



# Reduce the Cost and Complexity of School Technology Initiatives

## Overview

Classroom technology initiatives are designed to deliver a more focused learning experience; one that emphasizes individual learning and best outcomes. The use of technology tools like the HP ProBook x360, powered by the Intel<sup>®</sup> Core™ i5 processors, aim to engage students so they are more motivated and excited to learn. Yet personalized technology initiatives can put a strain on school IT departments (and budgets) tasked with lifecycle management of school-issued devices. New device-as-a-service (DaaS) solutions are bundling support services with device contracts to eliminate capital expense while lowering ongoing maintenance impact. Read this white paper to learn how DaaS is evolving to help K-12 public and private schools minimize the cost and complexity of classroom technology initiatives.

## Classroom Technology Challenges

Education challenges are in constant change, transitioning from technology adoption to the need for 24/7 learning, and now a focus on delivering customized end-user experiences with devices capable of supporting highly tailored curriculums. With each new educational challenge comes the need to upgrade school technology to satisfy these demands. Yet as many as 38.2 percent of surveyed educators report outdated technology as a barrier to quality education in their district while another 30.9 percent say they struggle with unreliable device/software options.<sup>1</sup> As a result, many schools are adopting personalized device programs to outfit students and educators with appropriate classroom technology designed for customized curricula tailored to students' needs.

**38.2%** of surveyed educators report outdated technology as a barrier to quality education.<sup>1</sup>

## Challenge #1: User-centric Technology

One-to-one computing provides students and teachers with PCs, notebooks, tablets, and mobile devices to support the demands of modern curriculums and to support collaboration and information sharing. The benefit of classroom technology initiatives is clear, as it can improve student outcomes. In fact, providing a device for every student reportedly increases

student achievement, including improved test scores in English/language arts, writing, math, and science.<sup>2</sup> It also supports more student-centered instruction, more student engagement, and advances collaboration between students and teachers via the use of cloud, email, and chat-based technology for communication.

***More than 75% of educators say budget limits are a key challenge to providing access to education technology.<sup>1</sup>***



## Challenge #2: New Demands for Service and Support

The challenge of deploying technology in the classroom comes in the form of increased demand for support and services. School IT departments lack the staff needed to service and support the increased number of devices, including deployment and ongoing management and troubleshooting of technical problems that consume IT time and resources. Consider these statistics on the IT impact of devices:

**50%**

of IT managers say the spend too much time procuring and managing devices.<sup>3</sup>

**63%**

of IT managers say IT time can be better spent on security and digital transformation.<sup>3</sup>

**55%**

of IT managers say they need to device life cycle management.<sup>4</sup>

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## The IT Impact of Academic Transformation

Along with classroom technology challenges comes the difficulty associated with aligning school infrastructure with academic transformation. Today's schools are leveraging breakthrough teaching and learning models to advance student and educator capabilities. Generic delivery of educational content is being replaced with a focus on customized curriculums in which students are given the opportunity to learn at their own pace—using innovative technology tools to help them engage with coursework in a tailored way that fits their learning style and requirement. Examples of academic transformation include:

### Adaptive Learning

Adaptive learning adjusts the pace of content that is delivered to the student and allows him or her to advance as they master the material. One study indicates that students in an accelerated, adapted statistics course scored six times better than counterparts in traditional courses—and in half the time.<sup>5</sup> Another study showed a 27 percent pass rate increase and 9 percent retention rate increase and 10 percent boost in final grade average with adaptive learning in place.<sup>5</sup>

### Immersive Learning

To prepare students for the science, engineering, and math-based careers of the future, many school districts are turning to immersive learning that uses augmented reality, virtual reality, and gamification as tools of the learning trade. The K-12 game-based learning market is expected to grow 28 percent through 2021.<sup>6</sup> These tools require advanced processing power like that found in the HP ZBook mobile workstation powered by Intel® Core™ i7 processors and configured with Windows 10.<sup>7</sup>

