Simplifying Complex Telecom Integrations Using a Scalable Numbering Platform

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TechTez
Telecom
Numbering
Platform
Modernizing a Mission-Critical
Telecom System with High
Availability & Scalable Architecture

Case Study

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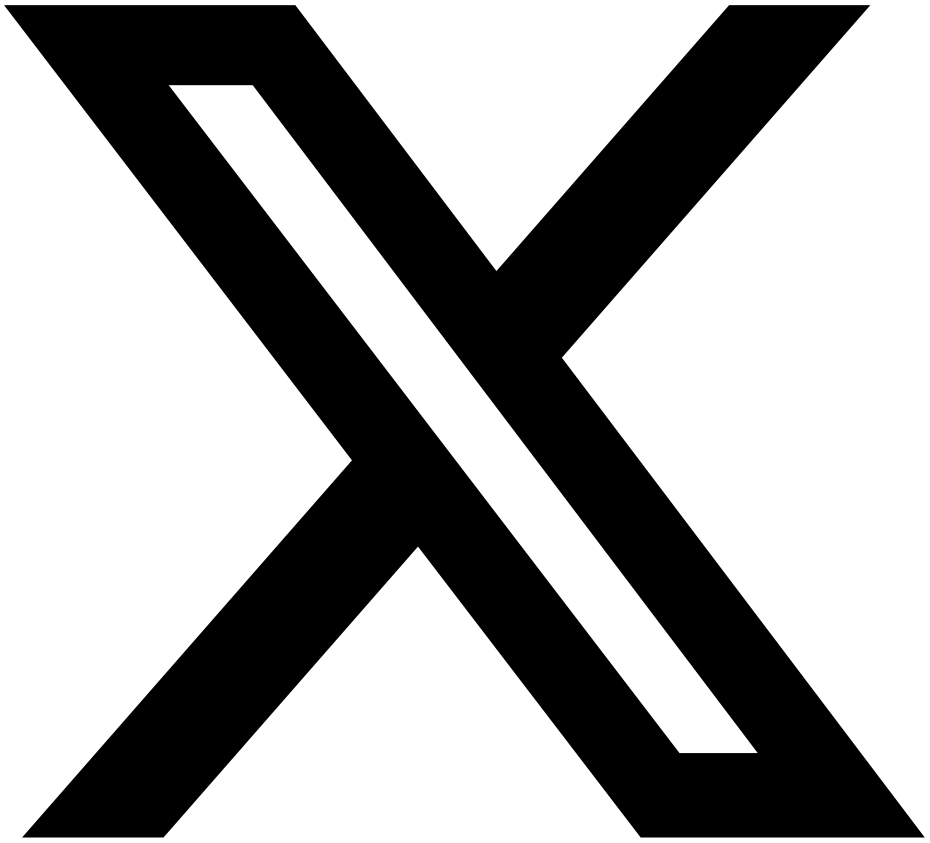

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Simplifying Complex Telecom Integrations Using a Scalable Numbering Platform

Built to handle high availability, massive scale, and complex telecom integrations.

Client

A US-based telecom software provider serving 15+ telecom operators across 10+ countries, delivering large-scale numbering and regulatory solutions for telecom networks worldwide.

The Challenge

The client operated a complex, multi-node telecom numbering platform processing millions of transactions per day. The platform required modernization without compromising reliability or regulatory compliance. As the platform scaled, several challenges emerged:

- Ensuring high availability and horizontal scalability for mission-critical workloads

- Managing deep integrations with enterprise systems, network elements, and regulatory platforms

-  Supporting hundreds of concurrent users without performance degradation

- Maintaining a legacy UI framework nearing end-of-life with limited browser compatibility imited Accessibility: No intuitive interface for asking plain-language questions; only tech-savvy users could dig deep.

-  Reducing operational risk while continuing uninterrupted telecom operations

Our Strategy

TechTez adopted a platform-first modernization strategy, focused on resilience, integration clarity, and long-term scalability.

