



DELIVERING TRANSFORMATION AT ENTERPRISE SCALE

MODERNIZATION AS A SERVICE

2026

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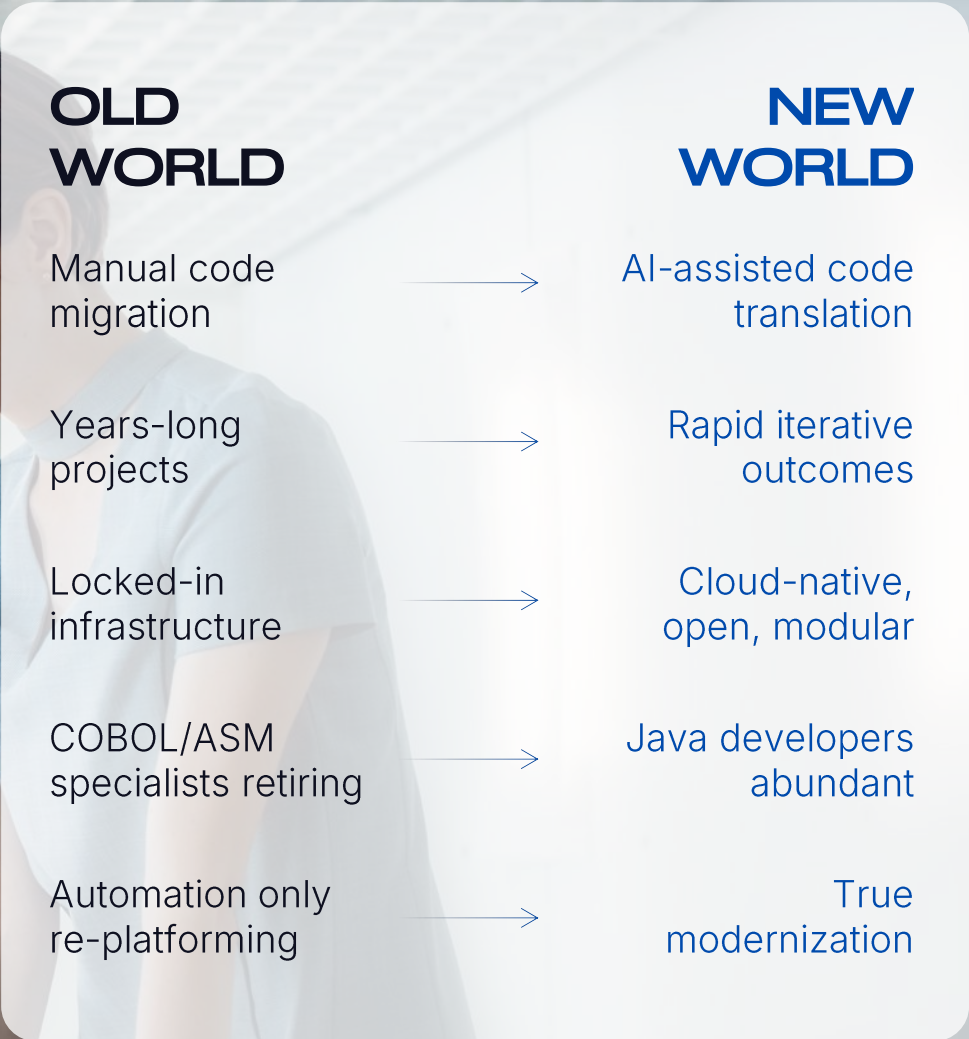
DXC Public

DXC Modernization as a Service

MODERNIZATION AS A SERVICE: FULLY MANAGED, END-TO-END ACCOUNTABILITY

Everyone’s talking about AI-powered modernization, but **few can reliably deliver** at scale on real-world legacy code

Our **specialist engineers** use a **proven AI-supported code translation** approach to deliver cloud-native Java-based solutions that are tested, safe, and ready for production



Human+ hybrid delivery model ensures speed and accuracy

Full-stack modernization: requirements, code, architecture, testing, CI/CD

Delivered as a Service: full governance, quality assurance and production ready

Line-of-code pricing model: transparent costs, aligned to business value

Outcome ownership: DXC takes accountability

REPEATABLE, MEASURABLE, LOW RISK

Auto conversion

Faster and cheaper migration with code conversion / emulation

- ✓ Fast, automated conversion
- ✓ Low technical risk
- ✗ Minimal human involvement
- ✗ Closed, proprietary runtime (vendor lock-in) with high ongoing licensing fees
- ✗ Test design is more complex and less aligned with business logic
- ✗ Specific paradigms of the converted Java code may create difficulties in code maintenance
- ✗ Not covered by unit tests
- ✗ May require significant refactoring post-conversion
- ✗ No flexibility with target technology stack

DXC Hybrid-powered

True re-imagine quality of a re-write with acceleration of re-platform

- ✓ Significantly faster and more cost-efficient than manual re-write
- ✓ Generates comprehensive design documentation that greatly accelerates modernization activities
- ✓ Produces refactored, high-quality code, fully covered by unit tests, with lower technical debt and improved readability and maintainability
- ✓ Reduced reliance on scarce legacy-skilled subject matter experts
- ✓ Technology agnostic and flexible to align with client-specific standards and frameworks

Manual re-write

Ideal outcome, but slow and high-risk

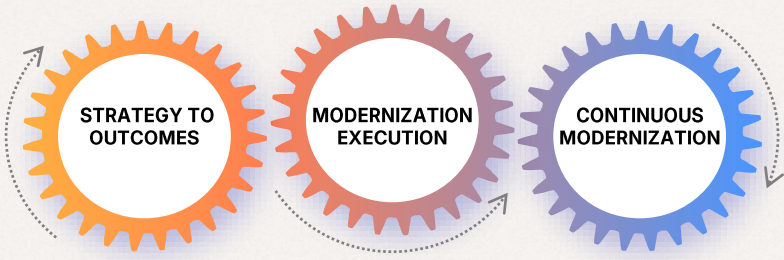
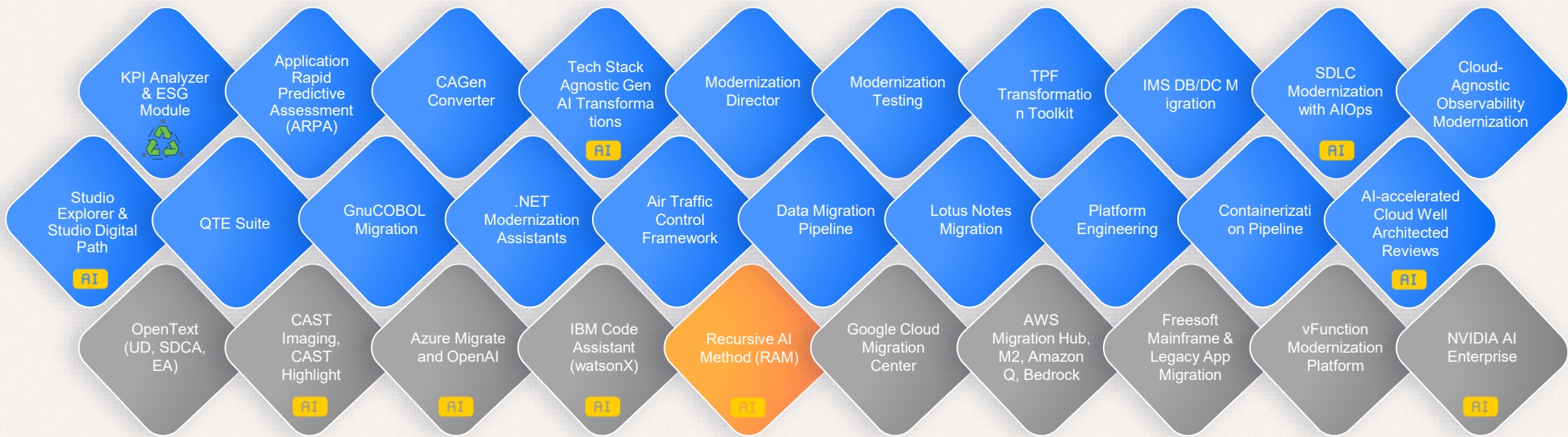
- ✓ Best long-term benefits
- ✓ Fully optimized architecture and documentation
- ✓ No legacy constraints
- ✗ Expensive and time-consuming
- ✗ High business risk (big-bang approach)
- ✗ Relies heavily on scarce legacy-skilled subject matter experts

DXC Modernization as a Service

DXC APPLICATION MODERNIZATION SERVICES

Powered by 20+ years of modernization expertise, a deep engineering culture, automation tools, and GenAI applied the right way, we design, optimize, and run your applications end-to-end

