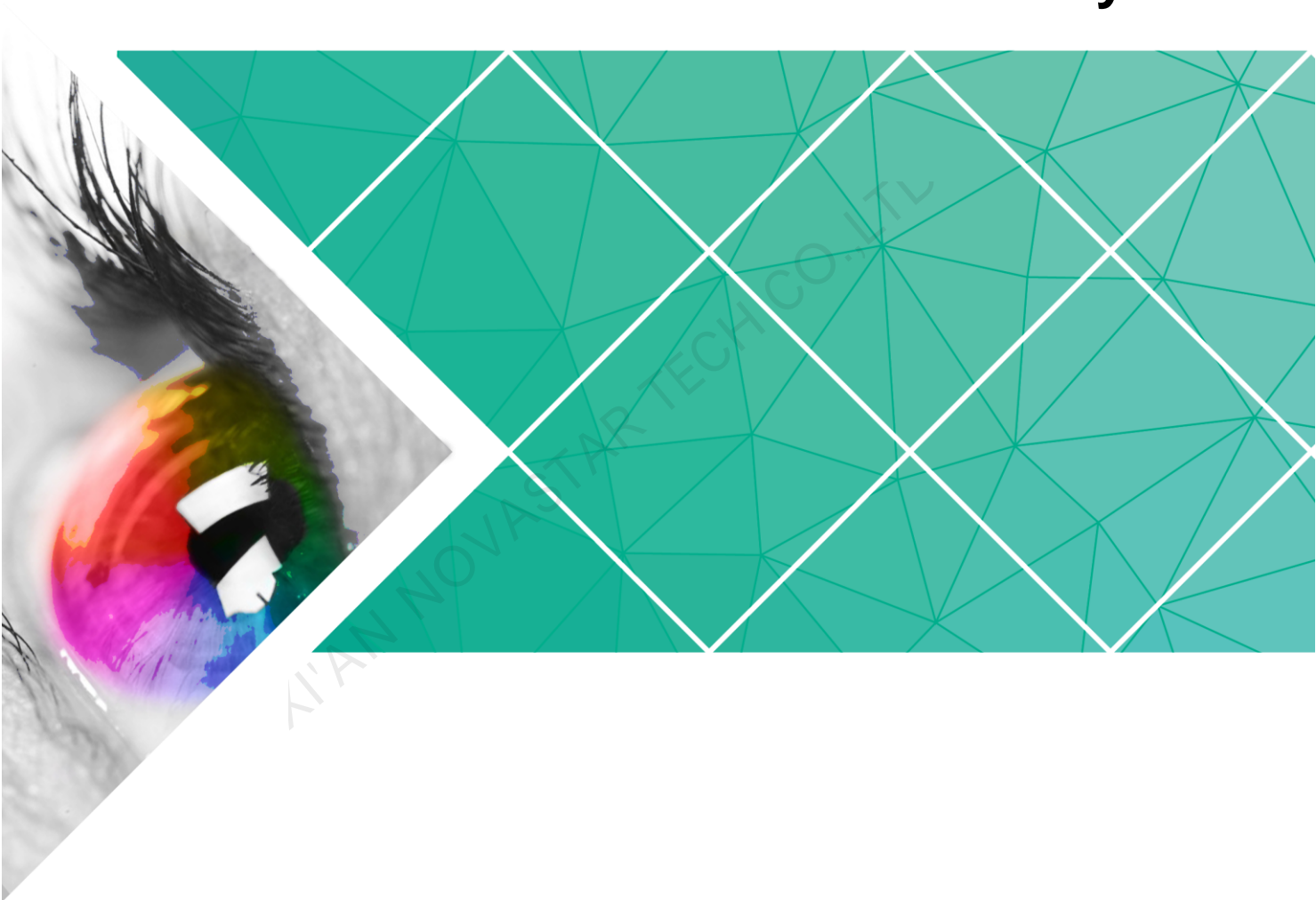


Taurus Series

Multimedia Players



Application Solution


Document Version: V1.3.2

Document Number: NS120100373

Copyright © 2018 Xi'an NovaStar Tech Co., Ltd. All Rights Reserved.

No part of this document may be copied, reproduced, extracted or transmitted in any form or by any means without the prior written consent of Xi'an NovaStar Tech Co., Ltd.

Trademark

 is a trademark of Xi'an NovaStar Tech Co., Ltd.

Statement

You are welcome to use the product of Xi'an NovaStar Tech Co., Ltd. (hereinafter referred to as NovaStar). This document is intended to help you understand and use the product. For accuracy and reliability, NovaStar may make improvements and/or changes to this document at any time and without notice. If you experience any problems in use or have any suggestions, please contact us via contact info given in document. We will do our best to solve any issues, as well as evaluate and implement any suggestions.

