



Customer Case Study

Italian Premium-Rate Number Service Provider Profits From a Relationship Between Cisco Systems and Personeta

Karupa is an Italian telecommunications operator that specializes in the wholesale provision of premium one number services, from daily horoscopes to adult chat lines and other phone-call-charged business services.

It launched into a highly competitive environment and was keen to maximize the efficiency of its operations without compromising the quality or availability of its services.

Together with local system integrator Gruppo In.I.T., Cisco Systems(r) and Personeta were able to give the operator a flexible and cost-effective infrastructure, based on the Cisco Service Exchange Framework (SEF), for the provision of hosted premium rate and premium one number applications with Web-based self care, on a platform which made it easy and cheap for Karupa to manage its services and create new ones.

The result has been that the company has been able to increase its revenues through the improved delivery of core services and the rapid and simple deployment of new applications.

EXECUTIVE SUMMARY
<p>Karupa</p> <ul style="list-style-type: none"> – Industry, Premium one number operator
<p>BUSINESS CHALLENGE</p> <ul style="list-style-type: none"> – Maximize Premium One Number opportunity by providing automated access to services ranging from daily horoscopes to adult calls and other phone-call-charged business services. – Minimize lost calls through delays in connection to service agents. – Find a single, integrated platform for the development and delivery of new services to capture opportunities resulting from changes in market dynamics.
<p>NETWORK SOLUTION</p> <ul style="list-style-type: none"> – Cisco PGW2200 together with the Cisco AS5350 as the public switched telephone network/public land mobile network gateway. – Personeta TappS network service controller as the application server to create network services.
<p>BUSINESS VALUE</p> <ul style="list-style-type: none"> – Enhanced revenues. – Ability to modify services quickly and create new ones. – Potential to tailor services for third-party content providers. exchange (PBX) services. – Ability to leverage existing investment with additional services. – Potential to add additional services such as premium video or hosted private branch exchange.

THE CHALLENGE

Italy has a vibrant and competitive premium one number market, where callers access services ranging from information (weather, flights and so on) to leisure and entertainment (such as horoscopes or adult chat lines).

Major features of the market are that connection time is money (so callers need to be connected to their chosen service as quickly as possible and kept there as long as possible) and there is a significant amount of legislation (concerning issues such as privacy) that has to be complied with.

Rimini-based Karupa, a start-up service provider and competitive local exchange carrier, entered this market in 2001 as both an enabler and service aggregator, mediating between major network operators and third-party content providers.

Its business model was to act as a premium one number wholesaler, selling on numbers, services and Web access and managing operational functions such as routing rules, billing and greetings calls, with money coming in from revenue-share arrangements with operators.

The company needed a next-generation service platform that would handle and monitor incoming calls and provide sophisticated routing according to business rules intended to ensure callers could be connected quickly and seamlessly.

Karupa also wanted to be able to provide a high degree of self provisioning of these business rules directly, via the Web, to third-party content providers.

Last but not least, the company needed a platform that would allow rapid service creation and modification by a systems integrator, without any dependence on the vendor.

The Cisco PGW 2200 Softswitch is the core platform that Karupa is using to perform essential call-control tasks such as digit analysis, routing and circuit selection.

The PGW 2200's support for industry-standard control protocols, particularly Session Initiation Protocol (SIP), gives the company the capability to seamlessly route voice and data calls between the public switched telephone network (PSTN) and packet networks.

THE SOLUTION

In 2003 Karupa engaged the Italian systems integrator Gruppo In.I.T., a Cisco Premier Select Partner, to create the technology foundation for its premium one number service portfolio.

Around the same time, Cisco had introduced In.I.T. to the Cisco SEF application partner Personeta, a software company that provides a carrier-grade platform for service creation and delivery of converged voice and multimedia services over multiple network types.

Its main product is a complete network service control (NSC) system that allows service providers to rapidly deploy new services, ranging from mobile office applications in the business sector to pre-paid broadband and video telephony.

The platform, TappS (for Telco application Server) NSC, also enables third parties, including the service provider, to create services. It can be used to offer a virtually unlimited number of different services to a virtually unlimited number of users.

In.I.T. realized that Karupa would need Cisco PGW 2200 Softswitches for call control, together with the Cisco AS5350. In addition, the service provider was looking for an interactive voice response (IVR) system to process calls automatically, but had been unable to find a suitable one.

After using Personeta technology in-house to deliver services to its customers, In.I.T.'s recommendation was for Karupa to deploy TappS for service delivery on top of the Cisco PGW 2200 Softswitches, managing traffic delivered over Telecom Italia's PSTN infrastructure. The Cisco network components employ voice over IP (VoIP), using SIP.

In the resulting setup, which went live in 2004, calls to a premium one number are directed through a Cisco Softswitch to a TappS-based IVR menu which offers the caller a number of options.

The TappS NSC system then initiates a search for an available agent to take the call, usually over the Global System for Mobile Communications (GSM) network, effectively acting as an automated switchboard to ensure the caller is connected as efficiently as possible.

Calls get routed to different attendants depending on the time of day, and if an attendant cannot be located then the system automatically moves onto the next one on a list.

Features of the system include:

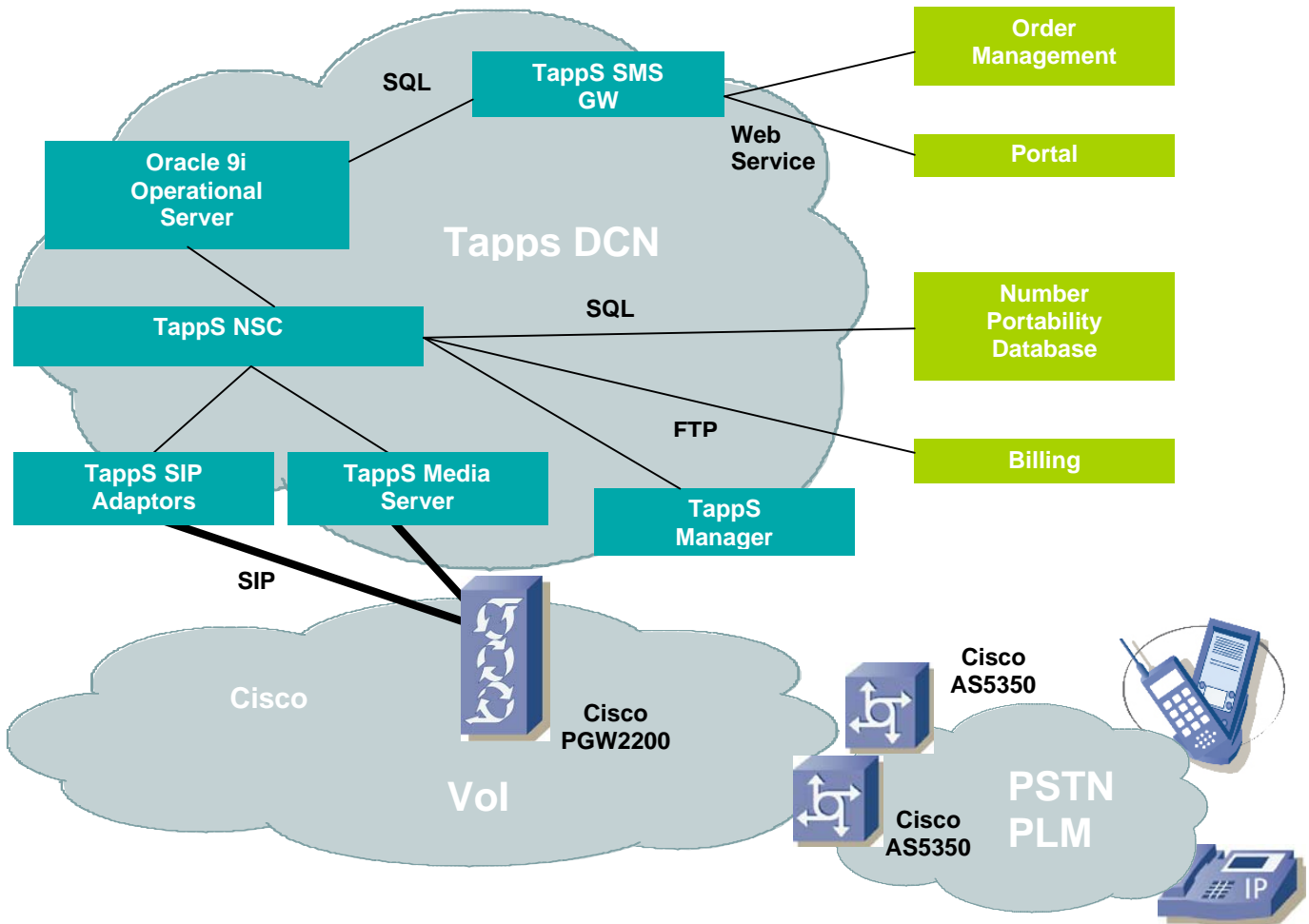
- _ A single nationwide premium number service
- _ Routing sequences
- _ Time settings
- _ Phone book
- _ Welcome greeting
- _ Blacklist
- _ Show or hide caller line identification
- _ Extension number Dual Tone Multi-Frequency
- _ Local number portability
- _ Price and maximum call duration per incoming carrier and called number

The next-generation network nature of the platform avoids revenue losses that might have been incurred in using traditional, closed and inflexible technologies.

