



## BPS, innovation as a model for business continuity.



From Cisco, T-Systems and EMC2 a high reliability Disaster Recovery solution that is innovative and unique in Europe. Clients of Banca Popolare di Sondrio can rest assured that their data (and their savings) are safe.

## EXECUTIVE SUMMARY

### Customer Name

Banca Popolare di Sondrio

### Challenge

· Implement a Disaster Recovery solution following the directives issued by the Bank of Italy and Consob, also through a preliminary organisation of the internal architecture.

### Network Solution

· Switch Cisco MDS 9000 with SANTap features.

### Results

· Thanks to the support of partners such as T-Systems and EMC2 and of Cisco connectivity solutions, Banca Popolare di Sondrio has installed a Disaster Recovery system for the server farm that is unique in Europe in terms of both its reliability and flexibility.

Following the directives issued by the Bank of Italy and Consob in connection with Business Continuity and Disaster Recovery, Italian banking organisations of necessity have had to address some delicate issues. During this phase, a decisive role has been played by the entities, both internal and external, that manage information systems and, above all, by the technological innovations being implemented. Identifying the solutions and the infrastructures capable of meeting the new requirements but, above all, the recourse to investments not aimed exclusively at issues of immediate urgency are factors that, in both the short and long term, make and will make a difference. Coming into play, therefore, in addition to the skills of those planning and administering ICT, are the technology partners and systems integrators who are capable of applying leading edge technological models to environments such as banking/finance that are anything but routine and, at times are slow to abandon traditional architectures.

Banca Popolare di Sondrio quite rightly ranks among the most progressive of banks in this respect. Thanks to the support of partners such as T-Systems and EMC2 and of Cisco connectivity solutions the Lombard banking institute has installed a Disaster Recovery system for the server farm that is unique in Europe in terms of both its reliability and flexibility.

Founded in 1871, the Banca Popolare di Sondrio was one of the first of the cooperative banks in Italy inspired by the grass-roots cooperative banking movement. Over time, thanks to the gradual expansion of its activities and of its geographical presence, BPS has taken on a regional dimension with a significant presence in Rome and operational capabilities extending throughout the country, while still retaining strong ties to its area of origin. The bank's share capital, totalling about 925 million euros, is distributed among nearly 154,000 shareholders, who in large part are also clients. Its assets total about 1,512 million euros. Net income for the 2006 financial year was 107.113 million euros, representing an increase of 25.75% over the previous year. The bank, with a staff of more than 2,200 employees, is based on a national network of 247 branches.

Ing. **Giampiero Raschetti**, ICT Architecture Manager of Banca Popolare di Sondrio, stresses that the transition to a Disaster Recovery infrastructure complying with the new directives must start with the preliminary organisation of the internal architecture. In fact a server farm was created at the Sondrio headquarters, with the objective of concentrating in one place all the systems under-pinning the numerous services that, following the increase in Internet banking, were experiencing explosive growth. This process has also triggered a real cultural sea-change within an environment, that of banking, in which it is not so common to bring together information and services from offices differing in their requirements and in the activities they undertake. The server farm has therefore been granted a new degree of importance at a bank/company level, a step forward which was followed by a major investment in a Storage Area Network designed from the perspective of drawing together, not just systems and services, but also all the Bank's important data that had previously been scattered across different offices. "In this phase we identified in the proposal from EMC2 the most appropriate solution to allow us, at some future time, also to target the implementation of a Disaster Recovery system suited to our size," stresses Raschetti.

The consolidation of the infrastructure was then followed by the choice of a secondary server farm through which to implement a Business Continuity system. "In this scenario there were various options for selecting a partner that would be capable of supporting us; so we evaluated various alternatives, before we opted for the solution proposed by T-System."

The technological solution was evaluated jointly, and took account of the highly dynamic environment. "Our server farm delivers services and Internet/Intranet content using continuously evolving technologies in a scenario in which the services are continuing to grow. It was also particularly difficult to define what the boundaries of this Disaster Recovery service should be, and so we defined which services were of highest priority and developed a solution on that basis."



The proposal from T-Systems, based on EMC technology and Cisco equipment, makes use of best-of-breed solutions and applications capable of managing the functionalities of Remote Systems Management, Storage Area Network, Backup, Monitoring, Problem/Incident Management and Change Management in an integrated and comprehensive manner. “The choice of solution has turned out to be a real success,” adds Raschetti. “It led us to the use of innovative solutions, even ones not traditionally consolidated, and we always tried to read between the lines of the technology to find out what might be the added value.”

It was not by chance that the entire infrastructure came to be based on Cisco networking equipment. “The solution we proposed,” explains **Giuseppe Leone**, Solutions Manager Competence Center DR/BC of T-Systems Italia, “demanded special equipment. In fact for BPS we developed a project that, thanks to a data compression algorithm during the exchange phase between the 2 server rooms, as well as ensuring higher reliability in comparison

with traditional solutions, requires a lower investment in transmission bandwidth.”

But that is not all. Thanks to a high level of granularity, in the event of activation of the Disaster Recovery procedures, the RTO and RPO times are close to zero. “Although it is impossible to synchronise the two server rooms - the primary one located in Sondrio at the Banca Popolare di Sondrio headquarters and the secondary one 180 km away at T-Systems' Data Centre in Milan - the gap between the two is just a few minutes and the system is activated immediately, even in the event of a fault on an individual device. In fact the latest available data image is sent to the production servers, without necessarily the need to carry out a restore first, which requires more time.”

“This is an innovative Disaster Recovery concept,” adds Raschetti, “in which the system intercepts the flows of data recorded on the Storage Area Network and guarantees the accurate writing of the information on both the primary and the secondary sites.” This being additional functionality external to the SAN, it has given the system a noticeable flexibility. And a solution of this type would hardly have been achievable using traditional equipment, without becoming extremely complicated. Cisco technology therefore turned out to be the one capable of making such an innovative system possible. Exemplary team-work, therefore, as **Luigi Piacentini**, Account Manager I.L. Finance of T-Systems Italia confirms. “The project could have been influenced by the time constraints, since we had just a few months available for the implementation. But the objective was achieved, really thanks to the commitment of all and to the professionalism and skill of the BPS task force.” A not insignificant undertaking, given that in conjunction with the new architecture the entire centralised back-up system was developed, to be managed remotely, again by T-Systems. The Remote System Management component also includes the monitoring and help desk services, either first/second level depending on the time of day. “From the supplier's point of view this has been a very positive experience: we have produced a solution that can easily be replicated in other environments, based on the same premises.”

The unique and innovative infrastructure has opened up BPS to numerous possibilities for evolution and optimisation, and the level of satisfaction with Cisco, T-Systems and EMC2 leaves no doubt about which technology partners the Bank will choose again in the future. “The results that we obtained have totally exceeded our expectations,” concludes Raschetti. “The data convergence and replication times are lower than the forecasts, and the Cisco technology that we selected as our base architecture for the entire recovery channel functions as it should. We are compliant with the Bank of Italy's requirements and, above all, our clients' data is safe.”

## Technology in detail

The solution implemented by Banca Popolare di Sondrio, is based on the prestigious switches Cisco MDS 9000, which are able to work in multi-protocol Fibre Channel and IP storage (ISCSI and FCIP) ambients in an integrated way. In addition, the series Cisco MDS 9000 at high performances, introduce in the storage networks many smart services that determined their success and their spread in small, medium and large organizations. Precisely, the moduls chosen by Banca Popolare di Sondrio to set up the MDS 9000 support the SANTAP function, that enables the network FC to instantly duplicate data sent by the servers to the storage devices. Such data duplication is afterwards delivered to the EMC RecoverPoint devices, directly connected to the MDS 9000, that provides with a reliable security solution, a continuous data replication on storage remote devices (CRR. Continuous Remote Replication) and the possibility of a complete and prompt data default re-establishment in every moment. Its features allow to implement, with a single platform, the data protection and/or replication on different storage systems and without leveraging softwares installed on the servers.

## For More Information

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