACTIVENESS

Product Challenger

Contender

Heirloom Computing ● AWS

Avanade (Asysco)

TSRI ● Google

Astadia (Amdocs)

Advanced

BASE100 AveriSource

LzLabs

Updraft NTT DATA ★ ● TCS

● mLogica TmaxSoft

● OpenText

FreeSoft IBM

Evolveware ● CloudFrame Raincode

Adaptigent HCLTech

MOST Technologies ● HPE

Verang

Leader

Market Challenger

COMPETITIVE STRENGTH

★ Rising Star

aws migrations

Various industries use legacy mainframe applications

Banking

Credit cards/ payments

Customer service center

Mortgage and loans

Insurance

Claims processing

Benefits management

Health Insurance

Government

Benefit systems

Public services

Tax assessment

Retail

Merchandizing systems

Point of Sale systems

Omnichannel customer service

Travel

Travel planning

Travel reservations

Airline/train seat maps

Manufacturing

Equipment maintenance

Auto manufacturing applications

Industrial workflows

Modernizing mainframe unlocks business value

As customers modernise and migrate mainframe workloads to cloud, they are looking for ways to get a better value for their modernisation effort based on the following key drivers that drive their migration to Cloud.

Financial outcomes

Rising operating and maintenance costs. For Mainframe are rising faster than those for any other form of computing.

Reduce business Risks

Limited scalability, Competitiveness and customer responsiveness constrained. MIPS are a finite resource. Legacy infrastructure

Legacy skill Shortage

Aging workforce maintaining legacy applications, creating a need to modernise and migrate mainframes to reduce cost, technical debt, and operational complexity

Agility and Insights

Time to market;
Gain visibility to legacy data and apply advanced analytics capabilities to uncover key business insights

Spotting a Mainframe (or Midrange) legacy opportunity

WHAT IS IT?

Hardware

- IBM Z
- Unisys ClearPath
- Fujitsu
- Bull

- IBM Power
- HP NonStop
- HP Integrity
- Oracle SPARC
- ...

Operating systems

- z/OS, z/VM, z/VSE
- MCP, OS2200
- BS2000, VME, GS21
- GCOS

- IBM i (OS/400), AIX
- NonStop OS
- OpenVMS, HP-UX
- Solaris
- ...

Subsystems

- CICS
- IMS DB/TM
- Db2
- Batch
- IDMS
- Adabas
- Datacom
- VSAM
- MQ
- ...

