Nova Cloud

NOVA STAR

SMART CLOUD - SOLVING THE FUTURE

A secure and efficient independent cloud management solution for displays
Users can now increase the value of their display by entering the era of cloud LED management

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Nova Cloud-Based
Display Management System

VNNOX

Cloud Publishing
Service

Cloud Monitoring
Service

MBOX
Multimedia Player

Taurus
Multimedia Player

LCD
Multimedia Player

Full-lifespan LED display Management

Providing a cloud-based solution across all stages: planning,deployment, operation and maintenance.

SMART for efficiency

Remote publishing features fast updating, visible visual and convenient operation, clear data presentation and easy management of thousands screens with very few people.
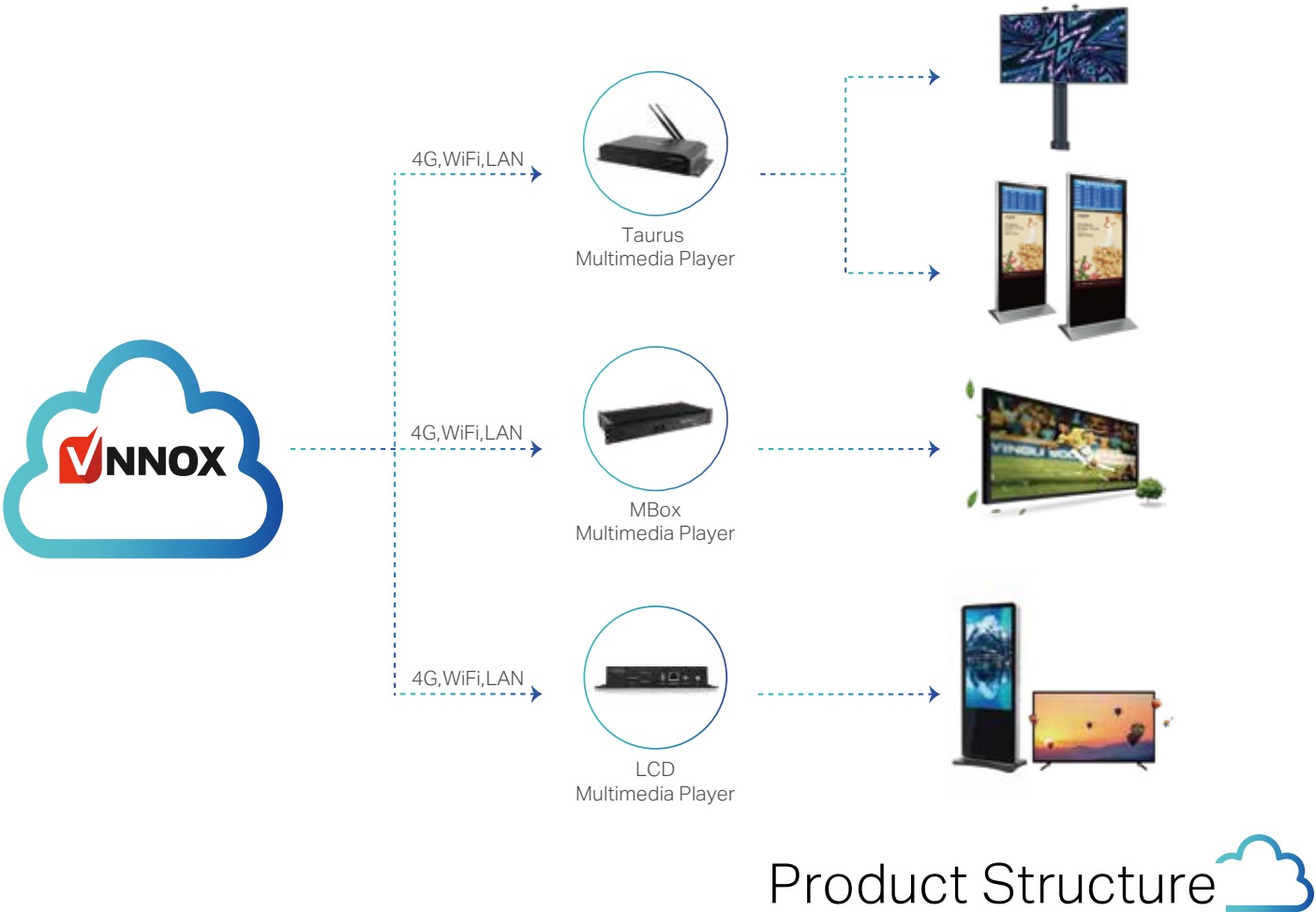
Stable and reliable

