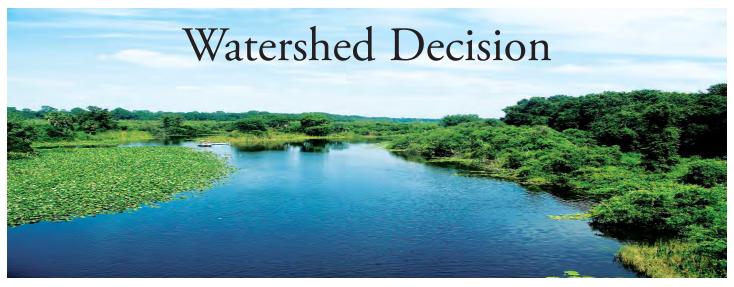
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VOLUME 9 NUMBER 1



Verteks helps St. Johns River Water Management District gain state-of-the-art communications features and save \$150,000 a year with the ShoreTel Unified Communications solution. t. Johns River Water Management District is one of five water management districts dedicated to preserving and managing Florida's groundwater and surface water resources. The District encompasses 7.8 million acres, including all or part of 18 counties in northeast and Ocklawaha River

east-central Florida. About 600 employees work from service centers in Palatka, Jacksonville, Maitland and Palm Bay.

The District's core missions include ensuring a sufficient water supply, protecting and improving water quality, flood protection and protection of natural systems. As a government agency, the District continually evaluates the most efficient way to allocate its financial resources.

Until recently, the District utilized a Centrex phone service that had only the most basic features — staff could make and receive calls and retrieve voice mail. The agency decided it was time to update its communications system and issued an invitation to negotiate. Verteks Consulting and ShoreTel were awarded the District's contract.

VERTEKS CONNECTION

PRESORTED FIRST CLASS US Postage PAID Tulsa, OK Tulsa, OK "We were looking for a provider with at least five years of experience that had completed similar projects where they installed at least 600 phones. All bidders were ranked based upon cost-effectiveness, technical merit, project management, personnel, background qualifications and other criteria," said Alan Weaver, a contracts administrator for the District. "Verteks was one of the higher ranked firms and had the best price for us based upon their ranking."

Thanks to Verteks, the District now has a ShoreTel Unified Communications system with all the latest features and functionality. Feedback from District staff shows they like the system's features — and taxpayers will be glad to know the system is saving the District a significant amount of money.

"Our users are very happy. We've received more unsolicited positive feedback about the phone system than any other thing we've done in the last five or six years," said Kevin Brown, chief of the District's Bureau of Information Technology Services. "Based upon my estimates, we will save \$150,000 a year through a \$287,000 investment. That's a return on investment in two years."

Taking the Plunge

Centrex is essentially a "PBX-less" phone service owned and operated by a telecommunications carrier. Years ago, Centrex enabled government agencies to avoid capital investment in PBX equipment and responsibility for managing the system. Of course, the carrier passes those costs on to the customer in the form of hefty per-line usage fees in addition to long-distance and local-connect charges. That adds up — not to mention the fact that Centrex is a decadesold analog technology that offers only basic features.

"We had looked at voice over IP a few years ago but it was too expensive for us at that time," said Weaver.

The District looked at several solutions but ShoreTel was unbeatable in terms of price. And because the phone system utilizes the data network, it also simplifies administration and management. For the most part, the District was able to use its existing network cabling and switches, and users can plug their phones into any available network jack.

"Before, we had standard telephone wire running out of multiplexers to every desk. If somebody moved we had to manually disconnect and reconnect lines in the telephone room," Brown said. "Now when users move they can take their phone with them or we can use the management interface to reassign the phone that's in another office. As long as the network is there you're good to go."

Great Resource

Verteks handled the project from beginning to end, installing and configuring the ShoreTel equipment and providing training at each facility. Brown says the project went very smoothly from a technical perspective, and Verteks was very flexible as the District worked through challenges with its telco carriers.

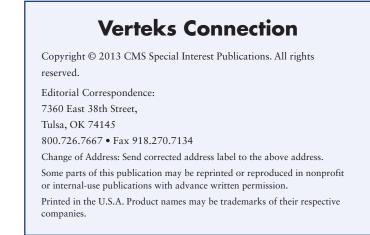
"They were fabulous," he said. "There wasn't any issue they couldn't handle. And I have received good feedback from users who were active in the training or got help the first day. Getting to that point took longer than we expected but Verteks was very patient through it all."