It offers Web provisioning and customer self-care to improve the cost-effectiveness of operations, along with real-time statistics and a complete view of the network status. It is scalable, user-friendly and efficient, and supports Karupa's dynamic and growing business.

Karupa was the first customer TappS rollout for In.I.T., and a significant one at that, supporting well in excess of 1000 ports.

Figure 1. Karupa - premium one number management



BUSINESS VALUE

In a dynamic and competitive market, Karupa has been able to dramatically increase its revenues and gain market share thanks to its use of TappS supported by Cisco PGW 2200 Softswitches and the Cisco AS5350. Karupa has seen 80 percent revenue growth on the back of a 100 percent call completion rate. The company made a return on its technology investment within just six months, partly thanks to the fact that its initial outlay for a next-generation network platform was cheaper than it would have been to buy traditional time-division multiplexing (TDM) systems.

Taking advantage of a vast Signaling System 7 (SS7) protocol library and supporting industry-standard control protocols, including Media Gateway Control Protocol, H.323 and SIP, the PGW 2200 together with the AS5350 provides service providers with the capability to seamlessly route voice and data calls between PSTN and packet networks. TappS, meanwhile, although designed as an IP Multimedia Subsystem (IMS) generic application server, can work equally on non-IP, non-IMS infrastructures such as PSTNs and public land mobile networks, for example as an intelligent network service control point, and in hybrid environments, helping integrate multiple environments and providing a smooth migration to IMS and next-generation networks. This ability to encompass both IMS and non-IMS infrastructures is built as a generic foundation within all elements of the Cisco SEF. TappS also supports all major signaling protocols, which means it can connect different data networks in order to support applications such as 'click to dial' services.

These services can be offered without TappS NSC, of course, but to do so traditionally would require the creation of vertical service silos and the duplication of services and service management across different networks, with a consequent impact on efficiency and cost. Another option for operators is to go to one of the industry's major technology vendors and get them to link the Service Control Point (SCP) and SIP systems together. This, though, would still not deliver the same level of functionality as TappS NSC and would be very costly. The beauty of TappS NSC is that it allows service providers to offer their customers advanced services and applications on a single platform now, regardless of their state of migration from traditional to IP network architectures. Furthermore, the way TappS NSC is sold to customers provides a very rapid return on investment, virtually to the point that the operator pays for it out of the incremental revenues that it yields.

Both the PGW 2200, AS5350 and TappS are highly scalable platforms and so will be able to support the company's growth well into the foreseeable future, giving Karupa solid investment protection.

Last but not least, the combination of Cisco Softswitches, Universal Gateways and TappS gives Karupa a robust and flexible foundation on which to create and roll out new services. Apart from the fact that TappS already comes with a number of available service options and two types of service creation interface, In.I.T. has a software development kit for the NSC system that has allowed it to develop services such as mobile number portability without having to call upon Personeta. This means that Karupa will be well placed to respond rapidly to new opportunities or changing market or regulatory conditions. protocols, which means it can connect different data networks in order to support applications such as 'click to dial' services.

CONCLUSION

Karupa operates in a highly profitable yet competitive market in which service efficiency and flexibility are critical ingredients for success. Thanks to its use of Cisco PGW 2200 Softswitch, Cisco AS5350 Universal Gateway and Cisco SEF application partner Personeta's TappS technology, it has been able to increase its revenues significantly, firstly by maximizing the effectiveness of its service delivery and secondly by avoiding the costs associated with TDM network architectures. It has also gained a significant competitive advantage in adopting a system that can be used to roll out new services easily and quickly, and furthermore one which offers all the scalability the company may need in order to capitalize on its success.

ABOUT PERSONETA

Personeta is a leading provider of Intelligent Network Service Creation and IMS application server platforms that enable carriers to improve profitability with value-added voice, data and video services. Personeta's TappS server is a NSC network service controller which combines proven IMS application server technology and service resource control to deliver next-generation services over both legacy intelligent networks and next-generation infrastructures. It also delivers the same services over any combination of network technologies - fixed, mobile, VoIP and broadband. Additional information about Personeta can be found at <http://www.personeta.com/>

ABOUT GRUPPO IN.I.T.

In.I.T. has several years' experience in system integration and software development. IN.I.T. implements and supports Cisco Systems service provider technologies such as the Cisco PGW2200, Cisco AS5350 and Proxy SIP Server. IN.I.T.'s application platform, named INFInIT and based on Personeta TappS core technology, provides NGN services and is certified as a part of the Cisco Systems IMS architecture for service providers.

Additional information about Gruppo IN.I.T. can be found at <http://www.gruppoinit.it>



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