Languages

- COBOL
- Assembler
- PL/I
- JCL
- ADS/O
- Natural
- Ideal
- REXX
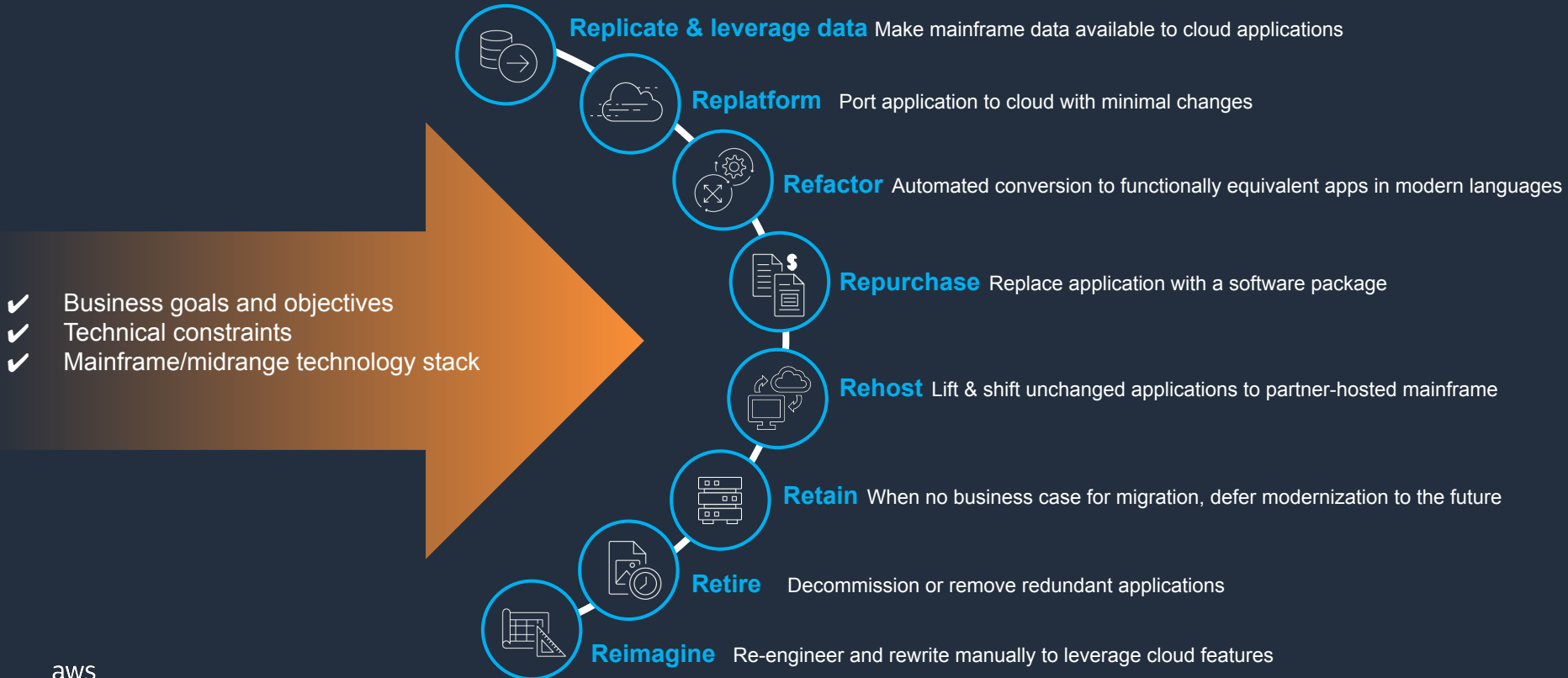- Easytrieve
- ...

85-90% of the mainframe market is dominated by IBM Z

10-15% remaining includes Unisys ClearPath MCP, OS2200; Fujitsu BS2000, VME; Bull GCOS

Midrange market includes IBM Power (IBM i/AS400), HP NonStop, OpenVMS and Unix

The modernization can leverage multiple patterns

THE BUSINESS AND TECHNOLOGY ENVIRONMENTS CAN DICTATE THE CHOICE

Replicate & leverage data Make mainframe data available to cloud applications

Replatform Port application to cloud with minimal changes

Refactor Automated conversion to functionally equivalent apps in modern languages

Repurchase Replace application with a software package

- Business goals and objectives
- Technical constraints
- Mainframe/midrange technology stack

