# temenos

# **Temenos LEAP**

Unlocking years of technology Innovation



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Introduction

Cloud native platform

**Connectivity & Integration** 

Performance & Scale

**Security** 

Extensibility & DevOps

**Ecosystem** 

**User Experience** 

#### **Top Technology investment areas**



## **Cloud Native Platform Arch.**

- ✓ Cloud Native/ Cloud Agnostic
- ✓ High availability
- ✓ Elastic Scaling
- ✓ 15+ supported deployment stacks



## Connectivity & Integration

- 3000+ Extensible APIs
- Out of the box configurable adapters
- ✓ 50+ Integration Patterns



### Performance & Scale

- ✓ Linear scalability & performance
- ✓ 59% response time improvement
- ✓ 52% efficiency improvement
- ✓ 4x smaller carbon footprint



#### **Security**

- ✓ OpenID/OAuth2/ XACML
- ✓ Cloud Security
  Alliance Certified
- ✓ SOC2/3 Certified
- ✓ ISO 27001/ 27018/ 27017/ 22301 Certified



## Extensibility & DevSecOps

- ✓ Online Upgrades (0 downtime)
- Extensibility using DevSecOps
- ✓ Automated Testing
- ✓ Low-Code / No-Code



#### **Ecosystem**

- ✓ 100+ Partner Solutions
- ✓ Pre-integrated & Quick to deploy
- ✓ Developer-Friendly API/ Events Portal & Docs



### **User Experience**

- ✓ New Lighter, Faster Browser
- ✓ Customizable, API First/Developer friendly
- Reusable web components





#### **Areas of evolution**

Aireas		<r19< th=""><th>Now (R24)</th><th></th><th>Roadmap</th></r19<>	Now (R24)		Roadmap
Architecture	4	Layered Architecture	Loosely Coupled/Event Driven/MS Based		New Decoupled Banking Capabilities
Deployment	<b>←○○</b>	On-Prem/TAFC/jBASE	15+ Cloud Native*/Agnostic Deployment Arch/Java 11 /RDBMS		Serverless Cloud Deployment/ New stack tiers
Connectivity	( <del>\)</del>	Few APIs	3000+ APIs 250+ Events (BIAN) Developer Community		Native Event Streaming
Extension	X	Customization Hooks/Custom Events	Extensibility Framework 100+ Exchange Solutions	U	Unified Workbench (Web Based IDE)
Storage	S	jBASE/XML Type Storage	RDBMS/JSON & XML Type/Distributed Cache(REDIS)		Rollout across all products
UI/UX		UXP & Old Browser	Lightweight Angluar Transact Explorer (UUX)		Temenos Middle Office for User Agents
DevSecOps		Upgrade with Downtime/No Ops	Online Upgrades/IaC/ Packager/Monitoring		ZeroTrust/DevSecOps

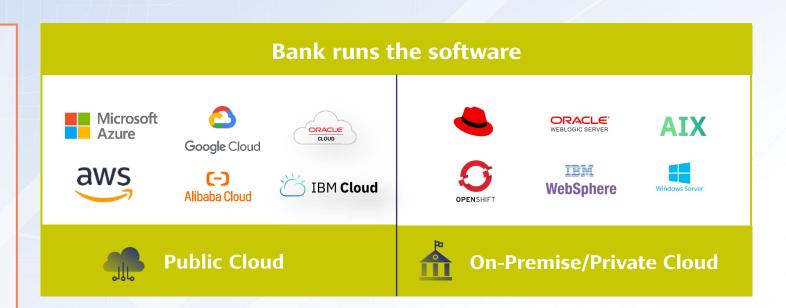
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Cloud Native
Platform
Architecture



#### Following and going beyond the 12 factor app for Cloud Native

- 1 One codebase, one application
- 2 API first
- **Dependency management**
- 4 Design, build, release, and run
- 5 **Configuration, credentials, and code**
- 6 Logs
- 7 **Disposability**
- **8 Backing services**
- 9 **Environment parity**
- 10 Administrative processes
- 11 **Port binding**
- 12 Stateless processes
- 13 **Concurrency**
- 14 **Telemetry**
- 15 **Authentication and authorization**