- Designed a highly available, horizontally scalable architecture capable of handling sustained high transaction volumes
- Established a clear integration orchestration layer to manage enterprise, network, and regulatory interactions
- Modernized the UI using Angular and REST-based services to support parallel users and modern browsers
- Reduced dependency on proprietary frameworks by adopting open-source, enterprise-proven technologies
- Ensured modernization was delivered without disrupting live telecom environments

Architecture & Workflow

Platform Highlights:

- Built to process millions of transactions per day

- Active-active architecture supporting high availability

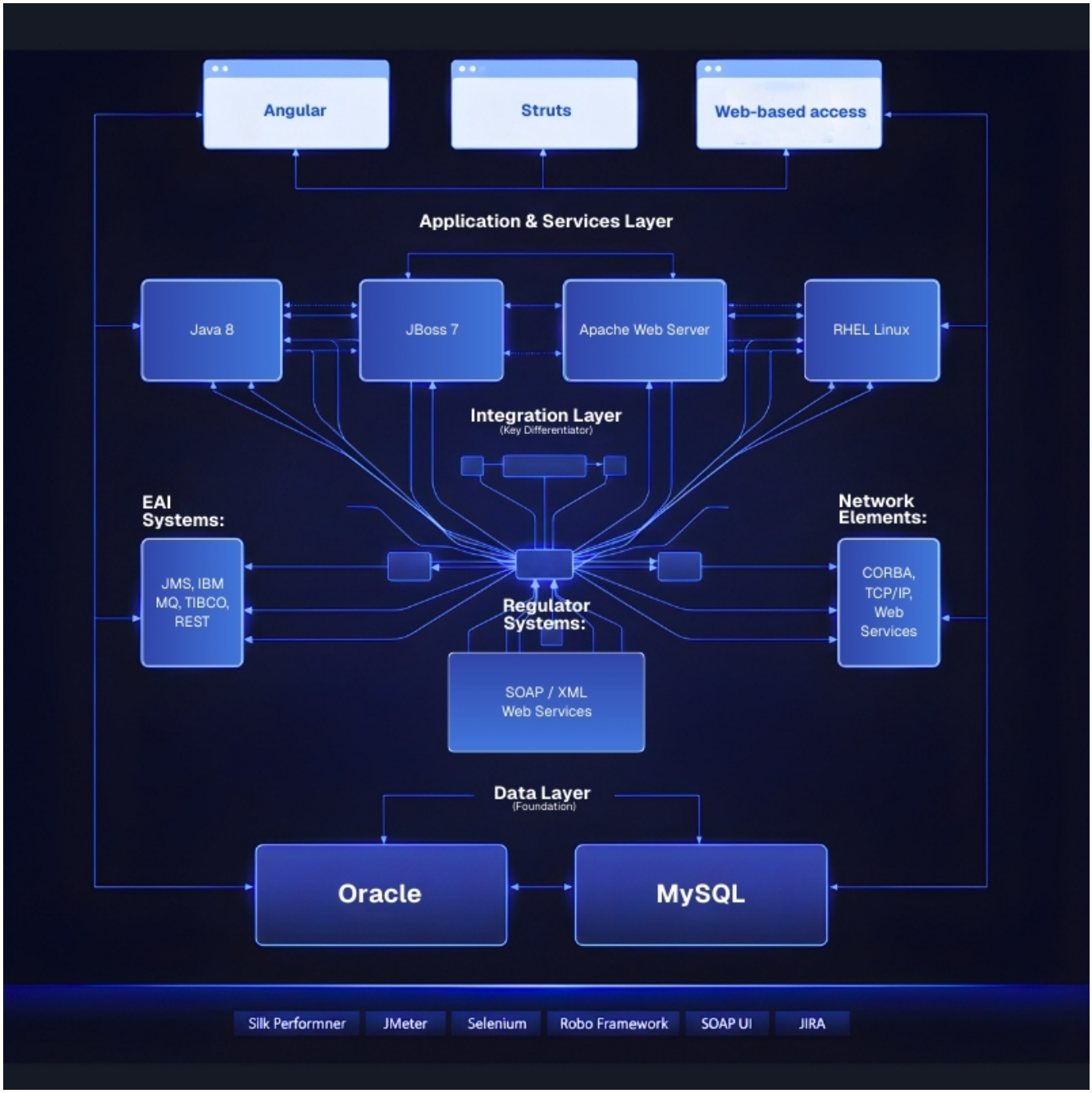
- Seamless integration with Enterprise EAI systems, Telecom network elements and Central regulatory databases

- Scalable UI supporting hundreds of concurrent users

- Secure, standards-based communication across all integrations

Technology Architecture

- **Application & Runtime**: Java 8, JBoss 7, Apache Web Server and Red Hat Enterprise Linux
- **Integration & Services:** JMS, IBM MQ, TIBCO, RESTful & SOAP Web Services, CORBA, TCP/IP
- **Data Layer:** Oracle, MySQL
- **User Interface:** Angular, Struts
- **Quality, Performance & Delivery:** Silk Performer, JMeter, Selenium, Robo Framework, SOAP UI and JIRA