MODERNIZATION STUDIO POWERED BY AI



MODERNIZATION SERVICES

- Modernization Advisory**

AI-powered insights to help clients stay competitive
- Mainframe Modernization**

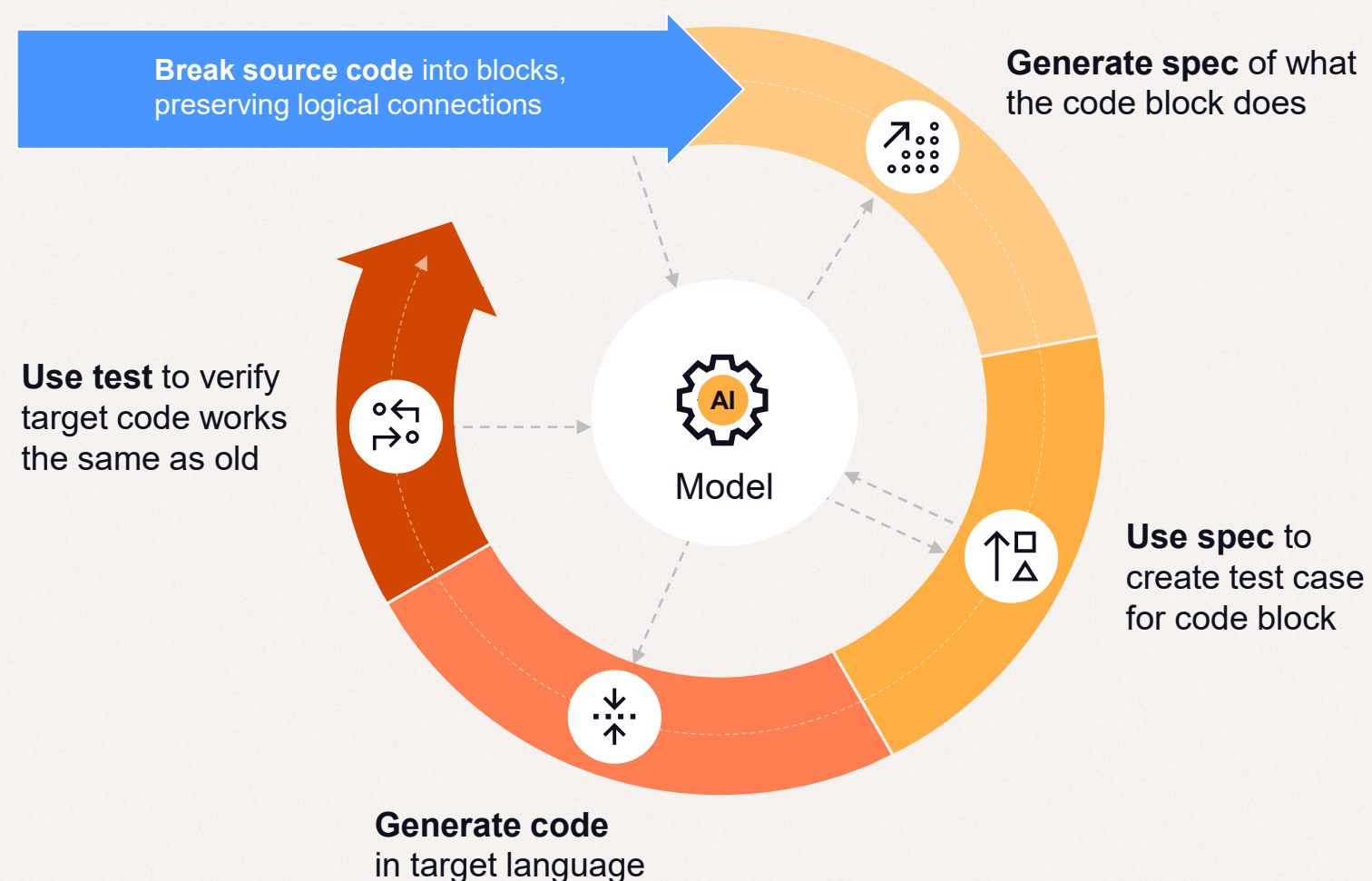
Transform legacy systems with cost-effective, modern technology
- Modernization Engineering**

Tailored tools for unique modernization needs
- Cloud Transformation**

Streamlined delivery of cloud-focused modernization projects

60,000+ Applications modernized annually	99.88% Successful modernizations	2,000 + 8K Modernization specialists plus apps resources	720+ clients in the Modernization Studio	1.1M applications processed through our Databank	2B LoC treated through app transformation factories
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DXC'S RECURSIVE AI METHOD FOR CODE CONVERSION AND DESIGN RECOVERY



- 1 The Recursive AI Method (RAM)* involves carefully applying Generative AI to parts of the transformation cycle, enabling engineers to deliver faster than manual work alone.
- 2 At the core of this recursive approach, all transformation artifacts, specs, tests and target code, are progressively fed back into the AI model to increase its contextual understanding of the codebase and business logic.
- 3 However, AI cannot be relied on in isolation. Specialist knowledge is still required at every step of the process to validate the outputs for accuracy and fine-tune the conversion pipeline / resulting artifacts.
- 4 DXC specialists with legacy technology skills combine AI prompt engineering with software engineering to fasten the delivery process.

DXC Modernization as a Service

DXC MAAS DELIVERY TIERS ALIGNED TO MODERNIZATION LIFECYCLE

Each tier contributes to DXC’s standard modernization approach from blueprint to continuous optimization



BLUEPRINT DISCOVERY

OUTCOME: Actionable Blueprint
Current-state specs and architecture captured. Provides leaders a single source of truth to scope, budget, and de-risk modernization.

WHAT’S INCLUDED

- AI-assisted reverse-engineering of business logic, data flows, architecture
- Documents tech-stack & dependency mapping
- Complexity, KLOC, and risk dashboard
- Quick-win & roadmap foundation

BASELINE TRANSFORMATION

OUTCOME: Functional-Parity Codebase
Application now runs on the target stack with unit tests in place; client QA drives higher-level testing while DXC guarantees defect fixes.

WHAT’S INCLUDED

- Automated code refactor / conversion to target language & framework
- Unit-test harness generation
- Build scripts & containerization stubs

ADVANCED MODERNIZATION

OUTCOME: UAT-ready release
Fully integrated, cloud-native build that clears SIT and is packaged for seamless User-Acceptance Testing.

WHAT’S INCLUDED

- Architecture uplift to cloud native micro / modular patterns, aligned with client’s enterprise architectural standards / guidelines
- DevSecOps pipeline & IaC templates
- System, performance, and security test automation
- DXC-run SIT with client sign-off

E-2-E MODERNIZATION AND PRODUCTION LAUNCH

OUTCOME: Production-Ready State
Application live, performance-tuned, and defect-free under agreed SLAs, ready for business scale-up.

WHAT’S INCLUDED

- End-to-end deployment to target environment
- Cut-over orchestration, data migration, rollback plan
- 30-day hypercare with live defect triage & KPI tracking

PREMIUN – INTELLIGENT OPERATIONS

OUTCOME: Self-Improving Platform
DXC shoulders operational risk while continuously optimizing cost, resilience, and feature velocity, freeing the client’s teams for innovation.

WHAT’S INCLUDED

- L2/L3 application & platform support (SRE model)
- FinOps & capacity optimization
- Quarterly enhancement sprints with AI-driven insights

DXC Modernization as a Service

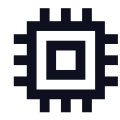
DETAILED DELIVERABLES

E2E Modernization & Production Launch Detailed Deliverables



Documentation

- Modern Target Architecture Blueprint
- Functional and Non-Functional Specifications (use cases, features, workflows)
- Technical Specifications (architecture diagrams, data flows)
- Business Rules Extracted from Legacy Code
- Database Schema and Mapping
- Interface Contracts (APIs, message formats)
- Operational Documentation (runbooks, deployment procedures, disaster recovery plan)



Modern Infrastructure Setup and CI/CD Pipelines

- Provisioned Cloud Infrastructure for All Environments
- Infrastructure-as-Code Scripts (Terraform modules)
- Containerization (Dockerfiles, OCI compliance)
- Kubernetes Deployment Manifests or Helm Charts
- Secrets Management (Vault, AWS KMS)
- CI/CD Pipelines
- Canary or Blue/Green Deployment Support
- Release Versioning and Tagging Strategy
- Centralized Logging and Metrics Collection (Prometheus/Grafana, Splunk, Dynatrace)
- Distributed Tracing (OpenTelemetry, Jaeger)
- Alerting Rules, Escalation Policies, and Dashboards for System KPIs and Health Indicators



Testing & Quality Assurance

Test Assets

- Unit Test Suites with Coverage Reports
- Integration Test Scripts
- Automated End-to-End Test Scenarios
- Performance/Load Testing Scripts
- Security Testing

Test Results

- Test Execution Reports per Environment
- Bug Reports with Resolution Tracking
- Code Coverage Dashboards
- Load and Stress Test Reports



Application Deployed in the Cloud

- Converted Codebase to Java with Optimizations for Modern Architecture
- Passed Quality Gates and Security Checks
- Fully Aligned with Extracted Specifications
- Cloud-Native Patterns Applied, Including Microservices
- Fully Aligned with Customer Enterprise Architecture Guidelines



Program & Governance

- Project Plan with Milestones
- Phases: Discovery, Design, Build, Test, Deploy, Release, Knowledge Transfer
- RAID Log (Risks, Assumptions, Issues, Dependencies)
- Weekly Progress Reports
- Burn-Up/Burn-Down Charts, Velocity

DXC Modernization as a Service

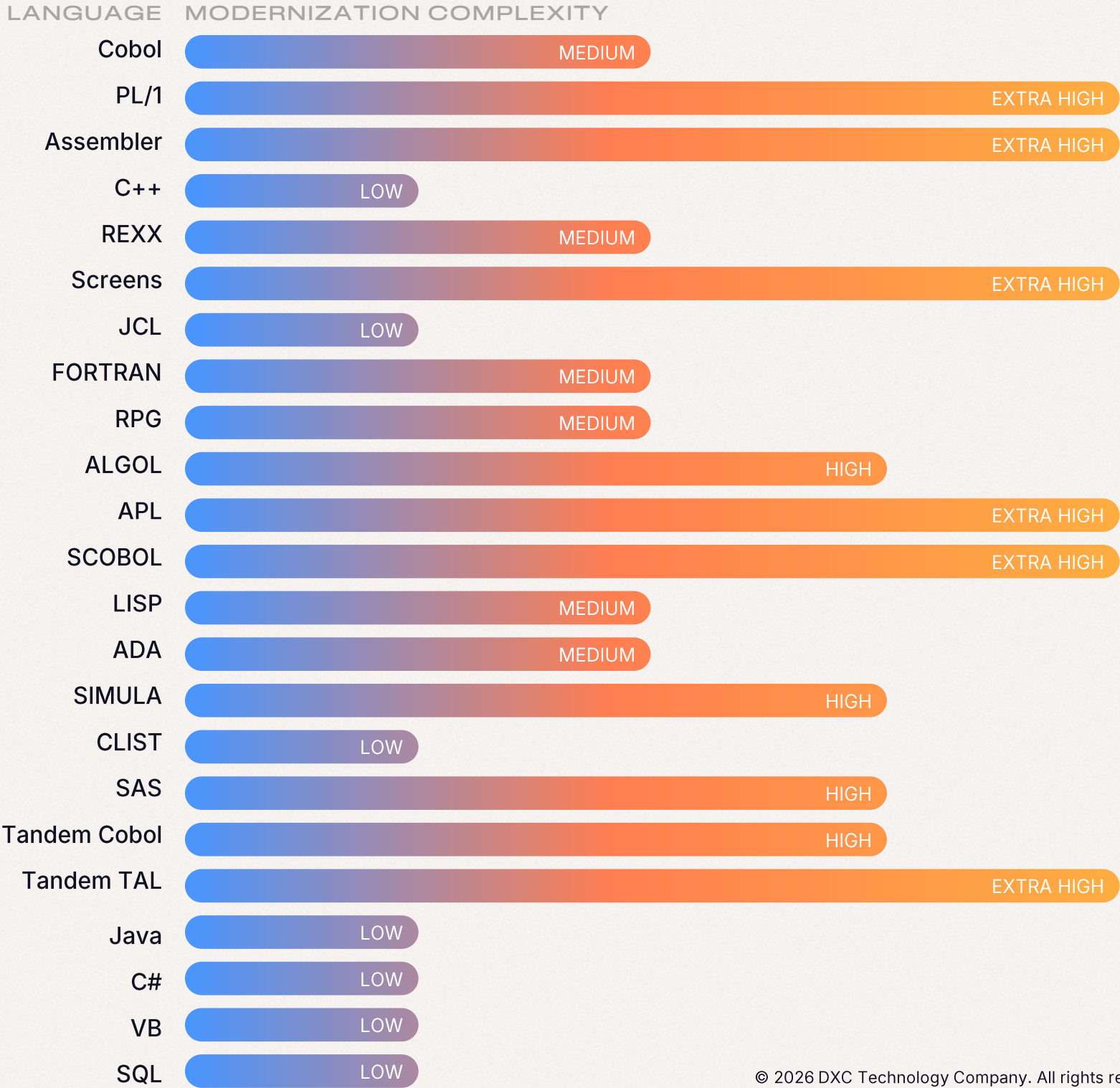
WE MODERNIZE MORE THAN JUST MAINFRAMES

We can modernize **all types of legacy systems**, not only mainframes.