Multiple identity authentication, communication encryption, data fingerprint verification, comprehensive security

Professional Monitoring

Professional display status monitoring, failure analysis, maintenance recommendations, ensuring dramatic improvements in display maintenance efficiency.

Applications

Airports

Rail Stations

Hotels

Chain stores

- Pole screens
- Advertisement players
- Fixed installations
- Digital signage

Fixed installations

Gas Stations

Shopping Centers

Pole screens

VNNOX

4G,WiFi,LAN → Taurus Multimedia Player

4G,WiFi,LAN → MBox Multimedia Player

4G,WiFi,LAN → LCD Multimedia Player

Product Structure

NOVASTAR

VNNOX Cloud Publishing Service

Total publishing control in the palm of your hand

Convenient and efficient control

Use any internet-connected devices to enjoy remote publishing and control.
Online media library is easily accessible.
Four-step operation to publish content quickly and efficiently with visual programming. Auto-generated log files provide detailed play data of display for advertiser's assurance.

Safe, stable and guaranteed

VNNOX has strict authority authentication, encrypted channels, fingerprint data, and terminal lock-up to guarantee the display is always running securely. Professional operation and maintenance ensures ultimate stability.

Flexible & autonomous, the solution of the future

Flexible access control allows you to assign operation privileges to adapt to a variety of applications.
Custom branding to help promote your LED brand.

www.vnnox.com

Cloud Monitoring Service

Your display's dedicated healthcare professional

Total status monitoring

Monitors operating status of display's sending card, receiving card, monitoring card, multifunction card, and more.
Monitors cabinet temperature, humidity, smoke, and other environmental conditions.
Monitors voltage of cabinet power source, fan speed, LED lamp, and module connection wiring

Rapid email notification

Within 5 minutes, receive detailed description of fault as well as recommended solution via email.
Increase effectiveness of support, while reducing time to correct faults.

Real-time remote monitoring

Support for smartphone APP monitoring at any time from any location.
Instant monitoring, including live image of the display.

Detailed heath report

With a comprehensive system checkup and full awareness of display's operating status history, easily identify problems before they occur.

Flexible authority permissions

With flexible permissions, you can pass authority to view and operate display to others.

Streamlined remote control

With accurate data, remote control is easily realized, allowing simple operation based on real-time conditions.
Support for remote adjustment of display parameters, including brightness and more.

NOVASTAR

Taurus Multimedia Player

For commercial displays - Bridging the gap between display and content

Secure and stable, alleviating worry

Self-connects to optimal signal, eliminating drop-outs
Real-time watchdog software, averting trouble before it appears
Remote emergency connection, allowing you to respond to issues at a moment's notice
Multiple redundant backup, for ultimate stability

Simple and easy operation, allowing easy control of large screens

Integrated sending and control, with no need for a PC, keeping operation simple.
Supports cloud publishing and monitoring. No need to be on-site to manage your displays.

Intelligent control, allowing you unlimited possibilities

Synchronous and asynchronous modes, with scheduled or free switching to meet the needs of any scenario.
Support for control via PC, mobile, pad, and other smart devices.

