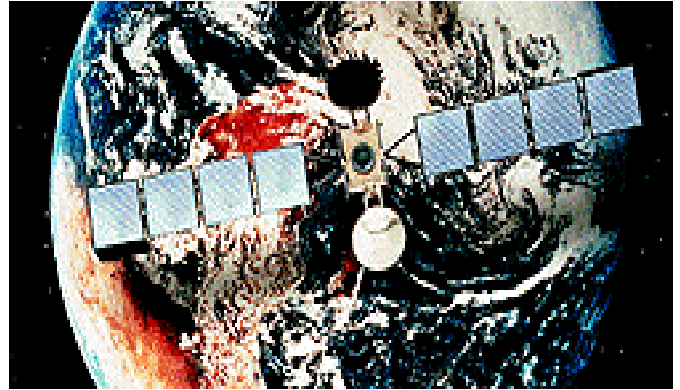


France Telecom

France Telecom increases performance and customer satisfaction



Challenges:

- Manage information transfer from the France Telecom network to the FT operating system
- Improve the productivity of the national telephone network in a time of increased competition
- Improve productivity, thereby increasing customer satisfaction
- Ensure failsafe transfer of information between applications over France Telecom's software systems and applications, including network traffic and hardware monitoring
- Guarantee a high level of equipment security access
- Route alarms, control information and data between France Telecom's Information system and the mediation application

•Solution:

- 100 Hewlett-Packard Service Guard clusters
- 200 K460 Unix servers
- On and off-site tailored configuration
- HP Consultancy services support from Hewlett-Packard
- Bespoke software from SEMA Group, TELMAT, and Alcatel Titn Answare

•Benefits:

- Failsafe transfer of information between applications
- High-level availability
- Strong security
- Increased productivity
- Strategic commercial advantage

At the beginning of 1997, France Telecom had only one shareholder: the French government. By the end of the year, it boasted more shareholders - 4 million - than any other European company. Since January 1998, FT has operated in a completely competitive environment: that which may have been taken for granted in the past could no longer be so. In response to this fundamental change in the organisation, FT has sought to be more inventive, more responsive to clients, and more efficient than its competitors.

France Telecom provides 33.7 million telephone lines; operates 1,083 switching devices; and supports a 100 per cent digital transmission network and a 96 per cent digital switching system. There are five different types of switches covering three generations. The first generation switches will be replaced by the year 2000; second generation switches are in the process of upgrade; and the third generation is the only one that FT purchases today. Meanwhile, this complex network must be managed, while performance improvements are tangibly delivered.

France Telecom's information system covers a broad spectrum of applications - from equipment management and network management, to customer and services management, through to business management. Shortly after France Telecom launched on the stock market, it signed a multi million dollars contract with Hewlett-Packard to provide equipment for its strategically important MEDIACOM system, whose prime function is to handle information transfer from the FT telecom network to the FT operating systems. The aim: to improve the productivity of the national telephone network and increase customer satisfaction.

“We went out to tender in May 1997,” says J. C., FT's Telecom IT manager. **“Only two companies were invited to respond to the tender: Bull (the French company) and Hewlett-Packard. We eventually chose to work with Hewlett-Packard on this project due to the quality of their technical solution and their best quality/price positioning. In addition, their solution is easily scalable, allowing us to extend the configuration as required in the future. The quality of HP's associated services during deployment was also instrumental in our choice, as was their understanding of the strategic importance of this project to France Telecom.”**

MEDIACOM is a network interface device that sits between five different types of telephone switching devices and France Telecom's Information Systems. The role of MEDIACOM is to assure failsafe transfer of information between applications over France Telecom's software systems and applications, including network traffic and hardware monitoring.

MEDIACOM's critical function lies in the fact that all information to and from the switches passes through it to guarantee a high level of equipment security access. Alarms, control information and data will be routed by FT's Information System by this mediation application - so the system's strategic importance is clear. Software running on MEDIACOM has been developed in C by three external companies, namely the SEMA Group, TELMAT Industry, and Alcatel Titn Answare - all under the control of FT's National Research Centre (CNET).

France Telecom is organised into five branches, three of which are operational units: Network Branch, Mass Market Customer Branch, and Key Accounts. End users are organised into various operational units, such as Operation Unit and Customer Centre. The network traffic management function relates to PSTN (basic telephones). But the entire network is monitored by three network traffic centres - one for the Paris area, one for international traffic, and the third for all of France outside Paris.

“MEDIACOM helps us to provide secure and centralised access to switches, and especially for the service/client layer,” says J. C. **“New services related to the basic telephone service are now provided outside the switches, but we have an interface between the switches and the platform which sustains these services. MEDIACOM offers these platforms a secure machine-to-machine interface.”**

It was necessary to secure two links: between users and MEDIACOM, and between switches which were some distance away. **“The previous mediation device, named ‘TERMIT’, was located in the same building as the switch,”** explains J. C. **“MEDIACOM now handles several switches and these couldn’t be located next to the device. As a result, the interface needs to be more secure than before; there will be dedicated hardware at each end of the link to ensure data integrity and provide strong authentication.”**

For the interface between MEDIACOM and users, an internal data network is used and a low level of security is provided. This involves X25 access control and passport control.

Deployment has been planned in two phases. The first phase, deployment of servers, is scheduled to take one year. The second phase, application migration, overlaps with the first phase and will take approximately eight months. Hardware to be deployed includes 100 Hewlett-Packard Service Guard clusters and 200 K460 Unix servers. These will operate across 74 France Telecom sites.

Hewlett-Packard was required to configure servers to FT’s specifications before installation on site. HP staff then entered local parameters on site. **“For us this was a plus,”** says J. C., **“because the server is ready to use and all the local, specific, problems were resolved by HP. Having a dedicated HP support team during deployment helped us to ensure that the installation went ahead smoothly, with any problems resolved quickly.”**

France Telecom’s contractual obligations were very strict where quality and the absence of delay were concerned. In response, Hewlett-Packard has invested heavily to ensure the success of this project. A dedicated project manager has been given the single-point responsibility to progress the implementation. He, in turn, manages a deployment manager, a technical manager, and a team of consultants and sub-contractors.

France Telecom chose Hewlett-Packard as its MEDIACOM equipment supplier for a number of reasons, a chief one of these being the scalability of HP’s solution. **“We also appreciate the after-sales support for configuration management,”** says J. C.

There are no immediate hardware or operating system support changes scheduled, although FT does plan an extension of the network handled by MEDIACOM, including the addition of IN and CCITTn 7 equipment.

“As MEDIACOM will concentrate the dialogue between the FT IS and switches, it should have a very high level of availability and so the HP Service Guard is of great importance to us.” adds J. C. If only one Mediacom system shuts down, all applications in a big area become blind and France Telecom loses control on switches in this area (alarms, configurations, flow control, ...). By assuming the availability of the Mediacom systems, Service Guard assumes the total availability of the link between the Telecom network and the computer network (IS).

“We have not regretted our decision to purchase Hewlett-Packard hardware and services,” concludes J. C. **“Their Consultancy team are providing us with very high quality support and advice, and the implementation itself has moved forward on schedule and to plan. HP demonstrated from the beginning that they understood the critical strategic importance of the MEDIACOM project, and their prompt and efficient responsiveness has demonstrated this understanding in a practical way.”**

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