## DaaS for Device Deployment and Management Ease

### DaaS Adoption on the Rise

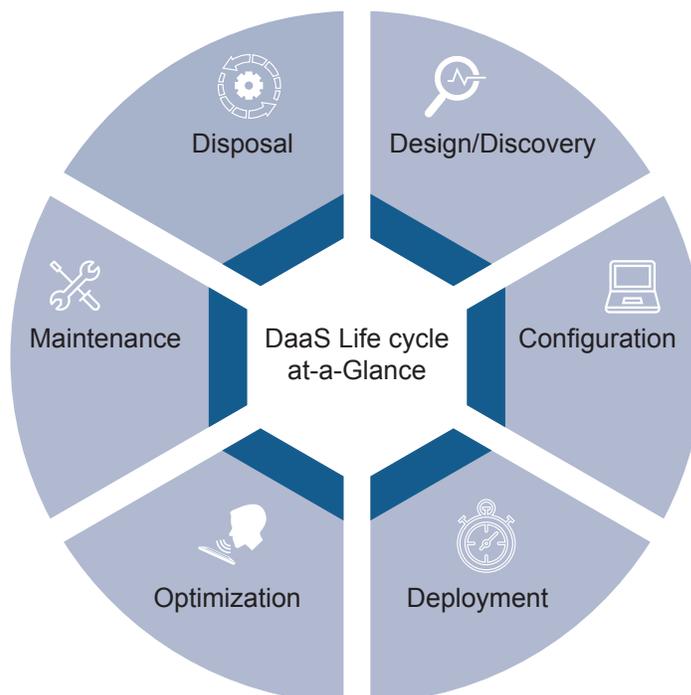
- **66% of IT managers say DaaS will improve device management.**<sup>4</sup>
- **IT decision makers say DaaS can deliver 24% cost savings.**<sup>4</sup>
- **PC refresh cycle can be shortened by more than six months with DaaS.**<sup>4</sup>

To ensure technology investments align to better student outcomes, and to mitigate the cost and complexity of technology deployment, many school IT departments are looking toward a DaaS approach, like that offered by HP Device as a Service solutions. These solutions remove the burden of technology from the learning process, and ensure that students and educators are equipped with technology that allows them to focus on education delivery, and not device management or configuration. DaaS services can be bundled to include the cost of hardware, software, and accessories to eliminate billing and budget complexity. This approach unitizes device capital and operating expenses into a single, affordable fee that eliminates the need to budget and pay for devices and lifecycle management separately.

An IDC study indicate that as many as one-quarter of IT managers in the private sector are looking to adopt DaaS and 20 percent have plans to launch a DaaS initiatives within 12 months.<sup>8</sup>

Education IT professionals can also benefit from adopting DaaS solutions like HP DaaS to solve myriad technology challenges that include:

- **Capability:** DaaS simplifies the deployment of world-class computing solutions like HP ProBook x360 powered by the Intel® Core™ i5 processor configured with flexible form factors that adapt to user preferences and support modern curriculum that includes online learning, immersive learning, and adaptive learning.
- **Security:** DaaS helps schools to close security gaps with PCs and devices configured with hardware and software security and centralized management of security setting to ensure secure student and staff use and to safeguard user identities and data on school-issued devices.
- **Efficiency:** Outdated or last-generation devices can be easily retired and upgraded with energy-efficient technology that speeds and accelerates classroom learning. DaaS analytics can be used to predict and prevent PC problems before they impact device performance.
- **Affordability:** DaaS hardware is consumed with flexible per-device terms and payment options that includes fixed, pay-as-you-go expense that's aligned with school budgets—making more advanced technology like workstations an affordable option in which schools pay only for the technology they use.
- **Fleet management:** DaaS offerings can be used to simplify life cycle management of school-issued devices with expertise to manage configuration, deployment, retirement, and disposal of devices with less impact on school IT resources.



## Tech Essentials for Modern Education

DaaS eases the burden of upgrading to world-class PCs essential for today's STEM and highly collaborative curriculums that call for a wide range of devices.