Product name	TB3	TB6	TB8
Loading capacity	650,000	1,300,000	2,300,000
Processing	8 Cores 2GB RAM+8GB ROM	8 Cores 2GB RAM+8GB ROM	8 Cores 2GB RAM+8GB ROM
Wifi capability	Dual WiFi	Dual WiFi	Dual WiFi
4G capability	Optional	Optional	Optional
Redundant backup	√	√	√
Synchonous / asynchronous switching	×	√	√
Screen splicing	×	√	√
Certified	√	√	√
Suitable applications	Advertisement screens Small fixed installations Transparent screens Pole screens Mirrored screens On board screens Particular stages	Indoor fixed installations Chain stores Hotels Movie theaters Transparent screens Mirrored screens Advertisement screens	Large fixed installations

Note: Total memory 8GB, 4GB available to user

MCMC CIDF16000211

RoHS

SAFETY MARK 180038-21

FCC ID:2AG8JTB8 IC:23873-TB8

Complies with IMDA Standards DA107974

CB

CITI

NTC

CE EHL c(UL)us LISTED I.T.E. E472095

R 201-180305

PS E

FAC

IC ID

R-CMM-XIA-TB8 ZU09275-18002

NovaStar MBOX Multimedia Player

The industry's first 2-in-1 industrial-Level for LED Screen

PC   Sending card

MBox
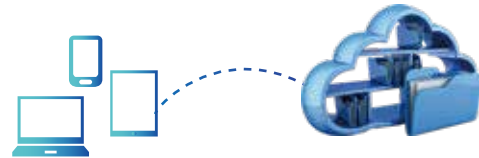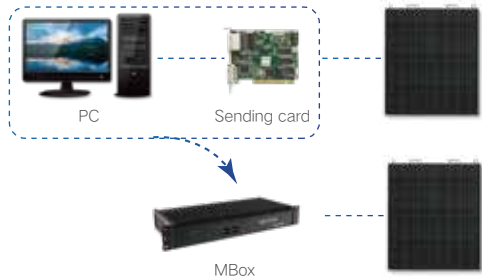
Feature-rich

An integrated industrial-grade computer and a fully-featured sending card, with no need to purchase or carry an additional PC to operate. 2.3 million pixel loading capacity, 18bit+ grayscale processing, fine detail, and smooth playback control.

SMART cloud management

Integrating Vnnox and NovaiCare smart cloud platforms allows you to control any screen in your arsenal without moving an inch.
Supports wired, Wifi, and 4G connection, allowing you to easily meet the needs of any any commercial application.

Small form factor for ultimate flexibility

Small size and low power consumption, proving that big things can come in a small package.

MBOX600 Parameter comparison

	MBOX600（3U4A2）	MBOX600（3U4A3）	MBOX600（7U4A3）	MBOX600（7U8A4）	MBOX600（7U16A4）
CPU	Intel Celeron 3855U 1.6GHz	Intel Celeron 3855U 1.6GHz	Intel Core I5-7200U 2.5GHz	Intel Core I5-7200U 2.5GHz	Intel Core I5-7200U 2.5GHz
Graphic	HD510	HD510	HD620	HD620	HD620
Memory	4G	4G	4G	8G	16G
Hard Drive	64G SSD	128G SSD	128G SSD	256G SSD	256G SSD
System	Linux/Windows10 IOT Enterprise	Linux/Windows10 IOT Enterprise	Linux/Windows10 IOT Enterprise	Windows10 IOT Enterprise	Linux/Windows10 IOT Enterprise
Loading Capacity	2.3 million	2.3 million	2.3 million	2.3 million	2.3 million
WIFI/4G	√（WiFi standard, 4G optional）				
Front Panel Interface	4×USB2.0，H.LED、P.LED、RUN、SYS light，1×Power switch，1×SIM card slot				
Back Panel Interface	4×LED Output (built-in send card function)，1×Ethernet port，1×HDMI，2×USB3.0，1×Audio output，1*Light sensor，1×Temperature sensor，1×WIFI antenna，1×4G antenna，1×Power input（12V DC）				
Storage Temp	-40℃～80℃				
Operating Temp	-20℃～60℃				
Operating Humidity	0RH~80%RH，No condensation				
Size (length×width×height)	285.0mm×135.2mm×46.5mm				

NOVASTAR

LCD multimedia player – TCB300

Widely used in LCD media for advertising media, digital signage, commercial display, etc.

VNNOX

WiFi
4G
LAN

TCB300

PC   Phone   Pad

Ultra-High performance, flagship model

4-core high-performance processor with 32GB of internal storage;
Support HDMI 1080P@60Hz video output.