Why It Matters

Telecom numbering systems are **foundational to network operations** downtime or failure is not an option. By modernizing the platform while preserving operational continuity, TechTez helped the client:

-  Safely scale mission-critical telecom services

-  Simplify complex integrations across the telecom ecosystem

- Extend the lifespan of a core platform without disruptive rewrites

Results

- Improved platform stability and fault tolerance

- Enabled horizontal scalability to meet growing transaction volumes

- Reduced long-term maintenance and customization effort

- Enhanced user experience with a modern, scalable UI

- Strengthened regulatory compliance and integration reliability

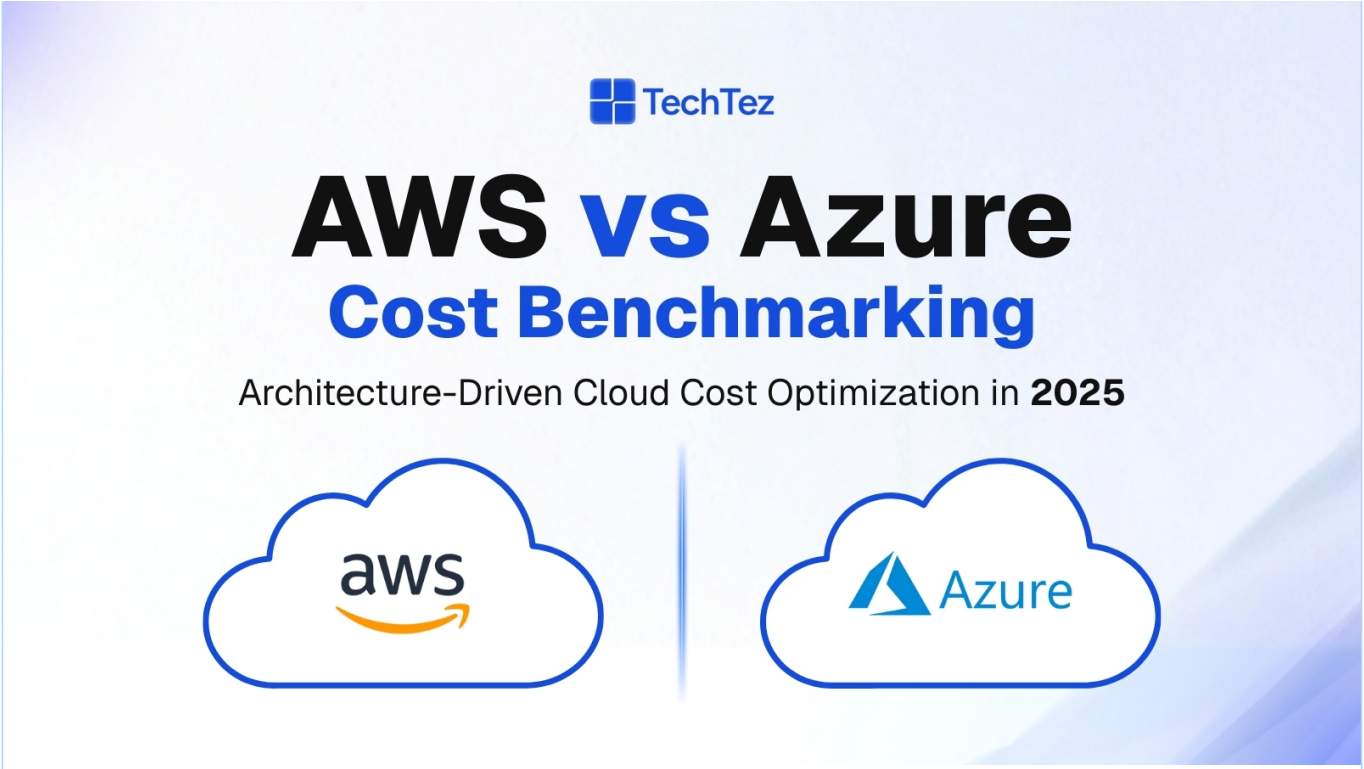
-  Positioned the platform for future cloud-native evolution

Our Thought Leadership Guides

- Case Study

AWS vs Azure Cost Benchmarking: Architecture-Driven Cloud Cost Optimization in 2026

