

**Objective**

Improve performance for mission-critical core banking environment while optimizing Oracle license costs

Approach

Upgrade Temenos core banking application, including Oracle database, and migrate to industry standard mission-critical platform HPE Superdome X

IT Matters

- Doubled core count without increasing Oracle license costs
- 10% reduction in power consumption
- 50% reduction in site failover time, from 60 to 30 minutes

Business Matters

- Supports business growth without expanding data center space
- Accelerates innovation of new revenue-generating bank products
- Maximizes application performance while minimizing data center footprint

KCB boosts core banking power and efficiency with HPE Superdome X

Open platform doubles core count without increasing Oracle license costs



Building a core banking platform for the future

Established in 1896 as a branch of the National Bank of India, KCB has grown to become eastern Africa's oldest and largest commercial bank. Most recently, KCB Group was formed as a holding company to operate the flagship bank, KCB Kenya, as well as six regional banks in Uganda, Tanzania, Rwanda, Burundi, Ethiopia, and South Sudan.

With the economic resurgence across the East African Community, KCB continues to grow. In fact, just over the last few years, its customer base has soared from one million to over 12 million with further expansion on the horizon.

To support its growing business, KCB needed to upgrade its core banking environment including the Temenos application, from Release 8 to Release 14, and a critical Oracle database. In addition, they wanted to modernize their HPE UNIX infrastructure

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— Fred Kitunga, Head of IT Enterprise Services, KCB Group

and move it to an open source environment that offered lower costs for Oracle licenses and established a platform for the future. To support an application as vital to the business as Temenos, the new open platform had to preserve the stability and availability that KCB was accustomed to with UNIX.

The company initially considered moving to other Unix-based platforms, but with the release of HPE Integrity Superdome X, KCB Group decided HPE’s mission-critical x86 platform offered the smoothest and most economical path for growth. Designed with many of the same robust engineering features as HPE’s UNIX systems, the new Superdome X platform delivered on the reliability, flexibility, and uptime required for the mission-critical Temenos application, while providing greater flexibility and cost efficiency.

Fred Kitunga, KCB’s head of IT enterprise services, explains, “Temenos is a highly critical application for KCB. It is the core of our banking system, and therefore, we must have a resilient and reliable infrastructure to support it. Superdome X was an ideal choice because it combines the efficiencies and economics of a standard x86 infrastructure with the proven reliability of UNIX.”

Smooth migration from UNIX to Superdome X

For this complex migration, KCB engaged HPE Technology Services Consulting to transform its core banking infrastructure from HP-UX to the Red Hat® Enterprise Linux® operating environment on Superdome X with the Intel® Xeon® Processor E7. The HPE solution includes two Superdome X servers for production operations and two for disaster recovery. HPE Serviceguard for Linux provides rapid failover and data integrity between the two sites.

One production Superdome X server is configured with two hard partitions (nPars), one nPar with six HPE BL920s Gen9 Server Blades running the Oracle database and a second nPar with three blades running the Temenos Core Banking Platform and associated applications. The second production Superdome X server runs the bank’s enterprise service bus (ESB), along with several test and development environments. The Temenos applications, ESB, and test/development environments are virtualized with Red Hat Virtualization.

Optimized Oracle license costs

By moving to Superdome X, KCB achieved its primary goal of optimizing cost for Oracle licenses. For example, while the bank's previous servers running on the HP-UX operating environment, as well as other UNIX platforms that were under consideration, have an Oracle processor core factor of 1.0—requiring one software license per core—the Intel Xeon-based Superdome X has an Oracle processor core factor of 0.5, requiring one license for every two cores.

“With Superdome X we were able to double the number of cores and bring more power to the Temenos T24 Core Banking System without increasing the cost of our Oracle licenses,” notes Kitunga. “That’s allowing us to handle a growing number of customers very cost-effectively.”

He also points out that the efficiency of Superdome X also helps KCB maximize performance while minimizing its datacenter footprint. “With electrically separated hard partitions, we can run our mission-critical database and other applications side-by-side on the same platform with no interference in terms of performance. Our datacenter is small, so the ability to put all our applications in one rack gives us room to grow without expanding our physical space.”

Kitunga reports that thanks to improved system efficiency, KCB has reduced power consumption by approximately 10% since moving to Superdome X and virtualizing its applications.

Delivers high reliability and flexibility

One of the most important factors for KCB's business is ensuring availability of its mission-critical core banking environment. Superdome X has lived up to expectations by maintaining consistently high levels of system uptime.

HPE Datacenter Care Services also provides KCB with additional value in terms of assuring uptime and handling growth. For example, HPE Flexible Capacity enables KCB to dynamically add compute resources as workload demands intensify.

“With Flexible Capacity we can respond more quickly to changes within the bank or in the market at large,” Kitunga remarks. “We can draw on additional resources from the onsite buffer nearly instantly with no need to wait through a long procurement cycle.”

Customer at a glance

Application

- Temenos Core Banking Platform

Hardware

- HPE Integrity Superdome X

Software

- Red Hat Enterprise Linux (RHEL 7.2)
- Red Hat Virtualization Manager (RHEVM 3.5)
- HPE Serviceguard for Linux (version A.12.00.30)
- Oracle Database (12c)

Services

- HPE Technology Services Consulting
- HPE Datacenter Care
- HPE Flexible Capacity
- HPE Operational Support Services

In addition, HPE Datacenter Care Operational Support Services provide remote monitoring and administration of KCB's infrastructure to identify potential issues before they impact operations.

"HPE's remote support is very proactive and responsive," notes Kitunga. "If they detect a component problem, we have a replacement part delivered within two or three days. Before, when we could only respond reactively, it took at least a week to get a new part. This is essential for keeping critical services like core banking up and running."

In the event of more serious outages such as a power failure or natural disaster, HPE Serviceguard for Linux ensures rapid recovery. In fact, KCB can now fail over to its disaster recovery site and resume operations in about 30 minutes. This is nearly half the time it took in the past.

Kitunga points out that the Superdome X infrastructure is going a long way to help KCB grow and support its customers with a full range of banking services. "The cloud platform helps us move quickly on new innovations such as new mobile offerings and financial products that help increase revenue."

He concludes, "We have worked with HPE for many years and they have always been excellent partners to KCB. They understand our business and have reliably come through with solutions that address our technical and business needs. HPE is a partner KCB can continue to grow with for the long term."

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