AudioCodes

CASE STUDY

DongA Bank Case Study

Flexible, reliable VoIP connectivity for a large bank's open-source IP-PBX

DongA Bank in Vietnam selected AudioCodes gateways and IP Phones to provide reliable and flexible VoIP connectivity for its new enterprise communications system, based on a centralized, open-source Asterisk-based IP-PBX.

Background

DongA Bank (www.dongabank.com.vn) is one of the leading financial services and banking companies in Vietnam. With headquarters in Ho Chi Minh City, the company employs over 4,000 staff in more than 200 offices. It has 5 million customers including both enterprises and individuals.

DongA Bank was assisted in this project by Hoitu Corporation (www.hoitucorp.com), one of Vietnam's leading system integrators.

With more than 15 years of experience in Telecom, Information Technology and Television, HoiTuCorp specializes in the design, installation and configuration of high quality networks at a reasonable cost.

HoiTuCorp's diverse solution portfolio scales to build systems that meet today's and tomorrow's demand for effective, stable connectivity, with a variety of products that are optimized to handle any distance, speed, security or legacy integration requirements.

HoiTuCorp's corporate culture is focused on building long-term relationships with customers, believing firmly that service and support are of utmost importance to its customers.

Challenges

Since being founded in the 1990s, DongA Bank had grown steadily to over 200 offices across Vietnam. Each branch office had its own PBX, managed independently of the other offices.

With such a range of different systems in place, DongA Bank's communications infrastructure suffered from problems of incompatibility and inefficiency. This resulted in spiraling communications costs, both in terms of call charges and maintenance.

To overcome these problems, the company decided to search for a new communications solution which would offer a unified platform serving the 5,000 users across all its offices. The new system needed to be:

- Future proof
- Feature rich
- Based on industry standards
- Centrally and easily managed

It also needed to offer reliable connectivity with the PSTN at headquarters as well as at the remote branches.

Solution

After evaluating a number of alternatives, DongA Bank chose a solution based on Audiocodes' VoIP platforms with an open-source IP-PBX. The selected solution met all of the bank's requirements: rich features, good quality, reliability and affordable price. HoiTuCorp was chosen as system integrator to deploy the new system for DongA Bank across Vietnam.

The core of the new solution was an IP-PBX based on the open-source Asterisk platform. The new IP-PBX provided all the required calling features for DongA's employees across Vietnam including voice conferencing, attendant console and call recording. The IP-PBX was deployed in a redundant configuration to ensure high availability of the solution.

In addition, DongA selected AudioCodes to provide the necessary VoIP connectivity for its headquarters and branch offices. A broad range of AudioCodes products was deployed including analog and digital gateways and IP phones.

At DongA Bank's head office, two Mediant 1000 media gateways were deployed to provide interconnection with the PSTN.

Each of the Mediant 1000s was configured with one E1 interface. The pair were deployed in a redundant configuration to ensure uninterrupted service if one of the devices should become unavailable.

At the branch offices, a range of different devices was deployed depending on the local capacity requirements. At the smaller offices (with up to 25 users), MediaPack MP114 or 118 analog gateways were deployed with between 2 and 12 FXO connections to allow calls to the local PSTN. Larger branch offices (and DongA's IT center) used the Mediant 1000 with one E1 interface.

