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ICT-based education, has been applied to a variety of aspects, such as teaching, scientific research, and campus management. New technologies like big data and cloud computing are gaining increasing popularity in the education industry, changing both education models and ICT development. ICT-based education has become a mega-trend for the industry.

For higher education (HE), many colleges or universities are integrating new technologies with their core services like teaching and learning, research, management, and public services. Some even built SDN-based, next-generation, intelligent campus networks and large-scale data centers to bear teaching and research applications.

Basic education (K12) aims to develop the education management and resource sharing platforms to enable “school-to-school”, “class-to-class”, and “person-to-person” connectivity. ICT-based education features mobility, intelligence, and cloud, extending education coverage using advanced technologies. This offers a new approach to universal, high-quality, and life-long personalized learning.

With over two decades of experience in the ICT field, Huawei provides comprehensive ICT solutions, such as the education cloud, smart campus and smart classroom solutions, to promote modern education development. These solutions usually include some sub-solutions which may be applied for higher education (HE) or basic education (K12) or both.
Introduction

The application of computer and network technologies accelerates campus information construction into the era of “digital campus” construction. Nowadays, new technologies, such as cloud computing, IoT, and big data, promote ICT-based education development, transforming digital campuses into smart ones.

ICT systems in a smart campus:
- Supports teaching and research: HPC support data-intensive scientific research.
- Optimizes service quality: The virtual DC bears application of academies, integration of schools, and provides services based on roles.
- Enables unified decision-making: The DC comprehensively provides real-time information about the overall view data of campus, supporting unified decision-making.

Smart campus development relies on agile and reliable ICT platforms, including complete wireless network coverage, wireless campus, comprehensive security protection and IoT.

Huawei’s ICT infrastructure solutions provide the smart campus with environment sensing, mobile Internet, Big Data analysis platform and so on, establish a smart learning environments for the campus information construction.
Agile Education Campus Network Solution

Background

Today’s innovative teaching and learning models are becoming increasingly dependent on IT systems and networks. Traditional campus networks, however, are no longer able to provision innovative services. A better connected education system, which builds on an open architecture and features effective information sharing, efficient interaction, and close collaboration, is a viable solution. This new system modernizes education and makes it more intelligent by introducing more Internet learning paradigms, building information-rich IT platforms that integrate huge volumes of teaching resources, and delivering more interactive, engaging teaching and scientific research.

Huawei’s Agile Education Campus Network Solution powered by Software-Defined Networking (SDN) has made new enhancements and innovations in quality awareness, smooth evolution, and full programmability. The Agile Controller functions as the “brain” of the agile campus network, agilely and intelligently managing network-wide policies. By executing policies issued by the Agile Controller, the agile switch centrally authenticates access of both wired and wireless users. The flat network structure simplifies service provisioning and Operations and Maintenance (O&M), and the core layer centrally delivers and manages services.

Huawei’s Agile Education Campus Network Solution is designed with a variety of features that contribute to construction of innovative campus networks. Key features include:

- **Smooth campus network experiences:** The 100G campus network core guarantees high network bandwidth, low latency, and zero jitter. At the access layer, wireless access users can seamlessly roam through Huawei’s all-Wi-Fi coverage solution for classrooms, dormitories, libraries, stadiums, and squares. Huawei’s Agile Education Campus Network Solution helps schools carry out innovations on Big Data analytics, Internet of Things (IoT), Massive Open Online Courses (MOOCs), and High-Performance Computing (HPC), etc.

- **Precise network policy management:** Based on SDN concepts, this solution performs intelligent awareness of user access by using a centralized policy management and control server to work with agile network devices. Wired and wireless campus networks can be centrally managed. User experience consistency is managed and controlled in the Policy Center, so that users can obtain consistent service experiences anywhere, anytime, using any terminal.