XI'AN NOVASTAR TECH CO., LTD.

Table of Contents

| | |
|---|-----------|
| Table of Contents | ii |
| 1 Overview | 1 |
| 1.1 About This Solution..... | 1 |
| 1.2 Characteristics of the Application Solution | 1 |
| 1.2.1 Synchronous Playing..... | 1 |
| 1.2.2 Smart Brightness Adjustment | 2 |
| 1.2.3 4G Module | 2 |
| 1.2.4 Cluster Management | 3 |
| 1.3 Software Acquiring Method | 3 |
| 2 AD Player and Mirror Screen Solution | 5 |
| 2.1 Overview..... | 5 |
| 2.2 Single Application | 7 |
| 2.2.1 Networking Diagram | 7 |
| 2.2.2 Required Software | 7 |
| 2.2.3 Relevant Configurations | 7 |
| 2.3 Cluster Application..... | 8 |
| 2.3.1 Networking Diagram | 8 |
| 2.3.2 Required Software | 8 |
| 2.3.3 Required Hardware Devices..... | 8 |
| 2.3.4 Relevant Configurations | 9 |
| 2.4 Splicing | 12 |
| 2.4.1 Networking Diagram | 12 |
| 2.4.2 Required Software | 13 |
| 2.4.3 Relevant Configuration | 13 |
| 3 Post Screen Solution | 15 |
| 3.1 Overview..... | 15 |
| 3.2 Networking Diagram | 17 |
| 3.3 Required Software | 17 |
| 3.4 Required Hardware Devices..... | 17 |
| 3.5 Relevant Configuration | 18 |

| | |
|--|-----------|
| 4 General Operations..... | 22 |
| 4.1 Taurus Login upon ViPlex Handy (Android and iOS) | 22 |
| 4.2 Taurus Login upon ViPlex Express (Windows) | 23 |

XI'AN NOVASTAR TECH CO.,LTD

1 Overview

1.1 About This Solution

Taurus series products are the second-generation multimedia players developed by NovaStar specially designed for the medium-small size LED full color displays, and applicable to all kinds of display devices as well as many application scenes.

AD player, mirror screen and post screen are used here as examples to describe the application solution of Taurus series products. Pictures of Taurus series products used in networking diagram are taken from T6 model.

For more information of Taurus series products, please visit www.novastar.tech to download relevant documents.

1.2 Characteristics of the Application Solution

1.2.1 Synchronous Playing

This function makes several displays play the same image at the same time with high accuracy based on advanced synchronous playing and scheduling technologies.

The synchronous playing function could be enabled for different displays as long as following three requirements are met:

- The synchronous playing function has been enabled on the ViPlex or VNNOX.
- The time of multiple Taurus products are synchronized.
- Playing plans of multiple Taurus products are the same without random transition or media.

Advantages of the synchronous playing function are shown in [Table 1-1](#).

Table 1-1 Synchronous playing

| Object | Advantage |
|-------------|---|
| User | Improve advertisement and information broadcast effects |
| Environment | Improve city image and make the city more colorful |
| Display | Improve visual experience |

Time could be synchronized through NTP and RF modes from which the user could select one as required:

- NTP time synchronization: Taurus time synchronization is based on NTP server. No hardware is required to be added, and time synchronization accuracy depends on network speed. Consequently, network traffic will be consumed by using 4G network.
- RF time synchronization: Master and slave devices are required to be set for Taurus. Time of the slave device is synchronized with that of the master device through RF network, and therefore RF device is required. This time synchronization method is applicable to events with high time synchronization requirement and does not consume network traffic, but its signal receiving depends on the environment and is limited by distance.

1.2.2 Smart Brightness Adjustment

Smart brightness adjustment includes auto brightness adjustment and timing brightness adjustment.

- Auto brightness adjustment: Display brightness will automatically adjust according to environment brightness.
- Timing brightness adjustment: Display brightness will automatically adjust to a specific value at a given point of time.

Taurus products have brightness sensor connectors. Connect the light sensor and set smart brightness adjustment rules on ViPlex to enable the smart brightness adjustment function.

Advantages of smart brightness adjustment are as shown in [Table 1-2](#).

Table 1-2 Smart brightness adjustment

| Object | Advantage |
|-------------|--------------------------|
| User | Reduce manual operations |
| Environment | Avoid light pollution |
| Display | Smarter |

Taurus products support manual brightness adjustment as well.

1.2.3 4G Module

4G module can be installed on the Taurus series products. To connect the Taurus to the Internet via 4G network, buy the corresponding 4G module and install it according to the country or region of the service provider.

