


RUAT Case Study

Customer	Registro Único para la Administración Tributaria Municipal (RUAT) Ing. Arturo Ordoñez +5912-220-1981	 <p><i>“The Xorcom high availability solution provides reassurance about our communications system uptime and is compatible with the mission and vision of our institution. Also, countless customer support services can be provided by this same server...” - Ing. Arturo Ordoñez, RUAT</i></p>
Industry	Government	
Integrator	ICTEC S.R.L. Ing. Sergio Daniel Villarroel Balderrama +5912-277-3368	
Distributor	CommLogik Argentina	
Main Challenges	Expand the functionality of the telephone system to meet the needs of the claimants at lower cost and with greater efficiency.	
Solution Provided	Two XR3000 IP-PBX with TwinStar for dual-server redundancy, and two Astribanks (XR0047 and XR0010) to connect to the PRI and PSTN.	

Overview

RUAT is an institution whose mission is "To design, develop and manage computer systems that allow local governments, Ministry of Economy and Public Finance and Police to carry out the powers conferred by law with regard to taxes and revenues." This involves maintaining constant communication with the local governments to provide timely and effective support. Consequently, one of the main concerns is to have the necessary number of telephone lines to meet claims at lower costs and with a wider range of services (IVR, CRMs, etc.).

Customer Requirements

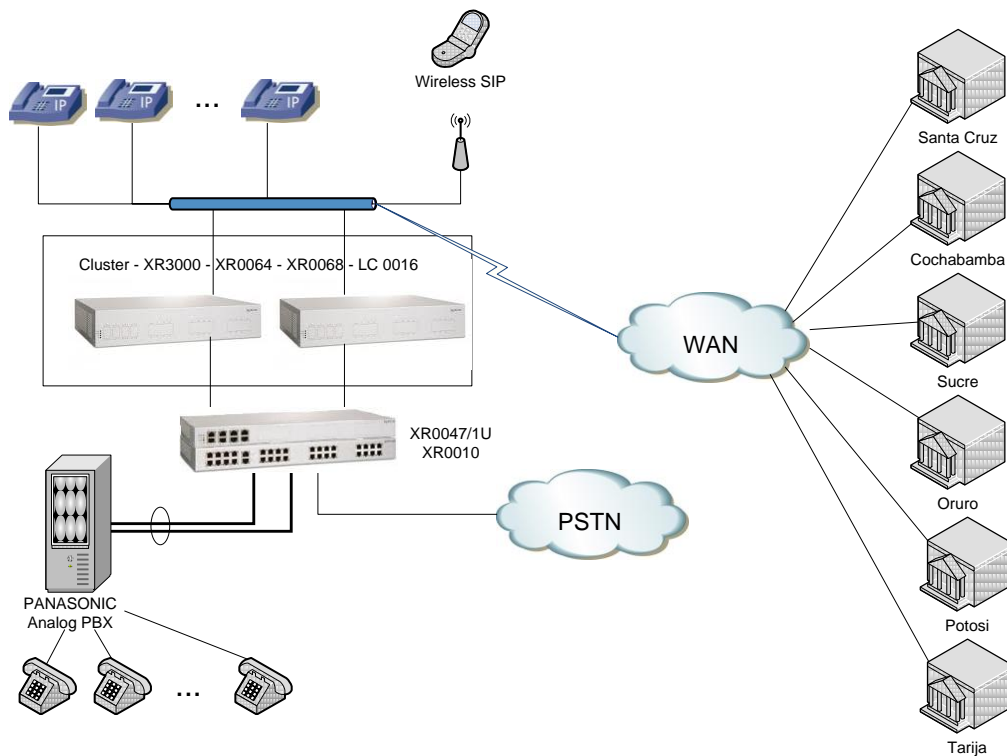
RUAT's main requirements were:

- IVR (Interactive Voice Response) for RUAT's main line and local governments of Bolivia
- Means for analog telephony integration (Panasonic PBX) and IP telephony (Asterisk)
- Voicemail
- Virtual Fax to reduce paper usage
- Support for a large quantity of IP phones
- Generate reports about the use of SIP channels, external calls (local and to other municipalities) with the VoIP technology
- Creation of a personal telephone directory with a Click & Dial feature
- Time conditions for IVR system
- High redundancy (RAID in disks, and Server Cluster)
- Customer service queues

Proposed Solution

The system integrator proposed a high availability solution at based on the Xorcom TwinStar (redundant servers) approach. The required equipment included two XR3000 IP-PBX appliances and two Astribanks (XR0047 with an E1 port supporting 30 channels and an XR0010 with 16 FXS ports and 16 FXO ports).