Cloud-based management, high efficiency and reliability

Supports cloud publishing and cloud monitoring, and intelligent control of APP through mobile phone or tablet;
It is easy to achieve remote centralized distribution and large-screen monitoring of programs without leaving your office.

Flexible, easy to operate

Supports multiple networking methods, such as Gigabit wired network, WiFi, 4G;
Supports U disk program import playback and stereo audio output.
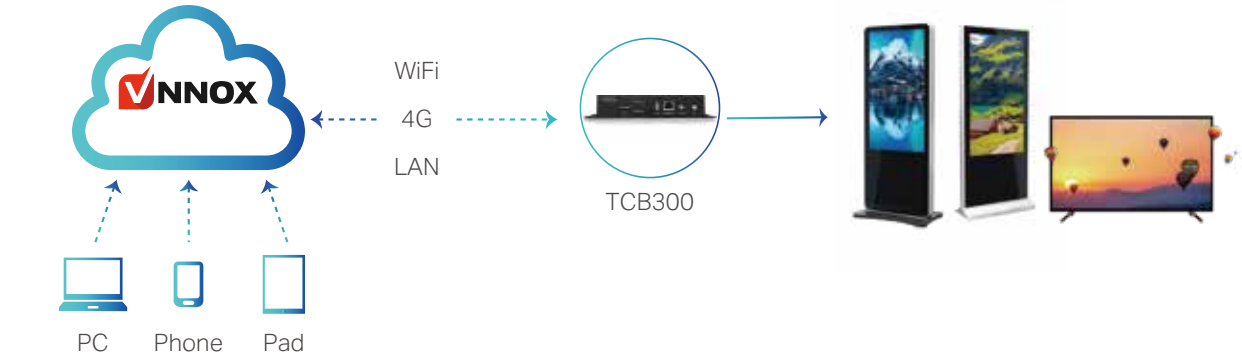
TCB300 Specifications

Input voltage	5V DC	Internal storage	32GB onboard, 28GB available to users
Maximum power consumption	15W	Working Tempature	-20℃～60℃
Dimensions (H x W x D)	196.0mm×115.5mm×34.0mm	Working Humidity	0%RH～80%RH，No condensation
Maximum resolution	1080P	Storage temperature	-40℃～80℃
System	Linux / Windows Enterprise	Back Panel Interface	1× Power Input
Front Panel Interface	1× USB2.0 interface		
	PWR、CLOUD、SYS、RUN Lights		1 ×Audio Output
	1 ×ETHERNET Ethernet port		1 ×USB Type B
	1 ×WiFi AP Antenna interface (can be switched to Station mode)		1 ×HDMI Output
	1 ×SIM card slot		Restore factory value button, long press for 5 seconds
	1 ×4G antenna interface		

Smart Pole Screen Solution

Paving the way for Smart cities

Internet

Taurus

Taurus

Taurus

Ambient
Brightness
Sensor

LoRa

With advanced features, simple operation, and convenient management, Smart pole screens are an important part of the development of Smart cities. Pole screens provide use both commercially and to society as a whole, acting as road guides, displaying road conditions, providing information distribution, and even advertising. Because of this, pole screens receive a lot of attention from outdoor advertisers, outdoor media companies, shopping centers, public administration departments, Smart city developers, and more.

Due to its online nature, NovaStar's Smart LED Cloud service solution allows you to remotely manage and control content of pole screens on roads, in scenic areas, parks, and more, while enjoying synchronization and Smart brightness adjustment. With simple and reliable operation NovaStar's cloud solution helps improve efficiency of display management and support, making a large impact on the overall development of Smart cities.

◉ Smart Brightness Adjustment
Bright in the daytime for a vivid image, and soft warm lighting at night for traffic safety.

◉ Energy-saving and environment friendly
Remote scheduled power on and off, saving energy and reducing light pollution.

◉ Meteorological environment monitoring
Monitor the data of Meteorological environment, like temperature , humidity, wind direction and wind speed by sensor equipment, and then make them show on LED display.

◉ Excellent heat tolerance
No need to worry about operating in high temperatures. Can operate for extended period of time at 80℃, ensuring stability.

◉ Synchronous display
Synchronous transmission to multiple screens with little to no delay, allowing for an exceptional viewing experience.
Features LoRa technology, unaffected by environment and weather.