The Taurus can be connected to the Internet through the following three methods listed from the highest to the lowest priority:

- Wired network
- Wi-Fi Sta
- 4G network

When the three methods are all enabled, the Taurus will select signals automatically according to the priorities.

When mobile data network is enabled on ViPlex and priority requirements for signal selection are met, Taurus products with 4G module could connect to Internet.

Advantages of 4G module are as shown in [Table 1-3](#).

Table 1-3 4G module

| Object | Advantage |
|-------------|---|
| User | Solution transmission speed is fast without wiring operation |
| Environment | - |
| Display | All Internet connection methods are available to enable more application scenes |

1.2.4 Cluster Management

Display quantity increases fast following with the development of smart city and commercial application, and cluster solution of NovaStar emerges to uniformly manage and monitor numerous displays in different places.

- VNNOX: A cloud publishing service used to realize display remote content management and remote terminal control.
- NovaiCare: A cloud monitoring service used to realize display remote monitoring.

VNNOX and NovaiCare could be accessed to remotely and uniformly manage displays with PC, Pad or mobile phone as long as Internet is available.

Advantages of cluster management are as shown in [Table 1-4](#).


Table 1-4 Cluster management

| Object | Advantage |
|-------------|---|
| User | Remotely and uniformly manage and monitor numerous displays |
| Environment | Helpful for the development of the smart city |
| Display | Without limits on deployment position and quantity |

1.3 Software Acquiring Method

Table 1-5 Software acquiring methods

| Type | Description | Method |
|--------------|--|---|
| ViPlex Handy | It is a LAN-based display management software, including the one applicable to Android and iOS operating systems, is mainly used for display management as well as | Scan the following QR code to download and install the APP. |

| Type | Description | Method |
|----------------|---|--|
| | solution editing and publishing. |  |
| ViPlex Express | It is a LAN-based display management software applicable to the Windows operating system, and is mainly used for display management as well as solution editing and publishing. | Visit www.novastar.tech , download and install the required software. |
| VNNOX | It is a safe cloud publishing service, and is mainly used for solution remote editing and publishing. | Visit www.vnnox.com for register and login. |
| NovaiCare | It is a safe cloud monitoring service, and is mainly used for display remote monitoring. | Visit www.novaicare.com for register and login. |

XI'AN NOVASTAR TECH CO., LTD.

2 AD Player and Mirror Screen Solution

2.1 Overview

AD player and mirror screen, the typical commercial display applications, are mainly used for information publishing and advertisement display, and can be placed at the shopping mall, hotel, office building, exhibition, bank, station and community.

There are two application modes for the mirror screen which is a mirror when the display is turned off.

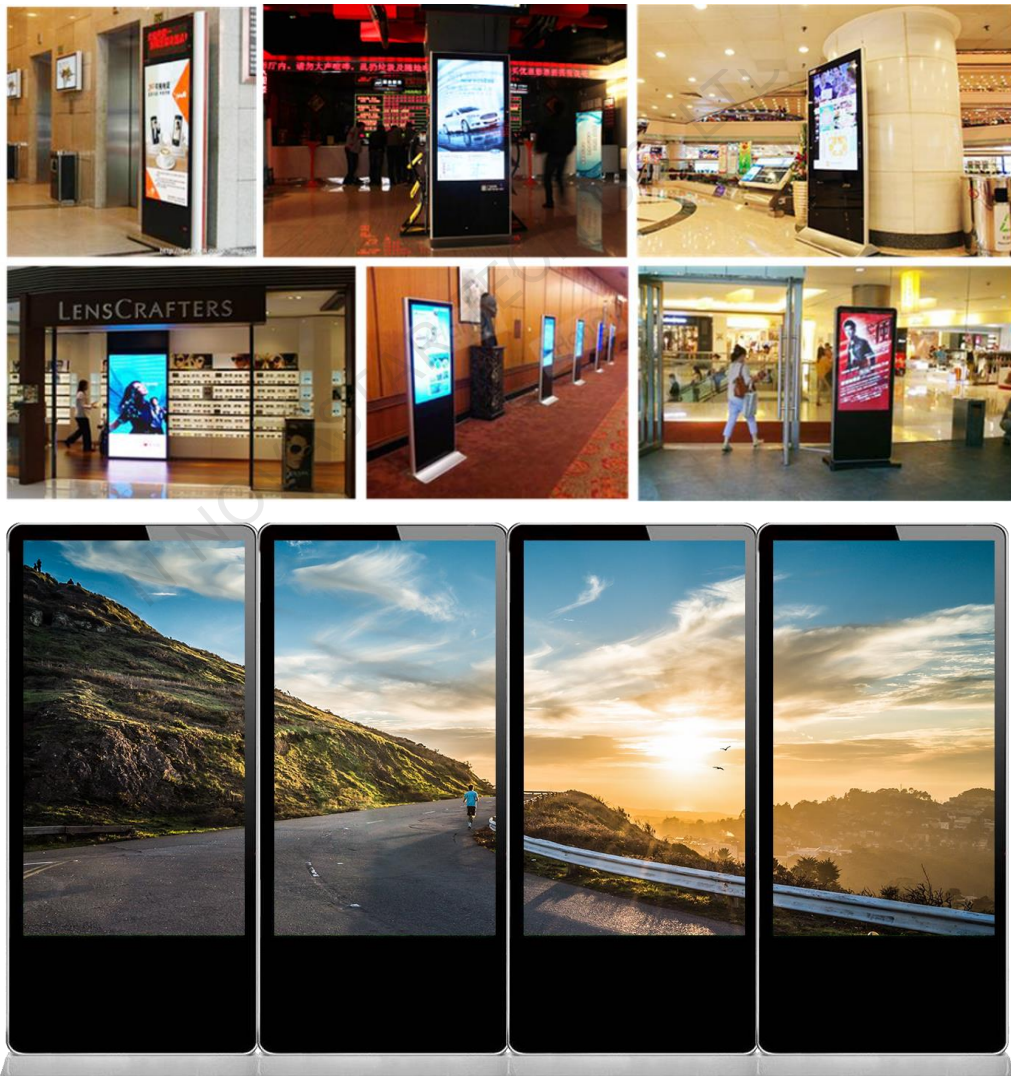
There are many application modes for the AD player and mirror screen, and only typical applications are introduced in this chapter, including the single application, cluster application and splicing application.