Rehost Lift & shift unchanged applications to partner-hosted mainframe

Retain When no business case for migration, defer modernization to the future

Retire Decommission or remove redundant applications

Reimagine Re-engineer and rewrite manually to leverage cloud features
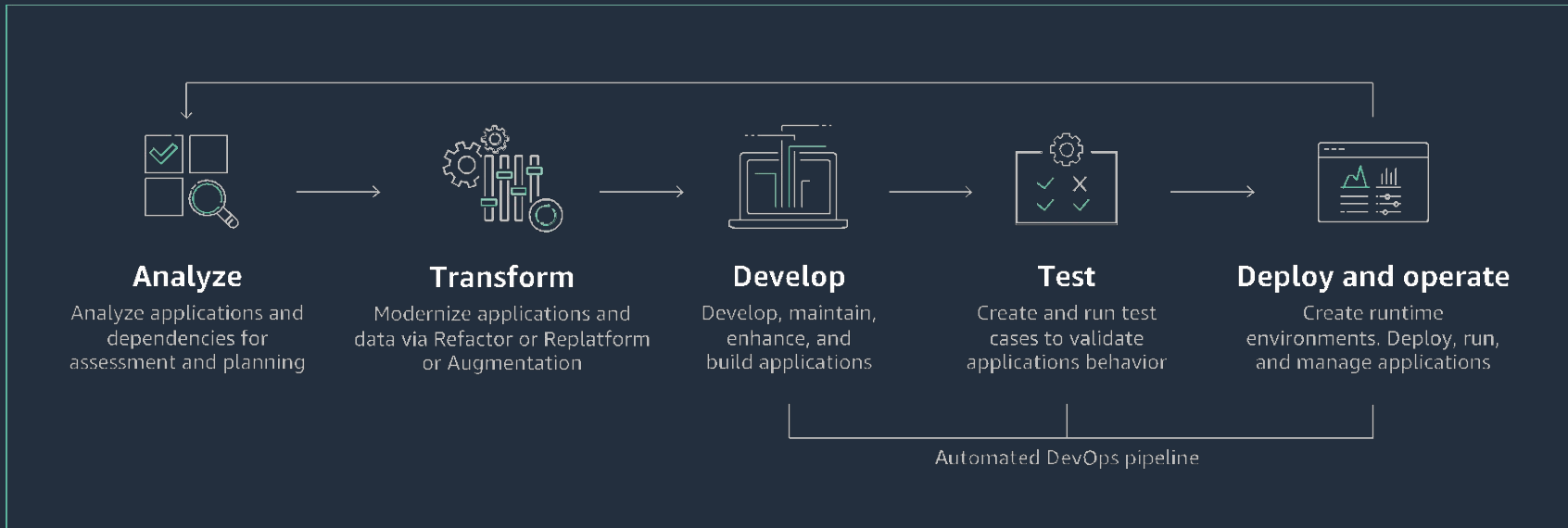
AWS Mainframe Modernization Service

AWS Mainframe Modernization service

AWS CLOUD NATIVE SERVICE TO MODERNIZE, MIGRATE, AUGMENT, TEST, AND RUN MAINFRAME APPLICATIONS IN CLOUD

Analyze
Analyze applications and dependencies for assessment and planning

Transform
Modernize applications and data via Refactor or Replatform or Augmentation

Develop
Develop, maintain, enhance, and build applications

Test
Create and run test cases to validate applications behavior

Deploy and operate
Create runtime environments. Deploy, run, and manage applications

Automated DevOps pipeline

☑ *Fully managed infra/runtime during & after modernization*

☑ *Broad choice of Modernization patterns*

☑ *Pre-packaged modernization tools*

☑ *On-demand access from AWS Console*

☑ *Pay as you go pricing*

AWS Mainframe Modernization patterns

ENABLING FAST RETURN ON INVESTMENT WITH LOWER RISK
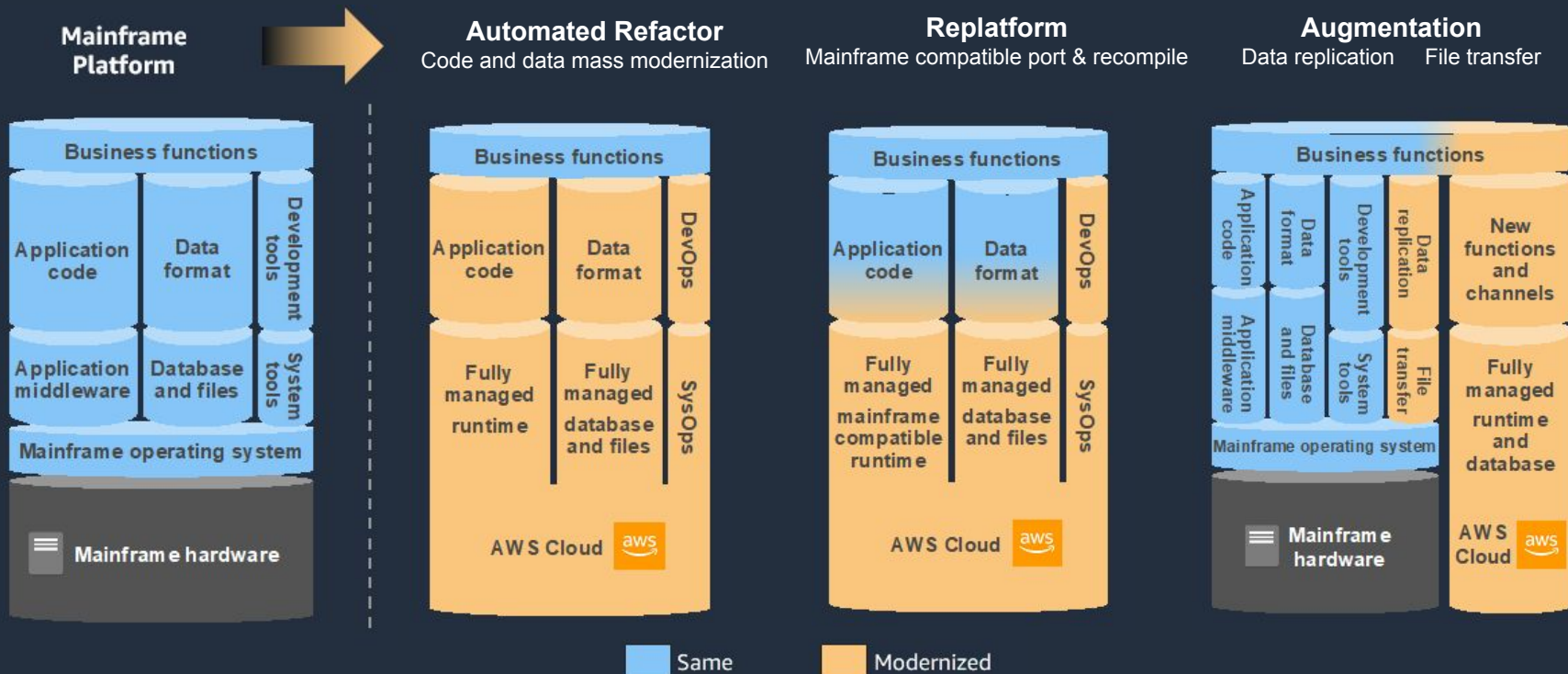
Business functional equivalence is essential for automation and project speed

AWS Mainframe Modernization toolchains

Modernize applications
when migrating them to cloud

Augment Mainframe
and innovate with your data

AWS Mainframe Modernization
Refactor

Automate modernization
of the complete
application software
stack, infrastructure,
and processes
Powered by AWS Blu Age

AWS Mainframe Modernization
Replatform

Preserve application
assets with minimal
changes while
modernizing the
infrastructure and
processes
*Powered by Micro Focus or
NTT DATA UniKix*

AWS Mainframe Modernization
Data Replication

Replicate data changes
in near real time from
mainframes to AWS
unleashing data-based
innovations and
use cases
Powered by Precisely

AWS Mainframe Modernization
File Transfer

Transfer data sets
and files from
mainframes to AWS
for migration and
modernization use
cases
Powered by BMC

Integrated elastic toolchains augmented by a range of AWS native services

AWS enables the journey

Cloud-native fully managed service
Offload routine infrastructure management and operations

AWS Professional Services
Supplement your team with AWS mainframe delivery experts

Dedicated mainframe teams
Accelerate success with AWS sales, product, partner, marketing supporting all geographies

AWS Partner Network
Tap into a network with more than 100,000 partners from more than 150 countries

Mainframe competency
Leverage validated consulting/technology partner expertise delivered via unique programs

Customer
+
AWS team

AWS Migration Acceleration Program (MAP)
Deliver transformation faster using guidance, tooling, and annual usage estimation

AWS Mainframe Migration Competency
Expansive ecosystem of Consulting and Technology Partners

aws partner network | competency mainframe migration

Services Competency Partners

accenture · Atos · Cognizant · Deloitte. · Infosys · DXC.technology · HCL · tcs TATA CONSULTANCY SERVICES · NTT DATA · wipro · Capgemini · IBM

Software Competency Partners

MICRO FOCUS · TmaxSoft · NTT DATA · advanced · TSRI · Deloitte. powered by innoWake™ · ensono · HEIRLOOM COMPUTING · Astadia An Amdocs Company

Thank you!

mLogica at a Glance

Leading global provider of digital transformation & pioneers in automated modernization solutions

Specialists in Solving Complex Modernization Challenges for Mainframe and Distributed Workloads to Cloud native technologies

Unmatched Experience
- Customers on 6 continents
- Hundreds of modernization engagements completed across all industry segments

Core Modernization Solutions

LIBER★M
Automated Mainframe Modernization

Replatform, refactor and rearchitect mainframe applications to cloud native technologies with the most comprehensive suite of tools available in the market.

STAR★M
Automated Distributed Modernization

Replatform and Refactor legacy databases and applications to cloud native technologies through a highly- automated & hardened translation engine.

How Customers benefit...

Accelerates your "Modernization to the Cloud" journey through highly automated and hardened translation engine

Significantly reduces costs and timelines during complex migrations, upgrades, and virtualization of consolidated servers
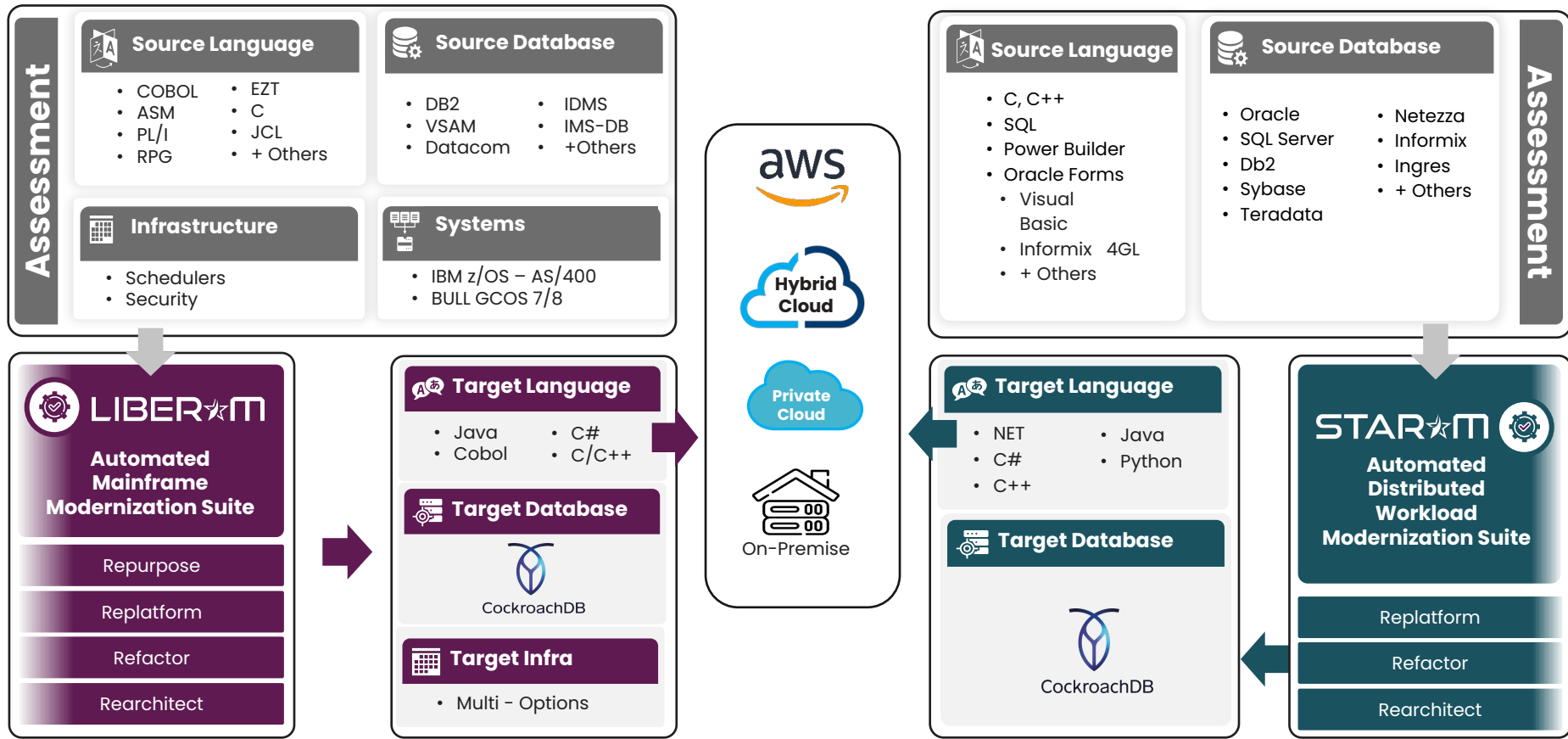
Minimizes business risk with automation technology, obviating the need for manual re-writing of code that is prone to errors
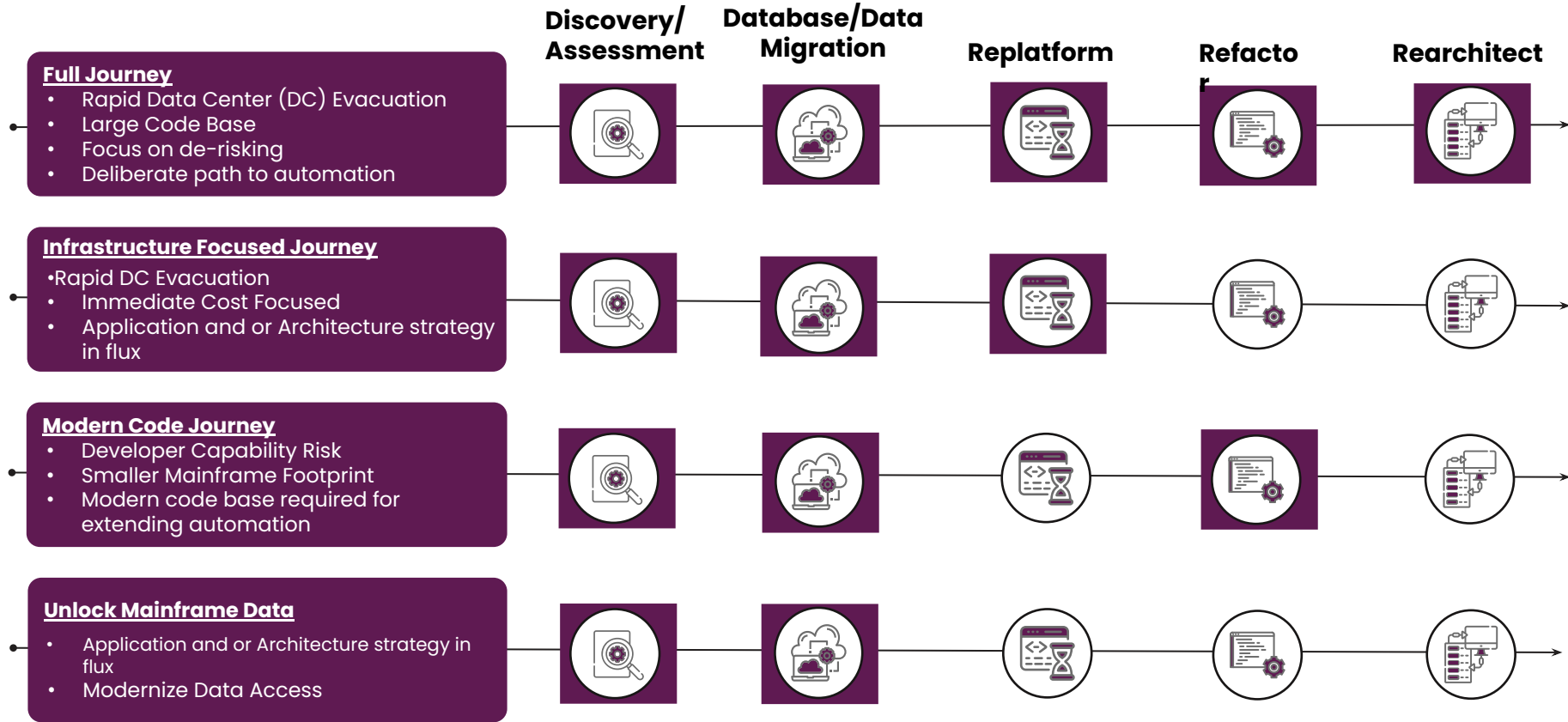
Trusted by Enterprises Globally

mLogica delivers at 1/2 the Cost and 1/3 of the time vs other modernization options

Accelerating Modernization to CockroachDB to the Environment of your Choice

mLogica Mainframe Modernization Journey: Multi-path Options

LIBER★M

STAR★M

	Discovery/ Assessment	Database/Data Migration	Replatform	Refactor	Rearchitect

Full Journey
- Rapid Data Center (DC) Evacuation
- Large Code Base
- Focus on de-risking
- Deliberate path to automation

Infrastructure Focused Journey
- Rapid DC Evacuation
- Immediate Cost Focused
- Application and or Architecture strategy in flux

Modern Code Journey
- Developer Capability Risk
- Smaller Mainframe Footprint
- Modern code base required for extending automation

Unlock Mainframe Data
- Application and or Architecture strategy in flux
- Modernize Data Access

mLogica - Key Differentiators

High degree of automation using mLogica proprietary software
- Ensures Business Logic moves 100%
- Lowers Cost and Time to deliver compared to manual rewriting
- Lower Risk: Improves predictability of timeline and ability to provide fixed bid engagement
- Improves accuracy of testing for like-to-like comparison

Specialized and Proven Methodologies specific to mainframe modernization

Expansive Source, Target Language and Data Coverage

Ability to support multiple disposition strategies without prejudice
- Willing to use the right solution for the right issue whether it is mLogica IP or other

End to End Commitment as opposed to point solution provider

Ability to assist with entire project or work with in house or preferred SI to extend and optimize the team

No code freeze

Testing strategy planning support, testing automation expertise

Powerful Automated Assessment to map and plan the entire end to end engagement
- Application Source Code Assessment can reduce inventory up to 50%

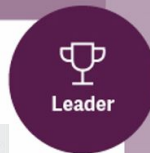# ISG Report – Mainframes – Services and Solutions

Mainframe Application Modernization Software

Leader since April 2024

LIBER✦M

STAR✦M

Mainframe Application Modernization Software

Mainframes – Services and Solutions
Mainframe Application Modernization Software

U.S. 2024

"mLogica uses sophisticated technology for replatforming and refactoring legacy applications, providing a comprehensive solution comprising application code, data, architecture and scheduling tools."

Pedro L Bicudo Maschio

This quadrant assesses modernization software vendors that support clients with professional services to transform and migrate mainframes to cloud using automation for rehosting, replatforming, reengineering or rewriting applications.

Pedro L Bicudo Maschio

MLOGICA

THANK YOU!

LAS VEGAS | SANTA ANA | PHOENIX | RESTON
| TORONTO | EDINBURGH | ROME | BELGRADE
| UAE | MUMBAI | PUNE

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