

Zenoss®

Challenge

Existing open-source communications platform was unstable and difficult to manage. Internal conference bridges, voicemail, SIP trunking, ACD, and call attendant were unreliable and did not meet the needs of the business.

Zenoss sought a solution that would:

- Empower its employees with a wide range of reliable, effective communications tools to enhance collaboration and productivity—with special emphasis on audio and video conferencing
- Ensure high reliability so customers could always reach Zenoss
- Deliver cost efficiencies without compromising the quality of communications

Solution

Avaya IP Office with Preferred Edition, Power User solution, Teleworker solution, and Mobile Worker solution; Avaya one-X® Portal; Avaya IP telephones.

Value Created

- Cost savings: \$85,000 per year on fewer lines, minimal maintenance, and licensing fees
- Flexibility to achieve a cost avoidance of over \$300,000 by using a hosted data center and SIP trunking
- Greater than 60% increase in employee productivity
- Video conferencing enabled by SIP—to facilitate collaboration among company locations, remote workers, and clients
- A corporate culture that empowers employees with a wide range of easy-to-deploy communication tools and less reliance on IT
- Ease of management for IT
- Nearly 90% of the usual start-up time saved on the initial deployment of IP Office, and similar savings realized on maintenance and upgrades
- Reliability and stability—to prevent downtime and disruptions to business continuity
- Home office capabilities for 30% of staff—resulting in savings on office space

Empowering employees, increasing productivity, and reducing costs with Avaya IP Office and SIP technologies

Annapolis, Maryland—As a rapidly growing provider of commercial open source enterprise IT monitoring products, Zenoss Inc. relies heavily on telecommunications for lead marketing, customer service, and internal collaboration. The company requires a solution that can deliver powerful communications tools for 40 employees at its locations in Annapolis and Austin, and for 20 home-based employees throughout the US and Canada.

Zenoss made its first entry into VoIP technology with an Asterisk open-source, SIP-based communications platform. According to John Hamilton, Director of IT, the company's original interest in developing a SIP platform came about because Zenoss saw SIP as a flexible solution for deploying communications tools that help make employees' work life more efficient.

However, Hamilton mentioned this approach provided only limited benefits. *"We basically outgrew our first VoIP platform very quickly. It was not stable, and many functions did not work properly. There were internal conference bridges, voicemail, SIP-based trunking, automatic call distribution (ACD), call attendant, and other features, but none of them performed adequately."*

The company's worst struggle was with the system's audio conferencing, a result of the system's inability to detect the proper dual-tone multi-frequency signaling (DTMF). Reliable audio conferencing is a feature that is particularly important for both internal and external communications at Zenoss.

"We also had issues with what we could do remotely," Hamilton continued. *"We have about 20 remote employees who work out of their homes, so having VPN-enabled phones is very important for us. The previous system was SIP-based, so we could have people using phone sets in their home offices, but everything was completely unencrypted and wide open across the Internet, creating an obvious security risk for us. The system was also very limited in the types of phones you could use. Because of this, people could not remotely manage their telephony environment from their PCs at home. For example, employees working remotely had to call someone in the office just to have their phone calls forwarded."*

When Zenoss sought a new communications solution, it focused on finding a system that would empower its employees at the offices in Austin and Annapolis, as well as those working remotely or in the field. Hamilton stated, *"Our goal was to implement a culture*

throughout our company in which we could provide a variety of tools and support to enable people to create their own work environments. We find that staff members are more productive when they have the flexibility to use the tools that work best for them and their roles within the company, rather than having management dictate that everyone has to use certain tools.”

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— John Hamilton
Director of IT

We have found IP Office easy to deploy, extremely stable, and rich with features. It requires very little maintenance, and when we do need to work on it, the processes are relatively simple.”

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Leveraging the productivity-enhancing capabilities of Avaya IP Office

Zenoss worked with Data Voice Exchange (DVX), an Avaya Connect partner, to select, plan, and implement a new telecommunications solution for its two office locations, home office workers, and mobile employees. According to Hamilton, “DVX was very efficient at designing an IP Office solution that met our requirements, budget and timeline. Their support made for a seamless transition at the time of deployment, and they have continued to work with us to understand and best utilize the feature-rich environment provided by Avaya IP Office.”

Zenoss chose the Avaya IP Office communications solution with Preferred Edition, and provided employees with Power User, Teleworker, and Mobile Worker user productivity solutions. “One of the great things about the Avaya IP Office Power User solution is that many functions can be activated and managed fairly easily by the user,” Hamilton commented. “This definitely enhances the personal, customized work environments that we encourage people to create for themselves. This approach is very empowering to our employees because it results in their having less dependence on IT.”