Characteristics of the AD player and mirror screen of NovaStar are as shown in [Table 2-1](#).

Table 2-1 AD player and mirror screen

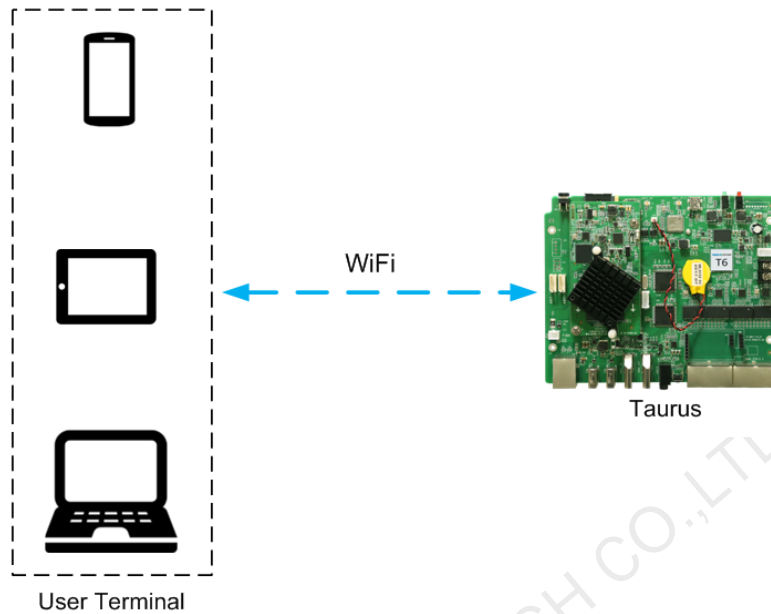
| Characteristic | Description | Required Configuration |
|---|---|--|
| Support for synchronous display | Application of advanced synchronous playing and dispatching technologies realize high-accuracy synchronous playing for the same image on different displays. | <ul style="list-style-type: none">• Enable the synchronous playing function on the ViPlex or VNNOX.• Set time synchronizing rules on the ViPlex or VNNOX. |
| Support for smart brightness adjustment | Automatic and timing brightness adjustment could reduce manual operation, and brightness filtering technology could help to avoid brightness interference to realize stable display brightness. | Set smart brightness adjustment rules on ViPlex or VNNOX. |
| Support for splicing playing | Both individual playing and splicing playing are available for multiple displays. | Set splicing-related parameters on ViPlex. |
| Support for selling | During the process of | Edit solutions on ViPlex or |

| Characteristic | Description | Required Configuration |
|---|--|------------------------|
| advertisements played in different time periods | solution scheduling, the user can divide time periods as required to play the specified list in every time period. | VNNOX. |
| Support for media switching without blackout | Blackout does not occur during media switching process. | No need to set. |
| Support for generating play log | The Taurus products can generate play log, and the user can check and export the log on VNNOX. | No need to set. |



2.2 Single Application

2.2.1 Networking Diagram



Taurus products provide Wi-Fi AP itself. After connecting to Wi-Fi AP with PC, Pad and mobile phone, enter the username and password to log in to the Taurus.

