



WHITE PAPER

# BYOD and K-12: Building Blocks to Universal Learning Environments

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## Table of Contents

<b>Overview.....</b>	<b>3</b>
<b>Universal Access &amp; BYOD.....</b>	<b>4</b>
<b>Addition through Subtraction .....</b>	<b>4</b>
<b>Education on Demand.....</b>	<b>5</b>
<b>Technical Considerations.....</b>	<b>5</b>
<b>What BYOD Can Teach K-12 Organizations .....</b>	<b>6</b>
<b>Summary .....</b>	<b>7</b>

## Overview

The emergence of BYOD, the ubiquitous acronym for Bring-Your-Own-Device, offers unique opportunities for K-12 schools. While often framed as a technology initiative, BYOD offers far reaching benefits and advantages for students, teachers, administrators and parents, as well as school IT staff:

- Teachers can easily gain access to learning environments and applications from home and other remote locations.
- Students, increasingly equipped with the latest smartphones, tablets and mobile devices, now have the capability to connect with teachers and curriculum beyond the classroom.
- School administrators can deliver 1-to-1 computing initiatives across technical and socio-economic barriers, even with reduced budgets and rising costs.
- Parents have tighter and more immediate access to school administrators and teachers as well as their child's learning curriculum
- Cash-strapped IT departments can extend the life of existing technology infrastructure, centralize resources and improve the quality of support to students, faculty and staff
- BYOD programs help to reduce device inventory and support overhead

Drawing from many successful BYOD deployments at K-12 schools and interviews with leading technology consultants and school administrators, this white paper explores the lessons learned and key building blocks of a universal learning environment.

## Universal Access & BYOD

A primary goal of universal access and BYOD initiatives in K-12 is to ensure accessibility to web and Windows-based core curriculum and instruction, regardless of a teacher or student's location or the endpoint device they are using.

Successful BYOD initiatives require the flexibility and scalability to support a broad range of devices across different platforms, including iPad, Android tablet, smartphone, Chromebooks, Windows / Linux PC, Mac or netbook. By providing universal access to hosted and centrally managed desktops and applications across many devices, schools can be well-positioned to eliminate the technical and financial barriers typically associated with 1-to-1 computing programs.

Additionally, leveraging browsers to provide device-agnostic access to web and Windows-based applications, desktop and services, schools can extend the life of existing computer resources without compromising the user experience.

## Addition through Subtraction

Each year as budgets get tighter, schools and their staff must find creative ways to deliver the best learning environment and classroom experience for their students. BYOD can play a key role in helping schools do more with less.

Stretched IT departments are often tasked with supporting thousands of users, endpoints and multiple school locations within a district. By enabling students, teachers and parents to leverage their own personal devices, schools don't have to purchase, maintain or support as many desktops, laptops and tablets.

Moreover, by taking advantage of clientless, browser-based access technologies, schools can provide access to centralized resources across a broad array of devices without having to worry about maintaining and installing software and patches for the devices. This not only provides always-on access to computing resources, but also reduces the time and costs associated with maintaining and supporting endpoint devices, which can be significant.

## Education on Demand

Combining BYOD initiatives with browser-based access to hosted learning environments provides endless opportunities for teachers and students to overcome the constraints of traditional learning. For one thing, they no longer must be physically located within the confines of a school or classroom to teach, learn and be productive.

Furthermore, with the appropriate infrastructure in place, BYOD can extend the school day. Teachers can create lesson plans from home or use their own devices inside the classroom. What's more, students and parents have the capability to work on projects after hours. In either scenario, schools that embrace BYOD create on-demand environments that both extend and increase the flexibility of the learning process.