Verteks was able to provide the agency with a state-ofthe-art phone system that is easy to administer and provides end-users with productivity-enhancing features. The Shore-Tel Communicator software is highly intuitive, making it easy to use ShoreTel's unified communications functionality.

"People love the integration with the Outlook calendar. You can have up to five different messages depending upon whether you're away or in a meeting or have some other status," Brown said. "They also love the fact that you can call someone using an app on the computer. You can just look up somebody by name and hit 'enter' and the system places the call.

"The system has a web-based administration interface, so you can manage it from anywhere on the network. It is very intuitive and we haven't had any problems, even with more complex features."

All of that in a system that's expected to save the District \$150,000 a year. Thanks to Verteks and ShoreTel, the District is able to manage its communications costs as carefully as it does Florida's precious water resources.



News Briefs

Post-PC Threat Era Has Arrived

ybercriminals have moved beyond the PC, targeting smartphones, social media and even the Mac OS X with new attacks, according to Trend Micro's 2012 Annual Roundup and Mobile Security reports.

The Internet security firm detected 350,000 Android threats in 2012, and predicts that attacks targeted at Android devices will increase to 1 million in 2013. Android malware grew nearly five times faster than PC-based threats, accomplishing in three years what PC threats took 14 years to do.

Java supplanted pure Windows-based threats in the attackers' crosshairs — leading to, among other things, the first widespread attack against the Mac. Social media platforms continued to grow as areas of concern with attackers targeting them more, users putting themselves at risk by oversharing on them, and legitimate services being coopted to support cybercriminal activities.

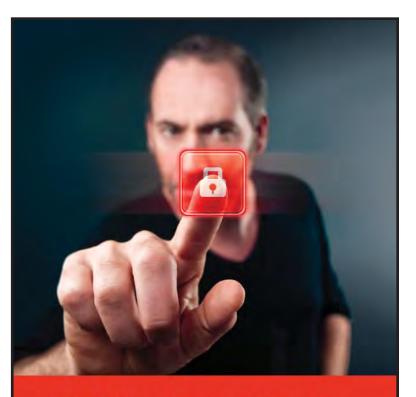
Mobile Device Market Surging

orldwide mobile device shipments will reach 2.6 billion units by 2016, according to the latest forecasts from Canalys. Tablet PCs will be the fastest-growing category, with a compound annual growth rate (CAGR) of 35 percent, followed by smartphones at a CAGR of 18 percent. Shipments of other phones will decline; during 2013 smartphones will overtake feature phones for the first time.

Notebook PCs will also experience a decline (a CAGR of -6 percent) as tablet PCs continue taking a greater share of consumer spending. Tablet shipments are expected to exceed those of notebooks in 2014. Canalys estimates that the mobile device market in total will grow at 8 percent CAGR.

Big Data Is Big Challenge

any organizations are not taking advantage of "big data" because they lack the staff resources to do so, according to a survey from Robert Half Technology. Only 23 percent of CIOs interviewed for the study said their firms gather customer data such as demographics or buying habits. Among those that do, only 46 percent said they had sufficient staff to access customer data and generate reports and other business insights from it.



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Using VDI to Address BYOD Challenges

Bring Your Own Device brings a plethora of devices to manage, but a virtual desktop infrastructure can minimize those headaches.

rom the perspective of the IT department, the Bring Your Own Device (BYOD) phenomenon might well be dubbed "Here Come the Gadgets." More and more employees rely upon their own smartphones and tablets to complete business tasks — and expect those devices to be supported by IT. In addition, IT must ensure that any device connecting to the corporate network meets minimum security standards.

This trend obviously imposes significant burdens on the IT department. According to CTIA-The Wireless Association, an industry trade group, more than 100 million smartphones and tablets are used in the U.S. across a wide range of manufacturers, carriers, operating systems, form factors, versions and connectivity options. It is hard enough for IT to manage equipment outside of its control. It's even tougher to secure and support a diverse collection of devices that literally is changing every day.