2.2.2 Required Software

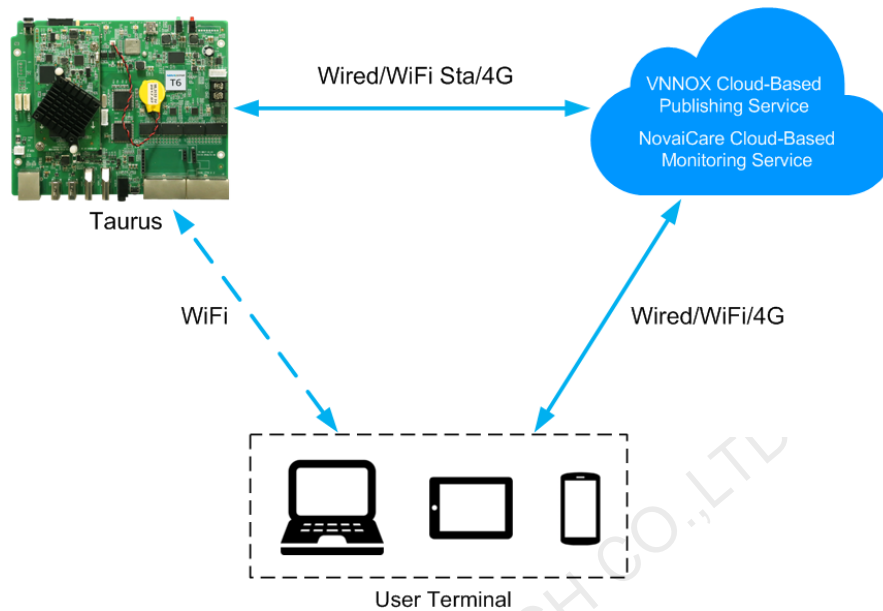
- ViPlex Handy
- ViPlex Express

2.2.3 Relevant Configurations

No need to set. Refer to [4 General Operations](#) for specific operations to connect and log in to the Taurus products.

2.3 Cluster Application

2.3.1 Networking Diagram



VNNOX and NovaiCare could be accessed directly or by way of bridge connection. When bridge connection is selected, following three methods for Internet connection of Taurus products are available with priorities ranging from high to low:

- Wired network
- Wi-Fi Sta
- 4G network

When the three methods are all enabled, Taurus products will select signals automatically according to the priorities.

2.3.2 Required Software

- ViPlex Handy
- ViPlex Express
- VNNOX
- NovaiCare

2.3.3 Required Hardware Devices

| Function | Required Hardware Device | Model |
|-----------------------------|---|--------|
| Synchronous playing | When RF time synchronization is used, it is required to purchase RF devices | E32-1W |
| Smart brightness adjustment | Light sensor | NS048D |

2.3.4 Relevant Configurations

Before You Begin

- The login username and password for VNNOX, NovaiCare and NovaLCT are acquired.
- Create solution(s) on VNNOX without random transition and random media of the solution(s).
- Create asynchronous players on VNNOX and associate the players with the License.
- Configurations required before monitoring have been done on NovaLCT and NovaiCare.



Refer to software online help for specific operations of VNNOX, NovaiCare and NovaLCT.

Acquiring Player Authentication Information

The authentication information is required when you bind asynchronous players on VNNOX to the Taurus through ViPlex.

Step 1 Visit www.vnnox.com and log in to VNNOX Lite or VNNOX Pro.

Step 2 Perform the following operations to view the correct authentication information.



- VNNOX Lite: Choose  > **Account**.
- VNNOX Pro: Choose  > **Organization Management** > **System Management** and select the **Player Authentication** tab.

Configuring ViPlex Handy (Android and iOS)

Step 1 Log in to the Taurus. Refer to [4.1 Taurus Login upon ViPlex Handy \(Android and iOS\)](#).

Step 2 Click screen name to enter **Screen management** page.

Step 3 Set rules for smart brightness adjustment.

1. Select **Screen Settings** > **Brightness Control**.
2. Click **Brightness Mode**, select **Smart**, and click **OK**.
3. Click **Smart Brightness Adjustment Parameters**.
4. Click **Edit**.
5. Click  to set rules for timed brightness adjustment. Then click **OK**.
6. Click  to set rules for auto brightness adjustment. Then click **OK**.
7. Click **Auto adjustment parameters** to set the corresponding relation between ambient brightness and screen brightness.
8. Click **OK**.