Hamilton added, “Some features such as Mobile Twinning [which extends an individual’s office calls to a mobile device] do require some setup work from IT, but because licenses are included in the Avaya package, it’s nothing more than turning on a feature, which takes about 30 seconds—compared to a half hour or more that we’d need to acquire the necessary licenses and do the configuration.” Several Zenoss employees, including sales representatives and client support engineers, leverage the Mobile Twinning feature so they are able to make and receive calls, wherever they may be.

Among the many features available to IP Office Power Users are the abilities to:

- Control office communications using an IP phone, a mobile phone, or a laptop;
- Conduct personal video calls;

- Have calls ring simultaneously on all their devices;
- Receive notification about important voice mails and e-mails (viewing them in the same inbox);
- Set up conference calls, either scheduled or spontaneous, with up to 128 participants at one time (64 parties maximum on one conference).

The Zenoss team was pleased that IP Office can be used with a wide variety of endpoints, including IP phone sets (both SIP and H.323), digital phone sets, and softphones (software that enables a computer to be used for telephone communications). The company’s receptionists use the IP Office Receptionist solution via a computer for ease in managing calls. “Our receptionists have the ability to see who’s on calls and who’s available, whether they’re in Texas or Annapolis or working remotely,” Hamilton said.

Home office and mobility solutions. “If we hadn’t switched to Avaya IP Office, we could not have continued to sustain the work-at-home force because our previous phone system just didn’t perform well enough,” Hamilton said. “Avaya IP Office is stable and secure, and the call quality is so much better, nobody knows that these employees are working from home. So for us it was a big win to provide that stable telephony infrastructure. And we continue to save money by not having to provide office space for the 30 percent of our employees who work at home.”

Zenoss’s IT staff works with the remote home office employees to deploy endpoints that the employees consider most useful for their personal work environments. Hamilton explained, “Some of the Mac users like the softphone, and we also have a couple Linux users who have their own variety of SIP endpoint that works just fine. In fact, we even have an iPhone user who has connected a SIP iPhone application. All of these work well because of the SIP technology built into IP Office.”

Contact center capabilities. The Zenoss team has begun to establish a contact center, using simple hunt groups and a call attendant, with plans to expand this project. “The robust, built-in contact center features

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were an important factor in our decision to deploy IP Office,” Hamilton said.

Ease of management. “We have found IP Office easy to deploy, extremely stable, and rich with features,” Hamilton said. “It requires very little maintenance, and when we do need to work on it, the processes are relatively simple. I like the fact that it doesn’t require a 50-page document just to reconfigure a phone setting.”

Dramatic increase in productivity. Zenoss has experienced dramatic improvements in work processes and work flow. Hamilton stated, “Overall, we estimate that there’s been a greater than 60 percent increase in productivity across the company. We attribute this primarily to the fact that our communications tools now work well instead of failing constantly and causing deep frustration with things not working as you expect them to. The ease of conferencing and our staff’s ability to use it spontaneously when they need to has been one of the largest contributors to this improvement.”

IP Office and SIP enable the integration of audio and video conferencing capabilities

Robust, reliable conferencing capabilities are high on Zenoss’s list of critical IT must-haves. This is one of the main reasons that the company decided to become an early adopter of SIP. Hamilton explained, “We’re a very virtual company, and we’re heavily involved with video conferencing. A lot of the video conferencing systems you buy today have the capability of connecting to your PBX using SIP. Since Avaya IP Office offers native SIP integration, we’re able to link our video conferencing system into

IP Office, and it essentially becomes an extension off the PBX. We can join people who are on video conferencing with people who are on an audio conference. In this way, we can have two groups of people talking to each other.”

Hamilton added that many of the company’s video conferences connect the office locations in Austin and Annapolis, with remote workers conferencing in by phone. “The video conference is a life-sized system—what is called a ‘room system’—that literally connects two rooms in different locations via big monitors on the walls. Employees who work remotely can join via the audio portion of the call. They won’t see video, but they’ll get the audio, connecting in through the Avaya IP Office. The capability to interconnect our audio and video conferences through the SIP PBX has been enormous for us because it provides an environment in which our office-based employees and remote employees can all collaborate effectively.”

With IP Office’s built-in 128-party conference bridge, the company has the ability to give all employees their own conferencing capability, helping to ensure utilization of this important collaboration tool.

High reliability, high capacity, ease/speed of management, and huge cost savings

Zenoss has been able to achieve a high level of reliability, business continuity, and cost savings by utilizing an offsite co-located data center to host its IP Office solution.