Modernization as a Service principles can be applied in all cases, for an outcome-based modernization, priced by lines of code.

A weighting is applied to the pricing depending on the complexity of the source language to be converted.

Other languages: complexity to be provided on demand



PRICING MODEL COMPONENTS

COMPONENT	DESCRIPTION
Delivery Tier	Defines the target outcome and delivery scope (e.g., blueprint, UAT-ready build, production launch). Higher tiers include more activities and longer duration
Volume Tier	Determined by total number of source lines of code and number of components in scope. Higher volume impacts team size, effort, and timelines.
Complexity	Reflects tech-stack difficulty (e.g., legacy languages, integration density, coupling, unavailable documentation). Drives estimation risk and tool adaptation.

USE CASE

- COBOL application
- 1M lines of code
- Timeline: 1y
- Advanced Modernization Tier
Fully integrated, cloud-native build that clears system integration testing and is packaged for seamless User-Acceptance Testing.

ROM ESTIMATES FOR MODERNIZATION

\$2.8M

Appendix

PROOF OF CONCEPT PROPOSAL

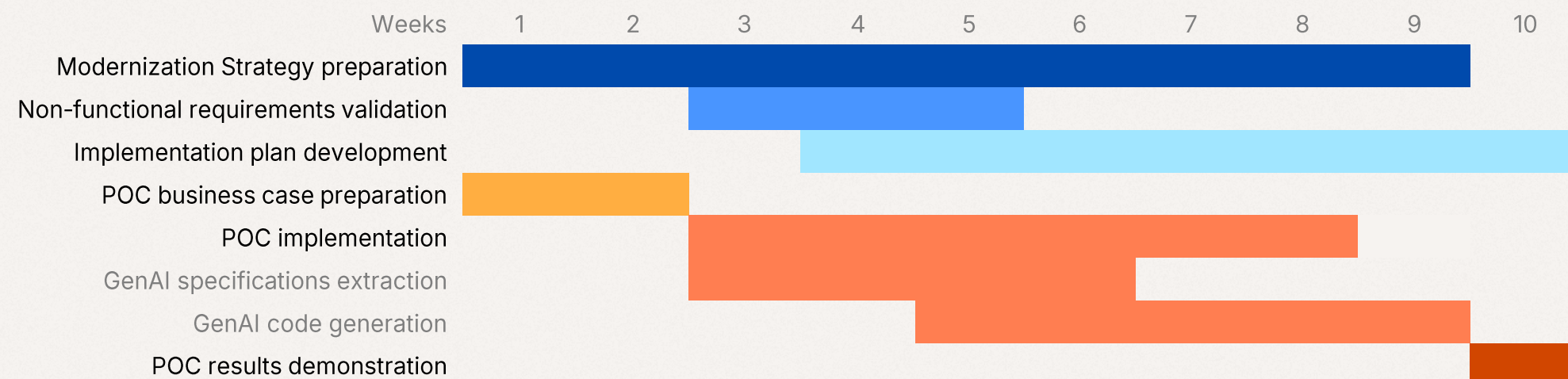
A POC is the recommended entry point to MaaS. It aligns expectations, validates capabilities, and calibrates the delivery approach before full-scale execution

ROM Price

150K USD

Duration

10 weeks



Scope

Assessment:

- Define modernization strategy
- Validate non-functional and business requirements
- Define full modernization scope
- Estimate full modernization effort

Conversion POC

- Convert an end-to-end business scenario to the target language using DXC GenAI pipeline and Recursive AI Method

Deliverables

- **Migration Strategy:** Detailed scope inventory; Final target architecture; Modernization approach and process; Implementation strategy; Test strategy
- Implementation Plan – timeline and cost estimate for modernization
- Technical and Functional Specifications for the selected business scenario
- Generated Code and Unit Tests for the selected business scenario
- POC Results Demo

Assumptions

- The end-to-end business scenario for the POC will be chosen collaboratively by DXC and client teams
- POC prototypes are not intended for production use and will be used only for POC demonstration sessions. However, outputs will be reused in the broader conversion effort.

PROOF POINTS



AI-Powered Card Account Management Modernization for One of the World's Largest Banks

Accelerating modernization with AI

DXC used AI-assisted mainframe to cloud transformation to expedite modernization. Leveraging AI for docs, test cases, microservices development, and target Java code generation. This approach was the only viable option due to heavy Assembly footprint and significantly reduced migration efforts.

60%

Less effort

100%

Documentation coverage



Accelerating Cloud Transformation for a US Healthcare Tech Giant

Enhancing efficiency, security, and evergreen state via platform engineering services

DXC laid the foundation and enhanced an Internal Development and Engineering Platform to standardize and enable scalable cloud migration and development process. By combining cloud transformation and platform engineering, DXC simplified operations and mitigated risks.

30%

Level of effort reduction

2500

Applications onboarded to use Engineering Platform



Enabling Modernization by AI-Driven Reverse Engineering for Biggest World's Airline

Securing Mainframe Exit While Ensuring Business Continuity

DXC applied AI-assisted analysis on the airline's zTPF system to capture business capabilities boundaries, dependencies, and data flows, enabling decommissioning planning and safe mainframe migration with reduced risk and full business continuity.

5x

Faster analysis via AI-pipeline

11M

Lines of Assembly code



Monolith Migration to Microservices in Cloud

eCommerce Platform Transformation and Modernization for one of the World's Largest and Fastest Growing Retail Chains

DXC transformed the eCommerce landscape into a single global Azure Cloud eCommerce platform, enabling faster time-to-market for new brands, easier onboarding of acquisitions, and significant improvements in delivery and operations.

3300

hosts

5000

Requests per second

300

Micro and macro services



Helping Aerospace Company Exit the Mainframe

Mission-Critical Mainframe COBOL / IMS Application Modernization

DXC helped US aerospace company successfully migrate and modernize a mission-critical COBOL/IMS mainframe application, decommissioning the mainframe within 2 weeks after go-live achieving 0 critical defects in hyper-care.

90%

TCO reduction

\$10M+

Costs reduction annually



Technology Modernization, Code Conversion and Cloud Migration

End-to-end Core Administration System Modernization for the Largest US Dental Healthcare Payer

Helped a client save hundreds of millions \$ by re-vamping core back-end claims processing system to next generation, unlocking digital evolution of the whole customer application landscape.

66+

Applications for Cloud migration

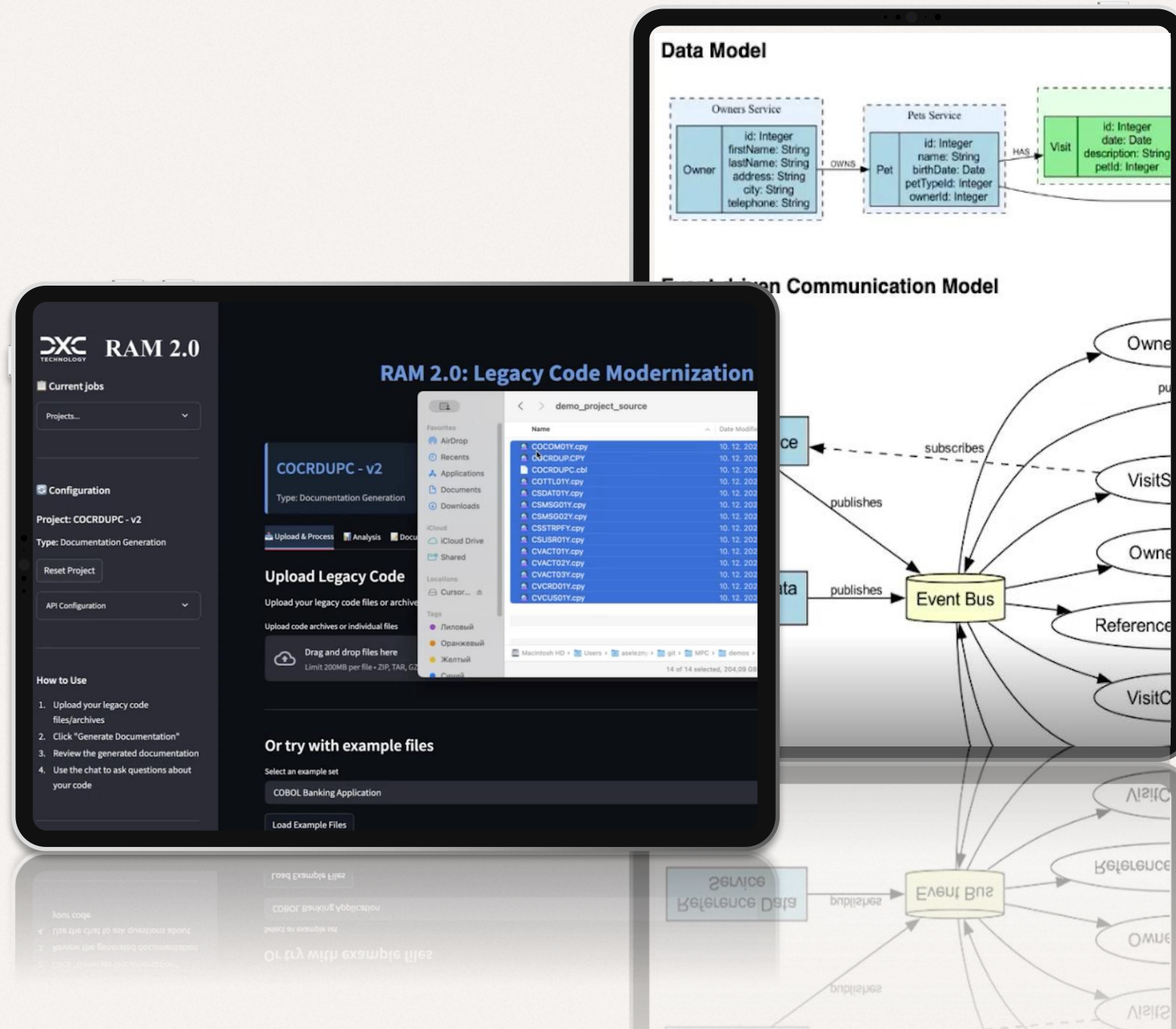
1000

Claims processed per second

DEMONSTRATION VIDEOS

Demo Video – COBOL Transformation

[direct link to watch](#)



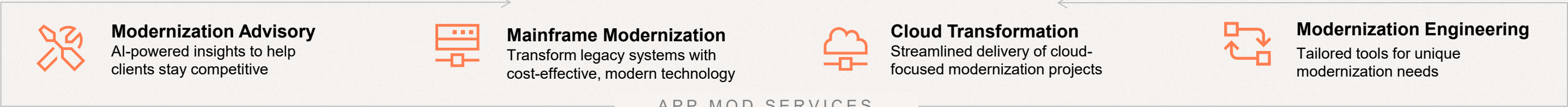
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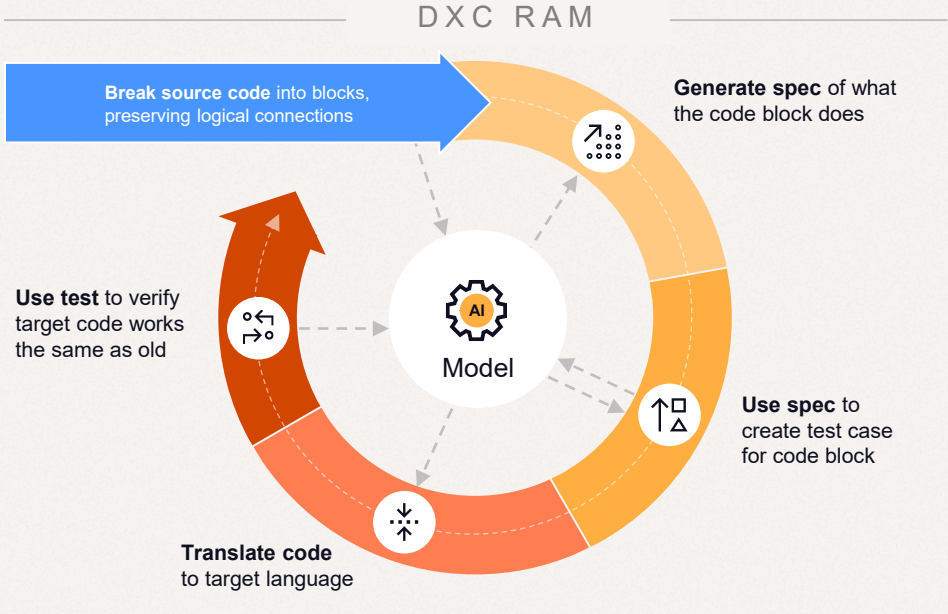
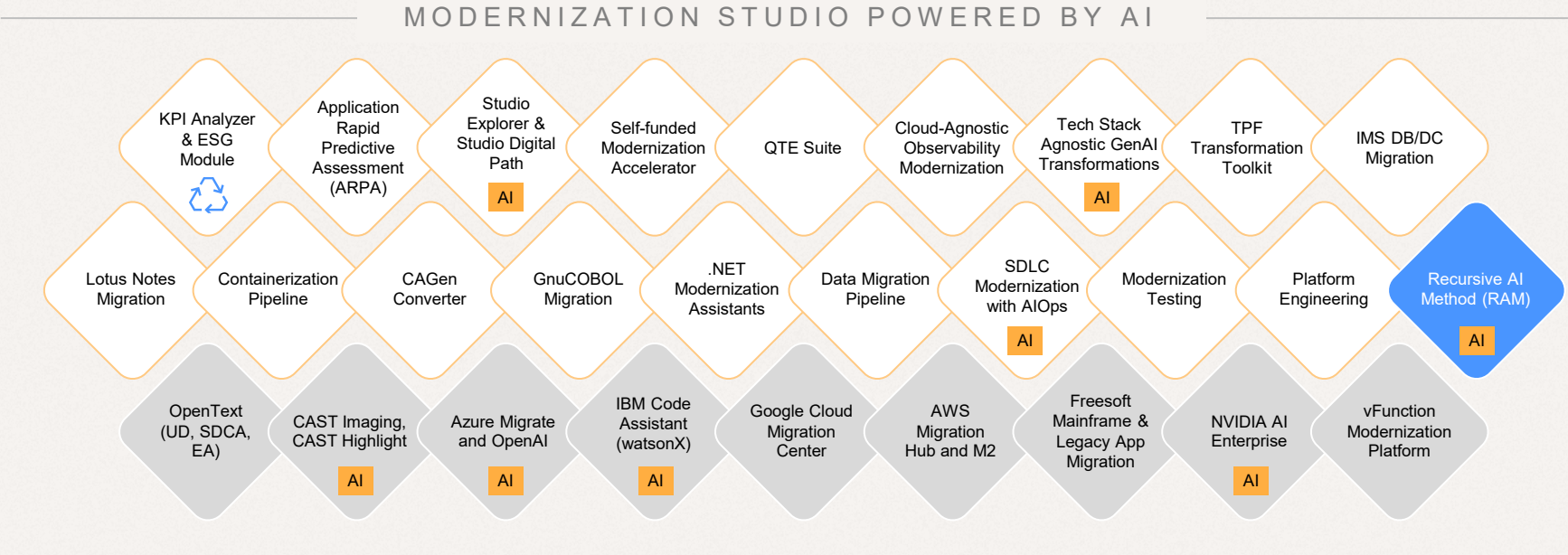


DXC APPLICATION MODERNIZATION PRACTICE

DXC APPLICATION MODERNIZATION PRACTICE



APP MOD SERVICES



60,000+
Applications modernized annually

99.88%
Successful modernizations

2,000 + 8K
Modernization specialists plus apps resources

720+
clients in the Modernization Studio

1.1M
applications processed through our Databank

2B
LoC treated through app transformation factories

HOW ARE WE DIFFERENT...

DXC: Engineering-led Modernization

Proven Expertise in Modernization

- 20+ years of engineering-led transformation of mission-critical applications
- Developed numerous accelerators backed by AI expertise
- Deep investment in GenAI to enhance productivity and scalability

Agentic GenAI Framework

- DXC Recursive AI Method augments senior engineers for automation at scale
- Shift from workflow-based GenAI to Agentic GenAI compatible with various LLMs and code-assistant agents through MCP

Strategic Alignment & Outcome Focus

- Alignment with Client's Enterprise Architecture standards, including frameworks for NFRs
- Modernization as a Service: flexible delivery tiers targeting full spectrum of modernization services: from discovery to post-production support

Outcome-Based Pricing Innovation

- Pay-by-outcomes driven by LoCs processed and MaaS delivery tier, not resource-based MSAs
- Eliminates open-ended sprint-based delivery models and creates certainty to enable new features and products for customers

UNIQUE CAPABILITIES



DXC Modernization engineers are **technology agnostic**, fluent in both legacy and modern stacks and hand-on GenAI



AI-assisted reverse-engineering of business logic, data flows, architecture



AI-accelerated re-write / re-imagine to modern architecture aligned to Client standards



Strong test strategy and **robust test automation** with full (non)functional, and parallel run coverage



Applicable for all legacy languages – this goes beyond the Mainframe

APPLICATION MODERNIZATION: PROOF POINTS

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Accelerating modernization with GenAI

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60%

Less effort

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Documentation coverage

Business Centric Modernization and Cloud Enablement

Re-architected Surety Bond Applications

Modernized surety bond portfolio applications and created a Bond platform which is scalable, secure, future-proof for business agility and provides a frictionless user experience for brokers.

\$82+ B

Commercial surety bonds processed annually

~99%

Reduction in broker API processing time

Migration from Mainframe to Cloud

Core Banking Platform Re-engineering

Unlocked digital transformation for top-tier global banks by providing a migration and cloud transformation solution for a high-performant, reliable and mission critical legacy core banking platforms.

275M

Cards processed daily for 475 banks

250M

Customer deposit accounts

Monolith Migration to Microservices in Cloud

eCommerce Platform Transformation and Modernization for one of the World's Largest and Fastest Growing Retail Chains

The strategic solution was to transform the eCommerce landscape into a single global Azure Cloud eCommerce platform.

3300

hosts

5000

Requests per second

300

Micro and macro services

Migration from Mainframe to Linux with GNU Cobol

Electrical Engineering Configuration Control Modernization for a large Aerospace Manufacturer

Other providers wasted 20 years on trying and failing to solve the problem, which DXC managed to solve in just 3 years.

90%

TCO reduction

\$10M+

Costs reduction annually

Technology Modernization, Code Conversion and Cloud Migration

End-to-end Core Administration System Modernization for the Largest US Dental Healthcare Payer

Helped a client save hundreds of millions \$ by re-vamping core back-end claims processing system to next generation, unlocking digital evolution of the whole customer application landscape.

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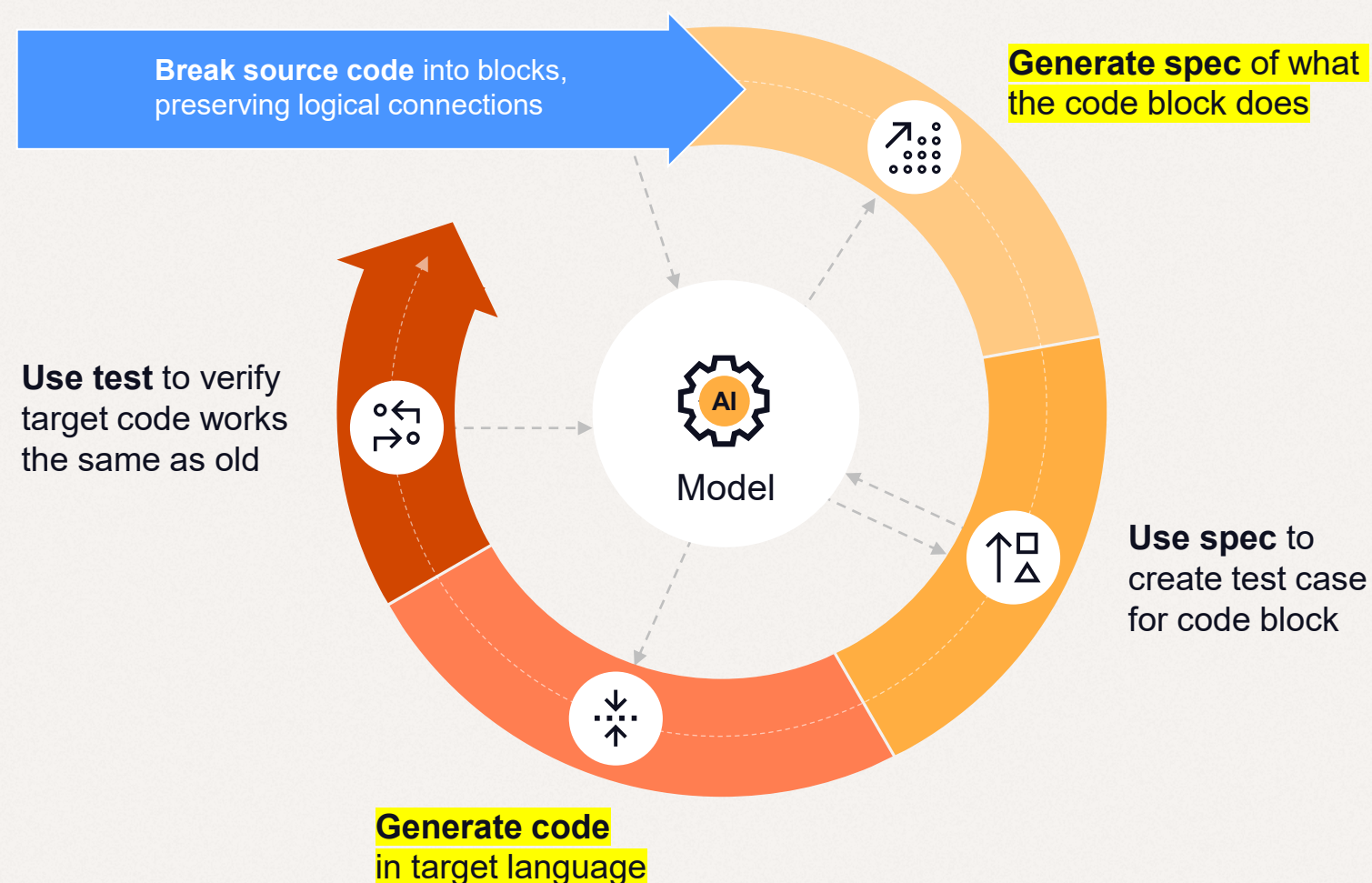
Applications for Cloud migration

1000

Claims processed per second

DXC RAM

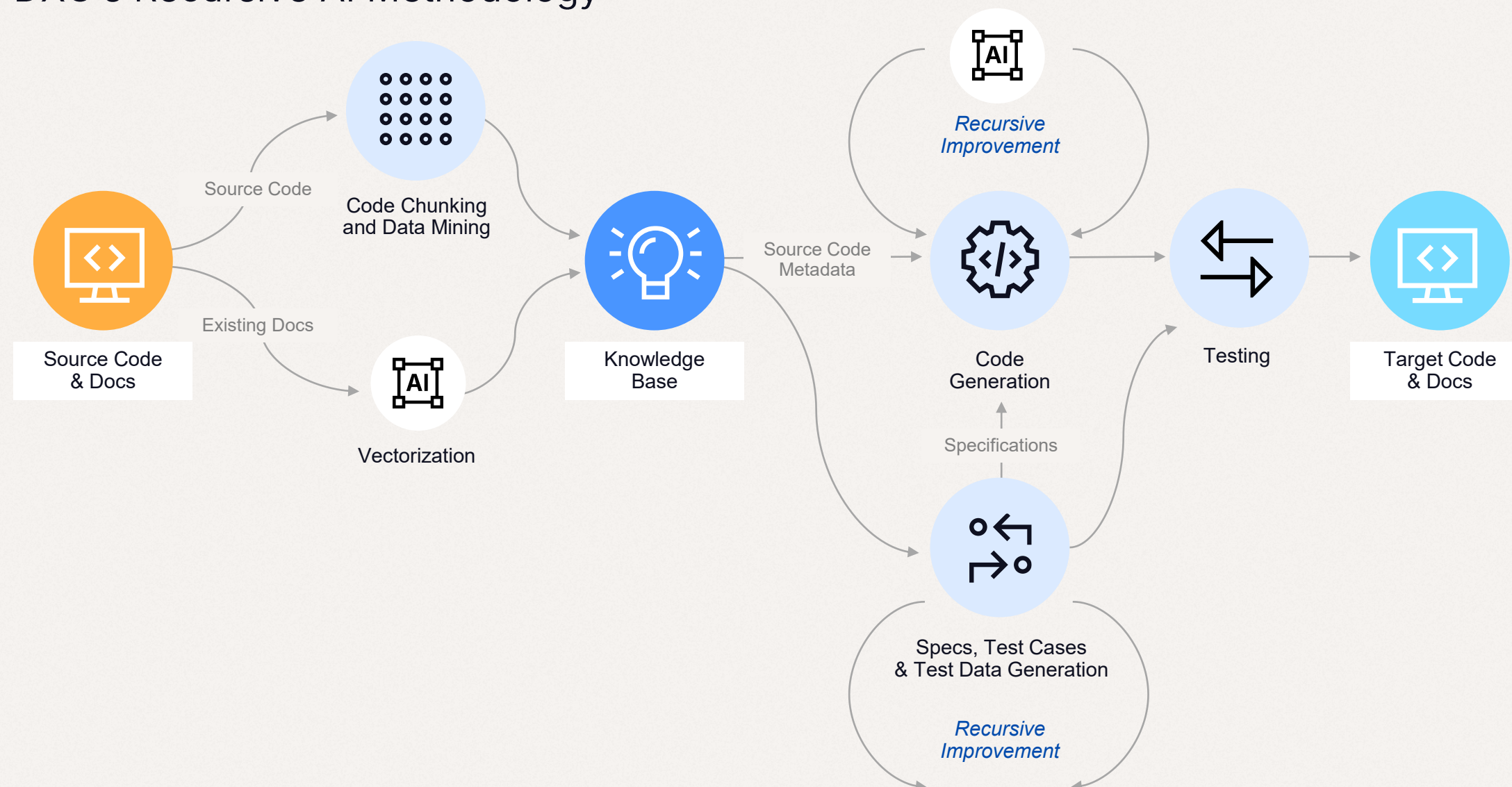
DXC'S RECURSIVE AI METHOD FOR CODE CONVERSION AND DESIGN RECOVERY



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- 3 However, AI cannot be relied on in isolation. Specialist knowledge is still required at every step of the process to validate the outputs for accuracy and fine-tune the conversion pipeline / resulting artifacts.
- 4 DXC specialists with legacy technology skills combine AI prompt engineering with software engineering to fasten the delivery process.

AI-POWERED CODE TRANSFORMATION PIPELINE

DXC's Recursive AI Methodology



- **Code Chunking and Data Mining:**
create the knowledge database of source code, test data, and documentation in a suitable form for GenAI
- **Vectorization:**
prepare data for RAG GenAI processing
- **Specifications, Test Cases and Test Data Generation:**
generate artifacts using GenAI
- **Code Generation:**
generate target code and unit tests to verify that specifications are correct
- **Recursive Improvement:**
 - Review and refine specifications, test cases by GenAI and modernization engineer
 - Review and refactor target code and tests by AI and by modernization engineer
- **Testing:**
test application in target code end-to-end

AI TECHNOLOGY STACK

Client

Provides access to the source code and all relevant metadata. Accepts and validates delivered results.

DXC Workforce

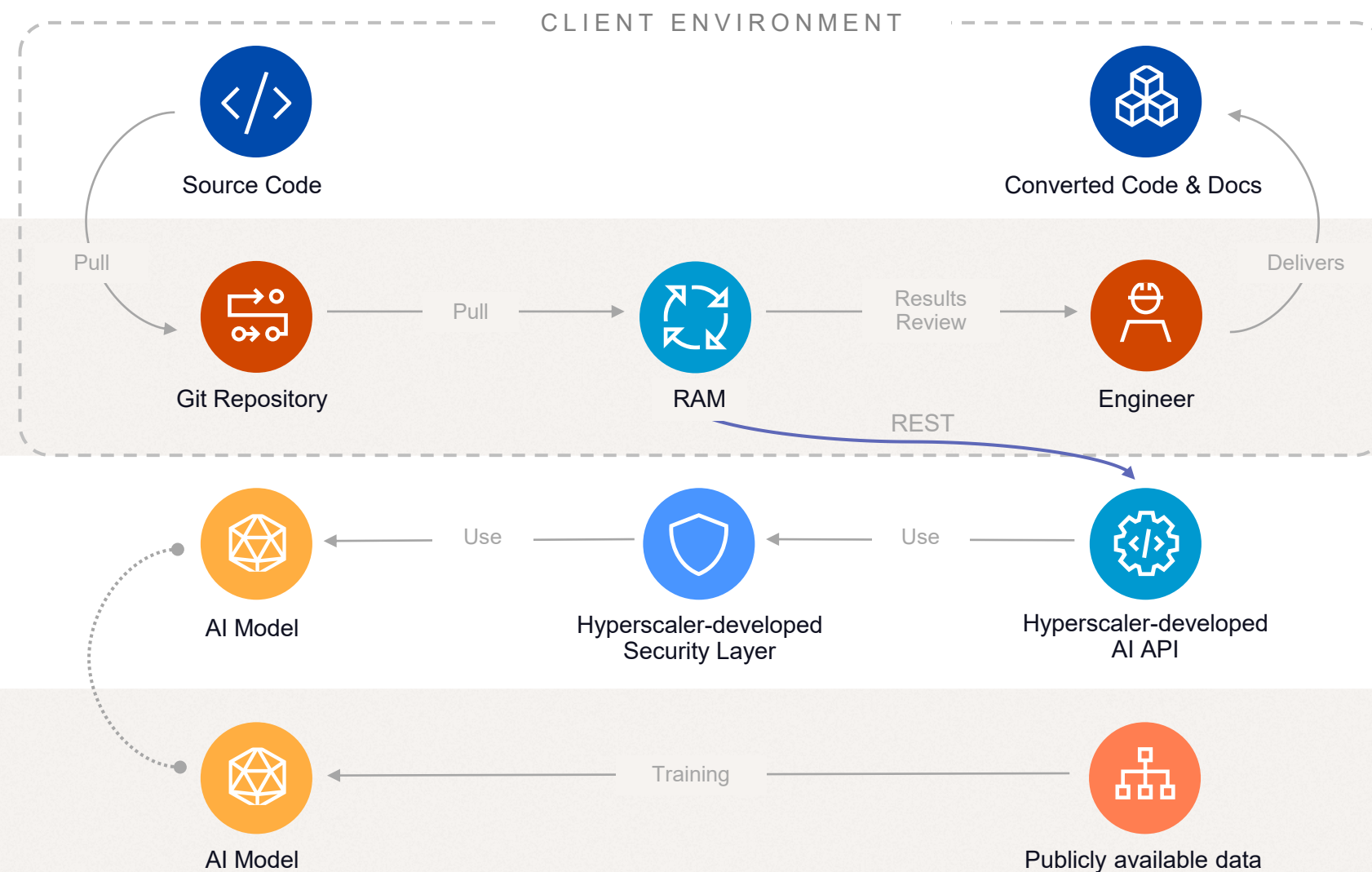
Develops automation on top of the AI API of the selected hyperscaler, validates and tests generated results, prepares delivery to the customer.

Hyperscaler

Hosts and secure AI models, exposes AI API to interact with the models. Provides data security measures, guarantees request data privacy.

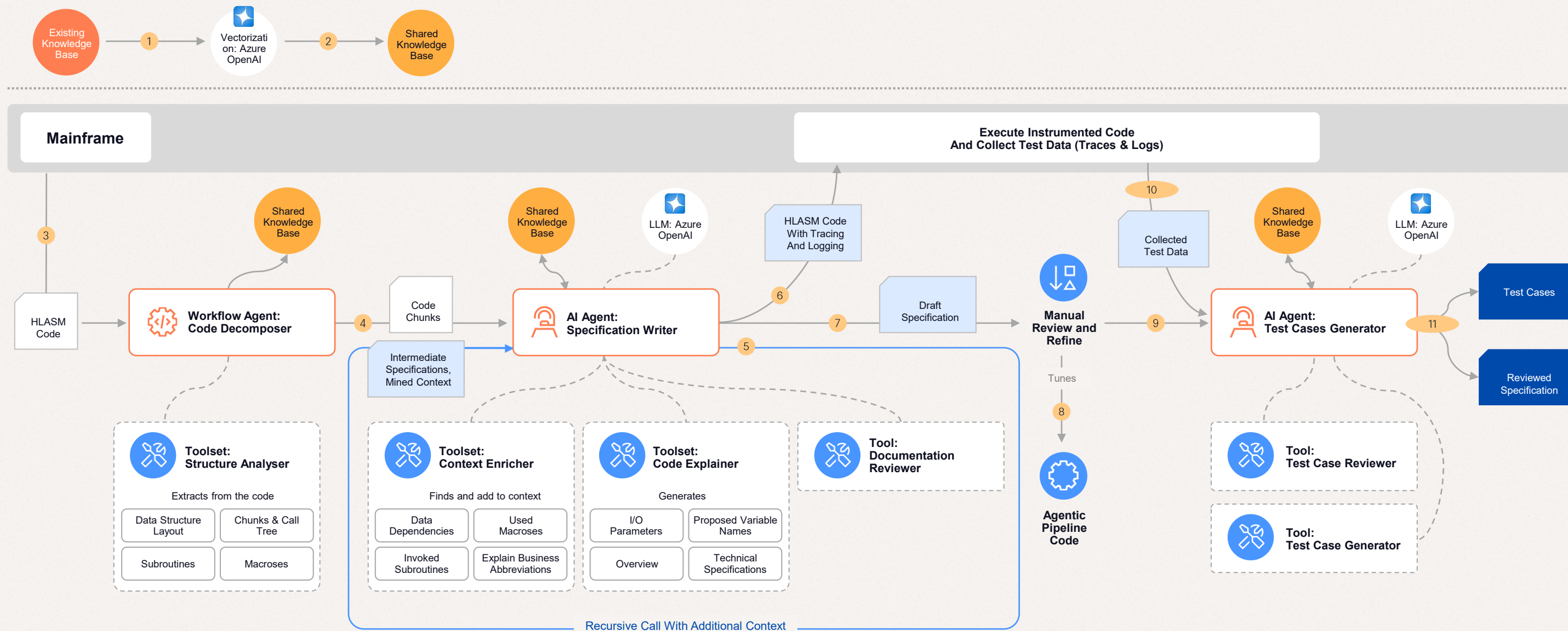
AI Model

Develops and trains the models using publicly available data. Provides models to hosting parties.



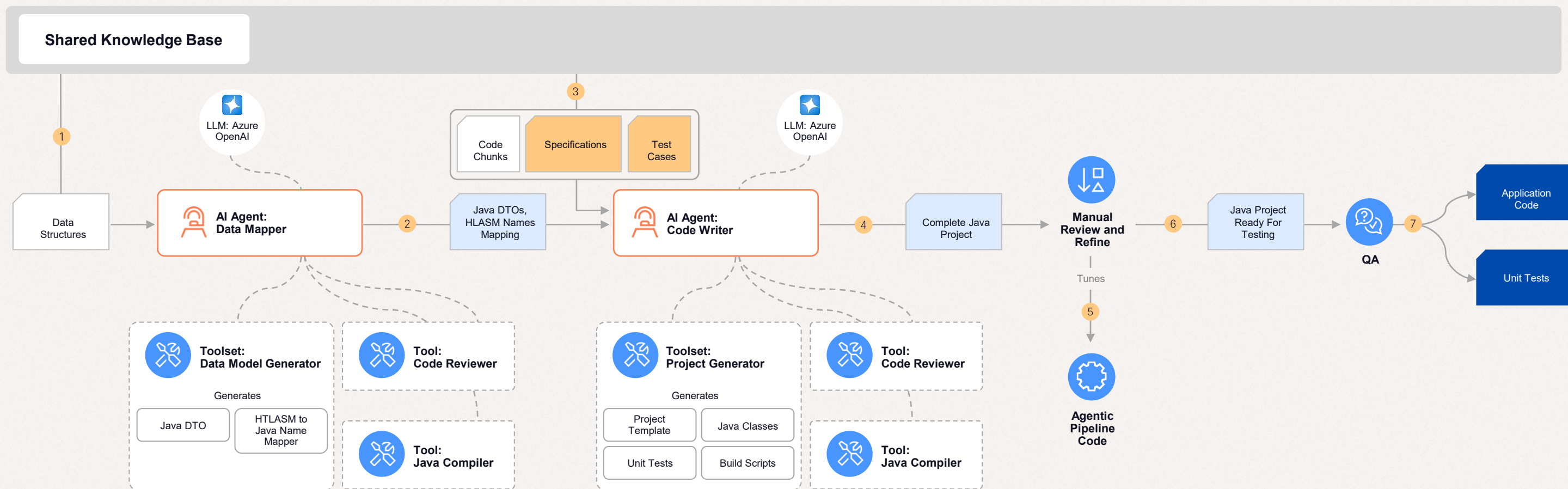
WORKFLOW GENAI - PHASE 1

Transformation Pipeline generating Specifications and Test Cases

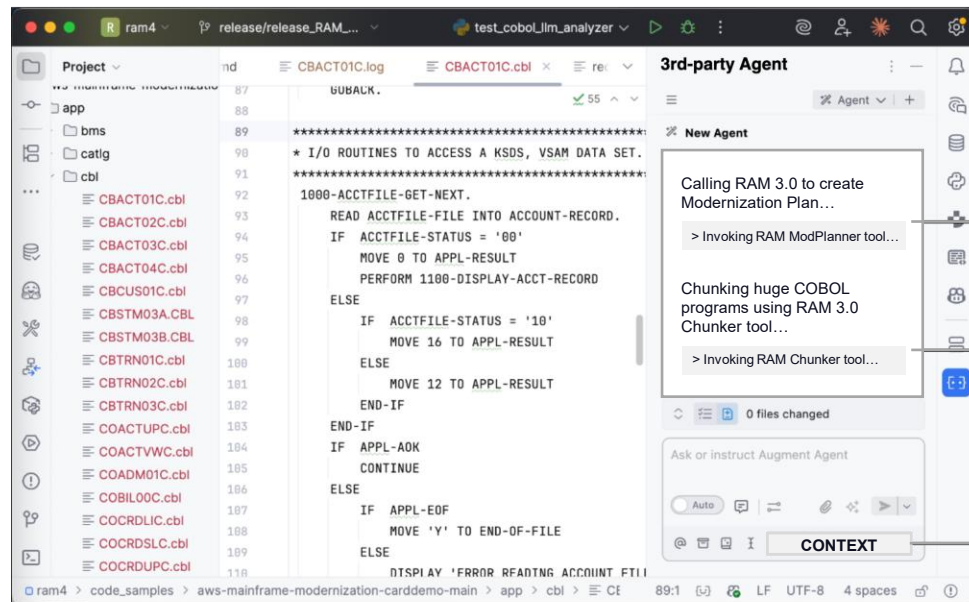
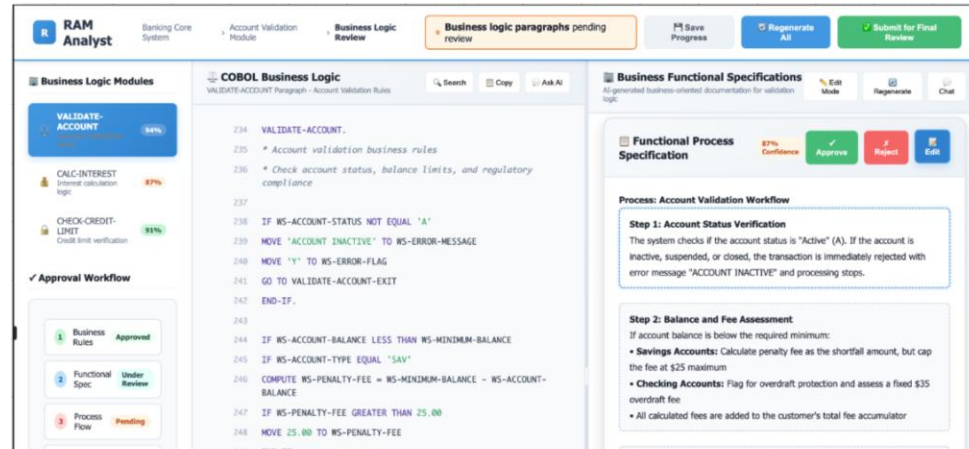


WORKFLOW GENAI - PHASE 2

Transformation Pipeline resulting in Application Code and Unit Tests



RAM MCP INTEGRATION



RAM 3.0 Backend + MCP Server

RAM Agents and Tools

Backend for Frontend

Self-Learning Engine

Modernization Planner

Big Programs Chunker

Data Structure Extractor

Target State Conversion Rules

A lot more tools...

RAM Storages

RAM Knowledge Base

GraphDB + VectorDB + ReIDB

Conversion State Store
Progress Tracking

HTTPS

MCP

MCP

MCP

Core Concept

- RAM doesn't compete with agents — it empowers them through RAM MCP Server
- Agents gain the ability to process legacy mainframe codebases with millions of lines of code using RAM's toolset
- Agent output becomes significantly higher quality and more accurate
- RAM provides UI For Analysts and Managers

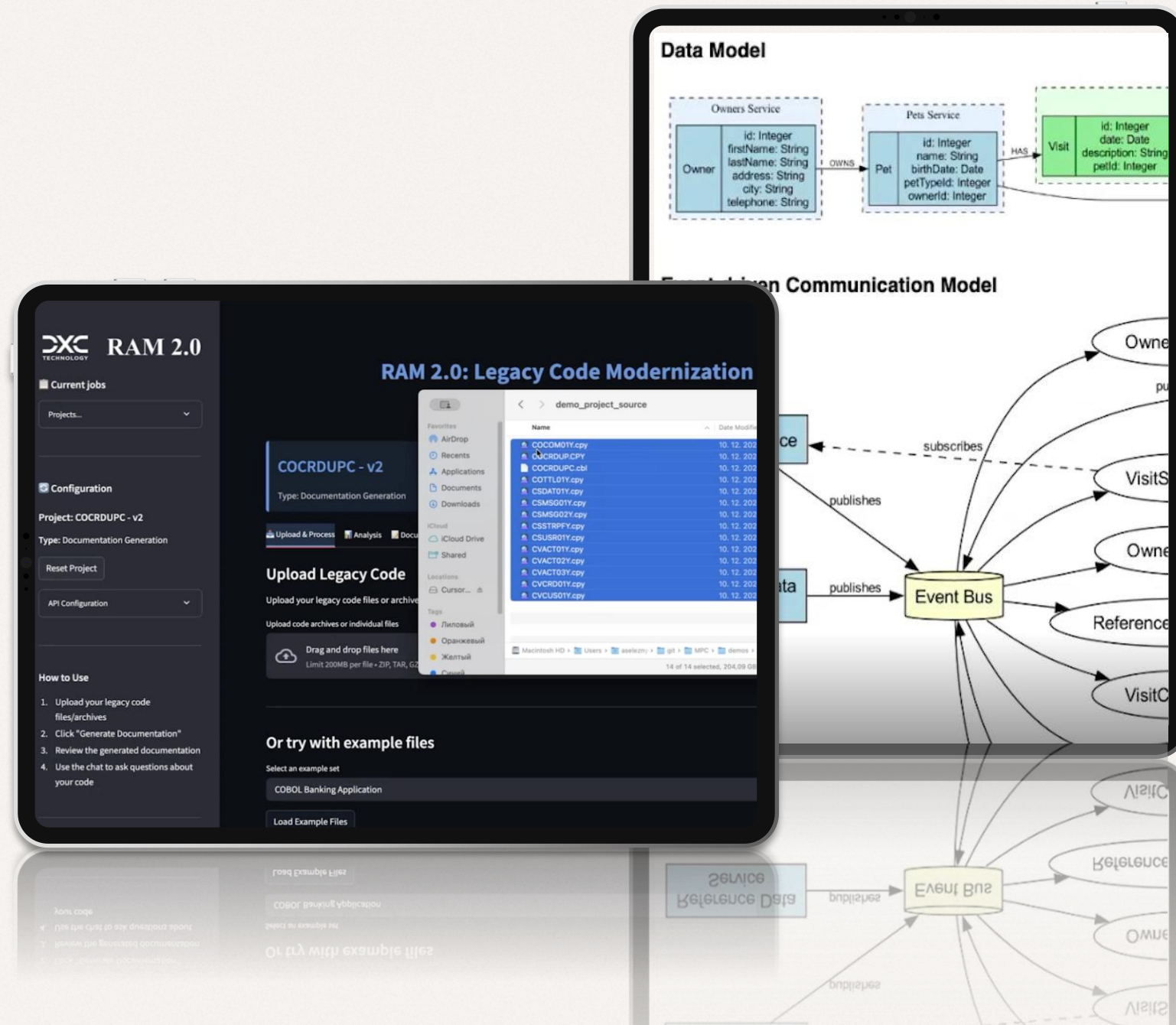
Legacy Modernization Toolset For Agents

- Modernization Planner: creates modernization plans based on analysis
- Big Programs Chunker: chunker that fully complies with language specifications
- Data Structure Extractor: extracts data structures from legacy code and maps identifiers to business-meaningful names
- Target State Conversion Rules: ready-made conversion rules for various tech stacks
- RAM Self-Learning Engine: automated tuning of conversion rules based on reviewer feedback
- RAM Knowledge Base: GraphDB + VectorDB + ReIDB for comprehensive system knowledge storage
- Conversion State Store: checkpoint saving and transformation progress tracking

DEMONSTRATION VIDEOS

Demo Video – COBOL Transformation

[direct link to watch](#)



Demo Video – Java Refactoring

[direct link to watch](#)

APPENDIX

Appendix

BLUEPRINT DISCOVERY DETAILED DELIVERABLES

Documentation

- Modern Target Architecture Blueprint
- Functional and Non-Functional Specifications (use cases, features, workflows)
- Technical Specifications (architecture diagrams, data flows)
- Business Rules Extracted from Legacy Code
- Database Schema and Mapping
- Interface Contracts (APIs, message formats)

Modernization Program Roadmap & Governance

- Modernization Project Plan with Milestones
- Modernization and Implementation strategy for all phases: Discovery, Design, Build, Test, Release, Run
- RAID Log (Risks, Assumptions, Issues, Dependencies)
- Weekly Progress Reports
- Burn-Up/Burn-Down Charts, Velocity



Appendix

BASELINE TRANSFORMATION DETAILED DELIVERABLES

Documentation

Full set of Blueprint deliverables (when combined with Blueprints Discovery) or draft Technical Specifications (architecture diagrams, data flows)

Program & Governance

- Project Plan with milestones and timelines.
- RAID Log tracking risks, assumptions, issues, and dependencies.
- Weekly Status Reports summarizing progress and blockers.
- Burn-Up/Burn-Down Charts for visual progress tracking.
- Velocity Reports showing team delivery performance.

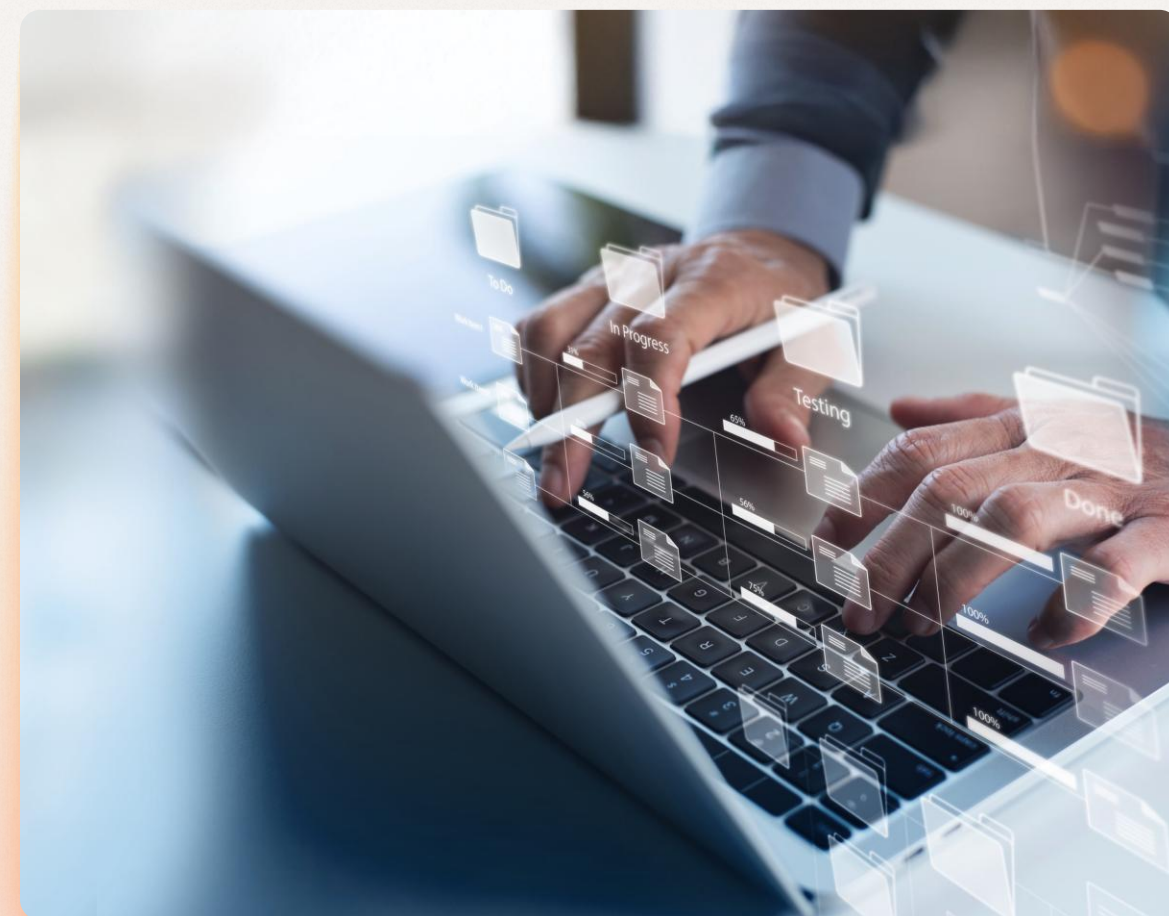
Testing & Quality Assurance

Test Assets: Unit Test Suites (which prove quality of specifications when combined with Blueprints Discovery)

Test Results: Code Coverage Reports for Unit Tests

Modernized Cloud Ready Application

- Transformed Codebase to Java with Optimizations for Modern Architecture
- Passed Quality Gates and Security Checks
- Fully Aligned with Extracted Specifications
- Cloud-Native Patterns Applied
- Aligned with Customer Enterprise Architecture Guidelines



Appendix

ADVANCED MODERNIZATION DETAILED DELIVERABLES

Documentation

Full set of Blueprint deliverables (when combined with Blueprints Discovery) or draft Technical Specifications (architecture diagrams, data flows)

Modern Infrastructure Setup and CI/CD Pipelines aligned with TrueCD

- CI/CD Pipelines aligned with the company's practice
- Provisioned Cloud Infrastructure for Lower Environments
- Infrastructure-as-Code Scripts (Terraform modules)
- Containerization (Dockerfiles, OCI compliance)
- Kubernetes Deployment Manifests or Helm Charts
- Secrets Management (Vault, AWS KMS)
- Canary or Blue/Green Deployment Support and Automated Rollback
- Release Versioning and Tagging Strategy
- Centralized Logging and Metrics Collection (Prometheus/Grafana, Splunk, Dynatrace)
- Distributed Tracing (OpenTelemetry, Jaeger)
- Alerting Rules, Escalation Policies, and Dashboards for System KPIs and Health Indicators

Testing & Quality Assurance

Test Assets: Unit Test Suites with Coverage Reports; Test Strategy; Contract Test Suites; Functional/Component Test Suites; Integration Test Suites; Automated End-to-End Test Scenarios; Security Testing Scenarios
Test Results: Test Execution Reports per Environment; Bug Reports with Resolution Tracking; Code Coverage Dashboards

Program & Governance

- Project Plan with milestones and timelines.
- RAID Log tracking risks, assumptions, issues, and dependencies.
- Weekly Status Reports summarizing progress and blockers.
- Burn-Up/Burn-Down Charts for visual progress tracking.
- Velocity Reports showing team delivery performance.

