Yethi
Innovation for Quality

Yethi Delivers High-Performance Temenos T24 Solution for a Leading Bank in Kenya

Industry

Banking and Financial Services

Company & Asset Size

- Over 1,000 employees
- Over KES 120 Billion (~ $900 Million) asset size

Headquarters: Nairobi, Kenya

The Client

A Nairobi-based commercial bank was experiencing critical performance issues with its Temenos T24 core banking system, particularly during heavy load processing. Yethi Consulting Services Pvt exercised an elaborate performance testing on Temenos T24 R22 -UI, API, ISO, Mobee & Epay applications to remove all bottlenecks impacting online and batch performance.

The Challenge

The bank faced challenges in ensuring the new Temenos T24 CBS could simultaneously support thousands of users on multiple channels while meeting specific Service Level Agreements (SLA), including an SLA with each user for a three-second response time. This required an extreme amount of transactional testing under peak and stress conditions as well as intricate coordinated teamwork among internal teams and various external vendors to address all of the performance problems. The significant performance assurance challenges during the Temenos T24 CBS implementation included:

- Ensuring system responsiveness under expected production loads.
- Validating system behavior under peak, stress, and soak conditions.
- Mitigating risks of performance degradation post go-live.
- Coordinating across multiple stakeholders and vendors for end-to-end test readiness and execution.
- Given the complexity of the core banking environment and its integration points, performance testing was mission-critical.

Yethi's Delivery

- Designed and executed 17+ test scenarios across UI, API, Mobee, ISO, and Epay modules simulating banking operations.
- Conducted load, stress, and soak tests with up to 300 concurrent users to ensure system resilience.
- Validated performance against SLAs, maintaining a 3-second max response time and identifying tuning needs.
- Analyzed bottlenecks in 5 key business channels and provided optimization recommendations.
- Detected over 17,000 failed transactions early in Mobee and ISO modules for timely fixes.

Business Impact

- Smooth and confident go-live, supported by clear metrics and validated benchmarks.
- Reduced risk of outages, improved response times, and enhanced customer satisfaction.
- Early identification and resolution of performance issues to avoid costly post-launch troubleshooting.
- Improved internal team preparedness and enhanced ability to manage future system changes efficiently.
- Fully optimized core banking system for high-performance digital banking.

The Solution

Yethi Consulting executed a phased performance assurance strategy, starting with workshops to align on key banking workflows across modules like Transact UI, API, ISO, Mobee, and Epay. They conducted incremental load testing up to full production traffic, stress testing beyond peak limits, and soak testing for stability, using realistic transaction data. Key issues like delayed API responses, UI session timeouts, and database queuing were identified and analyzed. Actionable recommendations for tuning the system were provided and validated through retesting, ensuring improved performance.

Strategic Planning and Environment Setup

- Defined a tailored non-functional testing strategy.
- Established test environments closely aligned with production settings, including UI, API, Mobee (Android), ISO, and Epay modules.

Load Testing (10% to 100%)

- Simulated real-world user scenarios across 17 business functions.
- Measured system behavior progressively at increasing load levels.
- Verified responsiveness under 100% load (e.g., 22592 mobile transactions, 14168 Epay transactions).

Stress Testing

- Simulated extreme usage scenarios to test stability under 125% user load.
- Identified maximum thresholds for modules and flagged bottlenecks proactively.

Soak (Endurance) Testing

- Ran the system for 2+ continuous hours to validate long-term stability.
- Observed degradation patterns, memory leaks, and SLA breaches over time.

Analysis & Optimization

- Used detailed transaction logs and performance graphs to identify slow APIs, session timeouts, and backend connection issues.
- Provided actionable recommendations on infrastructure tuning, error handling, and code optimization.

Key Project Benefits

The engagement enabled the bank to validate the resilience of its Temenos T24 CBS under real-world conditions, with key modules like Epay and teller UI performing reliably under load. It also helped uncover stress-related issues in the Mobee mobile banking module, allowing proactive resolution ahead of go-live. Additionally, detailed analysis of infrastructure usage supported efficient scaling and resource planning, avoiding both overprovisioning and underutilization.

Yethi's engagement delivered significant business and operational benefits to the bank:

- The comprehensive performance testing ensured that the Temenos CBS solution could handle real-world workloads with minimal risk, instilling confidence in business continuity.
- SLA violations were identified across multiple modules, such as Mobee and API, with detailed root cause analysis. This enabled NBK to address performance gaps before go-live.
- Successfully simulated high-concurrency use cases (up to 300 users), revealing areas where optimization was needed to handle traffic spikes - especially on mobile and API channels.
- By ensuring the backend systems were respon sive and stable, NBK laid the foundation for a smooth and error-free digital experience for its customers.
- Performance metrics showed that while applica tion-level tuning was needed in some cases, the underlying infrastructure remained stable, allow ing for efficient cost planning.

Conclusion

Yethi Consulting helped the bank validate the readiness of its core banking platform for real-world conditions through a structured, transparent, and data-driven approach. From infrastructure validation to SLA monitoring, the engagement ensured that the Temenos T24 R22 implementation met performance standards across the board.

The bank is now well-positioned to deliver high-quality, responsive, and scalable banking services to its customers - empowered by a system tested and certified for performance by Yethi.

About Yethi

Yethi Consulting Pvt Ltd is a leading provider of Quality Assurance, Test Automation, and Payments Modernization solutions for the global banking and financial services sector. Our mission is to ensure the reliability of financial applications, accelerating business success worldwide.

With over a decade of experience, Yethi combines deep domain expertise with a robust library of 1.2 million test cases covering 350+ financial applications. We've successfully delivered 700+ projects for 130+ customers across 30+ countries, offering a comprehensive suite of products, services, and solutions.

Learn more on www.yethi.in

Contact Us

Bangalore, India: +91 8042401500
Dubai, UAE: +971 04 261 1227

www.yethi.in

India:
1st floor, Ranka Junction, AH45,
KR Puram Bridge, Industrial Estate,
Dooravani Nagar, Bengaluru,
Karnataka 560016 India

Dubai:
Rasis Tower, 5 Stars Business Center,
4th Floor, Office 18, Al Barsha 1 – Dubai, UAE