Step 4 Set the connection method between the Internet and Taurus.

Priorities of wired network, Wi-Fi Sta and 4G network range from high to low. When the three methods are all enabled, the Taurus will select signals automatically according to the priorities.

- Wired network: When static IP address is required, select **Network Settings > Wired Network Setting**, turn **DHCP** off, enter the static IP address of the Taurus, and click **OK**.
- Wi-Fi Sta: Select **Network Settings > Wi-Fi Setting**, and turn **WiFi** on. Click the Wi-Fi name of the external router and enter the Wi-Fi password, and click **OK**.
- 4G network: Select **Network Settings > Mobile Data Setting**, and turn **Mobile Data** on.

Step 5 Bind the asynchronous player.

1. Select **Remote Management > VNNOX**.
2. Set the VNNOX server and player authentication information.
3. Click **Obtain** and select a player from the drop-down box of **Player**.
4. Click **OK** after setting.

Step 6 If display remote monitoring is required, perform the following procedures. Otherwise, ignore this step.

1. Select **Remote Management > NovaiCare**.
2. Turn **NovaiCare** on.
3. Select the service node of the NovaiCare from the drop-down box of **Server**.
4. Click the right side of **Possessor** line.
5. Enter the username for login NovaiCare in the pop-up dialog box, and click **OK**.
6. Click **OK** after setting.

Step 7 Repeat above steps to configure other Taurus products in cluster till all Taurus products have been configured.

Configuring ViPlex Express (Windows)

Step 1 Log in Taurus and see detailed operations in [4.2 Taurus Login upon ViPlex Express \(Windows\)](#).

Step 2 Select Screen Control.

Step 3 Set rules for smart brightness adjustment.

1. Select **Brightness adjustment**.
2. Select the target terminal in the terminal list.
3. Click **+** on the **Smart** page.
4. Set rules for timed brightness adjustment and click **Add**.
5. Set rules for auto brightness adjustment and click **Add**.
6. Click **Cancel**.
7. Click **Apply**.


Step 4 Set the way to connect Taurus to the Internet.

The priority of wired network, Wi-Fi Sta and 4G network is from high to low. If all of the three ways are enabled, the Taurus will choose signal automatically according to the priority order.

1. Select **Network configuration**.

2. Select the target terminal in the terminal list and perform the following operations according to actual needs.
 - Wired network: If it is required to set static IP address, deselect **Dynamic DHCP**, enter the IP address information of the Taurus and then click **Apply** in the **Wired network configuration** section.
 - Wi-Fi Sta: Turn on **Wi-Fi** in the **Wi-Fi configuration** section. Click the Wi-Fi name of external router and then enter Wi-Fi password and click **OK**.
 - 4G network: In the **Mobile network configuration** area, turn on mobile network.

Step 5 Bind asynchronous players.

1. Select **Server configuration**.
2. Select the target terminal in the terminal list.
3. In **Configure parameters for connecting screens to VNNOX**, configure VNNOX server and player authentication information.
4. Click  next to **Player** and select a player.
5. Click **Bind**.

Step 6 If you want to monitor displays remotely, please perform this step; otherwise, skip this step.

1. In **Configure parameters for connecting screens to NovaiCare**, configure NovaiCare server and login user name.
2. Click **Send**.


Step 7 Repeat above steps until all the Taurus products in the cluster are configured.



Configuring VNNOX

When setting timing rules and synchronous playing upon ViPlex, every Taurus product is required to be set individually, and batch setting is available for setting timing rules and synchronous playing upon VNNOX. When the public network is available, VNNOX is recommended for batch configuration to reduce manual operations.

Step 1 Visit www.vnnox.com and log in to VNNOX Pro.

Step 2 Set time synchronization rule.

1. Select  > **Players Management > Time Synchronization**.
2. Click NTP server configuration.
3. Configure NTP service information, and then click **Save&Close**.
4. Click **New** on the page of time synchronization task list.
5. Enter time synchronization task name and select time synchronization method, and then click **Next**.
 - NTP: Select a NTP server and then click **OK**.
 - RF: Select a time synchronization standard device and then click **OK**.
6. Click **Add** in the **Players** tab of the time synchronization task attribute page.
 - NTP time synchronization: Select all the players in cluster and then click **OK**.