Mobile device management (MDM) is therefore critical in any BYOD environment. MDM solutions enable IT to monitor each device that connects to the network in the context of the user's role and location, the security posture of the device, and the network resources being accessed. The downside of MDM is that it doesn't really reduce the extraordinary complexity of managing and



securing a BYOD environment. As a result, many organizations are turning to a virtual desktop infrastructure (VDI) to address BYOD challenges.

In a recent InformationWeek survey, 47 percent of CIOs said they had "no need" for an MDM solution. Critics of MDM argue that it forces IT to stay in the business of supporting endpoints. But there's another way to get a handle on BYOD — change the viewpoint from the outside in to the inside out through VDI.

With VDI, IT doesn't need to care as much about the device accessing the application. It's like serving up a webbased application — it doesn't really matter what's on the other end. IT centrally secures and manages virtual desktops, and treats all endpoints the same way.

Greater Efficiency and Security

VDI provides a framework for the BYOD model by consolidating and centralizing complete desktop environments within the data center. Virtual machine images are built and stored on the server and delivered to end-users on demand. These images can be customized with the operating system, applications, security settings and other personalization features required by specific users.

A growing number of mobile devices support VDI access software, making it possible for end-users to access their desktop environments from anywhere. VDI therefore capitalizes on the flexibility and productivity benefits of BYOD by extending the traditional desktop environment to the mobile realm.

With virtual images stored on a central server, users have the ability to access their personalized computing environments as long as they have a way of connecting to that central source. Workers become more productive because they can get their full desktop experience from any location, and IT becomes more efficient by managing a large number of desktop environments from the data center.

VDI also reduces many of the security concerns associated with BYOD. The virtual desktop images are "sandboxed" — that is, they are self-contained processes that are completely separate from the native processes running on the mobile device. The security posture of the device becomes irrelevant. In fact, virtual desktops are generally more secure than physical desktops, and offer greater data protection because information remains within the data center.

User-owned devices generally don't comply with corporate security policies, and users are notorious for defeating or bypassing basic security measures. With VDI, the desktop operating system and applications run on servers that do comply with the organization's security policies. Mobile devices communicate with the servers through an encrypted session, alleviating security concerns.

VDI Needs MDM

VDI is not a panacea for all BYOD challenges. Not all devices support the same VDI clients, forcing IT to manage multiple applications on the endpoints. Generally, however, this is a small price to pay for the ongoing benefits of VDI. Installing the VDI client is a one-time process. Once that's complete, end-users have access to their hosted environment, which is maintained centrally within the data center.

An MDM solution should be used in conjunction with VDI to reduce the administrative overhead associated with installing and maintaining VDI clients on userowned devices. MDM solutions are designed to deliver the settings, certificates and native applications to each smartphone or tablet. The user-owned device is configured automatically — IT doesn't have to "touch" the device and the end-user doesn't have to worry about application downloads or setup.

VDI for mobile devices does bring concerns about performance and user experience. However, most organizations find the performance to be acceptable and the benefits of accessing a virtual desktop outweigh performance challenges. As for user experience, it's important to remember that not all applications will work well within the smartphone form factor — VDI generally is not optimized for touch interfaces. IT should use an MDM to solution to push out mobile-optimized versions of those applications.

VDI is not a replacement for MDM. The two solutions complement each other, with VDI providing security and MDM handling device provisioning, configuration and management. However, VDI is a good option for organizations struggling to get a handle on BYOD chaos. It enables mobile users to access a personalized desktop environment while removing the administrative burden of ensuring the security of a plethora of mobile devices. Although there are trade-offs, it's easy to see the appeal of VDI for BYOD.



Tablets and smartphones are growing rapidly, but many envision a 'PC-plus' era in which all devices have useful roles.

or the past year, tech industry analysts worldwide have trumpeted the imminent arrival of the post-PC era. It is becoming increasingly difficult to argue with that conclusion. The use of desktop and notebook computers as the primary vehicles for technology access is rapidly declining in favor of smaller, more mobile devices such as smartphones and tablet computers. This trend is accompanied by a move toward the use of cloud-based mobile and cross-platform web applications as an alternative to applications that can only be used on a PC.

Computer industry economics have clearly shifted. Market analysts note that PC shipments stagnated between 2007 and 2011, with the percentage of machines being replaced falling steadily. Meanwhile, total smartphone sales exceeded PC sales in 2011, and Digitimes Research has predicted that global tablet shipments will surpass those of notebooks for the first time in 2013.

Another sign pointing toward the post-PC era is the fact that desktops and notebooks no longer consume the majority of the world's memory chip supply. The market research firm IHS recently reported that PCs accounted for 49 percent of the global DRAM market in the second quarter of 2012. It is the first time since the 1980s — when personal computers were new and sales were rising at a rapid clip — that their share of the leading type of semiconductor memory has dipped below 50 percent.

The PC is Dead. Long Live the PC!

Do these trends point toward the obsolescence of the personal computer? That largely depends upon one's definition of a "personal computer." If it is defined as a system with storage, memory, processing, graphics and display, then smartphones and tablets could be considered as merely an evolution of form factor.

Perhaps it is more useful to think of the changing landscape as a "PC-Plus" era, in which mobile devices and traditional PCs all play useful roles in an organization's technology infrastructure. While smartphones and tablets provide tremendous productivity enhancements with anywhere, anytime access, PCs remain hard to beat for heavy-lifting chores such as working with spreadsheets, composing longform papers, editing video and more.

"For most businesses, smartphones and tablets will not entirely replace PCs, but the ubiquity of smartphones and the increasing popularity of tablets are changing the way businesses look at their device strategies and the way consumers embrace devices," said Carolina Milanesi, research vice president at Gartner.

Function Over Form

The key point is that users have a new level of flexibility with the devices they use for daily activities while, at the same time, leveraging the strengths of each device. This flexibility ultimately will enable new levels of user satisfaction and productivity. However, it will require enterprises to fundamentally rethink how they deliver applications and services to users.

"Major trends in client computing have shifted the market away from a focus on personal computers to a broader device perspective that includes smartphones, tablets and other consumer devices," said Steve Kleynhans, research vice president at Gartner. "Many call this era the post-PC era, but it isn't really about being 'after' the PC, but rather about a new style of personal computing that frees individuals to use computing in fundamentally new ways to improve multiple aspects of their work and personal lives."

Gartner says that, going forward, organizations will focus less on the types of devices being used and more on the delivery mechanism for apps and services. In this model, Kleynhans says, the personal cloud will become "the glue that connects the web of devices that users choose to access during the different aspects of their daily life." Gartner identifies five "megatrends" it says are combining to create the personal cloud model.

Consumerization. Users have become more technologically savvy and have very different expectations of technology. They have become innovators, driving the grass-roots adoption of powerful and affordable mobile devices. This has led to a democratization of technology in which users of all types and status within an organization now have similar technologies available to them.

Virtualization. By freeing applications from the constraints of individual devices, operating systems or even processor architectures, virtualization has improved flexibility and increased the options for how IT organizations can implement client environments. This provides low-power devices access to much greater processing power, thus expanding their utility and increasing the reach of processor-intensive applications.

Appification. The way applications are designed, delivered and consumed by users has changed, raising the prospect of greater cross-platform portability. One application can now be used in multiple ways, on multiple devices and in varying situations.

The Self-Service Cloud. The advent of the cloud for servicing individual users opens a whole new level of opportunity. Every user can now have a scalable and nearly infinite set of resources available for whatever they need to do. This creates the need for an IT infrastructure that allows users to make their own choices about applications, services and content, selecting from a nearly limitless collection on the Internet.

The Mobility Shift. Mobile devices combined with the cloud can fulfill most computing tasks, and any tradeoffs are outweighed by the convenience and flexibility provided. At any point in time, and depending upon the scenario, any given device will take on the role of the user's primary device — the one at the center of the user's constellation of devices.

"The combination of these megatrends, coupled with advances in new enabling technologies, is ushering in the era of the personal cloud," said Kleynhans. "In this new world, the specifics of devices will become less important for the organization to worry about. Users will use a collection of devices, with the PC remaining one of many options, but no one device will be the primary hub. Rather, the personal cloud will take on that role. Access to the cloud and the content stored or shared in the cloud will be managed and secured, rather than solely focusing on the device itself."



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