

## Mediation for emerging markets

### Solution summary

In addition to Call Collect, Service Activation and Provisioning, the objective of a Mediation platform is also to dissociate the network evolutions from those of the Commercial Information System. It is also necessary to rationalize and secure the mediation flows, and to put in place an evolving technical architecture which will enable the operator to develop the Information System in accordance with new Marketing requirements. The new system automates and centralizes the different Mediation functions and improves the data consistency. Moreover, to support innovation, the Mediation platform is independent from the Billing and the Customer Care, to easily integrate evolutions in terms of new services, new equipment and to limit their impact.

### Challenges

The operator needs a proven and real time provisioning application, able to support its strategy of offering convergent services based on fixed, mobile and Internet. Moreover, in order to pursue its growth strategy, the operator needs an Information System, able to support the increase in number of subscribers and the development of its range of new services. The objectives of this new Information System are also to enable the operator to adapt itself to the new market requirements and technologies with flexibility and consistency, while insuring a continuous compatibility between the different components of its environment (network, IT, sales and marketing management,...) and integrating the technological evolution of all its components.

### Results

- Robust solution, insuring the permanence of real time data and mass files (no loss of data),
- Adapted solution, corresponding to the size of the operator (easy to operate),
- Administration tools, in accordance to customer's requirement,
- Highly available architecture with a backup server and automatic or manual recovery to avoid any loss of data,
- Automation of services activation and billing processes, to improve information consistency,
- Better mastery of flows between network and Commercial Information System (control, tracing, performances, recovery, ... ),
- Improved system independence between network and Commercial Information System, with the implementation of a unique mediation platform,
- Capability to react against network evolutions, essential to the rapid integration of new customer needs, in terms of services, required by the market.

In addition to cost reduction and flexibility, Bull solution provides the best quality of services to maintain a system that gives the integrated operator the means to reach the success, they deserve on their market.

# Case Study

## Bull integration of the Kabira solution

### Overview

The main objectives of the Bull-Kabira Mediation system are to:

- **Automate** the services activation and billing processes, in order to improve the information consistency,
- **Master** the different flows between the network and the Commercial Information System (control, traceability, performance, recovery,...), in order to improve revenue,
- **Reduce dependency** between the network systems and the Commercial Information System by implementing a single Mediation platform. Thus, the network and the Commercial Information System which have different evolution rates, can evolve independently at their own pace with minimum impact on each other,
- **React quickly** to network evolutions, to efficiently take new requirements into account, generated by new services expressed by the market.

### The Bull-Kabira Call Collect

The Call Collect solution centralizes the flows coming from the network equipment towards the Information System.

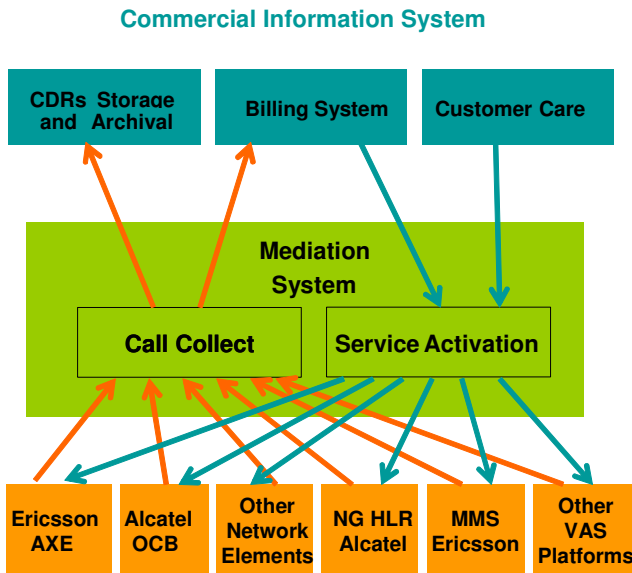
The system handles :

- The collect of CDRs from various switches, e.g. RTC Ericsson, Siemens and Alcatel,
- The automated collect of CDRs files,
- The automated dispatching of the collected files to a centralized storage system in the format generated by the switches,
- The CDRs collect by direct polling of the files from the PAX,
- The batch and quasi real time collection of the CDRs files,
- The manual launching of the collect,
- The resending of usage data, in case of loss of data at the Commercial Information system level,
- The capability to ask for the resending of usage data.

The solution is based on the Kabira solution which provides the evolution capability of an EAI and allows the rapid integration of new flows (in a few days). The system does not require modifications of the existing environment. It is easily integrated in the existing Information system with no impact on the related systems.

Concerning the CDRs management, the solution provides:

- Centralized supervision,
- Support of the different formats et protocols,
- Online access to the CDRs files,
- Capability to track the CDRs files according to source and date,
- Capability to audit the collect process via log files,
- Connection to the storage system to store and archive CDRs,
- Tool to extract CDRs files according to various criteria.
- In addition, Bull has developed transversal functions to enable:
  - The long term archival of CDRs,
  - Requisitions, call list according to specified criteria, fraud (threshold),
  - Revenue Assurance,
  - Commercial statistics which allow control on the billing,
  - Technical statistics which allow network optimisation.



