S. Maillard

Commercializing the technical support process

> In this era of voice-data convergence, how can service teams be reorganized to welcome new technologies and meet the growing expectations of large international groups without leaving their traditional clientele behind?

Introduction

At the end of 1996, each maintenance organization in the Alcatel's Enterprise Solutions division was managed entirely within the country in which it was located. There was very little international coordination, and as a result the offered services, production methods and tools, indicators and quality plans lacked consistency.

These decentralized organizations mainly corresponded to the traditional telephony and Local Area Network (LAN) markets, which had local decision-making centers. There was no need to be seen as a global service provider at the international level.

Several factors have led Alcatel to reconsider this organization.

- First of all, in medium and large companies, management of the voice telecommunications equipment has been transferred to Information Systems and Telecommunications departments. The demand for telecommunications services has been generalized, grouping voice and data, and making it necessary to redefine our offers.
- Major groups have developed international reference programs, which require the same services and production quality to be offered in several countries.
- The emergence of new technologies, such as call centers, Computer Telephony Integration (CTI), and the arrival of voice servers on local networks led us to re-evaluate the job profiles of our technical support engineers and their working methods.
- Finally, the constant search to improve service quality and cost control also contributed to this reappraisal.

To follow up on these findings, a decision was made, early in 1997, to reorganize client service activities worldwide.

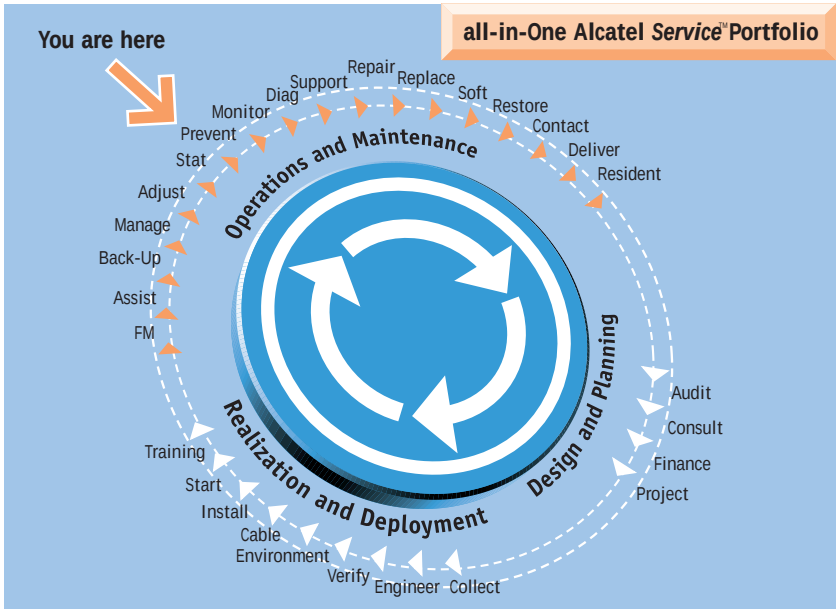

Figure 1 – Alcatel's *all in One* offer

Principles and Methods

The fundamental principles underlying this restructuring process may be summarized as follows:

- Define and segment the offer into service families, then into, complementary service modules. For each service so defined, formalize the commitments to the customer, the associated production processes and the performance and quality indicators

in a single procedure.

- Formalize operating processes and indicators into a common information system tool for all actors in all countries involved in providing these services.
- Increase reactivity and reduce production costs by favoring teleworking over on-site operations when designing the processes.
- Maximize the effectiveness of our remote service production teams by using a supranational organizational approach.

A case study was set up to justify the investments associated with this reorganization and a quarterly customer satisfaction survey was conducted to measure its impact on the quality of the services provided throughout the deployment of this new organization in Europe.

Finally, a management structure for this "Transformation Program" has been implemented, with the active participation of General Management, Service teams and the Information Systems Department.

Process Elaboration

On the basis of services defined in Alcatel's *All-in-One catalog* (see *Figure 1)*, three main families of functional processes have been defined :

- Family of processes linked to maintenance activities which are principally linked to *All-in-One* services such as *Support* and diagnosis (*Diag)*.
- *Remote Management* family of processes, which encompass all help and remote equipment management services, including the *All-in-One* assistance services (*Assist*), management services (*Manage*), monitoring services (*Monitor*), statistical services (*Stat*), and support services (*Backup*).
- Family of spare part management processes, which covers repair services (*Repair*) and replacement services (*Replace*); it is also integrated with *Support* services.

Each of these processes can be carried out on its own or in association with another process in order to provide the service requested by the customer. Process execution speed depends on the response time commitments associated with the agreed service level. For example, under the *Support Total* contract, the remote diagnosis of defective equipment will start immediately a customer calls, under the *Support Plus* contract it will be run within two hours.