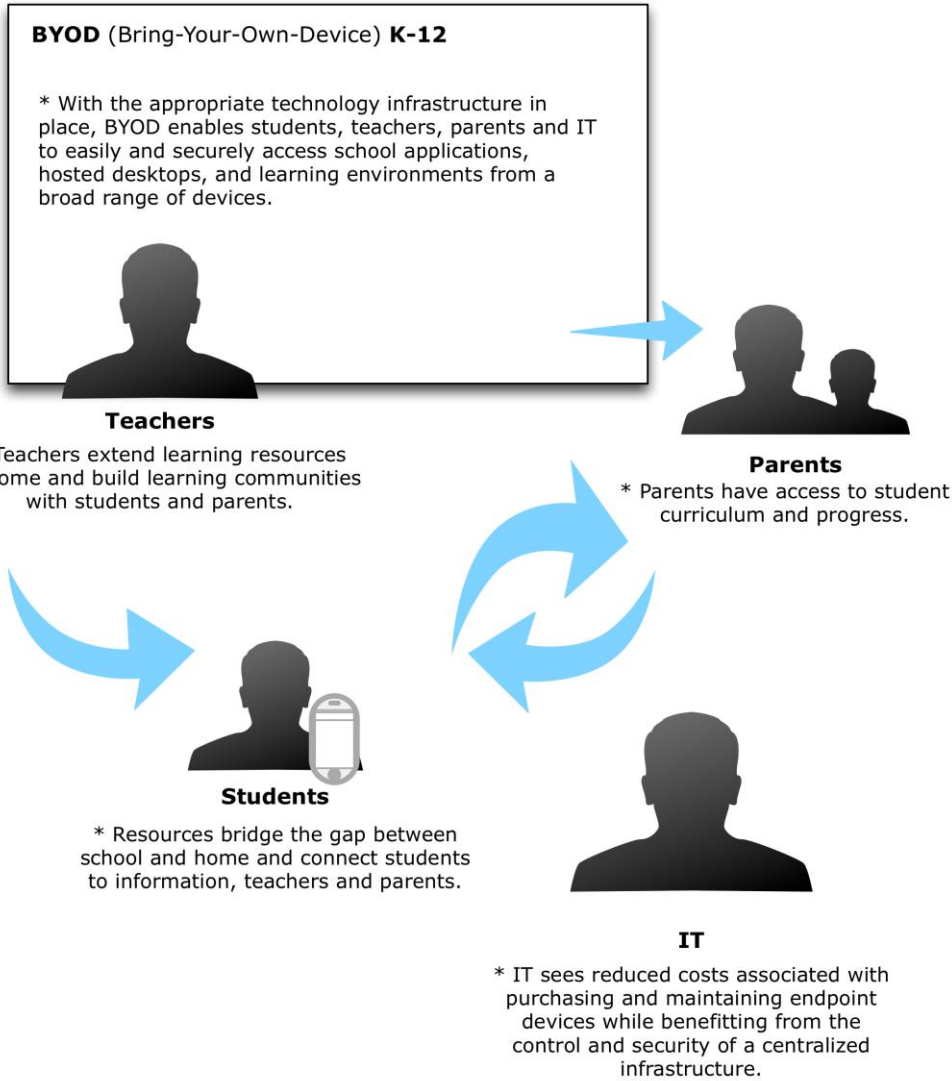
## Technical Considerations

Remote access, virtualization and connection broker technologies, such as Ericom's AccessNow and PowerTerm WebConnect, working in sync enable schools to deliver secure, universal and managed access to centralized computer resources via standard web browsers. In these environments, a user's desktop and applications run on a host server, not on the endpoint device such as a desktop, laptop, tablet or smartphone.

The key to streamlining virtualized environments is making browser-based access easy and simple for the user and eliminating the need to download and manage special software on the endpoint device when initiating a session. Ericom's HTML5, web-based access technology, supported by leading connection brokers from Ericom, VMware, Citrix and Quest, facilitates connectivity to virtual desktops and applications using any HTML5-supported browser, including from Chromebooks. This makes access to desktops and applications easy and significantly reduces technical support issues.

The advantages of HTML5-based solutions give schools the capability to streamline their technology infrastructure, yet serve more users via leveraging personal devices. From an IT perspective, less time is required to administer ongoing patch and configuration management, or support individual devices because everything is maintained and delivered via a centralized platform, web browsers and the Internet, and nothing is installed on the endpoint device.

## What BYOD Can Teach K-12 Organizations



- BYOD can extend the school day and allows teachers, students and parents to continue learning inside and outside the classroom
- BYOD democratizes learning environments by offering all students the capability to access curriculum across a broad array of cost-effective devices
- BYOD provides the capability to deliver the best learning experience that traverse technology and socio-economic barriers
- BYOD helps to extend the life of a school's existing infrastructure by enabling universal, device-agnostic access to centrally hosted desktops and applications
- BYOD enables IT staff to do more with less, and focus on pertinent infrastructure and curriculum-related projects

## Summary

Even with school budgets shrinking, K-12 schools can find creative ways to stretch their IT investment without compromising the delivery of quality educational services. BYOD offers the unique opportunity to implement interactive learning environments that leverage the power and ubiquity of personal devices.

The needs of students and teachers, as well as administrators, IT staff and parents should be carefully considered as they all are critical stakeholders that can determine the success or failure of a BYOD initiative.

Through BYOD, schools can deliver optimal learning environments for students and empower teachers to be more creative. IT staff can be more progressive and proactive and school administrators can implement 1-to-1 computing programs across their student population. Finally, parents can be integrated into the learning process, ensuring a tight connection between teachers, the school and their children.

## About Ericom Software

Ericom Software is a leading global provider of Application Access, Virtualization and RDP Acceleration Solutions. Since 1993, Ericom has been helping users access enterprise mission-critical applications running on a broad range of Microsoft Windows Terminal Servers, Virtual Desktops, legacy hosts and other systems. Ericom has offices in the United States, United Kingdom and EMEA. The company has an extensive network of distributors and partners throughout North America, Europe, Asia and the Far East. Ericom's expanding customer base is more than 30,000 strong, with over 7 million installations.

For more information on Ericom's products and services, contact us at the location nearest to you. And visit our web site: <http://www.ericom.com>

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