- **Simplified network O&M and management:** This solution achieves wired and wireless network convergence by virtualizing devices on the core, aggregation, and access layers into “one device” for management, significantly simplifying network management. The solution also implements real-time quality awareness and precise fault location using Huawei’s unique network-wide quality awareness technology, without occupying additional network resources. As a result, the solution makes campus network troubleshooting more intelligent.

Huawei Solution

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By leveraging SDN concepts, Huawei’s Agile Education Campus Network Solution enables network-wide, collaborative service control, service agility, and on-demand resource scheduling, bringing you an optimal service experience.

- Non-blocking access to digital education resources: As colleges and universities differ in sizes, campus networks provide diverse services, such as Internet browsing, Point-to-Point (P2P) downloads, resource sharing, Video on Demand (VoD), and interactive teaching. Regardless of these factors, Huawei’s solution provides a smooth user experience that is free from slow progress, image pixelation, and frame freezes. Huawei’s solution builds a 100G core backbone scheduling network, and implements full coverage, seamless roaming, comprehensive security protection, and optimal experiences using 802.11ac WLAN products that enable all-Wi-Fi access.

- Intelligent awareness, fine-grained network resource allocation: The campus network is aware of user identities and access scenarios, so network administrators can perform refined network management based on specific user identities and campus services. In this way, campus networks can be used to the fullest, and campus security is guaranteed.

- Simple O&M: Huawei’s solution frees network administrators from complex technical terms, tens of thousands of network devices, tedious manual network configuration, and time-consuming manual troubleshooting. As a result, network administrators can focus on improving user experiences and service innovation. What’s more, the agile network automatically completes the burdensome configuration work. Huawei’s Agile Network Solution is designed for innovation and new services. It enables a service evolution speed that is many times greater than the industry average, thus quickly accommodating user demands and helping schools stay ahead in educational IT system construction.

Customer Benefits

- Newcastle University in the UK: Builds World’s First 100G Campus Network
- Tsinghua University in China: Pioneers in Smart Campus Network Construction
- Southern Cross University (SCU) in Australia: Builds a Better Connected Campus Network
- Universiti Putra Malaysia (UPM) in Malaysia: Builds APR’s First 100G Smart Campus Network

Agile DC Network Solution

Cloud Computing materializes the vision of utility computing rather than Shadow IT. Tenants can benefit from on-demand provisioning of networking, storage and compute resources according to a pay-per-use business model. And the IaaS model can bring the low cost for the University or Education industry, but at the same time, networking issues in IaaS and networking and federation challenges that are currently addressed with existing technologies.

With the coming of the education mode change, more new things like MOOC (Massive Open Online Course) comes. This ask even larger bandwidth requirement in the University DC. This is really important for the experience for the new education mode.

Background

Smart Campus

Huawei Smart Education Solutions
Software Defined Networking (SDN) is a concept which provides the network operators and data centres to flexibly manage their networking equipment using software running on external servers. According to the SDN framework, the control and management of the networks, which is usually implemented in software, is decoupled from the data plane.

Based on the Software-Defined Networking (SDN) concept, Huawei’s Agile Network Solution achieves architectural. Huawei’s SDN solution has two main components: industry-leading CloudEngine series data center switches and an Agile Controller. The solution uses a service oriented open architecture to centrally allocate ICT resources through the Agile Controller and cloud platform based on specific service requirements. The Agile Controller can parse the service language and connect to multiple mainstream cloud platforms to provide an application-oriented cloud network. The cloud platforms can be used to uniformly schedule network, computing, and storage resources. So Share the utility computing resource in a university range comes true.

To improve the experience of different education mode, make the network not the bottle neck of the system. With CloudEngine Huawei released the industry’s first 100G Interconnection + 25G Access Data Center Solution for next-generation data center systems. The solution upgrades data center switching systems from 10G/40G to 100G interconnections and server access from GE/10 GE to 25 GE, while supporting data center switching development for user requirements.