## The Bull-Kabira Provisioning/Service Activation

The key functions of the mediation system are:

- Automation of activation services and billing processes,
- An independent platform between the network and the Commercial Information System.

The platform manages the flows between the two environments, allows different evolution rates, insures the network growth capacity and thus, the capability to be more reactive.

The activation insures the centralization of the flows issued by the Information System towards the network equipment. The system enables:

- Collect of the orders issued by the Customer Relationship Management system for activation/desactivation of lines and different services of fixed & mobile telephony, Third-Generation services, etc.
- Management of the orders queue to the network equipment: once the orders are executed, the answers are forwarded to the initiating IS application,
- Transformation of the orders coming from the Customer relationship Management into one or several orders in the formats expected by the network equipment

The system includes also the following functions:

- Generic models (templates) that can be customized in order to create and provide specific services,
- Control that all the required information are available to activate/desactivate the service,
- Control of the orders sequence in the case of one service order requiring several orders to different network equipment,
- Centralized archive of the activation orders issued by the Commercial Information System, of the equipment answers and of the recovery of the activation orders in error,
- Manual correction of errors concerning the activation/desactivation orders,
- Report generation on successful orders or the failure.

## Provisioning maintenance and support

### Overview

To improve the quality of service of the total CCBS chain (reliability, flexibility regarding the new market demands...), the operator wishes to entrust the maintenance of the provisioning system to a System Integrator with a proven expertise in the provisioning domain and the related technology (Kabira/KPSA).

### The Bull solution

The application support and maintenance services are proposed with a structured approach including several phases, identified in terms of duration and related deliverables.

During the operational phase, the scope of services is flexible to permanently meet the technological and environmental changes, while taking into account performance and productivity improvements.

The project is divided into 3 phases, including:

- Transition phase : current system appropriation, implementation of tools and means necessary for the operational phase,
- Operational phase : for corrective, change maintenance,
- Reversibility phase allowing the phase out of the current TPM supplier and insuring to new TPM supplier the transmission of the total know-how.

The team organisation takes into consideration the specificities of the project:

- A Project team leader (duly skilled and experienced in TPM methodology) in charge of contract management, technical coordination,
- Technical engineers with strong expertise on the activation domain and Kabira technology.

The other strong points of the solution are:

- Hand over follow-up of demands based on proven methods and tools,
- A dedicated and specific follow-up allowing preventive maintenance, anticipation to stick to technology evolution, assistance to production teams,
- A Quality Plan starting from the transition phase.

## Bull Added Value

Bull has developed a real expertise in:

- Helping operators in emerging markets, to offer new services and to control their costs, while preserving their existing environment,
- Reducing costs of integrated operators.

### Solutions for emerging markets

#### Innovative services

For instance, Bull has provided innovative solutions to accommodate today's operators' requirements in order to meet fast evolving residential and business customers' demands:

- Triple and Quadruple Play services offerings, involving Internet, fixed – mobile telephony, messaging (voice + data), IP TV,
- Mobile fixed telephony service convergence on IP Centrex for business,
- Multimedia convergent messaging solutions, ...

#### Integration in the existing Information System

In addition, Bull has developed the necessary IT components and/or ensured the integration of such new offerings in the existing Information System of the operator, i.e. billing, mediation, provisioning and Customer Relationship Management, portals and Self-Care. Moreover, Bull has successfully contributed to launch new operators or new services of existing Telcos within a very short time frame, delivering end to end IT and added value services solutions.

#### Quality of services

To improve the quality of service of the total CCBS chain (reliability, flexibility regarding the new market demands...), Bull and its dedicated expert center insure the Third-Party Maintenance of the different applications.

### Solutions for integrated operators

Bull helps operators to reduce their costs through processes, IT and network optimization either concerning their own Information Systems or the consistent and convergent management of their worldwide subsidiaries. Since more than 2 decades, Bull has been implementing convergent solutions, in line with integrated operators' strategy by leveraging solutions across affiliates, re-using and integrating existing solutions while increasing productivity. That includes convergent mediation solution for fixed and mobile networks (GSM, GPRS, UMTS), including management of IP services such as xDSL, Video on Demand, Voice over IP.

### Bull-Kabira expert center

Concerning international project management, mutualisation and organisation are key elements to provide the right technical resource at the right time. To master the constraints and stakes of a project, Bull Telecommunications & Media assigns the appropriate resources (skills, workforce ...) to secure efficient Third-Party Maintenance activities, to insure the best continuity of context knowledge and to increase productivity.

Skills of the project team are:

- More than 5 years experience on Kabira products,
- Good knowledge of Telco operators business,
- Delivery of many development and integration of international projects,
- Methodology.

Bull Kabira and Mediation specialists have additional expertise on:

- Performance tuning,
- Unix & Linux systems,
- Networks (ISO, X25, IP),
- Databases and CRM,
- Supervision, administration of IS and network systems.

## About Kabira

Kabira provides high performance real-time transaction processing software for Telecommunications and financial Services Industries.

Kabira products are designed to meet the needs of highly available systems performing mission-critical business services.

More than 70 organizations in 30 countries rely on Kabira high-performance transaction processing to support real-time product and service offerings mission critical transaction processing capabilities.

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