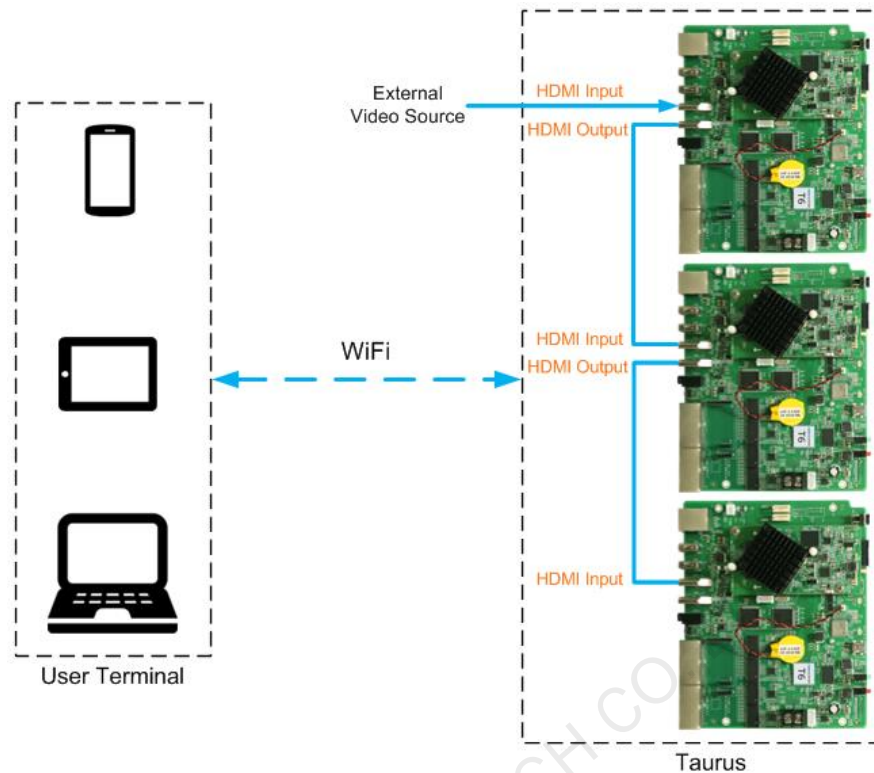
- RF time synchronization: Select all the slave players in RF network and then click **OK**.
 - 7. When the time synchronization method upon RF network is selected, and NTP server is used for the time synchronization standard device, click **Configure** tab to set **NTP** to **Yes**, and select NTP server. Otherwise, ignore this step.
 - 8. Click **Save** or **Save&Close**. Players added in the time synchronization task will perform time synchronization according to rules defined in the task.
- Step 3 If the same image is required to be played by different screens, perform the following procedures. Otherwise, ignore this step.
1. Select  > **Players Management > Players**.
 2. Select asynchronous players corresponding to all Taurus series products requiring enabling the synchronous playing function.
 3. Select **Real-time control > Synchronous playback > Turn on sync play**.
- Step 4 Associate with solution(s).
1. Select  > **Players Management > Players**.
 2. Select a player and click **Attribute**, or click a player name.
 3. Select a solution from the drop-down box of parameter **associate solution**.
 4. Whether solution distribution type is **Manual**.
 - Yes. Click **Save&Close** to return to the player list page. Perform term 5.
 - No. Click **Save** or **Save&Close**. VNNOX will automatically distribute solutions to corresponding Taurus products.
 5. Select the target player, and click **Update solution** to manually distribute solutions to corresponding Taurus products.
 6. Repeat above steps to associate with solutions for other players in cluster till all players have been configured.

2.4 Splicing

This section will show you an example of splicing three displays horizontally from the left to right and using the external video source.

2.4.1 Networking Diagram

The following figure uses three displays splicing as an example to illustrate Taurus connection.



The Taurus product provides Wi-Fi AP itself. Connect to Wi-Fi AP of each Taurus product through PC, Pad and mobile phone, and then enter the username and password to log in to the Taurus.

2.4.2 Required Software

- ViPlex Handy
- ViPlex Express

2.4.3 Relevant Configuration


Before You Begin

Make sure that the displays have the same specifications.

Configuring ViPlex Handy (Android and iOS)


Step 1 Log in to all the Taurus to be spliced. Refer to [4.1 Taurus Login upon ViPlex Handy \(Android and iOS\)](#) for specific operations.

Step 2 Choose **Screens**.

Step 3 On the **Screen List** page, click  at the top right.

Step 4 Enter a resolution and click **Query** to search for screens.

The online Taurus and offline Taurus with mosaic order that match your query will be displayed.

Step 5 (Optional) Click  to sort the Taurus with mosaic order by ascending mosaic order.

Step 6 Click **Mosaic**.

Step 7 Set the number of screens used for mosaic.

The number of screens cannot be greater than the ceiling integer of the value of "Resolution width of Taurus / image width".