As many as 62.1 percent of educators surveyed say that notebooks are among the top three technology that have the biggest impact on learning.<sup>1</sup> The flexible form factors and touchscreen integration on notebooks like the HP ProBook x360 is powered by Intel® Core™ i5 processors and configured with Windows 10 supports blended learning with student capability to type touch, write and draw across many applications.<sup>9</sup>



New desktop innovations like Sprout Pro by HP, an all-in-one PC powered by Intel® Core™ i7 processors, includes 3D imaging that lets students transform physical objects into 3D renderings to bring ideas and educational concepts to life.<sup>10</sup> All-in-one desktops like the HP ProOne configured with Windows 10 and Intel® Core™ i7 processors are configured with touch-screens, business-class collaboration, security features, and space-saving configurations ideal for classroom use.<sup>11</sup>



High-end PCs like the HP ZBook mobile workstation powered by Intel® Core™ i7 processors and configured with Windows 10 feature advanced processing and graphics capabilities to support 3D, CAD, AI, virtual reality, and augmented reality that's used in immersive and adaptive learning initiatives.<sup>7</sup>

## 9 Questions to Ask Before Choosing a DaaS Provider

Getting the most from a DaaS investment is best achieved when the services align with school budget and operational needs. Services should ease and simplify device acquisition, management, and usage while reducing IT workload so education IT staff can remain focused on core technology initiatives.

School districts seeking to adopt DaaS should ask the following questions to ensure the solution aligns with school needs:

1. Does it safeguard students and educators with PC security?
2. Does it allow for technology upgrades to accommodate curriculum changes?
3. Does it align PCs and devices with correct software and hardware configurations?
4. Does it include endpoint management tools to monitor and manage multiple operating systems?
5. Does it offer centralized control and enforcement of device security policies?
6. Can it find and protect data on lost devices?
7. Does it include provisioning of secure Wi-Fi access?
8. Does it offer a wide range of device types bundled with technical support services?
9. Do they have expertise in configuring PC fleets for public and private schools?



Schools seeking answers to these types of questions can rely on the expertise of companies like Virtucom who provide DaaS services to the education sector. By aligning DaaS to educator and student needs, schools can ensure better technology outcomes that support curricula rather than define them.

## Conclusion

The benefits of DaaS services can help schools to advance technology capability with less capital expense while reducing day-to-day IT management tasks. This can result in students and educators having access to world-class PCs and devices like the HP ProBook x360, powered by Intel® Core™ i5 processors to support modern curriculums and especially STEM-based learning, while ensuring secure access to networks and collaboration. Virtucom is an HP Gold Partner founded in 1995 to provide end-to-end technology solutions for public and private schools. Virtucom services 3,000 schools across the country and has deployed technology to as many as 3 million students with technical support and lifecycle management, including DaaS and onsite technical solution services designed for school needs.

**Contact Virtucom at (800) 890-2611 to learn more.**

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<sup>1</sup> EdTech, "The 7 Greatest Challenges Facing Education Technology," Dec. 13, 2017.

<sup>2</sup> Education Week, "One-to-One Laptop Initiatives Boost Student Scores, Researchers Find," May 2016.

<sup>3</sup> HP, "Transform the Role of IT," accessed April 2018.

<sup>4</sup> IDC, "Transforming Device Lifecycle Management with Device as a Service," Nov 2017.

<sup>5</sup> Acrobatiq, "What Student Outcomes Say About Adaptive Learning," May 2016.

<sup>6</sup> THE Journal, "Trends: STEM Game-based Learning to See Surge in Immersive Tech," Aug 2017.

<sup>7</sup> Datasheet, "HP ZBook 15u G3 Mobile Workstation," accessed April 2018.

<sup>8</sup> BizTech, "The Benefits of Adopting a Device-as-a-Service (DaaS) Model," Jan 2018.

<sup>9</sup> HP, "HP ProBook x360 11 G2 EE Notebook PC," accessed April 2018.

<sup>10</sup> HP, "Sprout Pro by HP, Technology that Revolutionized Interactivity," accessed April 2018.

<sup>11</sup> HP, "HP ProOne 400 G3 20-inch Touch All-in-One PC," accessed April 2018.

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