

# IMPLEMENTATION PROJECT OF CMDB (CONFIGURATION MANAGEMENT DATA BASE) FOR SERVICES IN SUPPORT OF FINANCE

Competition demands high quality IT services at reasonable costs. This forces IT organisations to seek efficient and effectiveness by carrying out a high level of control on IT infrastructures. It is widely believed that one of the most adequate responses to this requirement is to be found in the adoption of ITIL (Information Technology Infrastructure Library) “Best Practices”, the guidelines aimed at the organisation and management of IT services, recognised throughout the world as the de-facto standard for IT Service Management. With the contribution of Atlas Reply, one of the main players in Italian finance has implemented the ITIL methodology managing the configurations of all the elements of its IT infrastructures, by developing and deploying the CMDB (Configuration Management Data Base).

## SCENARIO

The Customer operates within the IT Division of one of the main Italian financial brokers, operating on domestic and international markets with a strong presence in shares and bonds placements, in extraordinary finance operations and in security trading.

The project was launched in 2007 and initially referred to the Best Practices of ITIL version 2, later including certain elements of version 3, such as the high attention to Service and its life cycle.

The project took place in a highly dynamic context that saw the merger of the Client's reality with a similar company of national importance operating in the same industry. During this period of substantial change, the design and implementation phases took into account the unification requirements of both companies with regard to the Configuration Management.

## **THE CUSTOMER AND RELEVANT REQUIREMENTS**

The Customer needed to define a process and a common repository for collecting and managing information on the components of the IT infrastructure underpinning the provision of services. Another aim was to drive and rationalise the business information wealth within the repository, extending it to new requirements through a system of data archiving and information consulting. This advanced and scalable system in fact had to give a consistent view of the IT services to all the players involved. The Configuration Management process and the Configuration Management Data Base had the important role of supporting the implementation of the main directives indicated by internal auditors and those resulting from public authorities.

Further requirements included the spread of a joint language, rationalisation of tools and of the naming convention, a more efficient management of configuration data and centralisation of database management.

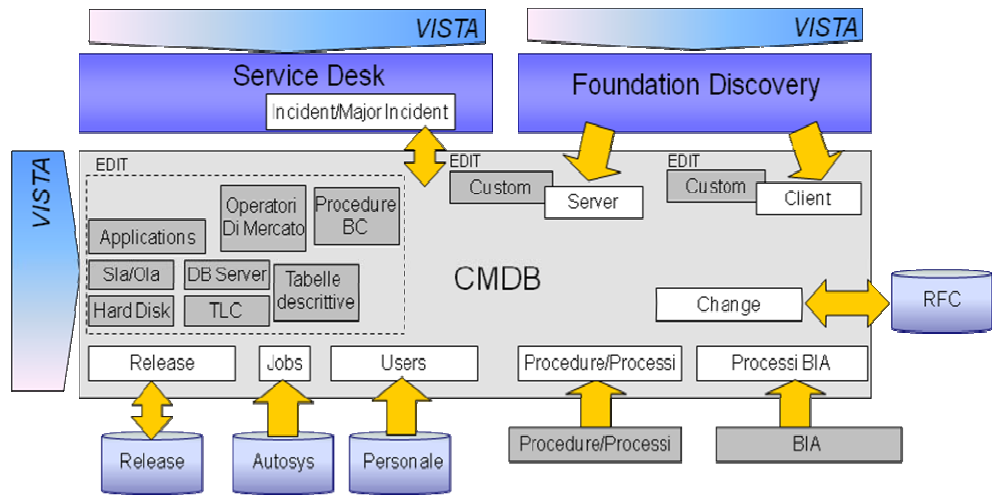
## **SOLUTION**

The solution was implemented in two steps. First of all projects designing the management model and operating procedures for ICT services were started; these projects included the product to design and adopt the Configuration Management Process and the Configuration Management Data Base (CMDB), understood as cornerstone components and as the foundations of the future implementation of further ITIL processes for the Service Management, such as Incident Management, Problem Management and Service Level Management.

The CMDB implementation phase was characterised by the design of the data model, standardisation and clean-up of data sources, the selection of IT tools and relevant preparation, database implementation, configuration of automatic tools for the assessment of the components of the IT infrastructure, distribution and maintenance of data, review of the Configuration Management process and production start-up.

**ANALYSIS AND DESIGN:** this phase consisted in the identification of business requirements, a crucial reference point for addressing any technological and process decision. This was accompanied by the analysis and assessment of existing tools, processes, procedures, databases and interested or involved players. The collaboration of the personnel of the Customer's structures was of particular importance; their involvement through a cycle of meetings and interviews made it possible to identify and characterise the data and, what is equally important, their relations, all inputs indispensable for designing the structure of data classes and objects of the CMDB being created. One of the results of this phase was an initial review of the Configuration Management process.

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CMDB – Logical layout

**STANDARDISATION AND CLEAN-UP:** following identification of data sources feeding the CMDB, an extensive, large scale operation to standardise and clean-up data was carried out in order to create order among the most heterogeneous formats and to recover the not rare inconsistencies among the same data caused by the non-optimal maintenance of the legacy databases and resulting from the requirement to integrate the realities of the two companies on the verge of merging. The data involved concerned changes and application releases, application and infrastructural assets (client, server, and TLC lines), users, Incidents, Problems, Service Levels, business procedures and disaster recovery.

