Tianjin Inspiration and créativité Sci-tech

MN AMETHYST Movie Cloud

Product introduction

Based on the security, high performance and stability of traditional movie production, Amethyst Movie Cloud Production System is a solution to the brand-new 4K ultra-clear film and television production that combines new media with mobile terminal (mobile media and mobile internet)

The storage system is based on the hybrid architecture of san and nas and supports all major software in the industry. Avid project files can edit 4K ultra-clear movie storage system directly, not just give us enough stability and flexibility and preferential prices.

Remote Workstation Mode。Citrix and rgs-based remote workstation mode allows the original ordinary workstations access to the system through high-performance virtual machine. It can make more people and the original equipment using Amethyst film production system to get the job done at the same time. To maximize the protection of users of the original investment, our high-speed local and high-speed wireless connectivity allows users to make all the video and animation in the lossless color mode.

Mobile Terminal Mode。Amethyst's design takes full advantage of the development of mobile Internet technology, so that we can finish all the movies and animations that users need from anywhere on the ipad. The user's ipad upgrade to become a real portable super mobile workstation.

Calculation Unit。The cluster computing server based on high-performance CPU and CPU architecture allows users to support real-time computing capabilities of 10-12 4K movie synthesis workstations in one rack capacity. The computing unit allocates more users while maximizing high-performance hardware, improving efficiency not only from stability, but also maximizing equipment investment.

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dimension

600mm W * 2055mm H * 600mm D

Product Standards

Meet the ANSI / EIA RS-310-D, IEC297-2, DIN41491; PART1, DIN41491; PART7, GB / T3047.2-92 standards;

Cabinet features

Front and rear are circular vents up and down the border;The main color is the international fashion RAL7035；Casters and feet can be installed at the same timeCasters and feet can be installed at the same time and feet can be installed at the same time；Sturdy structure, the maximum static load up to 800KG (with legs)

Upper and lower can be closed and have more wire routes. The size of the bottom large routing hole can be adjusted as needed；Optional base, to achieve requirements of fixed cabinet, wire through the bottom, send cold air at the bottom, anti-rat;
Left and right side doors and front and rear doors that can be easily removed;
A full range of optional accessories

Main material

SPCC quality cold-rolled steel production; thickness: square hole 2.0mm,

Surface treatment

Square hole plating blue zinc; the rest: skim, phosphate,

Industry software support

Network switch

- Gigabit network switches
- 10 Gigabit network switches
- Gigabit uplink network

Graphic

- 24 core graphics workstation
- 16 core graphics workstation

CPU \ GPU computer

- 48 core rendering node

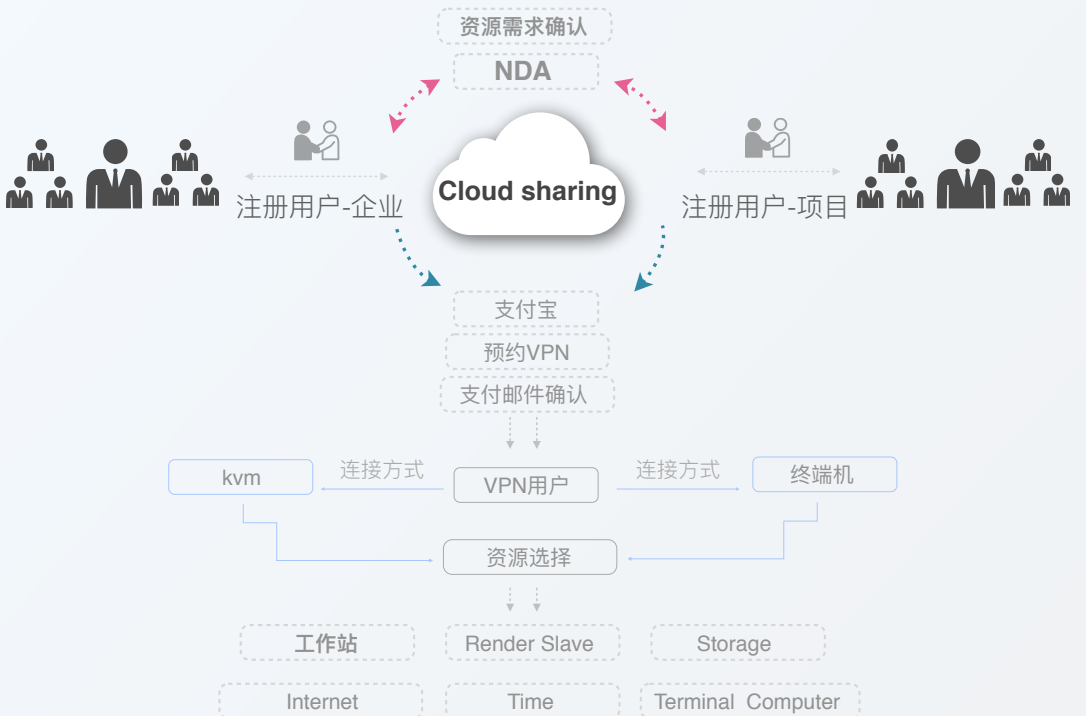
Storage

- MAC Pro 8D/16D Storage system
- Win\Linux 16D/24D Storage

Industry software

- Autodesk Series, Adobe Series, Ipad Series, The Foundry Series, MTI DRS Nova Movie Film Repair

Creative cloud collaboration service



Creative Cloud Share Collaborative Project

Users have

- Process guide
- Online 24-hour service can consult at any time
- Resource self-configuring service and billing system
- Online 24-hour service can consult at any time

Product innovations

Video annotation

Video annotation is an important feature of digital media asset systems that enables online annotation and management of digital media assets. As a result, digital media asset system can be truly integrated into every aspect of production. It manages digital media assets and project production content through a unified software

Message push page

Annotation page

•Digital assets can include text, images, video audio, graphics, and other structured and unstructured digital information. In the field of digital asset management, the main contents of software development are: the basic theory of digital asset management, XML technology, digital asset collection and multimedia editing and processing technology, XML-based storage management, HTML, JavaScript, Java and other content. With HTML rich multimedia capabilities, you can support a variety of annotation features such as video, pictures, sound, etc., All annotations and media assets can be unified management

• System work using modern browser technology, so it can be deployed to more platforms. TThis advantage not only lies in the compatibility of multiple platforms, but also does not require specific software to be installed on the common system platform, so as to achieve faster deployment and easy usage. Users only need to open the browser, login, then they can see a preview of the model file for quick model view.

•Function

Support material view editor

Support for adding different histories to clips

Support background transcoding automatically

Support fast find material in the system interface

Support filtering search function

Support generating playlists as URLs

Support the use of keyboard shortcuts

Model annotation

Nowadays browsers have become an important development platform. The system runs on a purely browser-based platform so that it can be better unified and cross-platform.

•Model annotations use WebGL to render 3D models in different file formats in real time, allowing users to view and edit models on the browser as they would with regular 3D software

• Using a combination of WebGL features such as HTML is just like the type of media in the past, such as pictures. You can access your system's GPU hardware through the new API. The power of these new HTML elements can be demonstrated by the full use of GPU resources with the upcoming APIs. The system runs on a compatible browser and runs without an internet connection and automatically synchronizes and updates all annotations and media assets when connected to the internet again.

Annotation page

• Front-end development evolved from the production of web pages. A large number of various similar desktop software Web applications appear. The front end of the web site has undergone tremendous changes. Web pages are no longer just carrying a single text and images. All kinds of rich media make the content of web pages more vivid. Software-based interactive forms on web pages provide users with a better user experience, all based on front-end technologies.

•Click the offline button on the page, the system will automatically enter offline mode, after which all operations will be stored in the browser's cache. It is not recommended to work offline for a long time because, like distributed development, it is possible that other users are also editing the same page at the same time. This will result in the media being locked for a long period of time, and other users will not be able to continue viewing and annotating, although the system can prevent conflicts.

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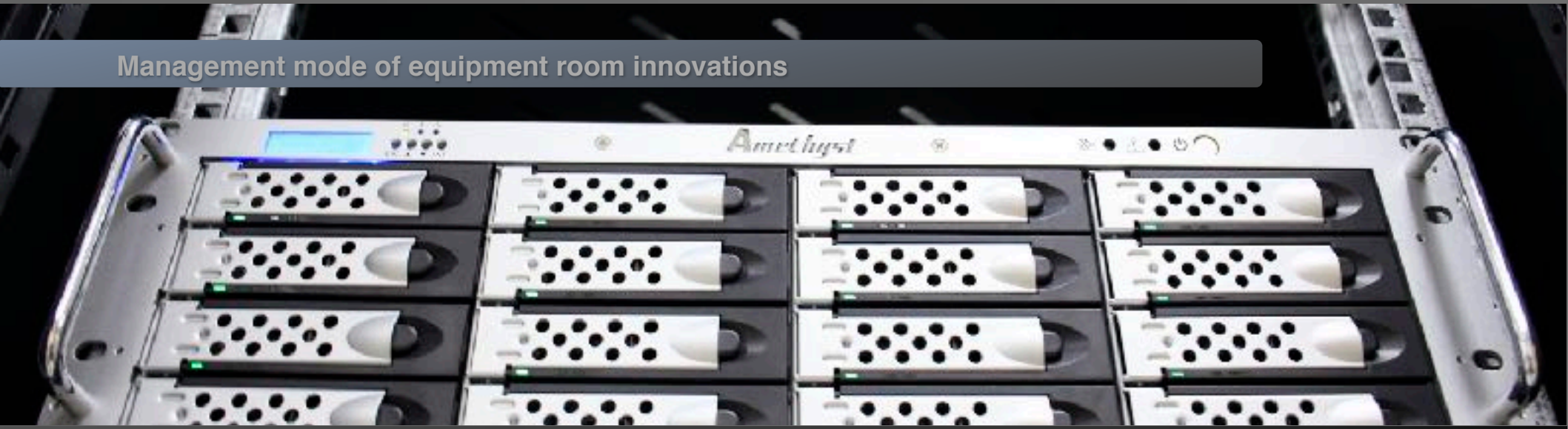
•Function

Support user interaction with author;Support customized mode;Support system compatible platform;

Support for drawing image annotations;Support text to explain comments;Support reference material annotation

Management mode of equipment room innovations

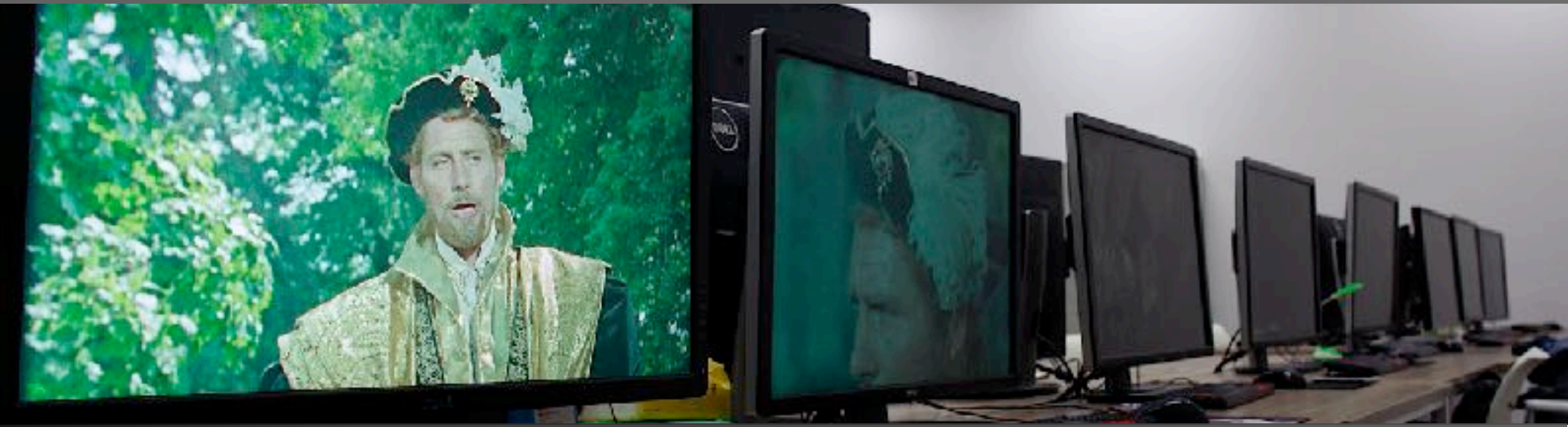


Safety and Compliance

It provides organizations with proven ways to ensure that IT can provide the right level of security access to individuals and situations to meet critical security and compliance requirements. As your business moves between geographies, networks, and devices, IT has the visibility and control you need to protect sensitive information assets without affecting the mobility, freedom, or productivity of your team and your end users.

MPAA

•Based on the American Motion Picture Association's safety certification;
•Risk management, safety control measures, establishment of asset classificationFor digital assets, set different access permissions for different departments;Digital content security strategy
•WAN
Limits to encrypted communication protocols such as Telnet \ File Transfer Protocol;Only authorized administrators can access the secure area;
•Create a web server buffer and Implement access control lists to restrict the buffer network from entering the internal network
•LAN
For the production network, prohibit the host configuration DHCP protocolOnly authorized personnel can enter the production systemPerform network bridging at the network layer
•I / O Device Security Rules
Set user login permission, prohibit non-administrator to install the softwareEstablish an account management mechanismCreate a copy file mechanismSet password rules;Create



•Collaborative security

With a software-as-a-service architecture that meets data security requirements, the system provides the team with the flexibility and the IT controls and security. With a software-as-a-service architecture that meets data security requirements, the system provides the team with the flexibility it needs and the IT controls and security it needs. Collaborative solutions rely on stringent safeguards, including government-standard delivery data encryption and ready data encryption, and user authorization based on fine-grained access settings to ensure your business information is always private and protected.

• Virtualization security

Applications and desktop virtualization centralize Windows applications and desktops in the data center so that IT staff can deliver applications and desktops on-demand for users anywhere, using any device. Centralizing resources provides tight access control, making it easier to prevent data loss, tampering, and damage while meeting compliance and privacy laws.

•cyber security

The network faces an unprecedented threat that needs to be protected. In addition to traditional challenges and concerns, new concerns include a highly dynamic enterprise cloud architecture and a flat network with fewer network obstructions. For the next generation of data center security, we build high-quality ecosystems using interoperable partner vendors products, deploy security capabilities extensively at the application, network and user levels to build and extend a robust, cost-effective infrastructure.

• Mobile security

We ensure secure enterprise mobility, including mobile device management, mobile application management, and end-to-end security from the data center to the device.

Cloud computing

Converting static, complex IT environments into more dynamic, easy-to-manage virtual data centers can dramatically reduce data center costs. At the same time, it offers advanced management capabilities for integration and automation of virtualized data centers at much lower cost than other solutions.Complete virtual infrastructure solutions including 64-bit hypervisor with live migration capability, a full-featured management console, and the tools needed to migrate applications, desktops, and servers from physical to virtual environments.

Data Center Automation

IT professionals can automate key IT processes, improve service delivery and business continuity in virtual environments, save time and money, and get more agile IT services.

High-performance virtual infrastructure

With a foundation platform, customers can build a scalable, easy-to-manage and flexible virtual server infrastructure.

Mobility mode of operation

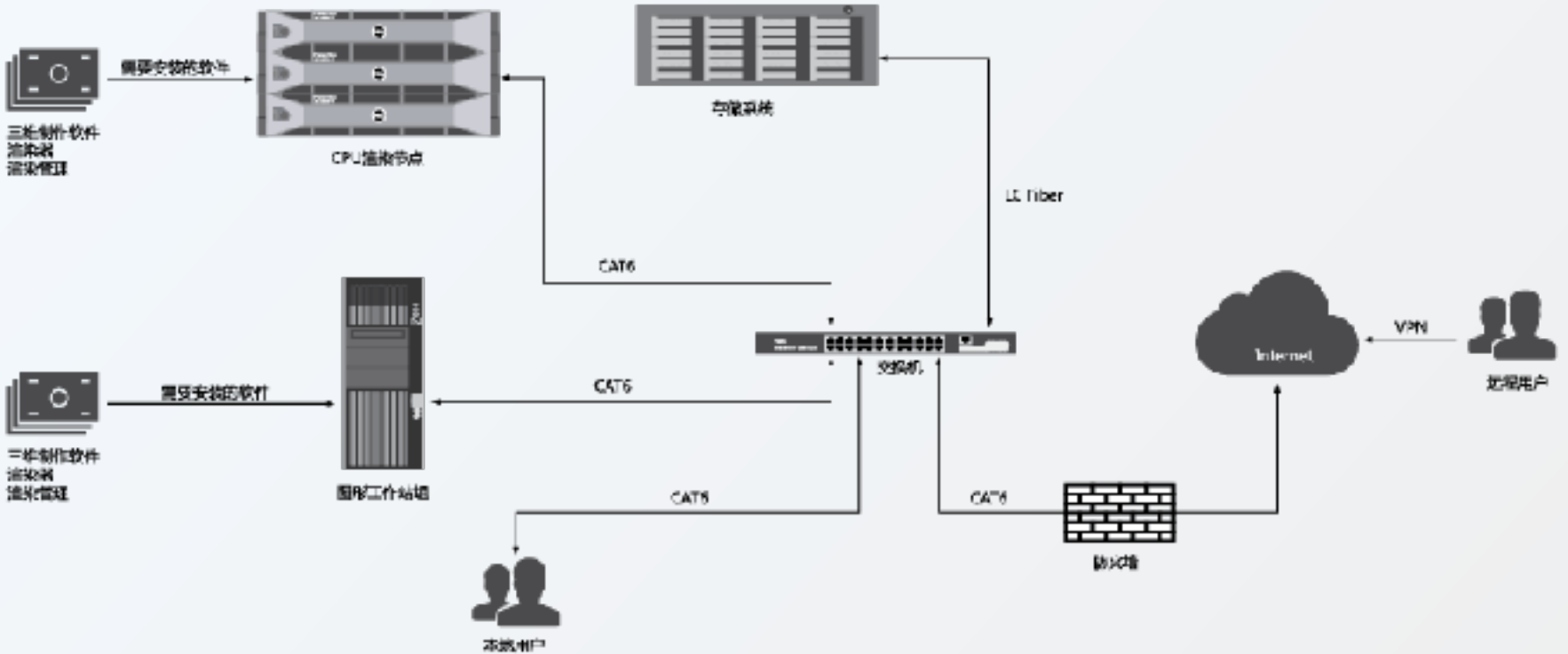
All the information or data of the end user is stored in the cloud. When the user needs it, the application can be directly downloaded through the cloud computing center. The cloud computing server uniformly deploys and maintains all the applications used by the user. Therefore, When the end user's computer does not boot up, can not enter the system or crashes, it will not affect the use of its software, just use another PC to do what you are doing from the cloud computing center to download to continue working.

Multiplayer shared hosting mode

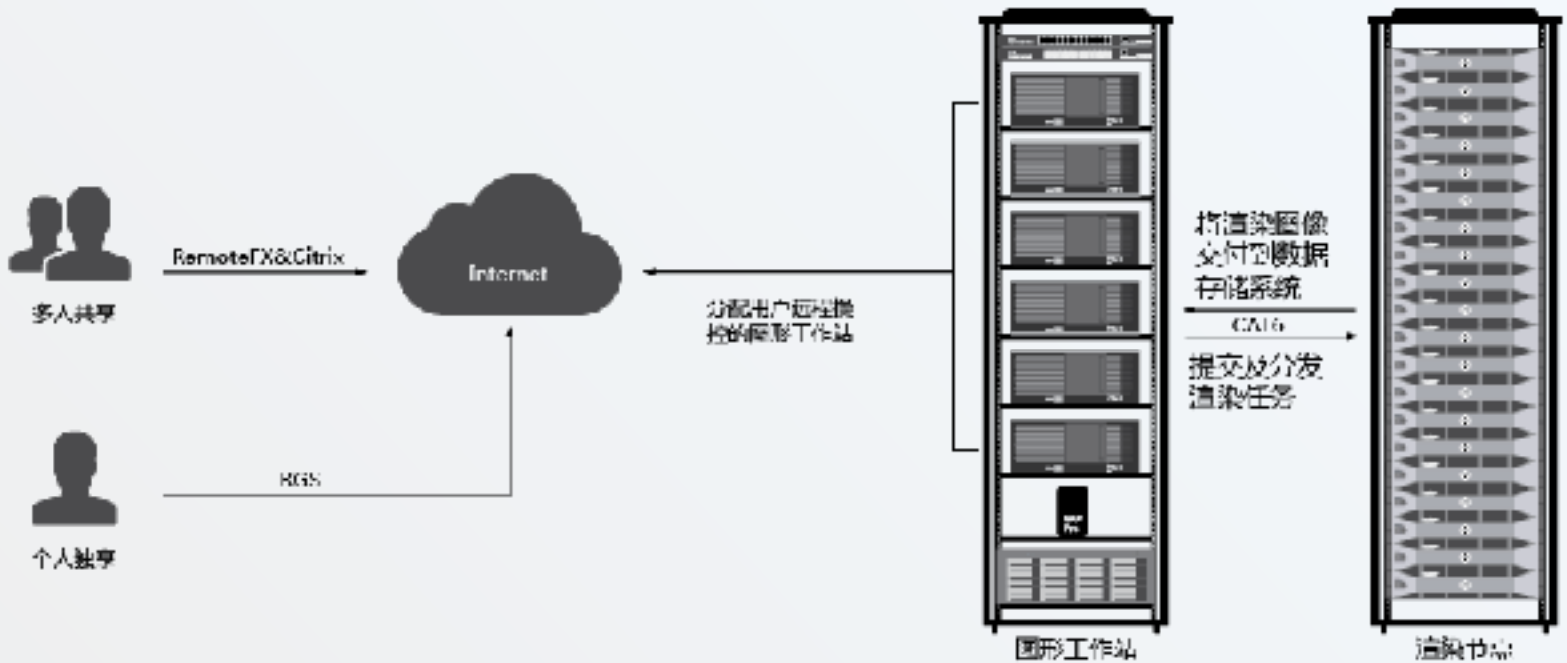
As technology evolves, the performance of computers is becoming more and more powerful. However, most office users and student users for teaching use less than 10% of the performance, resulting in huge waste. This model allows multiple users to share a host computer, improve the utilization of the host computer, and save a lot of procurement fund to schools and enterprises

Integrated collaborative work environment

Amethyst movie production system not only allows people to access directly or through mobile Internet cloud. At the same time it can support online radio and video annotation-based online video interactive production platform for multiplayer collaborative work to provide a perfect solution.


LC Fiber
CAT6
CAT6
CAT6
CAT6
VPN
Internet

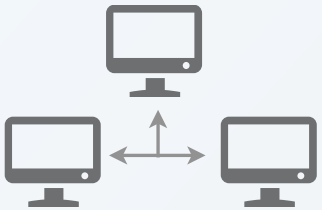
Perfect experience of remote interactive graphics applications



Get inspiration anytime, anywhere. With remote, interactive operations, you can use your graphics-intensive workstation applications anywhere, anytime, and work in real time with your colleagues in your office or offsite to create your creativity. You can use mobile devices such as mobile phones and tablets to work with video and model annotations systems to share a workstation with multiple users at the same time, perfect for real-time collaboration and remote interaction.

Real-time collaboration

Share your workstation interface with multiple users at the same time - Support for view-only or full interactive access

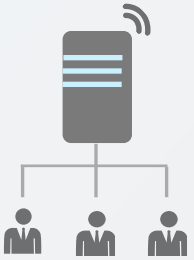


Remote staff

Integrate workstation resources to enable your professionals to connect using any workstation anywhere

Access anytime, anywhere

Access your workstation's full performance and professional applications anytime, anywhere



Open GL and Direct

Full 3D graphics API support for workstation grade performance.

Real-time film production

High speed data storage

Win\Linux 16D/
24Dstorage system

The system is designed for video non-linear editing workstation launched external disk array products. Hardware RAID provides fast data transfer performance without taking up host resources, and RAID6 makes data more secure. The storage system provides a high-speed Mini-SAS interface that uses a SAS hard drive that exceeds 2000MB / s in RAID5 for read and write speeds and is fully qualified for non-linear editing without compression. At the same time the storage system also supports a variety of mainstream operating systems and multi-system applications.

A storage server connects to standard Ethernet and provides high-level engineering and file sharing. Storage servers support a wide range of software-shared storage such as Avid, Apple, Adobe, Autodesk, GrassValley, Primestream, ImageSystems, MergingTechnologies, Nuendo, Sequeoia, Fairlight and more. Perfect for Unity / ISIS simulation. As a result, Avid editing software on either a PC or a Mac system has its own color bin lock and common scanning

Best performance

Onboard RAID-on-chip processor, 2GB DDRII ECC parity memory. Provide powerful computing performance and high speed and stable data transfer speed. Three 12Gb Mini-SAS external high-speed interfaces are configured to connect to the in-system RAID controller. In RAID5 mode, the speed exceeds the data transfer rate above 2000MB / s. Its performance is far higher than the ISCSI and FC disk arrays, at the same time to meet the multi-layer HD uncompressed, 2K and 4K movie resolution advanced post-application.Online migration,Without shutting down the host, the RAID group can be smoothly migrated to another host to improve data exchange flexibility.

Powerful scalability

With SAS-Expander technology, APT EX series can connect up to 8 sets of disk expansion cabinet, with up to 256 disk expansion capabilities to meet user editing needs. Up to 256 disk expansion with SAS Expander.

Embedded WEB management

No need to install Java plug-in, the model can be installed and debugged and managed through the Web. This function is very important. The flow of technologists today is relatively large, with others unfamiliar with graphical storage management software. The computer on which the plug-in is installed may reinstall the system or reinstall the graphical storage management software because of a virus or the like. At this time, it is prone to some misuse led to data loss phenomenon. The use of Web management can be a good solution to the above two issues.

Application

High-performance enterprise-class storage solutions for post-production video applications

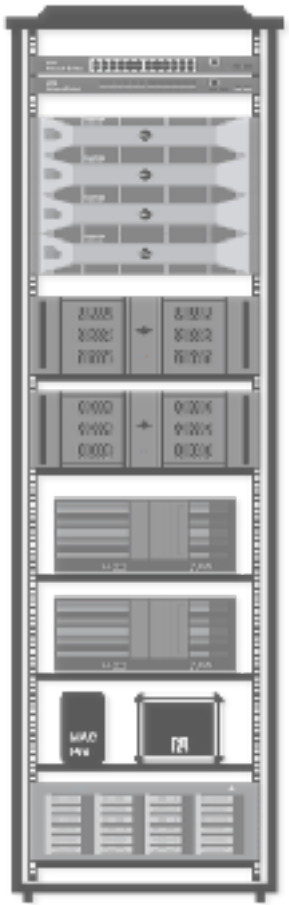
Standard rack structure

Multi-directional redundant design and shock absorption, including redundant power supply, redundant fan, redundant hard disk

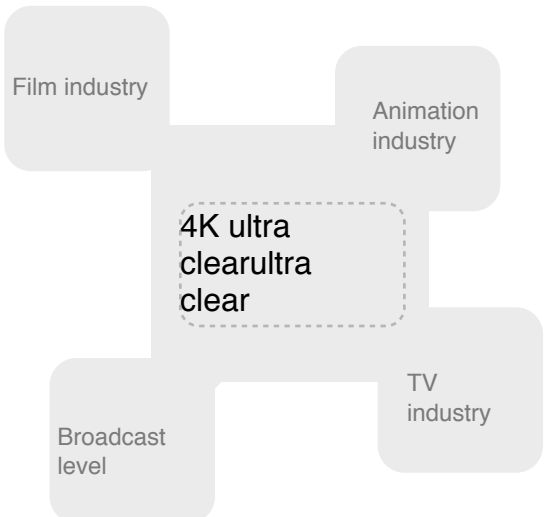
Complete SAS 6Gb / SATAIII hot-swappable hard drive;Support RAID5, 6 and other levels of security mechanisms;Support virtual volume technology and Roaming

4K full-process movie production cabinet group features:

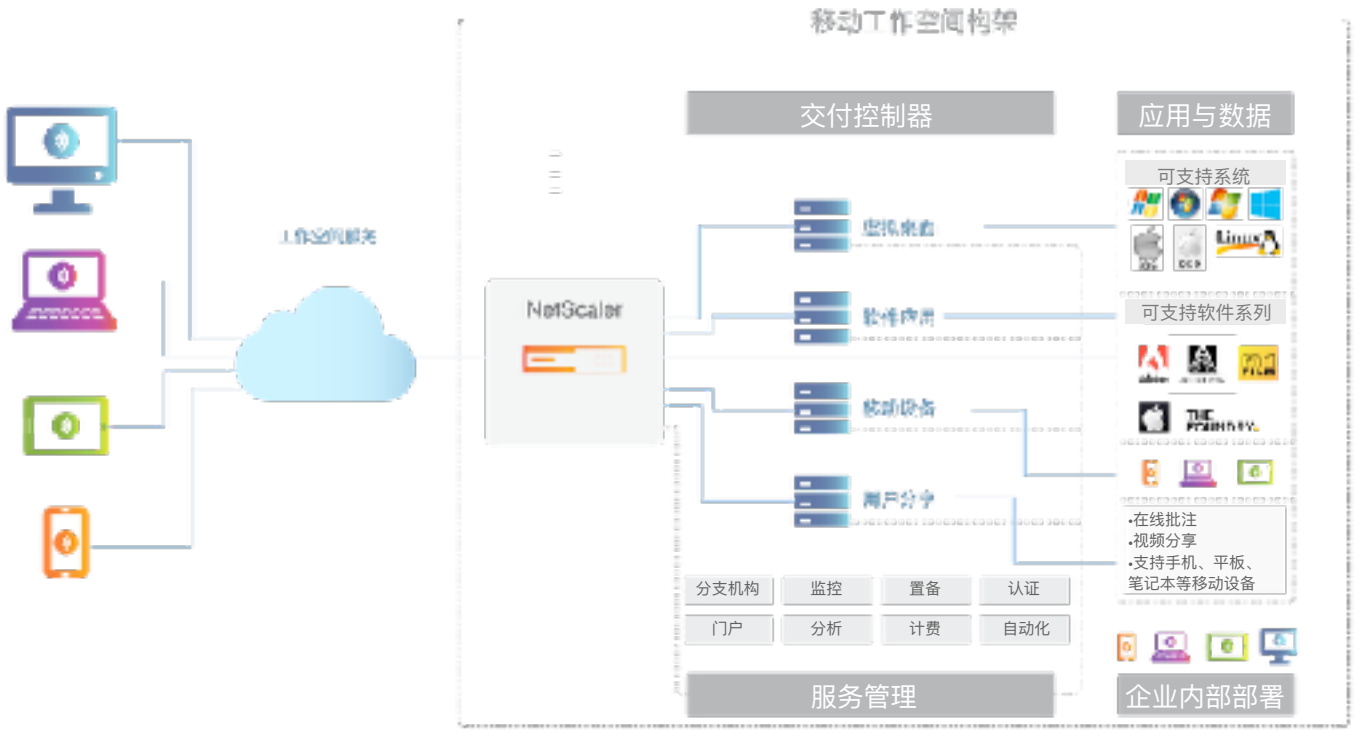
- Unified equipment room management
- Meets the security mechanism of the film footage file
- High availability of network and graphics workstation equipment
- Support real-time playback of 4K movie DPX footage
- Support 4K level real-time color film
- Support 4K level movie film repair system
- Stereoscopic movie production. You can always edit and view in real time the final effect of three-dimensional images
- Support multi-person collaborative production, allowing annotation of video and 3D models



4K movie super clear editing system



A new highly efficient and flexible way of working



mobile workspace

- Our mobile workspace application and service infrastructure consists of market-leading virtualization, mobility management, networking and cloud technologies delivering a consumer-like experience in a unique, integrated way.
- Workplace Suite combines applications, data and services on any device seamlessly
- Mobilize and secure the Window application on any device.
- Securely provide virtual Windows desktops and applications on any device.
- Manage and secure mobile, web and SaaS applications on mobile devices.
- Enabling people to meet and cooperate with anyone anywhere.
- Enterprise data can be securely shared and synced from anywhere.
- Optimize and secure application delivery on any network.
- Accelerate application delivery to remote workers in the network. Organize and deliver applications, desktops, and IT services from the cloud.

Flexible access methods

Flexibility to choose the access methodAccording to the needs of users, can be tailor-made solutions for the private.

Optional access method

- Citrix
- RemoteFX
- HP RGS
- KVM

Powerful productivity

Choose the right delivery model for the right user at the right time. This reduces costs and extends the benefits of desktop and application virtualization to most users. Allows you to schedule five generations of Windows applications on-the-fly for use on any device from anywhere. GPU virtualization and passthrough technology allow virtual desktops to easily render large 3D designs and reduce transaction time for traditional client / server applications by up to 300%. Employees can work remotely without losing the opportunity.

	Access method	Access type	Product advantages
☐	Citrix	WAN\LAN	Based on the HDX protocol Display resolution of 1920 * 1080 Support GPU Pass-through Support vGPU
☐	Remote FX	WAN\LAN	Based on RDP protocol Display resolution of 2560 * 1600 Support dual display Support vGPU
☐	HP RGS	WAN\LAN	Based on HP2 compression technology Support multi-user real-time collaboration
☐	KVM	LAN	Directly connected to the host Display resolution 1920 * 1200 Support multiplayer sharing host

MNPAC series

MNPAC－L1

MNPAC－L2

MNPAC－L3

• MNPAC series is currently focused on research on the market almost all mainstream software industry characteristics and operating environment needs, in the range of CPU, GPU, hard drives and other mobile workstations to provide them with the most rational allocation of optimal performance. MNPAC series is also the only full-scale solution that offers super-mobile, portable workstations today. Workstations are widely used in film effects, DIT, film repair, 3D animation and other fields.

• Product Specifications: Mobile workstation equipped with a Xeon processor, integrated ECC DDR3 1600 64G workstation dedicated memory for 7 * 24 hours of work, high-frequency error correction check. In terms of storage, the system uses SSD SataIII as the master boot disk and six 3-inch 3.5-inch Raid disk arrays to create better I / O performance for movies and special effects to meet the needs of a variety of harsh production applications .In appearance, the product uses black design, modeling simple, generous, with 23-inch LCD screen with a resolution of 1920x1080. The front of the fuselage for the protection of the screen is not easy to damage the metal shield, panel mounted inlay special keyboard and touchpad.Workstations need to run a variety of visual effects and related professional software production. Each software has different requirements for resources. In hardware and software design, it is optimized for an application to make full use of system resources. In terms of graphics cards, the mainstream 3D visual effects software is based on NVIDIA CUDA parallel processing architecture. So workstations equipped with NVIDIA QUADRO K5000 professional graphics cards can preview and edit native, high-resolution clips in real time, including multi-layer RED 4k video.

• MTI repair system application

1, MTI Company and MTI (China) Company Profile

Founded in 1982, the U.S. MTI Film Company is a post-cinema restoration company based in Hollywood. Its film repair system is now the accepted industry standard for post-repair industries in the United States. Our company has established MTI (China) Co., Ltd. jointly with MTI Film Corporation of the United States and is committed to building a world-class 4K digital film repair base. From now on, the base will mainly carry out the international advanced 4K film film restoration and film post-production work.

2, film repair project introduction

4K resolution film restoration project is the industry-leading Correct DRS ™ 4K technology level of film restoration. It not only has advanced hardware and software equipment, but also uses advanced workflow. From the pre-planning to mid-term repair to the latter part of quality testing, it ensures high-quality video repair effect. This project also includes the film for post-effects production, rendering output, 2D to 3D links. These are to ensure that the visual effects of the repaired movie perfect.

•Post-production system applications

Portable mobile workstations can be applied to many production links such as video effects.

Three-dimensional pre-monitoring

Three-dimensional pre-monitoring is a set of fast cross-platform high-definition (4K) level of film-level three-dimensional preview system based on graphics output to real-time signal conversion and signal synthesis as a method

Three-dimensional pre-monitoring can effectively solve the technical bottleneck in the development of 3D industry. It enables engineers to work in real time in a purely stereoscopic environment and dramatically improve the production efficiency of 3D content and effectively enhance the production capability of 3D stereoscopic animation and stereoscopic programs in the industry. Enterprises can invest relatively low cost and quickly deploy dozens of "3D animation animation cross work creation system" site. They can finish the post-production of more than ten sections at the same time.

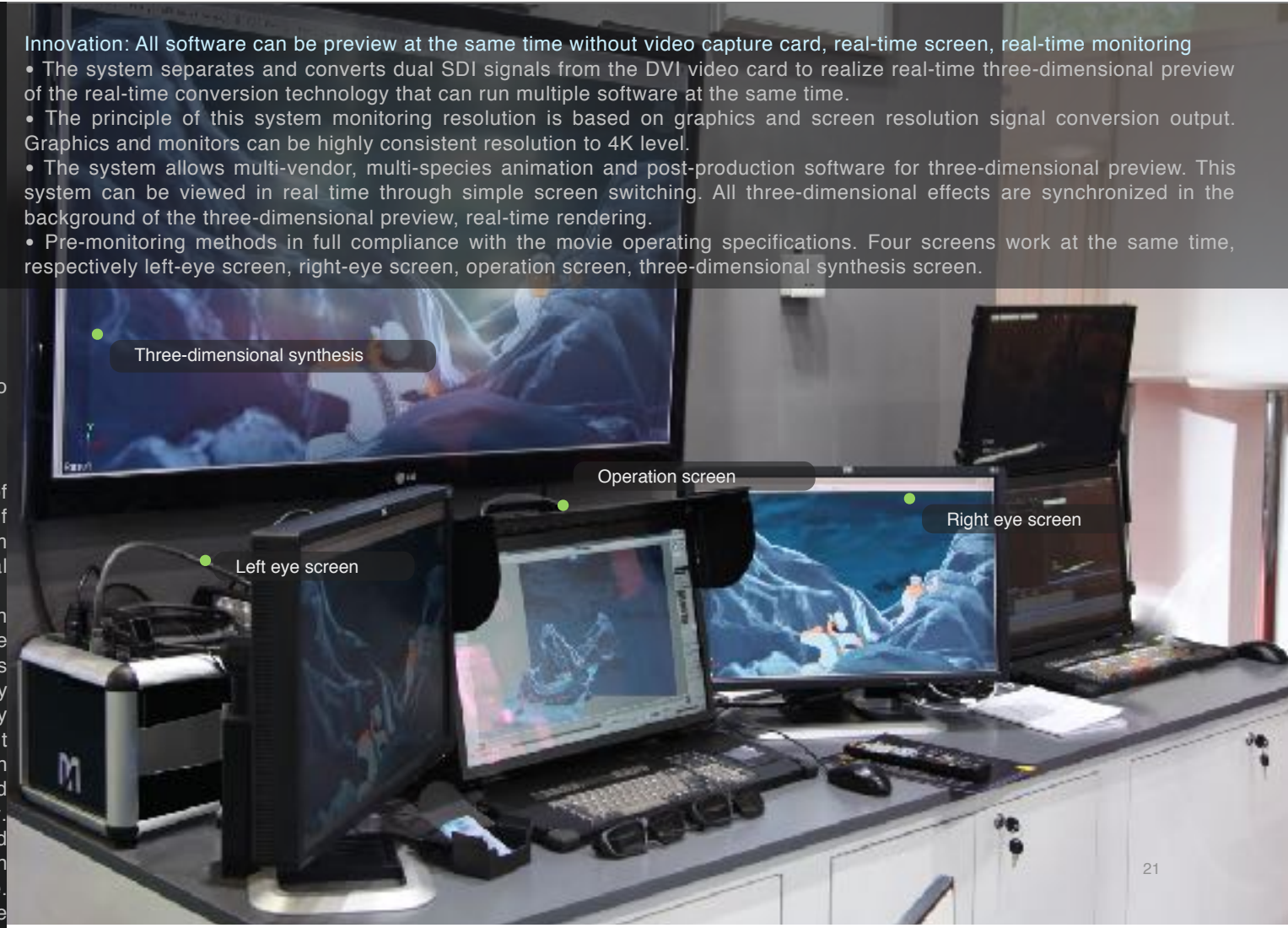
Innovation: All software can be preview at the same time without video capture card, real-time screen, real-time monitoring

• The system separates and converts dual SDI signals from the DVI video card to realize real-time three-dimensional preview of the real-time conversion technology that can run multiple software at the same time.

• The principle of this system monitoring resolution is based on graphics and screen resolution signal conversion output. Graphics and monitors can be highly consistent resolution to 4K level.

• The system allows multi-vendor, multi-species animation and post-production software for three-dimensional preview. This system can be viewed in real time through simple screen switching. All three-dimensional effects are synchronized in the background of the three-dimensional preview, real-time rendering.

• Pre-monitoring methods in full compliance with the movie operating specifications. Four screens work at the same time, respectively left-eye screen, right-eye screen, operation screen, three-dimensional synthesis screen.



• Discard the traditional

In recent years, with the development of the movie market, the demand for high-precision pictures in movies has become more and more intense. However, the application of CG technology in domestic movies has become more and more frequent. Therefore, the demand for the rendering industry is increasing and the standards are more and more higher.

For rendering, advances in computer hardware technology and the use of GPUs, CPUs alone or in mixed architectures have been a great help in improving the rendering of movies. But the movie went from a traditional 2K to 4K, from 4k to IMAX, from IMAX to stereo, resulting in nearly 100 times the amount of rendering of a traditional 2K movie. This increase in geometric progression makes rendering such a highly specialized technical service will produce a very large demand growth in the future.

As the movie market grows faster and faster, rendering industry has also developed. Currently on the market, there is a traditional rendering farm. There are also so-called cloud rendering services that render this web-level rendering system. It is easy with simple rendering tasks. However, there are huge issues with large projects that cooperate with large-scale movie rendering or international filmmaking. The bigger the project is, the more prominent the problem becomes.

First, too much external reference.

This choice of too many WEB reference scenes and various aspects of the texture path will produce errors when inconsistent with the local hard disk and the local configuration.

Second, some of the special tripartite distribution software used in native testing is likely to have problems with this web submission.

Third, take some rendering softwares as an example: viewport rendering, direct rendering, local rendering, and batch rendering and command line rendering. The calling rendering mechanism is different and must be optimized by script in many applications. And these complex operations must be based on the user has a lot of rendering experience based on reality.

Finally, the need for rendering the configuration of the machine, such as CPU, memory, waiting for these hardware configuration is not as good as possible. Instead, you need the fully controllable, most convenient rendering mode for rendering, which is actually a "remote cloud workstation desktop." This is equivalent to the user working locally, performing various actions for the scene through the cloud rendering platform, and feels like opening a working environment for a local workstation.

•MOOC teaching platform application

In order to respond positively to the call of the Ministry of Education, we should solve the key issues of organizing internships and practical training for students in major colleges and universities. We hope to improve the overall quality of students and professional skills, shorten the gap with the employing units, accumulated practical experience in project operations. We help colleges and universities to establish a professional course service system and its accompanying teaching resources to ensure that students successfully completed their studies. We have built a video interactive platform for large-scale networked education including MOOC Learning Resource Library, Distance Interactive Education Cloud Platform and Network Learning Behavior Big Data Analysis and Collection System in Tianjin. The platform can effectively improve the efficiency and quality of networked education in film, animation and new media industries, and provide classroom interactive teaching and on-line testing services. In order to solve the problems such as less real-time interaction, slow video transmission speed, low video quality, large color deviation, and unable to push desktops in real time, we optimize the network education mode of the existing film and television animation new media industry and put forward relevant technical solutions, with the core of improving the efficiency and quality of education and teaching. Choosing commonalities and key technical fields, we focus on the research and development of key technologies such as MOOC online packaging, video annotation and big data analysis and collection. We select the core business resources, animation demonstration bases, well-known institutions, vocational colleges for demonstration, thus forming a supporting technology and services related standards and systems. We study the business model of platform operations and create service-based, learning resources as the content of e-commerce platform. We have set up a personal digital publishing system to promote the best qualified personal education service Taobao Mall and optimize the application of networked education services in film and television animation new media industry.

- Form an optimized movie animation new media industry networked education model.
- Construct a new way of annotating interactive new media industry networked education model.
- Improve Film and Television Animation New Media Industry Network Education Efficiency and Quality.

The remote cloud teaching mode of this platform aims to establish a brand new remote cloud teaching system for film and television animation education and provide a platform for real-time interactive teaching for all colleges and universities across the country. Achieve interactive remote control, real-time monitoring, audio and video synchronization, remote storage, real-time recording, video push and other functions. These functions will have positive significance to the improvement of professional construction, improvement of teaching quality, cultivation of high-end talents, transfer of internationalized technical knowledge and the healthy development of the whole industry.

•New Media Institute

•Excellent course resources are free and open. Qualified teachers can set up "online classroom" for paid counseling. The Institude determine learning outcomes with industry standards that provide industry-certified training opportunities. Both public service and market are available. Platform service charges.
•Establish an online commerce platform for quality education products and services, set new channels for preaching, giving lessons and doubts for those who wish to learn and create new employment opportunities.

• New media collaborative innovation production applications

The rapid development of new media represented by mobile media has brought new media into deeper integration with the traditional fields of film animation and related digital entertainment. Because of the development of mobile terminals, the traditional digital entertainment field has made new breakthroughs in the production methods and transmission channels. Therefore, we developed a new media mobile terminal-based interoperability collaboration platform. We can directly create and produce mainstream software through the mobile terminal pad or mobile phone, and collaborate on the sharing of views and comments through our unique video annotations and model annotations.

Supported features

•Video annotation technology, model annotation technology --- Real-time, interactive, accurate description of video content on the ipad
• Customized strategy Media Management System --- ipad digital assets and production processes in a unified and customizable management
•GPU Transparent remote cloud desktop --- turn ipad into a workstation, running a variety of three-dimensional post-software

New media platform to support the mobile terminal

Supported software


www.m-and-n.com