To illustrate this process architecture and its linkages, we consider the *All-in-One "Support"* service family, for which the macro-process is illustrated in *Figure 2*. Each call received by a "welcome agent" is assigned a number; a computer file records all the operations conducted in the course of processing this service request. All reception operations conducted in the Welcome Center, technical assistance and diagnosis operations performed by the Technical Assistance Centers (TAC), dispatching, delivery of

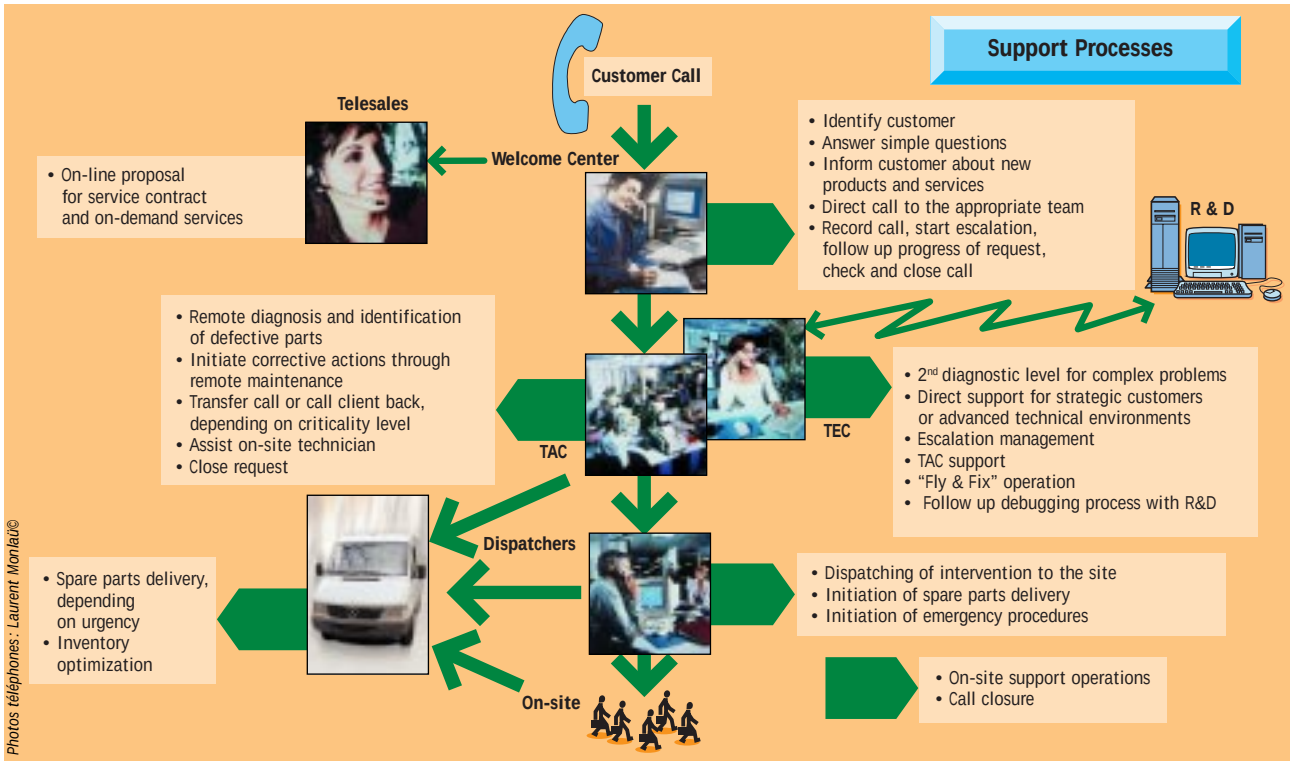

Figure 2 – Main support processes

spare parts and on-site intervention are tracked and the performance measured at each stage.

To increase the effectiveness of on-site operations and following up on the results, engineers and technicians who intervene on-site (Field) are equipped with Alcatel One Touch Com™ mobile phones. The built-in electronic diary has a Short Message Service (SMS) link to a central intervention management center which is resident on the SIEBEL V call tracking system. This enables the "dispatchers" to dynamically manage interventions according to changing priorities. In return, the intervention reports, which are pre-recorded in the One Touch Com™ (OTC), are also sent on the SMS link to the central management tool, facilitating real-time incident closure and follow-up.

In this service process chain, we have integrated a telesales team with its sales processes in order to quickly offer a service contract or an individual service to the owners of Alcatel equipment not covered by a maintenance contract, but who nevertheless want us to intervene to solve a problem.

Deployment and Organization

Deployment has taken place country by country, starting in September 1997. Three main service platforms have been installed in Paris, Brussels and Berlin where welcome centers, remote diagnostic centers, and Technical Expertise Centers (TEC), which offer expertise and manage process escalation, have been set up. As a result of the large number of interventions in France, two secondary centers (associated with the one in Paris) were immediately set up in Lyons and Nantes.

