

France Telecom turns to Accretive to evaluate re-engineering options for an SAP deployment.

Overview

Challenge

France Telecom was deploying SAP in 150 sites for 1500 users. By the time half of the sites were deployed, response times had increased to unacceptable limits. The project was put on hold. Vendors proposed a solution that would be quite expensive. France Telecom needed to act quickly and was faced with a complex decision that required real answers.

Solution

Accretive was retained to help evaluate the options and recommend a solution. During an initial three week period, Accretive created detailed models of two key classes of transactions. The findings were not intuitive and could not have been arrived at another way. It was discovered that a re-design of the existing system would provide similar results to the vendors proposed solution at a fraction of the cost.

Results

Accretive's recommendations were implemented and the project continued. The resulting deployment saw a 30% reduction in response times and peak utilization was only 70% of capacity at full deployment. By adopting Accretive's recommendation the project was able to move forward with minimum delay and costly adoption of new technology was avoided.



France Telecom's business expanded at a rapid pace. As a result, the level of activity required to manage the distributed operations grew dramatically as well. France Telecom decided to purchase SAP as an integrated, modern approach that had already proved successful in several other large business sectors. It made plans to install SAP in a 150 sites for use by 1500 operators.

During the course of the installation program, when only 50% of the sites had been incorporated, system response times were deteriorating badly. This adverse impact on the service occurred frequently and for long periods. As a result, the benefits of using the new SAP-based initiative came under question.

Deployment was temporarily halted. It was decided to investigate alternatives before making any further site-installations. A radically different solution was proposed from the joint hardware and software vendors to address the problem. France Telecom had two issues to tackle. First, they had to be satisfied that improvements to the existing system, already in progress, would not

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significantly deteriorate if they resumed the installation program for the remainder of the organization. And second, they wanted confirmation of the benefits of investing in the new approach proposed by the vendors.

Accretive was contacted and retained to provide an assessment. The initial stage of the project was to take place over a period of three weeks.

Objectives

France Telecom’s objectives were defined as follows:

- Guarantee good response time for inventory control, shipping and billing.
- Avoid reaching the capacity limits of the application
- Evaluate the impact and benefit of re-engineering the application core to improve performance.
- Evaluate, as an alternative, the impact and benefit on performance of migrating towards using SAP/DB2 instead of the existing SAP/VSAM (per the vendor’s recommendation).
- Overcome the inconsistencies that had arisen due to the operation of the new SAP system in 50% of the sites and the existing legacy predecessor system in the other sites.
- Determine what further measures needed to be taken before resuming the installations or whether it was safe to do so based on the improvements already implemented.
- Provide on-going performance and efficiency measures to ensure hardware utilization was in-line with industry norms.
- Meet international standards and be in a position to compete effectively.

Approach

Accretive’s approach for this type of project has two distinct phases:

- Phase 1, Construction of reference model and validation
- Phase 2, Results Analysis and Implementation

Phase 1

Accretive does not view IT systems in isolation (although we can). Ultimately, all information technology projects are designed to serve the specific and changing needs of the business. Accretive’s approach is to model systems in layers starting at the top with the business process, then moving through applications, networks, hardware and databases. The model describes the complex relationships between and within the layers. Using this methodology, a reference model was created and its accuracy was benchmarked against actual system performance.

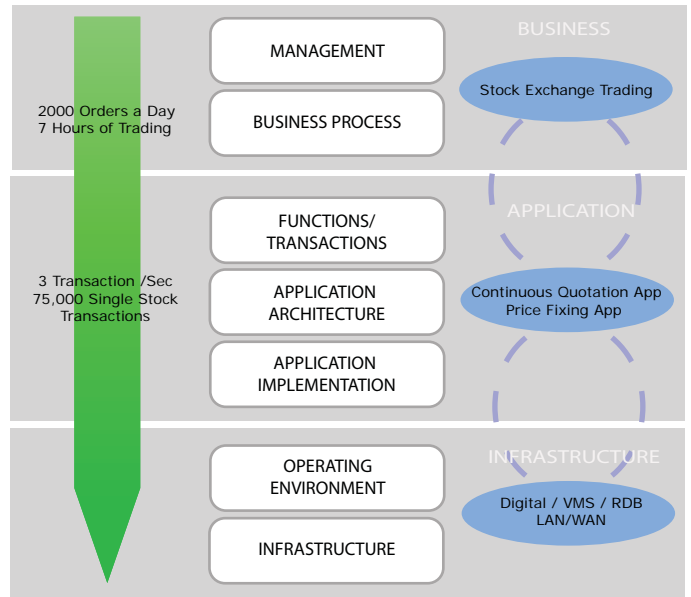


Figure 1.0 Accretive’s top-down approach across 3 domains; business, application, infrastructure

The performance/ efficiency metrics in the current system were defined. Accretive identified 2 key classes of transactions (EFF and TFF) and modeled them thoroughly. Measurements were taken from the real system during peak hours. The Accretive model predicted the performance characteristics within 2%.

Phase 2

Accretive began to analyze the model, identifying limits of the current system by pushing the model to the breaking point. Observing these limits Accretive was able to experiment with different designs and technologies (in a virtual world) to examine the merits of different solution alternatives. The findings were as follows:

- Re-engineering SAP using VSAM would result in 600% peak throughput improvement.
- Re-engineering SAP using DB2 (recommended by the vendor) would result in 800% peak throughput improvement. However, costly hardware upgrades would be required.

Based on these findings, France Telecom was able to easily make a decision to re-engineer the VSAM based deployment. This alternative was deemed easier, quicker and more cost-effective than DB2-based solution. A 600% improvement in throughput was more than enough to meet their current and future needs. There was a large amount of speculation clouding the decision making process. It would have been impossible for France Telecom to

understand the decision implications without modeling. Once the facts were known, the best solution became obvious.

Following the analysis phase, the management agreed to have discussions with SAP in order to commission a new architecture as proposed by Accretive. Accretive then modeled different scenarios for implementation both, quantitatively and qualitatively.

Results

- The target system was modeled and new architecture was agreed to for a new release of SAP
- All members of the management and technical teams achieved a common understanding of the business, its drivers and metrics
- Response times were reduced by 30%
- System utilization was reduced by 70% at peak hours

Business Commentary

France Telecom was faced with a hard decision. They could cancel the SAP deployment, roll back to the previous system and write off their losses or they could make a large unplanned investment in new technology to save the project. Each option was unattractive. By retaining Accretive to model the problem, they removed speculation and emotion from the decision. They were able to get real answers that made their path clear. The result was a third option that involved far less unplanned expenditures and a greatly reduced time table.



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