#### **Facilitate Integration**



#### **Open APIs**

- Consumed by channels & realtime systems
- 3000+ Business REST API End Points
- Driven by Open
   API Specifications
   (OAS) leveraging
   Swagger



## **Event Driven Integration**

- System to system real-time integration
- XML/JSON structured messages via MQ, JMS
- Integrated via standard ESBs& Middleware



## **Data Event Streaming**

- Stream data to analytics & big data platforms
- Pub/ Sub, high throughput, low latency



#### **Files**

- Legacy bulk data transfers
- Extract & Consume fixed length, CSVs
- Trigger same real-time business functions



### **Adapter Framework**

- 50+ Integration Patterns
- Based on Apache Camel
- Configurable outof-the box adapters



#### Code

- Documented APIs
- Java/Python
- Upgradable

Reduce implementation time & complexity with out of the box configurable adapters

# Performance and Scale



#### **2023 Benchmark Results**



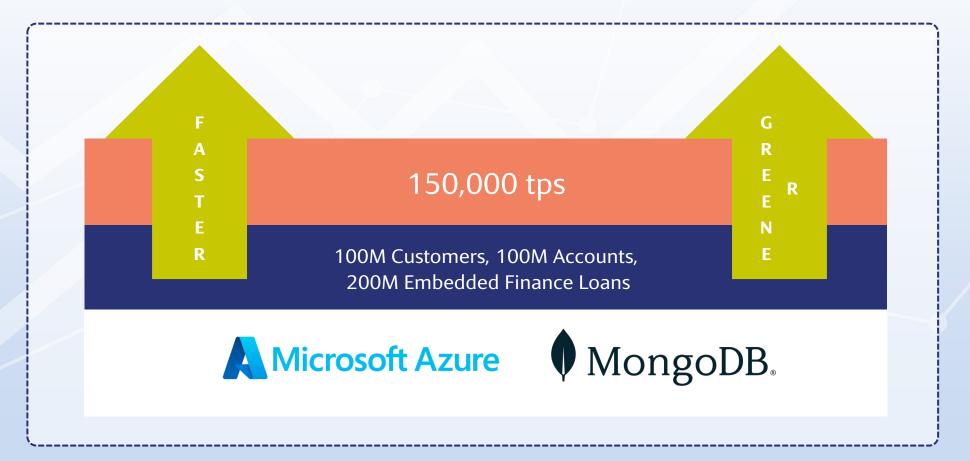
End to End Solution



Greater mix of transactions



Full stack including **Extensibility Framework** 



**Average response** time improvement

**21ms** 

**Instant Payments** response time

<10ms

**Average query** response time

Like for like efficiency **Improvement**  Security



#### **Security - Protection mechanisms & related standards**

**Authentication** 

**Bank's IAM/SSO** 







BANK'S CLIENTS

**BANK'S STAFF** 

**SCA via 3rd party** 

**Access Control** 

**Temenos Security Management System** 

XACML



**RBAC** model

**Privacy** 



**TLS/HTTPS** 



**Database Encryption** 



**Private Networks** 

**Monitoring** 



**Posture Management** 



**Cloud Workload Protection** 



**Anti-Malware/Anti-Virus** 



**Vulnerability Management** 



**Security Monitoring** 

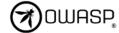


**Auditing & Logging** 

#### Aligned with industry standards and regulation



ISO 27001 ISO 27018 7000-Series ISO 27017 ISO 22301