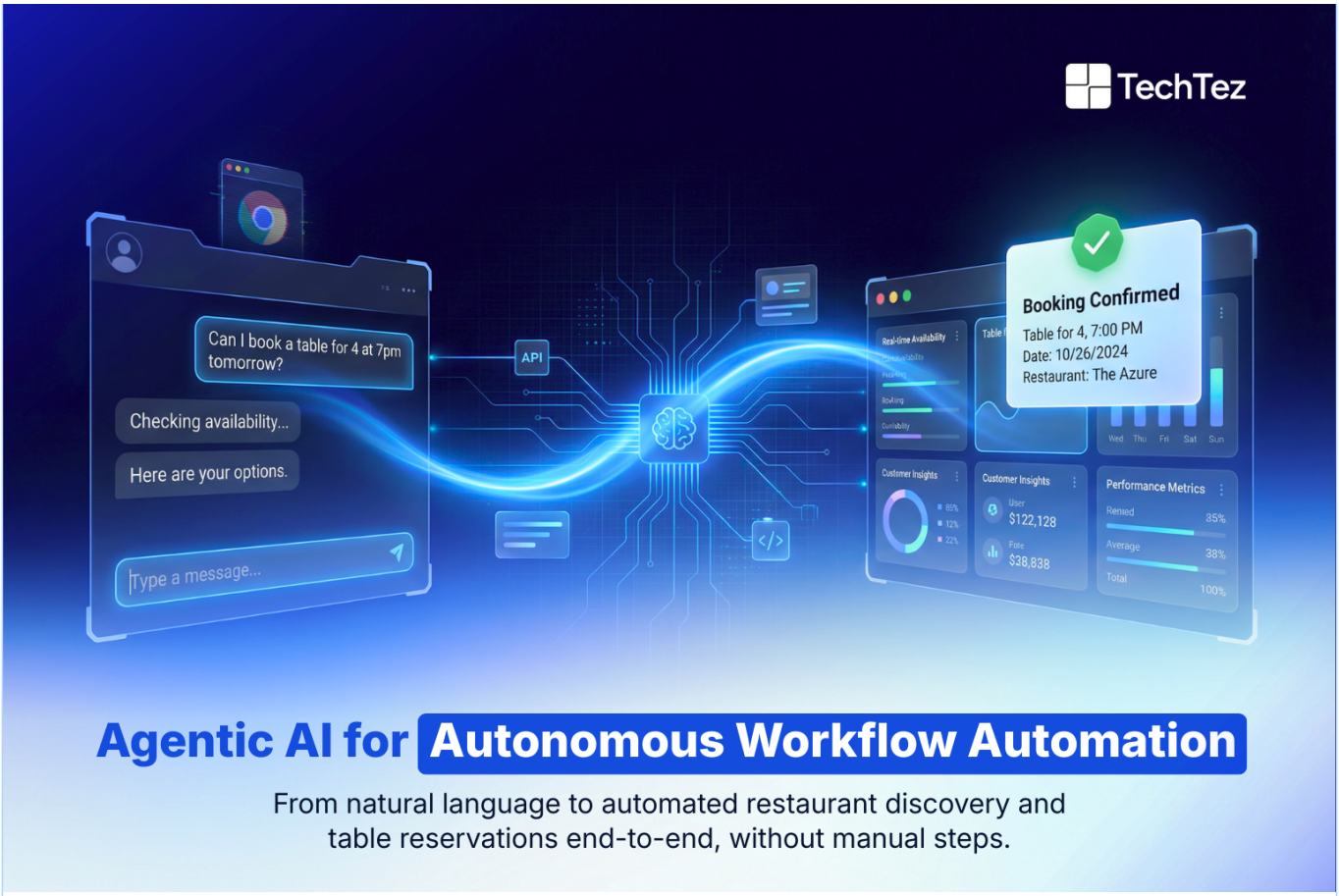
Compare AWS and Azure cloud costs and learn why architecture, automation, and governance matter more than pricing for long-term efficiency.



- Case Study

Agentic AI Assistant Framework for Autonomous Task Execution

An agentic, multi-agent AI assistant that plans, executes, and completes tasks via secure tool orchestration and live APIs turning user prompts into real outcomes like bookings and itineraries.



- Case Study

AI-Driven Dermatology Platform for Accurate Diagnosis and Secure Digital Care

A mid-sized SaaS company specializing in HR and payroll management faced a growing barrier:


TechTez
Patient Intake
AI Analysis
AI Dermatology
Expert Validation
Dermatologist
Pharmacy & Prescription
Reports & Follow-Up
Building an Intelligent AI-Driven Dermatology Platform for Accurate Diagnosis and Digital Care
Secure, AI-Powered Skin Analysis with Human-in-the-Loop Clinical Validation