

Intel-powered education appliance

Complement 1:1 e-learning solution by offering an affordable, easy to use, 24/7 Knowledge bank for classrooms and schools

Product Description

In the new era of 1-1 e-learning the classroom is slowly becoming a center for computing.

As part of the Intel Learning Series, the Intel-powered education appliance is an essential piece in completing the 1:1 e-learning solution that delivers additional educational value to schools. It is designed to provide a dedicated computing environment where teachers can create educational activities, promote problem solving and project based collaborative learning, maintain e-content and manage all the Intel-powered classmate PC devices for students. The easy to maintain self supporting design reduces the workload for the school IT staff and teachers by helping them manage and maintain a large number of Intel-powered classmate PCs effectively and remotely.

"As the world moves towards an integrated knowledge society, there will be an increasing need for a populace that is not just literate but also equipped to understand and effectively utilize ICT."




United Nations ICT Taskforce, 2005


Hardware Configurations Reference

	Standard SKU	Advanced SKU
Motherboard	Intel® Desktop Board (DQ45CB or DQ57TM)	Intel® Server Board (S3420GP)
Chipset/PCH	Intel® Q45 Express Chipset or Intel® Q57 Express Chipset	Intel® 3420 Chipset
Processor	45nm Intel® Core™ 2 Duo & Core™ 2 Quad or 32nm Intel® Core™ i3, i5, i7 Processor	45nm Intel® Xeon® processor 3400 series
Vitrualization	Support	Support
Memory Size	4G DDR2 800MHz DIMMs (up to 8G) or DDR3-1333MHz (up to 16G)	16G DDR3 1333MHz DIMMs (up to 16G UDIMM)
ECC Memory	Not support	Not support
Storage	3.5" serial ATA HDD (320GB/7200RPM)	3.5" serial ATA HDD (1.5TB/7200RPM)
Chassis	Micro-ATX chassis with internal 2*3.5" drive bays	Pedestal or Rackmount chassis
Power Supply	80 PLUS® Certified 350 Watt ATX 12V v2.1 power supply	80 PLUS® Certified 400 watt power supply
Peripheral Interfaces	1*DVI-I; 1*DVI-D; 1*1394a; 1*eSATA; 6*USB 2.0; HD Audio	1*VGA; 2*USB 2.0;
Network	10/100M PCI Card +1 Gigabit LAN	Dual Gigabit LAN
Capability	Up to 100 users	Up to 1,000 users



Features and Benefits

 <h3>Networking</h3> <ul style="list-style-type: none"> Internet Access <ul style="list-style-type: none"> - Proxy Cache - Static IP Routing - DHCP Services - DNS Services Security <ul style="list-style-type: none"> - Fire wall - VPN - Anti-Virus - Content Filtering Network Access Control <ul style="list-style-type: none"> - Remote Authentication - Students, Teachers Access Profile - Parental Control Shared Storage <ul style="list-style-type: none"> - Local Storage Capacity - Create & Manage Personal and Shared Folders - Security and Allocation Network Printer <ul style="list-style-type: none"> - USB Attached Printer - Shared amongst students and teachers 	 <h3>Learning</h3> <ul style="list-style-type: none"> Learning/Course Management System <ul style="list-style-type: none"> - Schedule and Course Management - OU Blog and Dimdim Integration - Moodle Learning Activity Management System <ul style="list-style-type: none"> - Manage & Deliver Onling Collaborative Learning Activities - Highly Intuitive Visual Authoring Environment for Content Development and Collaboration Wiki <ul style="list-style-type: none"> - Joint Creation & Sharing of Documents and presentations School Conferencing System <ul style="list-style-type: none"> - Synchronized Live Presentations whiteboards and Web Pages - Share Locally or Over the Internet Mail Services <ul style="list-style-type: none"> - POP, LMAP, Webmail Anti-SPAM & Anti-Virus - Fast Info Exchange among Students and Teachers 	 <h3>Administration</h3> <ul style="list-style-type: none"> Graphical User Interface <ul style="list-style-type: none"> - Zero Touch with Pre - configuration-Simple easy-to-use interface to Manage all Service and Functions Remotely Theft Deterren <ul style="list-style-type: none"> - Theft Deterrent Protection for Classmate PCs (CMPCs) - Boot and Time Expiration Image/Data Management <ul style="list-style-type: none"> - Remote Image/Data Backup and Recovery for Classmate PCs - Support Image Provision to Multiple CMPCs Concurrently - Automatic and/or Manual System Backup Student Info Management <ul style="list-style-type: none"> - Dirmographic, Class Scheduling, Performance Transcripts, Attendance and more Asset Management <ul style="list-style-type: none"> - Provides system information (versions, releases, configures) of the Classroom Asset Full Reporting System <ul style="list-style-type: none"> - Use of Internet Access, Storage, Printer and other Shared Resource Usage can be Monitored
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 <p>Lower TCO</p>	<p>Out-of-Box Experience</p>
	<p>24/7 Knowledge Bank</p>
	<p>Easy to Use & Maintain</p>
<p>Flexibility & Scalability</p>	<p>Classroom Productivity</p>