◉ Comprehensive management
Can perform multiple types of programs and quickly publish through use of browser.
Can instantly interrupt broadcast for breaking news and announcements, meeting the needs of many types of scenarios and increasing value of the display.

◉ Unrivaled security
Screen authentication, network transmission, play verification and other security measures ensure safe publishing.
Redundant network backup ports ensure long-term stable operation.

Advertisement Player Solution

Small Screen, Large presence

There are greater than ever requirements placed on the quality of advertisement standee.

With the domestic commercial and consumption environment increasingly developed, the needs for advertisement are increasingly enhanced, digitization, networking, and informatization has resulted in advertisement standee becoming an integral part of the advertising and media industry. With picture, text, video, and inserts (weather, exchange rates) and more, advertisement standee perform an important function, and are already widely used in subways, bus stations, airports, rail stations, gas stations, exhibitions, shopping centers, business buildings, restaurants, schools, government buildings, and more.

NovaStar's Smart LED cloud display solution, utilizing online operation, is not only suitable for common market applications, it also works great for LED advertisement standee. It allows multiple pieces of content to be displayed on a single screen or splicing together of multiple screens. Comprehensive publishing and remote control round out the features that make the LED cloud display solution an excellent way to increase the value of a display.

One screen to display
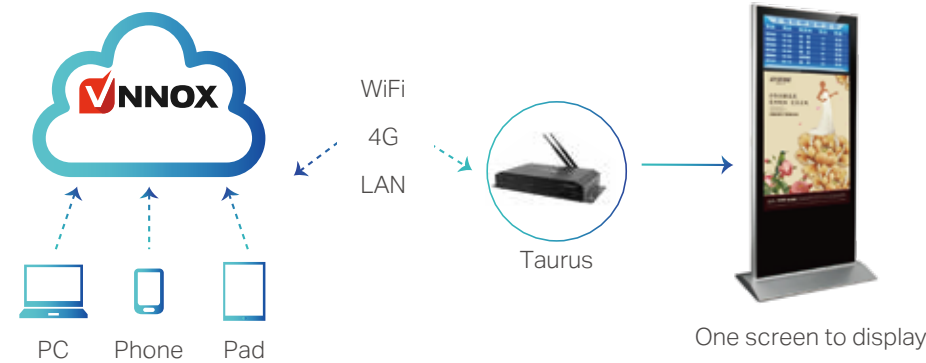
Multiple screen splicing
Allows you to join multiple screens together, leaving your video unaffected by size limitations.

Multiple regions
Allows you to divide one screen into multiple regions, and display different content in each region.

Wireless control
System has integrated 4G and WiFi functionality, eliminating the hassle of a wired connection and allowing you a connection from anywhere.

Perfect synchronization
All displays in a location synchronized with a high level of accuracy.

Smart control
Supports mobile, pad, PC and other Internet-connected devices, allowing for quick display setup, comprehensive remote control, and simple advertisement display operation.
Scheduled power on/off, scheduled play, and automatic loop play allow for flexible control.
Smart environment response and automatic brightness adjustment save power and reduce light pollution.

Accurate marketing
Works seamlessly with big data platforms, allowing for accurate marketing and providing excellent value to users.

Large screen splicing
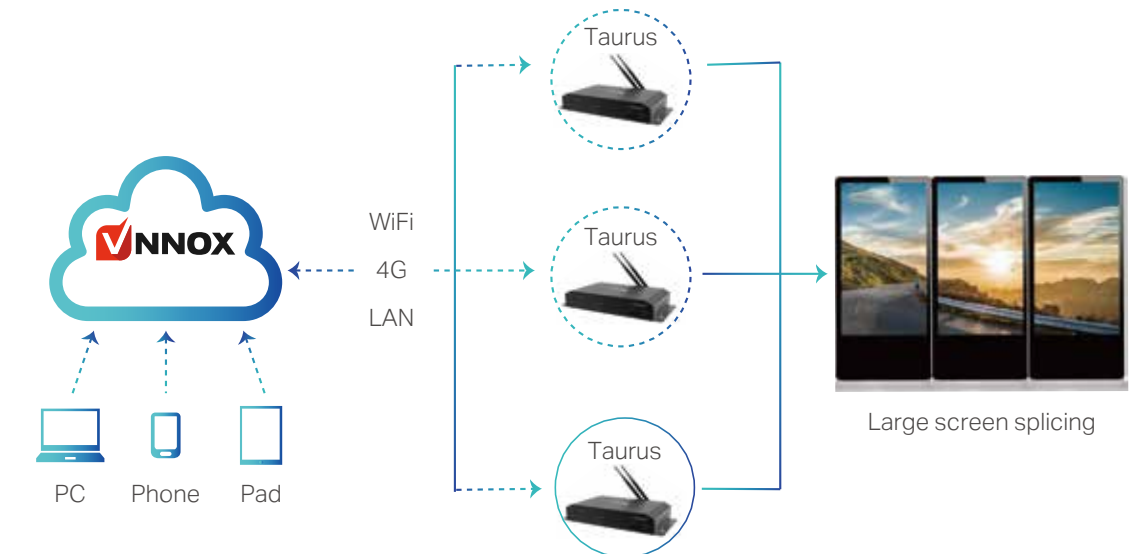
Outdoor Advertising Display Solution

Designed to enhance the value of your advertisements

Outdoor advertising displays are the most commonly seen commercial advertising screens, providing a subtle yet useful discourse between advertiser and consumer. At the same time, they manage to meet the restrictions of government organizations and city image planning. Because of this, these vivid and beautiful displays have gradually become an integral piece of the city's scenery. NovaStar's Smart LED Cloud Service Solution provides a total cloud solution for the LED advertising and media industry, including planning, construction, content publishing, and support. With this comprehensive solution, remote equipment monitoring, support, program creation, arrangement, auditing, publishing, data management, and custom branding are all readily available.
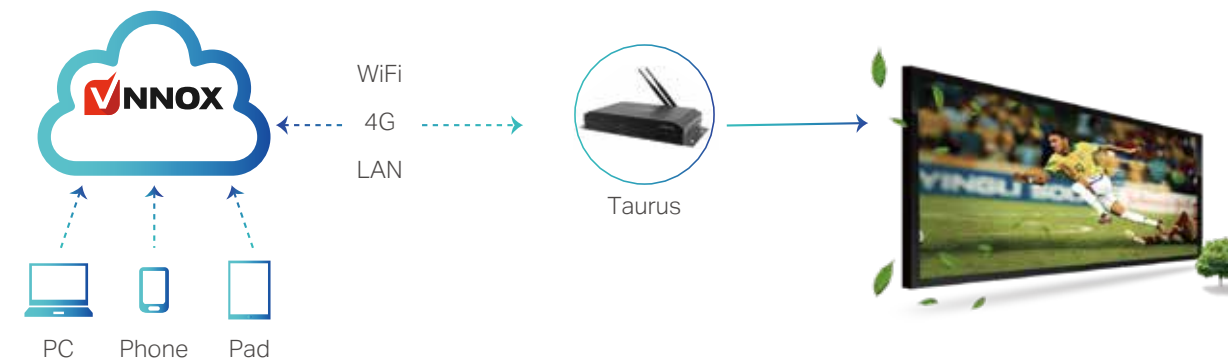
Secure and reliable

Provides stable operation of display in extreme conditions such as high humidity, high temperature, or lightning.

Highly reliable platform, with multiple levels of regulation ensuring stable content publishing.

Outstanding functionality

Support for picture, video, streaming content and dynamic data sources. Flexible scheduling , instant content insertion, all published remotely with the press of a button.

Visual interface and online media storage make content publishing quick and convenient.

Smart support

Smart inspection with scheduled delivery of detailed reports, saving manpower.

Rapid early warning of faults, with accurate location and professional correction suggestions.

Adds value to the display

Unique commercial display media sequencing algorithm, reducing a 3-hour job to just 3 minutes time.

Self-generated play log and detailed play statistics keep advertisers in the know.

Import your own brand information, allowing you to use your company URL, name, logo, and other information to help promote your brand.

Total control over access and privileges

Support for custom account management, allowing you to assign access privileges to individual users to suit any scenario.

Stunning display

4K High definition video decoding combined with a clear and fluid display ensure advertisements look amazing.

NOVA STAR

LED Screen Shelves Solution

The new commercial applications in the era of Smart New Retail

In recent years, with the rapid development of an information society and fine pitch LED display technology, LED screens are being increasingly used in commercial applications due to their high brightness, flexible expression, strong visual impact, and other advantages. LED electronic shelf screens are one o the common applications that is gradually emerging in the development of "new retail."

The commercial shelf LED screen, designed with the "Smart New Retail" concept, has features high definition, high brightness, and excellent color, allowing for display of HD product images and videos, promotions, digital price tags, and QR codes. This screen can greatly enhance the attractiveness of both goods and store, increasing brand awareness, creating a better shopping experience for the customer while triggering customer's desire to purchase, maximizing the marketing impace of supermarkets/stores.

Colorful display effect, attracting customer flow

High-definition, high-brightness, rich colors and vivid images, enhancing the overall visual effect of the container. This technology enhances the sense of light and shadow, helping shape brand image and attract customer flow.

### Cloud-based smart control, cluster management

Supports for PC and mobile phones, pad and other mobile devices through wired network \4G\WIFI and other methods.Access to the cloud platform, easy switching of playback screens, can be remotely updated anytime, anywhere.

Easy to install and maintain

The LED electronic shelf screen adopts standardized modules. The cabinet is light and thin, making it perfectly compatible with various commodity shelves, allowing for quick installation and easy maintenance.

Environmental efficiency, reduce operating costs

LED display replaces the original light box and plastic displays, improves resource utilization, saves energy and are friendly to the environment.

WiFi
4G
LAN

Taurus

PC   Phone   Pad

Shelves
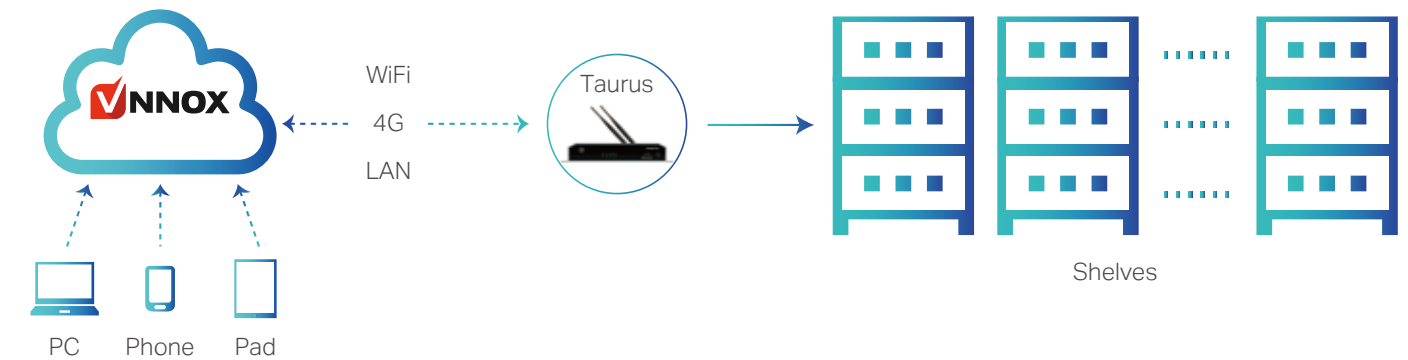
Note: the maximum width of one Taurus is 4096 pixels.

Full-Color Taxi/Bus LED Display Solution

Redefine mobile media in cities

With high mobility, wide and efficient information spreading and no time or space limitations, taxi/bus LED displays play an increasingly important role in city advertising. Traditional vehicle-mounted LED displays are gradually changing from simple single-/double-color text display to full-color multimedia playback. Featuring excellent visual expression and efficient advertising, full-color vehicle-mounted LED displays are accepted and favored by more and more advertisers.

NovaStar's full-color taxi/bus LED display solution supports playback of a variety of media such as text, images and videos, and allows all vehicle-mounted LED displays to be accessed by cloud platform to enable cluster management and cloud-based playback control. Content can be published and updated synchronously via PC or mobile devices anytime, anywhere. This can not only enhance a city's image but also bring higher returns for more advertisers.

PC   Phone   Pad

WiFi
4G
LAN

Taurus
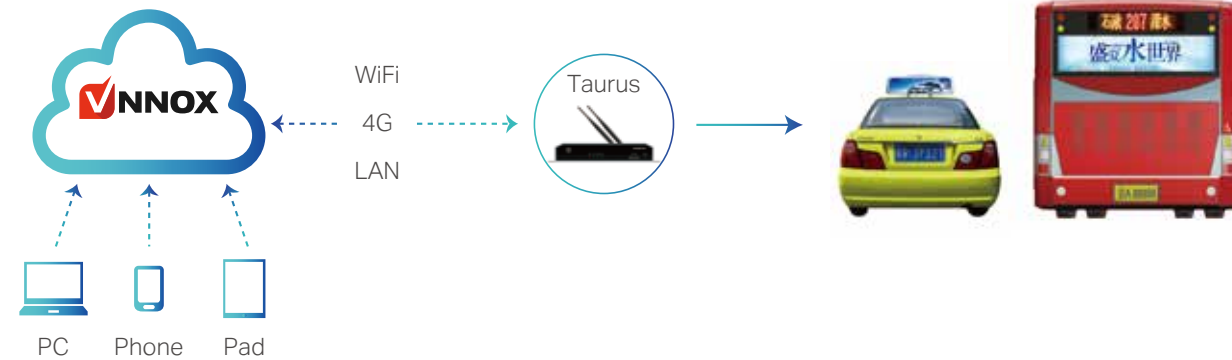
◉ **Cloud-Based Playback Control & Cluster Management**
Intelligent cloud control allows all vehicle-mounted LED displays to be uniformly controlled by PC, mobile phones and tablets via cloud platform. Content can be published in batches and playback policy can be adjusted flexibly.

◉ **Full-color Playback & Excellent Visual Effects**
Full-color LED modules are supported. Multiple types of media can be played, such as text, image and video, which can provide better advertising visual effects and attract more attention.

◉ **Secure & Stable Playback**
Comprehensive security protection measures such as permission authentication, channel encryption, data fingerprint, terminal lock and early fault warning are taken to ensure secure and stable playback.

Case Studies

Airport advertisement player comprehensive management project

This airport terminal installed over 150 LED and LCD vertical advertisement players. These players are powered on for 15 hours every day, with a daily play count of over one million. Now these players are all managed by NovaStar's VNNOX cloud platform. Support staff can easily arrange, manage, and play content from the comfort of their office, while remotely monitoring display status. With a proprietary commercial display media sequencing algorithm, 3 hours of work is reduced to just 3 minutes, giving display support staff more convenience and less hassle. Additionally, the platform's built-in support for LoRa ensures synchronized operation of all displays in the region, allowing for an impressive display experience from beginning to end.

Australian LED display Smart support center

Screencorp is the largest operator of large outdoor displays in Australia. In the past, this company relied on a support team of 5 individuals, responsible for management and operation of 38 displays. Now they use the NovaiCare cloud monitoring platform to monitor operation and play status. They are able to instantly see whether a display is experiencing normal operation or having any problems, which has provided them with a superior level of reliability.

These days, Screencorp has a team of 5 supporting their displays, but the amount of displays this team supports has risen to 157, an increase of 4 times. This is all because of the convenience that NovaiCare can provide.

Smart city development project

This is the first project in China to integrate energy saving, environmental awareness, city management, public safety, emergency response, big data, networking, new media and other functions all into one IoT Smart city.

Smart pole screens make up the core of this Smart city's IoT-based structure, with 288 already installed.

NovaStar's cloud display service is utilized by these pole screens and provides them with accurate synchronization, Smart brightness adjustment, advertisement play, monitoring, and comprehensive control, all dramatically improving the overall effectiveness of the display's management and support. This has had a large impact on the development of this Smart city.

Case Studies

Israel

Saudi Arabia

Canada

Malaysia

USA

Russia

Northern America

Northern America

NOVASTAR

Case Studies

Belgium

Malaysia

Canada

Spain

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