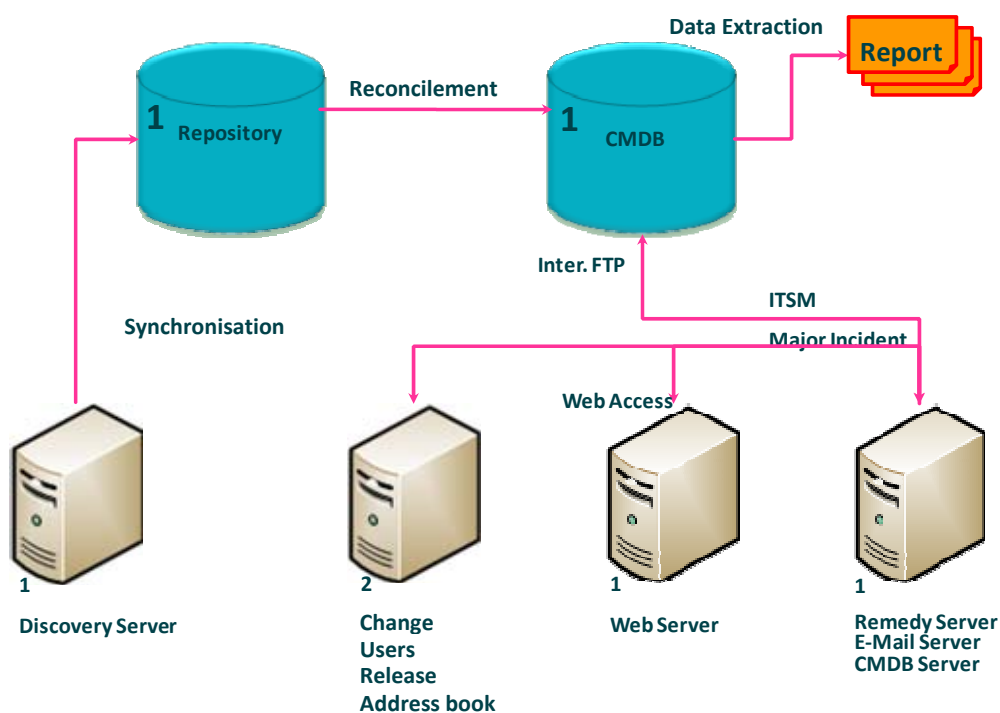
**SELECTION OF TOOLS:** an important step was the identification of the requirements which the IT infrastructure would have to satisfy in support of the CMDB design, the Configuration Management process and the automatic acquisition of HW infrastructure data. The possibility of a completely custom development of software was abandoned right at the beginning, resulting in turning towards a market solution that would ensure, in particular:

- native compatibility for feeding the CMDB with information managed by legacy products;
- integration with the legacy platform for Incident Management;
- support for the external federation or for the import of data and for reconciliation of the same;
- extendable data model with the possibility of adding new objects or extending existing ones with new attributes;
- modular data model with the possibility of being extended to Asset Management, Topology Discovery, Change Management and Capacity Management products
- computer discovery of heterogeneous clients and servers without the help of agents installed locally on computers;
- reasonable acquisition, customization and maintenance costs.

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The last analysis and design phase produced the project plan for implementation of the CMDB.

**PREPARATION FOR THE INFRASTRUCTURE AND PRODUCTS:** the infrastructure configuration phase has seen the preparation of instances of dedicated virtual servers for Computer Discovery, CMDB Management and DB Management according to the following architectural layout:



*Infrastructure layout for CMDB, Computer Discovery and main data sources*

The requirement to make the CMDB compliant with the specifications that emerged during the analysis phase has made it necessary to proceed extending the native data structure of the selected market product through the creation of further classes of objects and the customisation of some basic ones. This intervention has made it possible to instance objects that integrate the standard data, such as, for example, those relating to the hardware configuration acquired by the Computer Discovery tool, with business-related data, such as the application family to which the server is dedicated or the support group or the features for Disaster Recovery.

**PERFORMANCES AND TIMING:** great attention has been paid to optimising the performances and timing of the routine updating activities of the database, in particular in order to prevent the activities linked to the Computer Discovery from interfering negatively with business activities. This has led to the division of computers into homogeneous batches on the basis of their type, their distribution on the net and to the hourly bands of major work load; a Discovery execution calendar was the result of this allowing client data to be updated with a weekly and two-weekly frequency for

servers. The typical updating interval of data coming from external databases is 24 hours (Change, Release, Users); for that concerning the federated database for Incident, Problem and SLA it is in real time. Access to data is envisaged in real time from views or GUIs or through reports which, depending on business requirements, is daily, weekly, monthly or quarterly.

The project ended with a last review of the Configuration Management process, production go-live and the start-up of the solution.

## REPLY VALUE

In Atlas Reply, the Customer found a partner capable of understanding its business requirements, giving concrete form to the motto "Adopt and Adapt"; with the support of both process and product specialists and project management Atlas Reply proved to be able to collaborate in synergy with the Client's own specialists starting from requirements analysis, adoption of processes, solution design, implementation and maintenance, showing flexibility and independence from proprietary solutions.



Atlas Reply, a Reply Group company, focuses on the delivery of models, solutions and services in the field of IT Governance and IT Operation Management. Atlas Reply mission entails the alignment of IT to business requirements, leveraging IT governance models, process automation and delivery efficiency.

Atlas Reply operates in the following areas: consultancy on methods and processes of IT Governance and IT Operation, Application & System Management services, System Integration projects for the design and development of IT Operation and IT Governance supporting tools. Atlas Reply also provides consultancy services for the adoption of ITIL Best Practices and ISO20000 standards within Customer processes.

Atlas Reply is an Accredited Training Provider and an Accredited Examination Center of EXIN, Examination Institute for Information Science, as well as Platinum sponsor of ItSMF Italia, the association for the diffusion of ITIL Best Practices in Italy.