The resolution width of Taurus is up to 4096 pixels.

Step 8 Set mosaic orders.

The system will set the horizontal image offset automatically according to the mosaic orders and image width.

Offset = (*Mosaic order* – 1) × Image width

For example, if the image width is 500 px, set the offset of the second screen to 500 px and the offset of the third screen to 1000 px.

Step 9 Set the video source of the first screen.

Configuring ViPlex Express (Windows)

Step 1 Log in Taurus and see detailed operations in [4.2 Taurus Login upon ViPlex Express \(Windows\)](#).

Step 2 Select **Screen Control > Video source**.

Step 3 Select the target terminal in the terminal list.

Step 4 On the **Manual** page, configure all required parameters.

- **Video source type:** HDMI
- **X:** (*The display serial number*– 1) x *The Image width*. For example, when the image width is 500px, it is required to be set as 500px for the second display and 1000px for the third display.
- **Y:** 0

If the first display uses the internal video source, set the **Video source type** of the first display to **Internal** and set the **Video source type** of other displays to **HDMI**.

Step 5 Click **Apply**.

Step 6 Repeat above steps to configure other Taurus products till all Taurus products have been configured.

3 Post Screen Solution

3.1 Overview

Post screens prevail on both sides of highways and roads following with the development of the smart city. Smart post screen has distinct advantages compared with the conventional post which features illumination and static advertisement only and requires new manufacture and installation in case of advertisement replacement, while the smart post provides functions including illumination, security monitoring, environment monitoring, emergency call, charging pile and LED display which used high-definition smart LED post screen for road leading, data release and advertising promotion.

Post screens can be used without quantity limits, and the display contents can be controlled individually or in batch based on cluster management method.

Characteristics of the post screen of NovaStar are as shown in [Table 3-1](#).

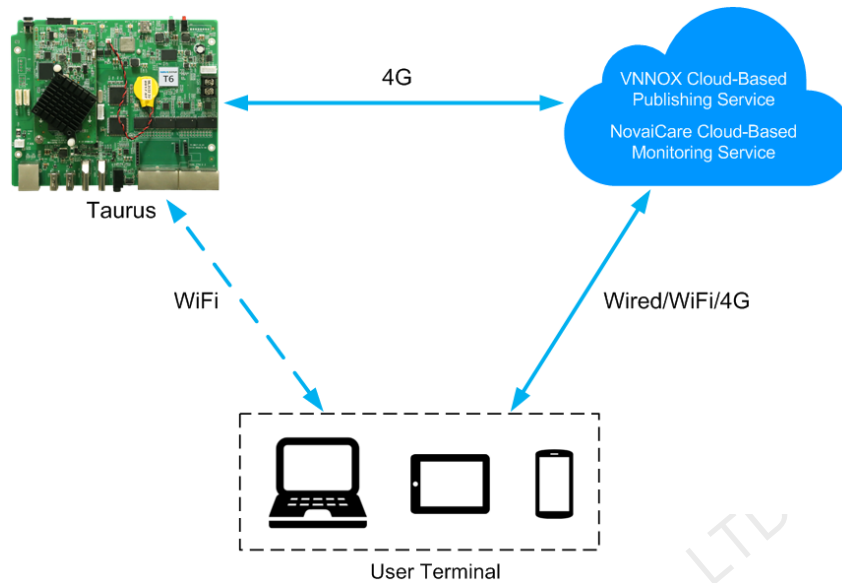
Table 3-1 Post screen

| Characteristics | Description | Require Configuration |
|---|---|---|
| Support synchronous playing | Use advanced synchronous playing and scheduling technologies to make several displays play the same image at the same. | <ul style="list-style-type: none"> Enable the synchronous playing function on the ViPlex or VNNOX. Set time synchronizing rules on the ViPlex or VNNOX. |
| Support for smart brightness adjustment | Automatic and timing brightness adjustment could reduce manual operation, and brightness filtering technology could help to avoid brightness interference to realize stable display brightness. | Set smart brightness adjustment rules on ViPlex or VNNOX. |
| Support for selling advertisements played in different time periods | During the process of solution scheduling, the user can divide time periods as required to play the specified list in every time period. | Edit solutions on ViPlex or VNNOX. |
| Support for media switching without | Blackout does not occur during media switching | No need to set. |

| Characteristics | Description | Require Configuration |
|--|---|--|
| blackout | process. | |
| Support for generating play log | Taurus products can generate play log, and the user can check and export the log on VNNOX. | No need to set. |
| Support for remote solution publishing | VNNOX is a safe cloud publishing service which enables remote content management and remote terminal control for the LED display. | Visit www.vnnox.com for register and login. |
| