Desktop Virtualization for K-12
ViewSonic® Endpoint Solutions

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SUMMARY:

Endpoint flexibility maximizes your desktop virtualization investment and allows for future scalability to meet your school's evolving needs. ViewSonic® VDI endpoints offer forward-looking adaptability with logo-certification for all major remote networking protocols including Citrix® HDX, hardware accelerated PCoIP® for VMware®, and Microsoft® RDP with Remote FX™.

There can be no doubt, access to technology improves learning outcomes. With the 2010 ProjectRED research revealing that schools with a 1:1 student-to-computer ratio outperform non-1:1 schools on both academic and financial measures[1], school districts became eager to implement 1:1. Today, the push is on for standards-based online testing, with a majority of states having adopted the Common Core State Standards (CCSS) for math and English language arts, and committed to the adoption of computer-based assessment.

However, financial constraints and IT staffing challenges continue to present significant roadblocks to implementation of 1:1, computer-based testing, and other technology initiatives. According to a recent Center for Digital Education (CDE) survey of K-12 IT leaders, 81% of respondents viewed standards-based online assessment as a district priority. Only 18% are currently prepared to implement it, citing cost and a lack of computing devices as the top challenges they face.

Desktop Virtualization for Common Core testing – and beyond

Virtual Desktop Infrastructure (VDI) offers a powerful means of balancing performance and cost, enabling schools to efficiently further their computing technology goals. Recognizing the secure, scalable, cost-effective solution offered by VDI, 82% of respondents in the CDE survey stated their belief that desktop virtualization would enhance testing efficiency.

Benefits of VDI

- Enables cost-effective implementation of 1:1 computing objectives
- Facilitates efficient, cost-effective implementation of standards-based online testing
- Improves availability of computing resources for students, teachers, and staff
- Supports teachers' desire for use of technology to support learning objectives
- Enables rapid application updates and supports instructor objectives
- Centralizes management for reduced maintenance and management costs
- Enhances security against viruses, malware, and data loss
- Scales easily to add resources as needed
- Improves reliability, with typical endpoint lifespan 2x that of a PC
- Uses approximately 80% less energy/user than a typical PC for approx. $30 annual/user savings
- Supports green initiatives with lower energy use and e-waste production
- Reduces TCO with lower endpoint device cost, reduced energy consumption, greater reliability, maximized resource utilization, and reduced management resources

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VDI delivers just-right resources when and where they're needed for each learning level. VDI offers a lower initial hardware cost, less power usage, and fewer maintenance requirements than a traditional PC network implementation, along with the chameleon-like agility to quickly convert from assessment to classroom or other needs. Along with providing customized access to the latest learning software, desktop virtualization can also help facilitate and simplify operating system transitions (such as when migrating from Windows XP® to Windows® 7).

As summed up in the CDE survey, "Desktop virtualization allows schools to use devices for multiple purposes – easily toggling between computer labs and testing environments – for a secure, easy-to-manage and cost-effective solution…. Saving schools up to 57% of labor costs by deploying virtual desktops versus traditional PCs."[2]

Improving TCO for improved learning outcomes

Ultimately, the power of VDI rests in its ability to substantially reduce TCO while increasing access to computing resources, thereby resulting in greater satisfaction among administrators, teachers, students, and parents.

As a general guideline, VDI endpoints use about 80% less power each and typically last twice as long as a traditional PC. The more VDI endpoints deployed, the greater the savings. Whether VDI is implemented for one testing lab or several district-wide initiatives, TCO will be lowered for each endpoint due to the:

• Lower cost of endpoint hardware
• Reduced staffing requirements for deployment,
   maintenance, updates, and helpdesk support
• Reduced energy consumption
• Reduced air conditioning requirements
• Maximized use of resources

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ViewSonic VDI endpoint advantages

ViewSonic has embraced the move to desktop virtualization, recognizing it as a natural complement to our diverse portfolio of display solutions. Building on a 25-year heritage as a desktop technology leader, ViewSonic offers one of the broadest available VDI endpoint client portfolios. The only brand offering a full line of smart display clients with Android™, as well as traditional thin and zero clients, ViewSonic offers a unique mix of endpoint device options to address the range of K-12 needs.

Smart display clients

When limited resources prevent implementation of a full VDI initiative, ViewSonic smart display clients with Android offer a smart alternative. With Citrix® XenMobile™ and Worx Home pre-installed, these innovative endpoints enable deployment of SaaS and web applications without the need for backend infrastructure, delivering a high-performance, low-cost virtualized environment.

Featuring a high-resolution LED touchscreen that mimics the tablet experience, ViewSonic smart display clients offer ideal agility, security, and performance for implementation of computer-based standardized testing. Easily provisioned via the centralized management software to deliver content and apps based on class, time, day, or other factors, the smart display clients offer complete lockdown security of sensitive student information and test data.

When test time ends, smart displays are quickly repurposed for other uses as needed. Students and teachers experience high-performance web browsing and use of approved applications that deploy instantly upon log in, while IT maintains complete centralized control from initial activation. Links to approved SaaS apps can be easily managed across all devices, groups, and locations with Citrix Worx Home, empowering teachers to create individualized libraries of approved apps from thousands of available third-party cloud-based applications. Students see only what's approved for their use, and work efficiently with the comfort of a large LCD screen, keyboard, and mouse.

Compatible with all Citrix products, ViewSonic smart display clients can also run local Android apps, or be used with XenDesktop virtual desktop deployments. In short, they deliver everything asked of the Chromebooks and other tablets being deployed in many school districts – and so much more.

ViewSonic smart display client benefits

- Rapid, low-cost desktop deployments
- Eliminates need for backend infrastructure
- Natively run local applications and multimedia, reducing demand on backend PC servers
- Responsive, tablet-like browsing experience
- Full HD touch display function for connectivity with PCs, notebooks, or tablets
- Easily mounts on monitor stand or wall
- Ideal for graphic design, video production, and advanced applications requiring professional monitor performance

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Thin and zero clients

At less than half the cost of traditional PCs, ViewSonic thin and zero clients offer a budget-smart option for provisioning schools for online testing as well as for use in classrooms, libraries, and learning labs. An additional benefit, within or without a virtualized environment, ViewSonic thin clients can also be deployed to deliver cost-effective boot-and-go web browsing at less than half the cost of PCs.

ViewSonic thin clients are certified for, and ready-to-go out-of-the-box with Citrix® XenDesktop™, VMware® Horizon View™, and Microsoft® RDP. Embedded with powerful technology from industry leaders like Intel, Microsoft, Teradici, and Texas Instruments, they deliver the computing power schools can rely on to satisfy the evolving needs of students at all levels. Included device management software delivers powerful centralized control for an entire thin client network.

Optimized for VMware Horizon View, ViewSonic zero clients deliver the highest levels of security and reliability in a virtualized desktop environment running on VMware. Plus the computing power and scalability to quickly and efficiently accommodate everything from routine use in elementary classrooms, to robust and processor-intensive programming, 3D graphics, and research applications for secondary schools and advanced classes. This can all be simply and centrally managed with the free Teradici® PCoIP® Management Console.

All ViewSonic thin and zero clients feature an innovative stand design that easily converts for rapid mounting onto VESA-compliant displays.

Integrated zero client displays

For graphics-intensive usage or when it's time to refresh displays as well as endpoint hardware, ViewSonic offers integrated zero client displays optimized for districts and schools running VMware environments. Powered by Teradici processors and offering high-resolution dual-display functionality, ViewSonic integrated zero client displays support 2D/3D graphic applications and deliver a rich multimedia experience ideal for engineering labs, graphic design classes, and other graphics-intensive uses.

ViewSonic zero and thin client benefits

- Empower students with efficient, personalized desktops on each log in
- Update computer labs in minutes rather than days or weeks
- Rapidly provision and update classroom systems for multiple classes and instructors
- Reduce endpoint device costs by 50% over PCs
- Free up desk space and reduce power consumption by up to 80%

ViewSonic integrated zero client display benefits

- Desktop virtualization in an integrated, space-saving design
- High resolution for graphics-intensive applications
- Dual monitor functionality for enhanced productivity
- Ideal for engineering, graphic design, and other areas requiring professional-level graphics

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Flexibility for the future

Endpoint flexibility maximizes your desktop virtualization investment and allows for future scalability to meet your school's evolving needs. ViewSonic VDI endpoints offer forward-looking adaptability with logo-certification for all major remote networking protocols including Citrix HDX, hardware accelerated PCoIP for VMware, and Microsoft RDP with Remote FX. All ViewSonic VDI endpoints integrate professional-grade components from technology leaders, and offer feature-rich specification sets to support evolving requirements and deliver years of productive use.

ViewSonic backs our VDI endpoint product portfolio with a three-year warranty and our more than 25 year reputation for customer-focused service and support. With an entrepreneurial drive to exceed our customers' expectations, we deliver value beyond the price of our products, but also in the strength of our partner relationships, and quality of our components, manufacturing, specifications, and support.

For more information,
please contact ViewSonic
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[1]ProjectRED 2010 National Study, Revolutionizing Education through Technology.
[2]Desktop Virtualization for K-12, Acing the Transition to Online Testing for Common
 Core State Standards, Center for Digital Education strategy paper, 2013

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