Application Deployed in the Cloud

- Converted Codebase to Java with Optimizations for Modern Architecture
- Passed Quality Gates and Security Checks
- Fully Aligned with Extracted Specifications
- Cloud-Native Patterns Applied, Including Microservices
- Fully Aligned with Customer Enterprise Architecture Guidelines



Appendix

E-2-E MODERNIZATION & PRODUCTION LAUNCH DETAILED DELIVERABLES

Documentation

Full set of Blueprint deliverables (when combined with Blueprints Discovery) or draft Technical Specifications (architecture diagrams, data flows)

Operational Documentation (runbooks, deployment procedures, disaster recovery plan)

Modern Infrastructure Setup and CI/CD Pipelines aligned with TrueCD

- CI/CD Pipelines aligned with the company's practice
- Provisioned Cloud Infrastructure for All Environments
- Infrastructure-as-Code Scripts (Terraform modules)
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- Distributed Tracing (OpenTelemetry, Jaeger)
- Alerting Rules, Escalation Policies, and Dashboards for System KPIs and Health Indicators

Testing & Quality Assurance

Test Assets: Unit Test Suites with Coverage Reports; Test Strategy; Contract Test Suites; Functional/Component Test Suites; Integration Test Suites; Automated End-to-End Test Scenarios; Security Testing Scenarios; Performance/Load Testing Scenarios; Resilience Testing Scenarios

Test Results: Test Execution Reports per Environment; Bug Reports with Resolution Tracking; Code Coverage Dashboards; Load and Stress Test Reports

Program & Governance

- Project Plan with milestones and timelines.
- RAID Log tracking risks, assumptions, issues, and dependencies.
- Weekly Status Reports summarizing progress and blockers.
- Burn-Up/Burn-Down Charts for visual progress tracking.
- Velocity Reports showing team delivery performance.

Application Deployed in the Cloud

- Converted Codebase to Java with Optimizations for Modern Architecture
- Passed Quality Gates and Security Checks
- Fully Aligned with Extracted Specifications
- Cloud-Native Patterns Applied, Including Microservices
- Fully Aligned with Customer Enterprise Architecture Guidelines



UAT & Production Support

- Support for User Acceptance and Product Go-Live
- SLA-driven 30-day Hypercare period

CASE STUDIES

Mission-Critical Mainframe COBOL / IMS Application Modernization

HELPING AEROSPACE COMPANY EXIT THE MAINFRAME

90%

Reduction in application
operational costs, saving
~\$10M annually

0

critical and high-
severity production
defects during hyper-
care

10 000

Automated test cases in
modernized containerized
CI/CD pipeline

Mainframe was
decommissioned in

2 weeks

after modernized solution
went live



Business Challenge

- A large US Aerospace company was migrating its data center, with last application stuck on the mainframe due to modernization challenges over previous decades
- Modernization challenges came from extra high complexity of embedded into the application IP, lack of strategic alignment of numerous stakeholder groups, technology difficulties, and quality risks that are a key factor for this core electrical engineering configuration control system



Solution

- DXC joined to help with customers' ongoing modernization effort, eventually took over the lead, proposed and implemented 3 phases of modernization: functional readiness, resilience under load, and post-production hyper-care
- Major focus was on aligning all involved parties, as well as onboarding a high caliber DXC Modernization team for such a complex initiative
- Key part of the solution was a custom solution for COBOL and IMS migration, which, due to its open-source nature, could be tuned for such a complex application from functional and performance perspectives by DXC Modernization team



Results

Successful migration and modernization completed in 3 years, solving the problem that couldn't be solved in 20 years



Technologies

- Legacy: COBOL, IMS
- Target: RHEL, OpenShift, GnuCOBOL, IMS, Python, C/C++, MS SQL, Java, HP UFT, Jenkins, Ansible, Kubernetes, Terraform, Splunk, Grafana

Self Funding Modernization by TCO Reduction and Cloud Enablement

SAVING \$MILLIONS IN TECHNOLOGY TRANSFORMATION FOR US RETAILER



Business Challenge

- Merger of Two US retailers, a decision was made to expand the Mainframe and consolidate workloads
- Volume to be processed would more than double, without upgrade of hardware and software, it would miss critical timeframes impacting the business
- Business faced a capacity upgrade and large additional software expense which would double the costs



Solution

- After assessing pricy upgrade of Hardware and Software. DXC Engineering teams developed an Innovative approach that was called the Mainframe Expansion project.
- Proposed Solution to migrate Batch workload which were Time Sensitive & Driving Peak off the z/OS to z/Linux
- Added IFL and zIIP engines to allow z/Linux LPAR to be created for workload to move to the new LPAR to avoid moving to a larger mainframe.



Results

- 17 Computer Assisted Ordering and 20 Shelf Tag batch workloads were migrated and implemented with zero business impact
- Reduction in CPU times for batch by up to 85% for Computer Assisted Ordering and 56% for Shelf tag
- Leverage the IBM z ecosystem to optimize the processing across lower costs processing



Technologies

- Legacy: z/Linux, C/C++, RHEL, Bash, DB2
- Target: GNU COBOL, Python

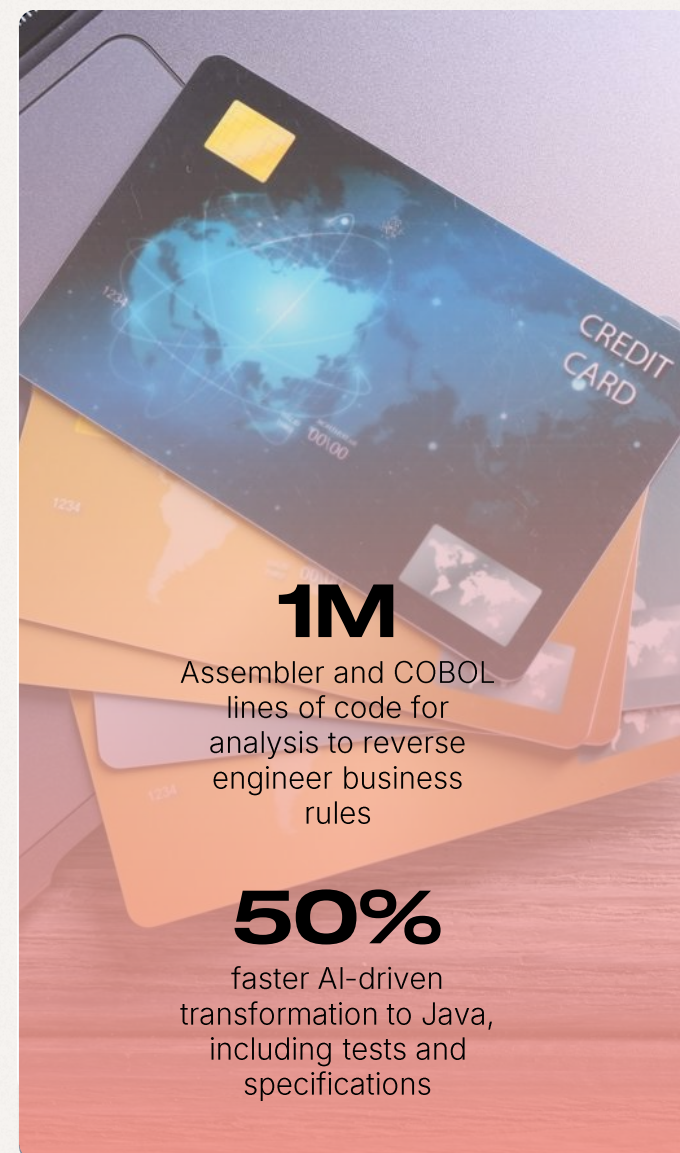
80%

savings through cost
avoidance over 5
Years

85%

Reduction in
CPU time

CARD PROCESSING SYSTEM MODERNIZATION FOR TOP-TIER US BANK



Business Challenge

- The client, one of the biggest banks in the world, aims to expand its US card market share by improving agility and time to value for new card products roll-out, however, mainframe-based updates are slow due to a significant volume of business logic written in Assembler
- The client has started modernizing by gradually rewriting card service components, with the long-term goal of replacing the mainframe system with a cloud-based one
- The recently initiated project faced timeline challenges:
 - Modernization efforts were often deprioritized in favor of business-as-usual requests
 - Scaling of modernization team was difficult due to the need for specialized Assembler skills
 - The overall pace of modernization was slow



Solution

- DXC deployed a specialized engineering team with strong modernization background and solid GenAI skills
- Assembler Modernization assessment was run to identify dependencies and calibrate the scope and migration approach
- System components that could be independently moved to the cloud were identified, minimizing business disruptions
- DXC introduced modernization methodology and accelerating tools (including AI) to assist rewriting into Java
- Implemented a semi-automated AI pipeline driving creation of specifications, test cases and Java code based on specifications
- Tuned the pipeline to achieve a complete end-to-end cycle from Assembler to tested Java services in the cloud



Results

- Assessment was completed with clear architectural goals, modernization strategy and scoping
- Pipeline for AI assisted specs generation, test generation, self-documenting Java code was tuned with a significant increase in modernization velocity
- GenAI techniques and tools deployed at client's environment with approach extrapolated to further modernization scope beyond Assembler



Technologies

- **Legacy:** Assembler, JCL, COBOL, CICS, VSAM, DB2, MFTS
- **Target:** Azure OpenAI, Java, LangChain, Python, React, NodeJS, AWS, AWS S3, EKS, Lambda, PostgreSQL