“As a customer support organization and as a sales organization, we need our phones to be up at all times, always available to our

customers.” Hamilton explained. However, we didn’t want to invest in data center facilities due to the high cost of acquisition and upkeep. Instead, IP Office gave us the flexibility to place our phone system in a hosted facility. This approach provides the most highly available environment, with uninterruptible power generators and all the other benefits of a sophisticated data center, without incurring the costs of deploying and maintaining our own.”

“By using the hosted service, we have the bandwidth we need to run a business where 20 remote employees are working out of their homes, using the Internet to connect to our IP Office, and another 40 employees are working at our company locations and in field sales. It gives us the assurance that our phones will always be answered, and that no matter what the circumstances, we will always have employees working. For example, if we have a power failure in Annapolis and our 15 employees there are ‘down,’ we’ve still got more than 40 employees that are functioning in other locations.”

Zenoss has realized enormous savings by using the hosted service and maximizing the benefits of virtualization. First, there is the savings of an estimated initial expense of \$300,000 or more that would have been required to establish its own data center to meet its needs. Second, there is a savings of approximately \$4,000 a month for the rental cost for two equipment racks at the hosted service versus an estimated \$8,000 monthly cost that would be incurred if Zenoss had to maintain its own data center.

“It’s very empowering to have the Avaya IP Office solution, which is flexible enough to allow us to put it in a co-located hosted data center,” Hamilton stated. “Probably the most important benefit is that the IP

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Office solution can be managed remotely, so we don't ever have to touch the box, and neither does our Avaya channel partner when they have to work on it. All of this saves time and money. Beyond that, IP Office provides the networking capability for us to have VPN phones and a wide range of other phones. It's also important that the voice mail system runs on a Windows server, so it doesn't require anything special. In fact, our voice mail system runs on a virtual machine inside of a VMware ESX environment. This means that I don't have to buy a server. I can provision and expand that as we grow, and it will be very easy to upgrade.”

Zenoss realizes additional savings through the use of SIP trunking. Hamilton estimates a \$3,000-per-month savings, based on operating with a single MPLS line (to

intercommunicate with IP Office) and just one T1 line, instead of several T1 lines. Since licensing is included in the IP Office solutions, Zenoss also saves about \$1,200.00 per year in SIP licensing fees.

Time savings are also significant. According to Hamilton, nearly 90% of the usual start-up time was saved on the initial deployment of IP Office, and similar savings will be realized on each upgrade.

Hamilton concluded, “IP Office is helping us to save money in so many ways, it is really impossible to count all of them. Even more importantly, it supplies us with the stability, reliability, scalability, and range of tools that we need to equip our employees well and build for the future.”

APPLICATIONS AND SYSTEMS

- Avaya IP Office 500
- Avaya IP Office Preferred Edition
- Avaya IP Office Power User solution
- Avaya IP Office Teleworker solution
- Avaya IP Office Mobile Worker solution
- Avaya one-X® Portal for IP Office
- Avaya one-X® 1608 and 1616 IP Telephones
- Avaya 5610 IP Telephones

Learn More

For more information on how Avaya Intelligent Communications can take your enterprise from where it is to where it needs to be, contact your Avaya Account Manager or a member of the Avaya Connect channel partner program, or access other collaterals by clicking on **Resource Library** at www.avaya.com.

All statements in this case study were made by John Hamilton, Director of IT, Zenoss Inc.

ABOUT ZENOSS INC.

Zenoss is a leading commercial open source provider of Unlegacy enterprise IT management products. Leveraging a commercial open source model, Zenoss products monitor over one million network and server devices daily and have been used in over 25,000 organizations in 180 countries around the world. Commercial customers include leading companies such as Rackspace, VMware, LinkedIn, Carlson, Motorola, and Deutsche Bank. To learn more about Zenoss' award-winning IT operations management software, visit www.zenoss.com.

ABOUT DATA VOICE EXCHANGE

Data Voice Exchange (DVX) is a national provider of SIP services and specializes in providing these over the entire AVAYA product Line. DVX prides itself on detailed work end to end, from the provider network all the way to the station set. DVX has relationships with all the necessary players from AVAYA to VMware and many others in between—organizations such as Microsoft, AT&T, Verizon, Dell, HP, Novell, SCO, to name just a few. The “Data” in Data Voice Exchange means the DVX team understands the networking required to give their clients a turnkey solution they can depend on. For more information, visit www.dvx.com.

ABOUT AVAYA

Avaya is a global leader in enterprise communications systems. The company provides unified communications, contact centers, and related services directly and through its channel partners to leading businesses and organizations around the world. Enterprises of all sizes depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, customer service and competitiveness.

For more information please visit www.avaya.com.

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