You can gain the following advantages from Huawei’s Agile DC Network Solution for colleges and universities:

- **Elastic**: CloudEngine switch delivers high speed for GE/10GE/25GE/40GE/100GE evolution. This can be used as the DC or even the connection between DCs or Campus.
- **Simple**: Agile Controller one click service delivery. Make the Service more easier and make the resource sharing more easier.
- **Open**: Huawei’s all-round open architecture and cooperation with mainstream IT vendors enable Huawei to offer a variety of SDN solutions, including Virtual Machine (VM) network policy migration, VXLAN/NVGRE virtualized gateway and management automation.

**Huawei Solution**

By leveraging the SDN concept, Huawei’s Agile DC Network Solution enables network-wide, collaborative service control, service agility, and on-demand resource scheduling, bringing you an optimal service experience.

- **Excellent experience**: CloudEngine provide GE/10GE/40GE/100GE evolution which can adapt to the requirement of the MOOC and so on.
- **Flexible service provisioning**: Huawei’s solution uses an innovative large Layer 2 network architecture (Vxlan), satisfying the requirements for rapid online service deployment. Devices on the entire network are virtualized into a single device, And all the configuration of the DC can be delivery automatically in a short time. Make the utility computing real.
- **Simplified Operations and Maintenance (O&M)**: Provide different tenant the separate view to management their owed network. Provide the tools to make the network trouble shooting and maintenance more easier.

**Customer Benefits**

**Success Cases**

- Alibaba: Help to build the Ali Cloud service for the largest e-commercial web site
- EVRY: Building a Automate Cloud Network for the Largest DC service provider in Nordic
- Newcastle University in UK: Builds World’s First 100G Campus Network
- Southern Cross University in Australia: Building a Better Connected Campus Network
High-Performance Computing (HPC) Solution

Background

High-performance computing (HPC) centers are a crucial part of the infrastructure for scientific research in universities, but they have high requirements on the floating-point computing performance of unit density, high-bandwidth and low-delay communication between computing nodes, large-scale parallel storage, and management systems.

Huawei’s HPC solution covers infrastructure, hardware resources, system environment, cluster management, service platforms, and industry applications. In terms of infrastructure, Huawei provides modular DCs and container DCs. In terms of hardware resources, Huawei provides various storage devices, IB and GE switches, as well as blade servers and rack servers that can work with GPGPU and PHI. At the software level, apart from providing self-developed cluster management and device management software, Huawei also works with many high-performance cluster software manufacturers and application software manufacturers to perform integration testing and optimization of mature HPC products and parts and to provide HPC solutions tailored to customer services.

By drawing upon its extensive experience in the fields of hardware and software and incorporating application software in the industry, Huawei provides end-to-end HPC solutions. With its design philosophy of system balancing, the architecture of Huawei’s HPC solution is balanced in hardware, software, and services.

- **High performance**: The single subrack floating-point computing performance reaches 42.29 TFlops, and the storage throughput reaches 400 GB/s. High-speed IB network is provided.
- **Unified management**: The evolution of physical clusters to the cloud is made possible through the unified management of cloud and high performance clusters. The management and utilization efficiency increases by 50% through graphical interface management, flexible work submission modes, and user-defined work processes.
- **Integrated and flexible deployment**: The solution reduces the deployment period from weeks to days.
- **Energy efficient**: The solution implements energy-saving measures at board and system levels, reducing energy consumption by over 40%.

### Huawei Solution

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ANALYTICS

Smart Campus
Easy management: supports one-hour quick installation, graphical management and monitoring, with management efficiency increased by 50%. Multiple parallel application environments are integrated for users.

Easy extension: adopts single lightweight management process. A single cluster can be extended to thousands of nodes, and integrated management of multiple clusters is made possible.

Complete functions: include all functions required by users or administrators, such as GPU management, job scheduling integration, and cloud computing.

Cost-effective investment: reduces equipment room PUE to 1.2 and energy consumption by 40% at board and system levels. The construction and operation costs are lowered.