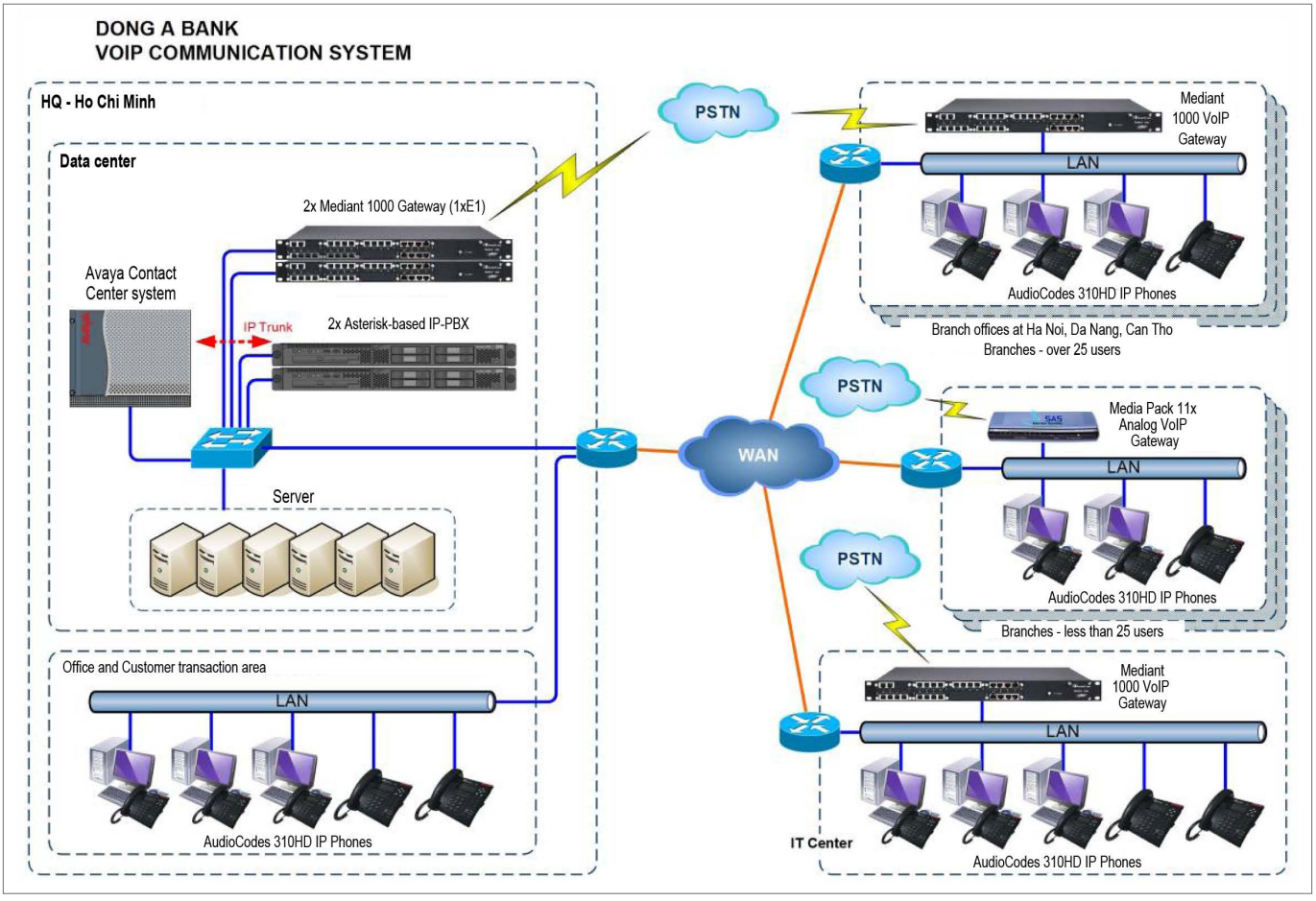
With a centralized IP-PBX solution in place, branch offices can be susceptible to a total loss of communications if the connection with head office is interrupted. To protect against this eventuality, all the gateways deployed at DAB's branch offices were configured with the Standalone Survivability (SAS) feature. SAS provides service backup for SIP clients such as SIP IP Phones and SIP Soft Phones in the case of a network failure.

With the SAS feature configured on the media gateway, the SIP endpoints register with their central IP-PBX via the media gateway that acts as a proxy for all SIP registrations. In the case of connectivity loss with the IP-PBX platform, the media gateway takes control, enabling new phone registrations and internal calls in the disconnected site. PSTN connectivity will also be backed up if there is a local PSTN connection in the gateway. During network downtime, basic call control features are provided by the media gateway, and full functionality is automatically restored once the network has recovered.

The endpoints chosen for the new system were AudioCodes 310HD IP phones. The 310HD model, a member of the 300HD Series of IP phones, provides full SIP support and can integrate with a wide range of IP-PBXs, softswitches and other SIP-based application servers. The phones offer HD voice quality and a range of essential business phone features. The 310HD IP phone model deployed by DongA Bank is a 1-line IP phone which includes an LCD display and user interface.

"When choosing a new communications system, it was vital for us to deploy a cost-effective, unified system which would offer a high level of reliability and call quality to all of our employees. The Asterisk-based IP-PBX has provided us with all the calling features we require while the AudioCodes gateways and IP phones ensure that we enjoy reliable and high quality VoIP connectivity for our internal and external communications."

Mr Nguyen Duc Doanh
Project Manager at DongA Bank



Results

The deployment at DongA Bank began in November 2011 and is planned to be completed in over 200 of its offices by the end of 2012.

The solution has resulted in several benefits for DongA Bank including:

- Significant cost savings through the deployment of a company-wide VoIP network
- Simplified management with a single, unified IP-PBX platform serving the entire network
- Robustness with redundancy of the IP-PBX and media gateways at head office and built-in survivability at the remote branches
- Enhanced voice quality for internal and external calls provided by high definition IP phones

Commenting on the new communications system, Mr Nguyen Duc Doanh, the project manager, said, "When choosing a new communications system, it was vital for us to deploy a cost-effective, unified system which would offer a high level of reliability and call quality to all of our employees. Thanks to the solution designed by HoiTuCorp we have achieved our goals. The Asterisk-based IP-PBX has provided us with all the calling features we require while the AudioCodes gateways and IP Phones ensure that we enjoy reliable and high quality VoIP connectivity for our internal and external communications. By using a centralized system with our internal WAN carrying internal calls, the new system has resulted in significant cost reductions, both in terms of call charges and system administration."

About AudioCodes

AudioCodes Ltd. (NasdaqGS: AUDC) designs, develops and sells advanced Voice over IP (VoIP) and converged VoIP and Data networking products and applications to Service Providers and Enterprises. AudioCodes is a VoIP technology market leader focused on converged VoIP & data communications and its products are deployed globally in Broadband, Mobile, Cable, and Enterprise networks. The company provides a range of innovative cost-effective products including Media Gateways, Multi-Service Business Gateways, Session Border Controllers (SBC), Residential Gateways, IP Phones, Media Servers and Value Added Applications. AudioCodes' underlying technology, VoIPerfectHD™, relies on AudioCodes' leadership in DSP, voice coding and voice processing technologies. AudioCodes High Definition (HD) VoIP technologies and products provide enhanced intelligibility and a better end user communication experience in Voice communications.

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