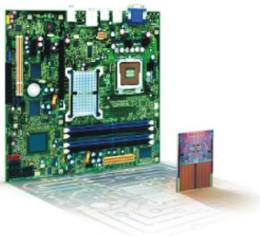


Take Advantage of Intel® Virtualization Technology

Intel® Virtualization Technology (Intel® VT) consists of components that support virtualization of platforms based on Intel processors, thereby enabling multiple operating systems and applications, also known as virtual machines (VMs), to run concurrently on a single platform without interfering with each other. This hardware-based virtualization solution, along with virtualization software, helps to:

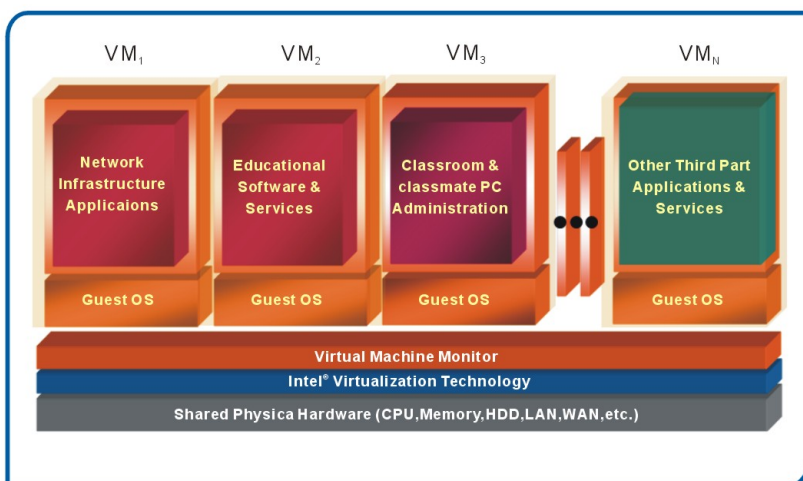
- Reduce platform proliferation and investment costs
- Improve reliability, availability, and security of applications running in virtual partitions
- Simplify IT infrastructure, as well as reduce management costs.
- Speed data movement, and reduce CPU utilization

The Intel-powered education appliance adopts the desktop board from Intel Server Platform Group (SPG) with unique advantages:



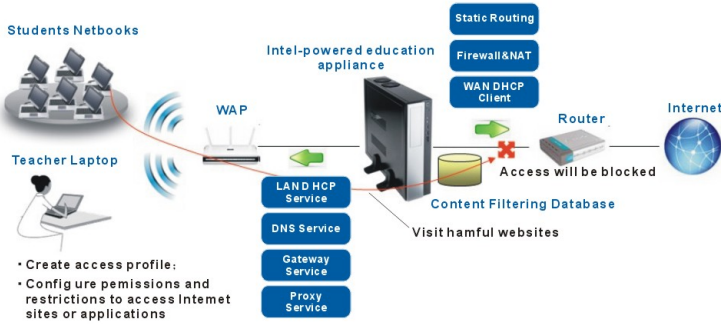
- Low cost board supports Intel® VT for Directed I/O (Intel® VT-d)
- Significant power saving compares to typical motherboards Optimize the performance of Intel® processor

Intel-powered education appliance SW Architecture based on Intel® VT



Usage Models

Networking

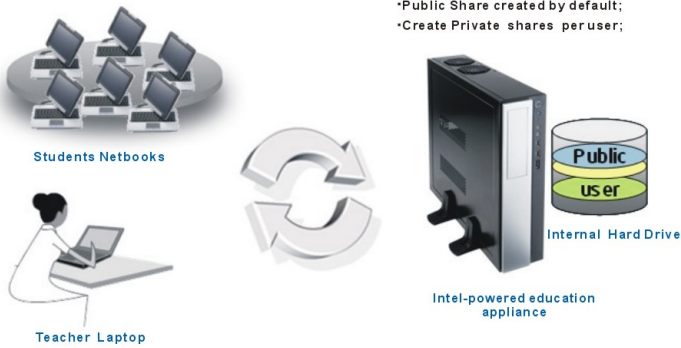


Asset Management



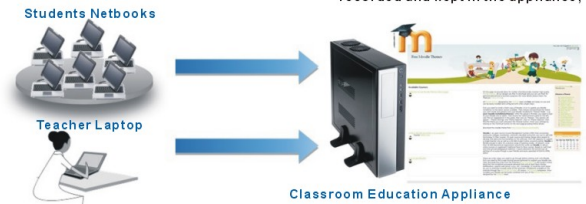
Storage/File Sharing

- Dedicated file storage for each student and teacher accessible from any computer on network;
- Simple file exchange feature between students and teachers;



Learning Management System

- Group learning is enabled based on the features, like wiki, forum, blog running on the appliance;
- Learning results are evaluated by survey/quiz/assignment which is designed by teachers and stored in the appliance;
- Web based interface for users to login through network;
- All courses are stored in the appliance and can be shared among teachers;
- Students scores/performance are recorded and kept in the appliance;



- Structure courses and related activities based on the appliance;
- Assign courses/learning activities to students;

Solution Provided By



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