Customer Benefits

Success Cases

- Poland PCSS HPC Project: Helps customer reduce data center PUE to 1.2 and ranked at World TOP 80 HPC
- All-in-one HPC for Newcastle University: Reduce service deployment time to 3 days and meet expansion requirement for long term
- HPC Platform for ICM, University of Warsaw: Help Customer HPC enter World TOP 500
Safe Campus Solution

Background

Education is a matter of fundamental importance for generations to come. While developing education informatization and smart campus, violence and incidents occur frequently on campus. Enhancing campus security system has become a critical task to ensure the security of students and the faculty, and to create a harmonious campus.

Campus security involves the tasks of maintaining stable operation of the college and its daily security. With rapid development of modern campus, schools interact frequently with the society, bringing heavier flow of both personnel and traffic, and adversely affecting campus management. The increment of group incidents, robberies and thefts, even criminal cases has been jeopardizing teaching activities and school life.

Huawei Solution

Huawei Campus Security Solution adopts new technologies and standards to manage the persons, assets, threats and events, security team and contingency plans, etc. The networked, intelligent and visualized solution secures a safe campus with smart management of the persons, vehicles and events, and networked and intelligent systems.

Huawei Campus Security Solution

- More frequent social interaction
- More complex ambient environment
- Heavy flow of personnel and traffic
- Common occurrence of robberies and thefts
- Increasing criminal cases
- Out-of-control vicious group incidents
- Frequently-occurring traffic accidents
- Strengthen Defense Methodologies, Enhance Protection Capabilities

Huawei Smart Education Solutions
In tandem with rich experiences in intelligent video, network processing technologies, cloud computing and big data, Huawei launches the next generation campus security solution upon deep understanding of the business requirements and features of campus security. Featuring high performance, security, reliability and easy O&M, the solution provides a fully intelligent surveillance system to safeguard the campus.

**Customer Benefits**

- Tsinghua University: build a 3-dimensional visible security system which helps for seamless management of entire campus
- Education solution in Angola: transformed the pedagogic and management of school, provides the 1st end to end education solution across different provinces in Angola
- Pingshan school in Shenzhen: realized flipped classroom in China, reshape the traditional teaching model for interaction, improve the learning interest and efficiency

**Success Cases**

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**Education Cloud**

**Introduction**

As the cornerstone of educational information, people have attached great importance to the construction of education cloud data center. The end-to-end Cloud Resolution offered by Huawei covers all aspects of hardware, software and services, achieving seamless integration that is convenient for the unified management, operation and maintenance of cloud resources.

As the core and basic facility of the project, the cloud data center carries various applications and data resources that can help education management department at different level to realize resources sharing, fast business deployment and orderly resource allocation. At the same time, the operational status of the cloud host and other equipment in application can be monitored in real-time through networking, thus improving the system administration.

The school cloud data center optimizes its management by integrating application system resources, integrating and sharing basic data as well as integrating the decision support system.

Fusion Cloud provides school staffs with safe working environment, creating one-to-one teaching environment with better interaction between the teachers and the students.

Smart Cloud library stands as a powerful knowledge sharing center, providing rich resources for the assistance of the students’ learning.

The building of the education cloud data center can help construct an agile and flexible education cloud share platform with high efficiency and quality, allowing every student to have an equal chance of accepting education and to enjoy good education, and making quality education stand by your side.
Education Cloud DC Solution

**Background**

Data centers (DCs) are the cornerstone of information technology in education, gathering quality educational resources and supporting many education management services. Fast update of servers, storage, and networks causes procurement costs to soar, it is needed to unified the infrastructure and the service requirements processing. Inefficient resource utilization and complex deployment demand IT systems to detect and respond quickly to the service requirements and meet business development needs, and appropriate service-based resource allocation is needed to manage and utilize dispersed devices.

**Huawei Solution**

The education cloud data center is a distributed architecture to ensure the data center scalability, high available, good experience and easy management.

- **Ministry Of Education(MOE) Data Center**: Using national MOE data center as the main business data center, use cloud data center architecture to sustain the educational applications, such as education resource public service platform, education management public service platform, digital library platform, and desktop cloud system so on, the data center may provide services for different educational organizations.
Save Investment
Establish a distributed data center structure by using cloud computing technology. Integrate the distributed IT infrastructure and reduce investment, bring in higher performance devices, improve resource usage rate, reduce the number of devices and hence hardware investment cost.

High reliability
A cloud disaster recovery (DR) system is available to ensure service continuity and reliability, improves the resource usage rate by times, A E2E security system refer to user management, network security, data security, virtual security and so on.

Agile Management
ManageOne centrally manages data centers. Reduce customer cloud maintenance expenses and the number of maintenance personnel, and lower the maintenance difficulty. The management system management multiple data centers, cloud and non-cloud and L1L2.

Customer Benefits

Success Cases

• Disaster Recovery (DR) Data Center: A cloud disaster recovery system is available to ensure student library, teacher library, school information library, education resources library security and business continuity, such as Data backup, Cloud backup, Active-Active DR, Active-Passive DR, Two-Places-and-Three-Centers and so on, the end-to-end DR solution protect production systems against irrecoverable damage due to various natural and man-made disasters, and deliver world-class disaster recovery services.
• School Data Center: For every school has a data center to sustain campus applications, such as school library system, campus management system, online learning system, desktop cloud system, HPC system and so on and provide IaaS service to school departments.
• Management Center: Multiple data center, include MOE data center, school data centers, DR data center can be unified management by one unified platform which can be deployed in the main data center, unified automatic management of cloud and non-cloud resources, unified management of heterogeneous virtual platforms and devices.
FusionCloud Desktop Solution

Background

Information technology is developed rapidly across the globe. The education industry in most countries has launched a series of initiatives to start an information technology revolution in teaching. Against this background, new concepts, such as smart campus, and virtual school, continue to emerge.

Huawei Solution

In the traditional education field, PCs have the following problems:

• High OAM costs: There is no unified planning and management in various independent teaching scenarios. PCs have high replacement costs. The maintenance efficiency and resource utilization are low. The resource usage is only 5% to 20%. In addition, teaching resources are dispersed and hard to share.

• Poor security: Local disks feature low reliability and difficult fault recovery. USB flash driver access may cause virus infection, resulting in data loss.

• Lack of mobility: Teachers and students have to stay at classrooms in teaching activities.

A desktop cloud allows the computing, storage, and other resources on various terminals to be pooled, virtualized, and centrally managed in a data center so that users can access personal virtual desktops and use cross-platform applications over the network by using cloud terminals, such as thin clients (TCs), browsers, and software clients (SCs).

Excellent user experience

• Adopts key technology to ensure excellent user video and audio experience

• Features sound peripheral compatibility and fast adaptation

• Provides the latest full memory desktop technology to accelerate desktop startup speed

High availability and security

• Implements DC-class reliability design, increasing desktop usability by 10 times

• Provides user-friendly self-service GUI, reducing teachers’ burden

• Performs security control, supporting terminal binding, port control policies, etc.

Open architecture and high scalability

• Is compatible with a variety of servers, storage devices, and upper-layer teaching software, protecting customer investment

• Builds a unified cloud platform to support various scenarios and rapid expansion

• Lowers overall TCO
Customer Benefits

**Efficient management and maintenance**
- Remote management and maintenance in web mode
- Scheduled batch maintenance
- Unified management and alarm reporting for software and hardware
- Well-developed system planning and maintenance tools

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**End-to-end high security**
- Huawei desktop access protocol with high security
- Multiple security authentication modes for accessing virtual desktops
- Interconnection with mainstream digital certificate authentication systems
- Separation of roles and rights- and domain-based management

**Better user experience**
- Lossless compression of characters, images, and HD display of virtual desktops
- Intelligent identification of audio scenarios and high voice quality experience
- Auto-adaptation of video frame rates ensuring smooth video playing

---

**Success Cases**
- TVTC in Saudi Arabia Builds an Efficient Multimedia Teaching Platform
- Addis Ababa University Builds an Efficient Education Cloud Platform
- UK Northumberland College Constructs Electronic Classrooms with Optimal User Experience
Huawei e-Learning Solution

Background
The challenges of education exist in many factors such as students, teachers, campuses, and ministry of government, as following:

• Outdated teaching contents, boring courses, and less learning channels;
• Teaching facilities are backward, and Self-improvement is difficult;
• Lack of excellent teachers, and waste of resources;
• Unbalanced distribution of resource and Backward educational in depressed area;

Because of so many challenges that traditional education faces, it needs a series of new technologies to push the development of education.

Huawei Solution
Huawei e-Learning solution includes: Online Learning, Digital library and e-Management systems. Each system can implement individually.

Huawei Online Learning solution builds a high efficient communication cloud platform for teachers and students, which could integrate e-board, terminals, voice system. It can realize classroom to classroom, classroom to family online and offline, multi-media interactive remote education. Sharing teacher’s resource and knowledge which let the students from different region enjoy the same education resource. Students can access remote real time class from remote classroom, home, or trips via mobile terminals, and interact with teachers and classmates through voice and e-board.
Huawei Digital Library system is a platform to provide schools and education organizations with access to international scholarly literature based on electronic (online) delivery, providing access to high quality journals, databases, articles and e-Books across a wide range of disciplines.

Huawei e-Management system includes student management, academic management, teacher management and decision support systems.

**Student management**

Educators could use student management system to manage the students information etc. enrollment, attendance and score management.

Decision support system has statistical analysis in three dimensions:

- **Teaching**: Teaching quality, Teacher evaluation, Exam analysis, Graduation statistics, Semester statistics, Excellent rate, course statistics...
- **Student**: Sex statistics, classroom statistics, score statistics, student growth curve, Regional statistics, Health statistics...
- **Resource**: Resource growth statistics, resource popularity, resource usage statistics, resource –course statistics...

**For students:**

- Active learning
- Interaction with teachers
- Whenever and wherever learning
- Interested in learning

**For teachers:**

- Get more opportunities for advancement
- Study of outstanding teachers teaching experience
- The computer can be used for making courseware
- Enrich the teaching contents, stimulate students’ enthusiasm

**For schools:**

- Improve the management level and efficiency
- provide basis for decision making
- Save money, reduce operation cost

- **Education solution in Angola**: transformed the pedagogic and management of school, provides the 1st end to end education solution across different provinces in Angola
Introduction

In order to improve education quality and bridge the digital divide, all countries and regions in the world are making effort to improve their overall education level leveraging in high and new technology. When it turns to classroom — the original battlefield of education, the trend of transformation from the traditional teaching methods using blackboard and chalks into the smart classroom involving the interaction between teachers and friends becomes inevitable.

How to assist the schools to build up interactive smart classroom rapidly, how to react to the intelligent operation and maintenance of massive devices and how to provide teachers and students with simple and correct access to these teaching facilities, all these have become problems the builders of smart classrooms have to face.

Huawei Smart Classroom breaks the traditional teaching model in the classroom, bringing to teachers and students an unprecedented experience of interactive teaching, which enables teachers, students and parents to take part in the teaching process and enjoy the entire intelligent teaching experience before, in and after the class.
In a traditional lecture, students often try to capture what is being said at the instant the speaker says it. They cannot stop to reflect upon what is being said, and they may miss significant points because they are trying to transcribe the instructor’s words.

By contrast, the use of video and other prerecorded media puts lectures under the control of the students: they can watch, rewind, and fast-forward as needed. This ability may be of particular value to students with accessibility concerns, especially where captions are provided for those with hearing impairments. Lectures that can be viewed more than once may also help those for whom English is not their first language. Devoting class time to application of concepts might give instructors a better opportunity to detect errors in thinking, particularly those that are widespread in a class. At the same time, collaborative projects can encourage social interaction among students, making it easier for them to learn from one another and for those of varying skill levels to support their peers.

Interactive Cloud Classroom Solution

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Huawei Solution

The interactive cloud classroom solution integrates an open education platform which is compatible with the most educators’ content and a simple interactive client APP on Huawei tablet which is convenient for teachers and student to use.

The solution also provides two types of device: SCE(School Cloud Edge) and CCE(Classroom Cloud Edge) which could deployed in school and classroom respectively, usually the platform is installed on SCE for one school and the CCE is running for classroom client. These two devices are developed in new technologies such as cloud computing and Software-Defined Networking (SDN).

This solution is based on the concept of flipped classroom. The flipped classroom is a pedagogical model in which the typical lecture and homework elements of a course are reversed. Preview tasks are viewed by students at home before the class session, while in-class time is devoted to exercises, projects, or discussions. The value of a flipped class is in the repurposing of class time into a workshop where students can inquire about lecture content, test their skills in applying knowledge, and interact with one another in hands-on activities.
**Customer Benefits**

- Uses industrial-leading integrated intelligent teaching machine that highly integrates computing, network, central control, and HD.
- Provides one-stop scheduling, zero time delay, power-on for use, and simple operations.
- Uses cloud-base centralized management to implement remote unattended monitoring at branch schools, reducing costs by 70%.
- Uses intelligent environment sensing to implement seamless linkage of course recording, transferring, broadcasting, interaction, and management, improving teaching quality by 15% to 30% and reducing course preparation costs by 50% to 80%.
- Provides open architecture and Enterprise Software Development Kit (eSDK) platform that complies with the leading technical standards for integration with third-party teaching and management systems.
- Enables hierarchical cloud-based deployment at the country-, region-, and school-level and supports flexible expansion.

**Success Cases**

- Pingshan school in Shenzhen: realized flipped classroom in China, reshape the traditional teaching model for interaction, improve the learning interest and efficiency.

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**Distance Education Solution**

**Background**

Unbalanced distribution of education resources prevents most students from obtaining optimal teaching resources. Additionally, students may be unable to attend a class in the same classroom. A multimedia classroom solution is required to free teachers and students from geographical restrictions. With this solution, a teacher’s lecture can be transmitted to remote classes through HD video terminals in real time, and students can join the class from anywhere to enjoy high-quality video lecture.

With development of information technology, wide use of multimedia applications, and explosive increase in information, traditional classrooms can no longer meet requirements of modern education. A remote education solution is required to support diversified content, high-efficient teaching, suitable for new teaching mode and enable students to learn better.
Raise teaching experience, promote teaching efficiency:
• Video analysis, automatic tracking and directing, creating an immersive learning environment for remote students.

Accept education everywhere and anytime:
• Support recording and storage of teaching process, the broadcast and VoD.

Customer Benefits

Saudi KFUPM University: Distance Multifunction classroom solution
Angola MOE e-Education: Distance Seminar classroom solution
Saudi TVTC College: Distance Multifunction classroom solution
Costa Rica MOE: Live eClassroom solution

Success Cases

Huawei Distance Education solution is designed based on campus network. The solution consists of the remote education platform with VP96XX series Multimedia Control Units (MCUs), SMC 2.0 system management platform, RSE6500 recording platform; and the distance classroom of Live eClassroom, RP Classroom, All-In-One Solar Classroom and Max Lecture Hall, meanwhile includes TP/RP/TE Video conference and connect with personal devices using TE mobile software. This solution has the following advantages:

• Live eClassroom: Intelligent video analysis, remote synchronization, immersive experience. Focusing on real time Live eClassroom activities.
• MAX Lecture Hall: A cinema-level immersive experience and seamless stackable expansion. All participants can see clearly and actively participate in training.
• All-In-One Solar Classroom: All-In-One container design, easy to install and maintain, real-time discussion and teaching, green energy.
• Administrative Conference: Remote Video conference makes teacher connect anytime and anywhere, and also provides experts training.
• Network Recording: Dual 1080p60 recording, live streaming and video-on-demand (VoD) 1080p60; Up to 2,000 stream viewers.