

# Real-Time Center (RTC)

In Switzerland, Sun Technology and Teamwork are Delivering a True Transformation

Customer Success Story

## Industry

Banking

## Issues and Challenges

- Excessive cost, limited flexibility and efficiency, power consumption and cooling capacity, manageability
- Heterogeneous datacenter

## Customer Requirements

- Better economy through standardization, consolidation and virtualization
- Safe operation
- Re-usability of existing equipment

## Sun Products/Services

- Systems: Sun™ SPARC Enterprise M5000 and M9000 servers and existing Sun Fire servers
- Software: Solaris™ 10 OS, Sun N1 SPS, Sun Management Center, Sun Update Connection Enterprise (UCE)
- Services: Sun Managed Services, Sun Professional Services, SunSpectrum™ Support Services, Sun Learning Services

## Sun Partner Products

- Tideway Foundation Appliance: CMDB & Application Dependency Modeling
- TeamQuest Capacity Management Software
- JomaSoft Virtual Datacenter Control Framework (VDCF)

## Results

- More efficient and flexible compute power for core banking solutions
- Ability to scale up without compromising on performance
- Comprehensive management of physical and virtual resources
- Total confidence in Sun and Sun partners to deliver as expected

Sometimes IT's biggest asset can become its biggest challenge. RTC, a Swiss company specializing in core banking solutions (IBIS), found that the mainframe technology on which it built its business was becoming too expensive and inflexible to support its fast-growing customer base. The answer: an agile pool of efficient, high-powered hardware from Sun — implemented and managed by Sun and its team of trusted partners. This is not just another mainframe migration. For RTC, it is a business transformation.

## Catalysts for Change

RTC offers a complete outsourcing solution for core banking in the Swiss finance market. The solution, called IBIS, has been a market success over the past 30 years. Today RTC serves more than 50 banks with more than 600 offices.

For many years RTC has depended on Unisys mainframes as the backbone of its compute infrastructure. And over the years, it became more and more apparent to RTC that mainframe costs were increasing far faster than mainframe capabilities. Expensive upgrades, inflexible software, limited scalability, and a diminishing supply of skilled mainframe programmers and administrators were becoming serious issues.

During the same period, RTC was also running a wide range of open, standards-based systems, including Sun servers, for other IT operations. RTC noticed that while the mainframes were simply getting more expensive, the Sun systems were becoming much more efficient, powerful, and scalable. Following a merger of IT operations/infrastructure in 2006, RTC made the decision to reorganize its IT and consolidate its datacenter footprint.

## Sun: In Prime Position

Datacenter consolidation and mainframe migration are enormously complex, multi-year projects involving multiple vendors and service providers. To orchestrate the reorganization of the operational environment, RTC turned to Sun as prime contractor for the UNIX® infrastructure.

RTC's relationship with Sun extends back many years, and RTC came to the conclusion that Sun's combination of innovative technologies, reliable and scalable servers, comprehensive service and support capabilities, and thriving ecosystem of solution and delivery partners made Sun uniquely qualified to serve as prime contractor.

In 2007, Sun was awarded the opportunity, along with its partners, to design and implement a new solution — and to influence RTC's future IT strategy.

Working closely with RTC and its partners, the Sun team organized the project into five sub-projects:

- "As-is" inventory of current datacenter assets
- Definition of the new infrastructure needed to overcome current challenges and create new business opportunities

- Operation of the new infrastructure
- Application migration from the mainframe to the Sun platform

**Taming Complexity through Teamwork**

At the time the project was initiated, RTC’s datacenters were crowded with a complex assortment of systems. For example, RTC had approximately 400 Sun servers running in two different datacenters — some of them purchased by RTC and some acquired through a recent merger. Step one, therefore, was to conduct an inventory.

Sun contracted with Tideway to perform an “as-is” analysis of all available servers, applications, and databases. Through the use of the Tideway Foundation Appliance, a physical inventory, and a series of interviews with RTC personnel, Tideway was able to match applications with owners.

The next step was to begin defining the “new infrastructure,” including the architecture, systems, tools, and IT processes required to properly deploy and maintain them. For this effort, Sun brought in TeamQuest, a specialist in IT capacity management.

TeamQuest’s Capacity Management Software solution provides capacity modeling and performance analysis. With the ability to do more accurate capacity planning, RTC was able to predict service-level performance more precisely; analyze components of response time and service performance; identify potential bottlenecks; and drill down to the root cause of problems.

A third Sun partner, JomaSoft, provided a Virtual Datacenter Control Framework (VDCF) for the Solaris Operating System. Virtualization is a key part of RTC’s consolidation strategy, and JomaSoft’s VDCF builds on top of a virtualization technology called Solaris Containers.

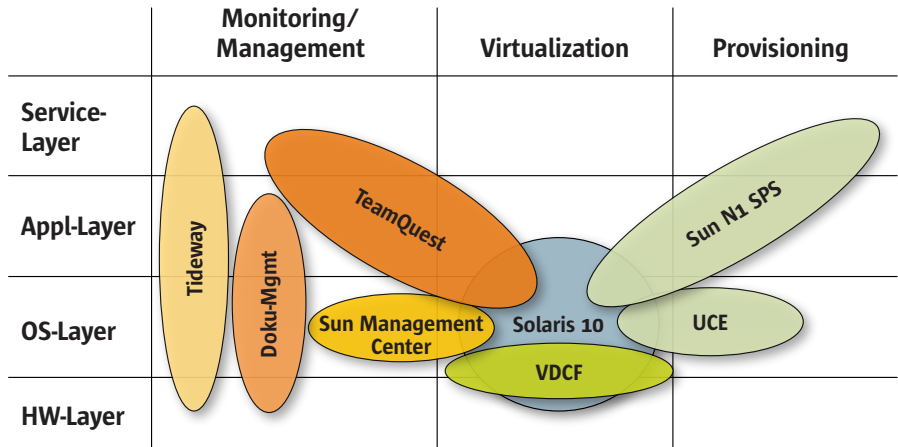


Figure 1: Sun and its partners are delivering a full range of capabilities for monitoring, management, virtualization, and provisioning at every layer in RTC’s new IT infrastructure.