Network Diagram



Results

In the RUAT headquarters in La Paz, a high redundancy solution based on XR3000 and featuring the TwinStar configuration (clustered servers) that can communicate with the old Panasonic phone system through the Atribanks (XR0047 and XR0010) was installed. As a result, analog extensions can be dialed using a trunk in both directions (Analog -> IP and IP -> Analog). Additionally, the connection of Atribanks to both servers provides high availability.

Local governments in Bolivia have Asterisk servers with Digium cards and are interconnected with the Xorcom XR3000 server through VPN tunnels in the Internet, reducing costs.

The Xorcom server can support a large number of IP phones. It is possible to communicate with SIP devices or wireless phones with the addition of a wireless access option.

The Xorcom server is connected to the PSTN via an E1 line with 30 voice channels, enough to handle the volume of user requests and complaints, to contact service supplier companies, and to communicate efficiently by using queues and IVRs.

Conclusion

As per Ing. Arturo Ordoñez of RUAT:

“The Xorcom **high availability solution provides reassurance** about our communications system uptime and is compatible with the mission and vision of our institution. **Countless customer support services** can be provided by this server, starting with CRM solutions (customers from local governments, police, customs and the general public), virtual appointment books loaded in IP phones, IVR's and customer queues.”



Ing. Arturo Ordoñez, of RUAT, shows the RUAT headquarters communication rack featuring two Xorcom XR3000 servers and two Xorcom Atribanks.

About RUAT

RUAT is an institution of the Bolivian government whose mission is "To design, develop and manage computer systems that allow local governments, Ministry of Economy and Public Finance and Police to carry out the conferred powers by law with regard to taxes and own revenues". For more information, visit www.ruat.gob.bo.

About ICTEC S.R.L.

ICTEC SRL is a Telecommunications Network Engineering company based in La Paz, Bolivia, focusing mainly on voice, video and data transmission systems, network security, and data center infrastructure. ICTEC's mission is to deliver to customers turnkey systems backed by proper planning and infrastructure design while assuring excellent post-sales support. ICTEC's main goals are customer satisfaction, the delivery of best of breed products and total quality on services. For more information, visit www.ictec.com.bo.

About CommLogik

Commlogik Corporation is a value-added Telecommunications and Security distributor for Latin America with headquarters in Miami/Florida and fully staffed local offices in Brazil, Argentina, Colombia and Mexico.

Commlogik is one of the top suppliers of IP End Points, from IP phones to video conference units, in all ranges from simple entry level IP Phones to enterprise class IP multi-line executive phones. Commlogik also supplies IP-PBX units (hardware and software), VoIP systems for call control and toll bypass, analog and IP Call Centers, systems for hosted IP/Centrex installations, services and support.

Services provided are technical support, training, technical seminars, warranty services, RMA, and same-day shipping on most products. We also provide consulting services for projects and implementations. For more information, visit: www.commlogik.com.ar.

About Xorcom

Xorcom designs and manufactures business telephony solutions that support both traditional PSTN and VoIP communication. All Xorcom products are based on an open source platform, making them easy to install and maintain as well as cost-effective, since there are no per user license fees. Various utilities that maximize system uptime include backup and restore, dedicated redundant power supplies, and TwinStar - a unique award-winning hot failover solution for the entire PBX.

The Complete Concierge, Xorcom's bundled solution for hospitality, provides a central communications system and an interface to Property Management Systems. Xorcom sells its products via a worldwide distribution channel. For more information, visit: www.xorcom.com.