# Extensibility & DevSecOps



#### **Extensibility – business values**



**Enables continuous updates** and annual upgrades



Minimizes risk and cost of upgrades



Improves quality of service and availability SLAs



**Standardization of tooling and practice to deliver customizations** 

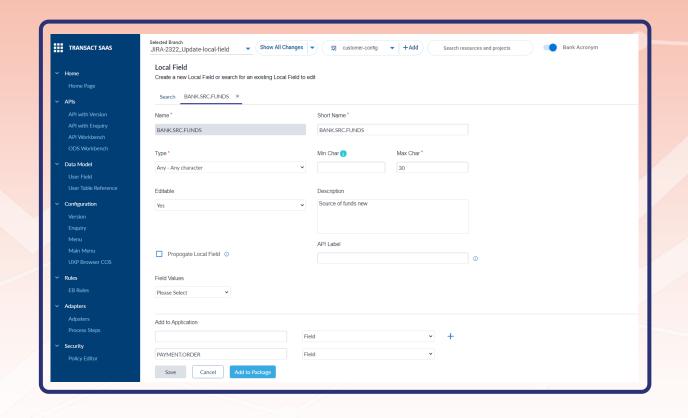


**Enables DevOps and Cloud native practices** 



**Unlocks Temenos Ecosystem of pre-integrated solutions** 

#### **Extensibility – workbench**





#### **Key extension capabilities**



# **Data Extensions**

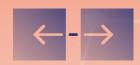
Extend Data Model.
Ability to extend the data model to capture and expose additional custom data fields. Also includes creation of new custom tables



# Data Validation & Defaulting

Regex
Engine/Python
Scripting.

Configuration of rules to validate and default API request fields.



#### Integration

framework /
Adapter Microservice.
Extension points for
APIs and event streams
as well as the ability to
create new APIs

**API / Event** 



#### **Applications**

Application specific configuration.

Configuration of application parameters via Workbench for SaaS, or through application specific user agents



#### Reporting

Operational Data
Store. Ability to
report the data for
reporting/Enquiry
/Analytics purposes
from Operational
Data Store (ODS)

#### **Monitoring & observability**

Visualize Analytics & Monitoring







Storage Aggregation
System







**Exporter** 





**Data Processing** 





**Common Components Wrapper** 





**Tracer Component** 



Logger Component



# Growing Exchange Ecosystem

#### **Exchange Today**

85

**Providers** 

105+

**Solutions** 

181

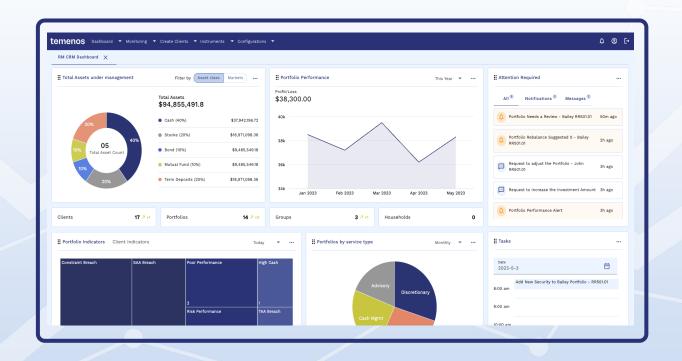
In the onboarding pipeline

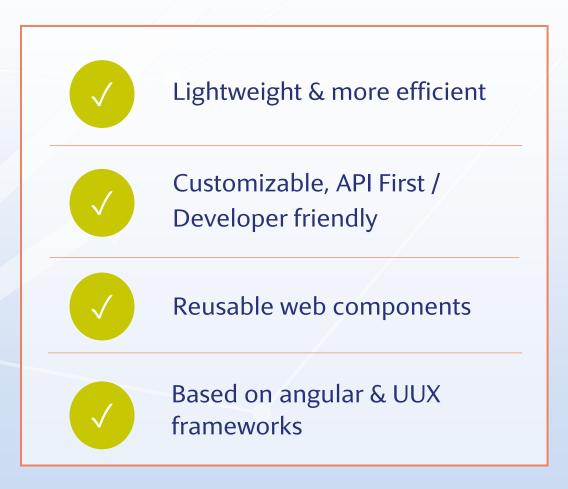


# User Experience



#### A faster, lighter browser





# Thank you!

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