A Solaris Container is a logical abstraction of the Solaris application environment that can also reduce the overhead of administering multiple OS instances. From the application’s point of view, a Container looks exactly like a standard Solaris operating environment, and VDCF manages both the physical servers and the virtual servers.

In addition to these key solution partners, Sun also enlisted the help of a number of delivery partners (including LC Systems/Pentagate) that provided a wide range of services such as installation, patch management, application integration, and education and training.

**Sun Systems and Management Technologies**

At the heart of the new infrastructure is a management framework that controls Sun servers running on the Solaris 10 Operating System. The new management framework incorporates a combination of the JomaSoft VDCF, UCE, Sun™ N1 Service Provisioning Server, Sun™ Management Center, the Tideway Foundation Appliance, and the TeamQuest Capacity Management Software.

RTC is deploying more than 20 Sun™ SPARC Enterprise M5000 servers with two domains and two Sun SPARC Enterprise M9000 servers with four domains (up to 10 Zones per server) to replace the approximately 400 Sun servers that previously populated the company’s datacenters.

The new servers have proven capable of delivering higher performance, better energy efficiency, and greater scalability than the previous infrastructure — while taking up only a small fraction of the datacenter floor space.

One of the key benefits of the new infrastructure is its massive scalability. In the new Sun environment, capacity can be added easily, and provisioning can be automated through the Sun N1 SPS solution. The result is more consistency in meeting SLAs, more satisfied customers, and a better reputation for service. Compute Pool can easily grow/scale at any time with additional or newer systems.

**Next Step: Application Migration**

Currently the RTC datacenter consolidation project is a work in progress, but much progress has already been made. The first Sun-based compute pools are up and running; the management framework is in place; acceptance testing has been completed.

Next up: the actual migration of applications off the current UNIX environment onto the Sun platform will begin in the next few weeks.

The bottom-line financial benefits are yet to come but the business transformation is well underway. Powered by Sun and supported by a full complement of trusted partners, RTC is quickly overcoming the limitations of legacy computing and achieving new status as an agile enterprise.

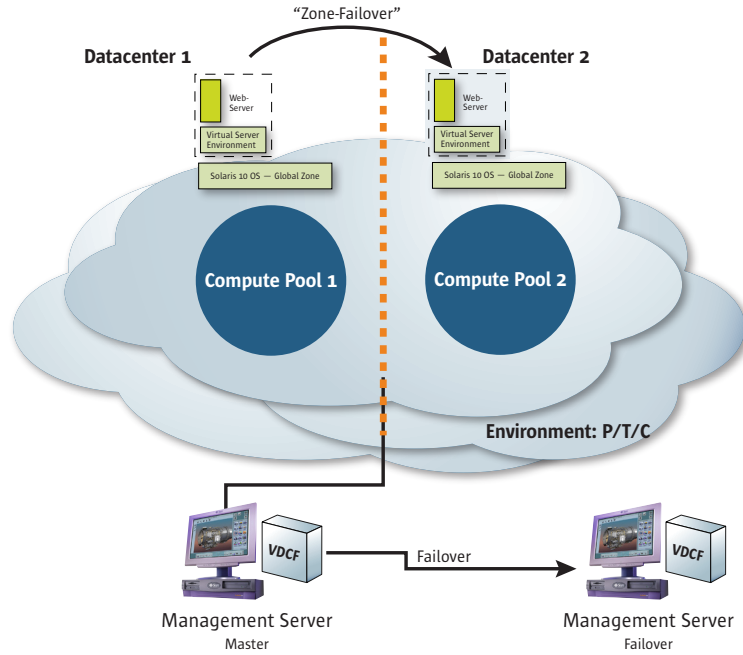


Figure 2: The new infrastructure, with the various environments split across the two datacenters, providing sufficient redundancy for productive services as well as platform management.

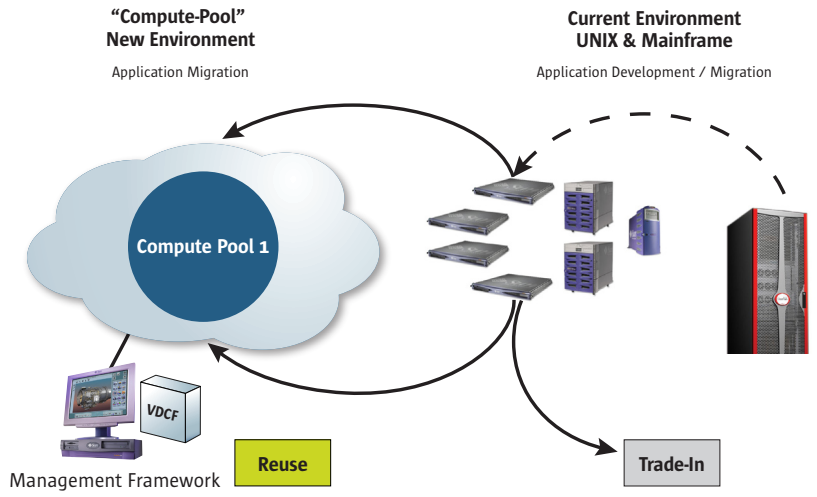


Figure 3: The next phase includes the actual migration of applications off the current environment onto the Sun platform.