Following the deployment of this new organization, new satellites were installed linked to the main centers in Berlin and Brussels: in London to serve Great Britain and Ireland; in Vienna to cover Austria; and in Oslo for the Scandinavian countries. In 1999, the Lyons center took over responsibility for Spain and Portugal; Brussels covered the Netherlands; while Paris and Berlin shared calls from our Swiss customers. Italy will join this organization early in 2000; it will be linked to the Lyons center.

Moreover, at the beginning of this deployment, a European Facilities Management (FM) center was created in Brussels. This provides remote management services for equipment and is in charge of FM contracts. It can be accessed from all welcome centers in the Alcatel Customer Call Center (AC3) structure, and is equipped with its own call center to deal with call processes specific to FM customers.

Currently, a customer in Barcelona who has a problem with its Alcatel equipment simply dials a toll-free number in Spain and is answered in Spanish by an agent at the Lyons call center. A specialized TAC engineer in Lyons will conduct a diagnosis, possibly with the help of an expert in Paris or Stuttgart. A

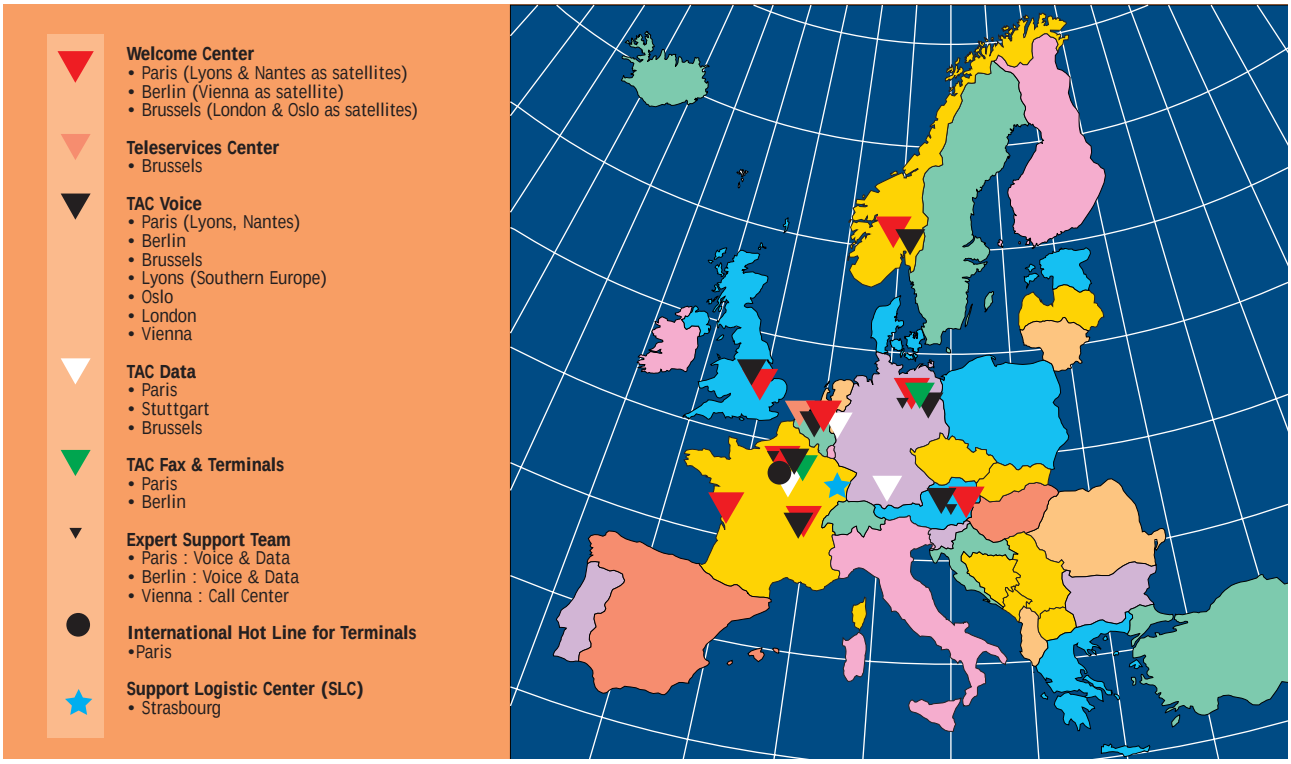

Figure 3 – Locations of Alcatel's Customer Call Centers and Support Logistics Centers

