PIKA TECHNOLOGIES INC.

Case Study: PIKA WARP Appliance Gives VoIPnet a Competitive Edge

Customer: VoIPnet Technologies is a provider of hosted PBX business services, and sells and supports premise-based IP-PBX, Key and TDM phone systems. www.voipnettechnologies.com

Challenge: Provide hosted PBX customers with phone paging and local conferencing capabilities equivalent to what a Key or TDM systems provides.

Solution: PIKA WARP Appliance

Benefits: First-to-market with innovative paging solutions and conference bridge feature for hosted clients. Able to serve new market of other hosted IP PBX providers..

For nearly 25 years, VoIPnet has provided business phone systems to clients in the New England area of the U.S.A. In 2004, the company began to offer hosted IP-PBX services to customers throughout the country in addition to reselling Key and TDM phone systems. Today, the hosted PBX services comprise the bulk of VoIPnet's business.

VoIPnet was ahead of the curve in offering IP-based hosted service offerings for businesses and soon discovered that certain applications were not practical to enable with a hosted IP PBX or IP Centrex system. In particular, group paging, intercom, and conference bridge functions – all of which customers had come to expect through traditional PBX systems – were difficult to offer over the Internet.

That changed when Todd Wolf, VoIPnet President and COO at VoIPnet, started talking to PIKA Technologies about his need for a flexible application server to overcome the problems. VoIPnet now uses the PIKA WARP Appliance to deliver group paging, intercom functions, conferencing and more via its innovative VoIPnetFS on-premise application server. The company is also leveraging the WARP Appliance to deliver premise-based IP-PBX solutions to customers for which a hosted solution is not suitable.

Unique Application Server Gives Customers What They Need

"In this day and age, we rarely sell premise-based systems anymore," says Wolf. "We can offer the hosted PBX solution for 50% less – or better – capital expenditure compared to premise-based solutions. It's also fully managed, fully redundant, and the customer doesn't have to pay for upgrades."

Despite these advantages, the lack of key applications such as paging and local conferencing became a commonplace issue at many customer sites. Schools, medical clinics, warehouses, manufacturing plants, and other businesses with mobile staff all relied on paging and conferencing for effective and efficient communication.

Offering group paging through the hosted IP-PBX service required a media server to conference call all of the phones in a paging group simultaneously. "This created a flood of RTP packets being sent across the WAN and there is insufficient WAN bandwidth to support it," Wolf explains – a real problem in schools and hospitals where a large number of telephones needs to be paged. "It isn't an issue if the customer has a private network and unlimited bandwidth, but that doesn't describe most of our market," Wolf adds.

A similar problem arose for customers who needed local conferencing. "Let's assume that a conference call is needed between 25 internal callers and five external callers," Wolf says. "Using an offsite server would result in 25 simultaneous WAN calls."

So, Wolf's team searched for an application server that would handle these functions locally at the LAN. Using the PIKA WARP Appliance for Asterisk, VoIPnet created the VoIPnetFS on-premise application server to solve the problem. The development team used Asterisk together with FreePBX GUI code to integrate the WARP Appliance with the Broadsoft Broadworks platform and other SIP application servers.

Now, Wolf says, "We use the VoIPnetFS on-site so that the paging or conferencing traffic does not need to traverse the WAN connection."

Among its many competitive features, the solution handles multi-site paging, as WARP Appliances can be connected together to reduce site-to-site paging to a single RTP audio stream. External sound output also allows the appliance to be connected to an external paging amplifier so that paging thru external speakers, such as ceiling speakers or bull-horn type speakers, can be integrated with the phone system.

Just Like a Traditional PBX – But Better

Wolf is most enthusiastic about the virtually limitless possibilities that VoIPnet can now pursue thanks to the PIKA WARP Appliance. "We can now behave like any TDM PBX provider even though we're hosted. This has been a real competitive advantage for us." In fact, Wolf says, "Other service providers are now approaching us to buy the solution."

Because Asterisk makes it possible to write nearly any functionality into a dial plan, Wolf believes that "There's not much we can't do with the PIKA appliance. It's really limited only by what we can dream up."

For example, VoIPnet has used it as a gateway appliance in a situation where a customer was located in an independent telco area that prevented VoIPnet from porting the customer's numbers to its hosted service. "PIKA lets you plug in FXO/FSO boards, so we can connect to traditional POTS lines."

VoIPnet also uses the PIKA WARP Appliance as a full-featured IP PBX in cases where a hosted solution is not suitable for the customer. Wolf now favors this approach to reselling the traditional PBX systems that his company began with two decades ago. "We sell Aastra and Polycom SIP phones and we don't want to carry proprietary hardware anymore," he explains. "That's why I now prefer the IP-PBX option – and this way, we can tie the premise-based system into our hosted solution to simplify software updates and support." Updating a customer's hosted system can be done by pushing software updates to the phones. And in cases where the entire boot image needs to be reloaded, Wolf explains that they can "Send the boot image on a USB stick, give it to the receptionist, tell her to plug it into the PIKA WARP box and it fully images itself. We don't need PC techs anymore – our shipping department can do it."

Wolf has also abandoned his initial strategy of building PC-based IP-PBX solutions. "When you are dealing with manufactured PC hardware of any kind, you will run into frequent issues with obsolescence. What you develop today on Linux may work great right now but in two months, if someone has changed a chip on their motherboard, you'll have to change your code. We had to maintain multiple copies of our code based on different versions of hardware, and that's really what drove our decision to go with an appliance-based solution."

In addition to enabling VoIPnet to provide important functionality that sets them apart from competitors, the PIKA WARP Appliance has lowered support and installation costs and made troubleshooting very simple. Wolf concludes, "The PIKA appliance has given us more peace of mind in supporting what we sell."

About PIKA Technologies

PIKA Technologies' reliable media processing building blocks connect computer systems to TDM and IP networks. Brand name companies design groundbreaking IVR, call center, custom PC/IP PBX, fax and logging solutions using PIKA Technologies' components.

With two decades of experience in this industry, we are recognized for earning strong relationships with our customers around the world by delivering direct, expert technical support. Headquartered in Ottawa, ON, Canada, our company has ranked in The Branham300, an authoritative ranking of successful Canadian high tech firms, for seven consecutive years.