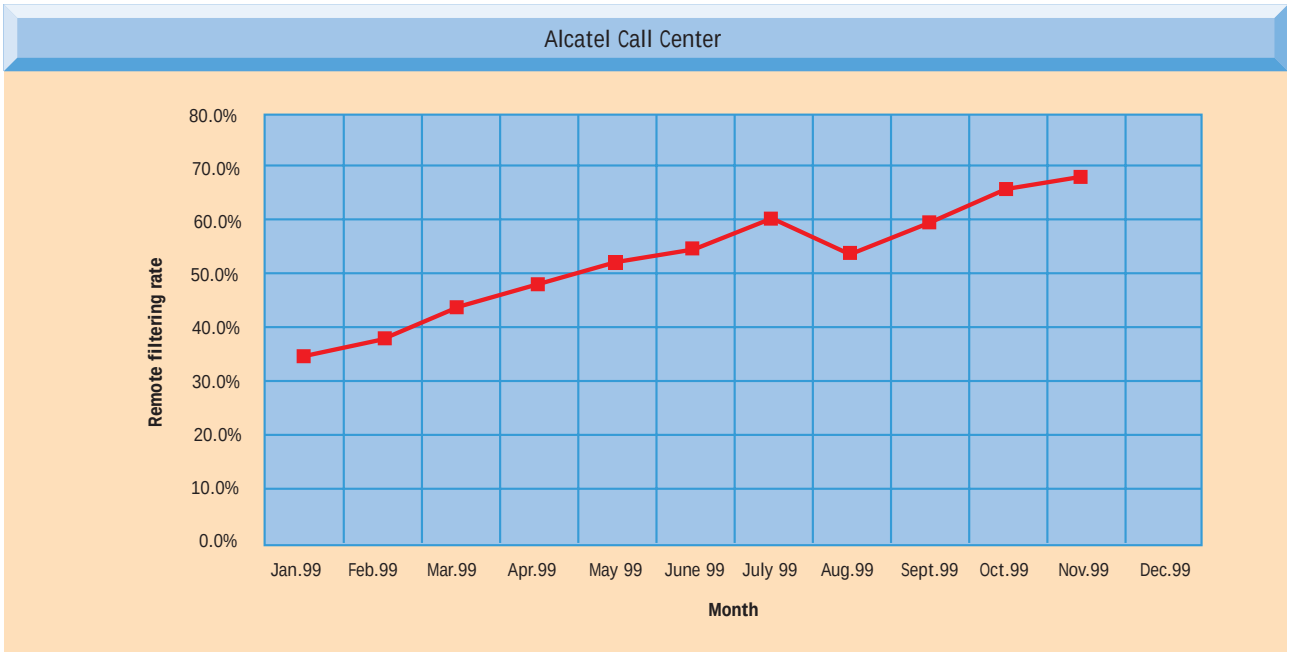

Figure 4 - Filtering rate evolution

dispatcher in Madrid will organize any intervention that is required, and a technician in Barcelona will visit the site to change the defective board (see *Figure 3)*.
The next day, usually by 9 am, the spare parts stock in Barcelona will be restocked with a board from the international warehouse in Strasbourg.

In order to guarantee strict compliance with the processes and maximize organizational efficiency, the main platforms and associated satellites have been grouped into a supranational organization – the AC3 – which is directly managed by the Service Division Department.

Dispatching functions, on-site intervention and local spare parts movements are managed at the country level.

Volume and Performance

Currently, AC3 receives nine thousand (9000) client calls a day in Europe. Four thousand five hundred (4500) remote diagnoses are conducted every day with an average 70% filtering rate.

In some countries, the deployment of these processes has led to a 100% increase in the remote filtering rate (see *Figure 4)* in under eight months!

To improve this performance even further, various training plans and engineer certification programs have been launched, as well as campaigns to encourage customers to install modems in their existing equipment.
The results of the quarterly customer satisfaction survey indicate a regular improvement since the deployment of these processes. This survey has been entrusted to an external company that asks twelve questions about support services to a panel of customers who have been selected using sampling techniques.

Perspectives and Conclusion

On the European level, the year 2000 will see the extension of this support organization to the Eastern European countries. Moreover, certain countries currently have too small a base of calls to economically justify the communication costs associated with classical connections to servers at the Strasbourg processing center, and will be offered Extranet connections. So, all the strength and expertise of AC3's 450 engineers and technicians will be available to all Alcatel clients, wherever they are.

A project is underway to install the same service architecture in the United States and in Latin America, as well as in the Asia-Pacific zone. It should open at the end of 2002 and allow for the interconnection of all three service areas (Europe, America and Asia) in a single structure capable of working round-the-clock, without interruption, on critical service requests, mobilizing the best experts wherever they are. Without a doubt, the complexity of solutions that need follow-up and of customer requirements have led manufacturers and service providers to develop true service engineering, to re-examine

their organizations and work methods in a global approach which finds its inspiration and justification at the heart of corporate strategy. ■

Sylvain Maillard is Vice President of the Client Services, Services and Distribution Division, Colombes, France.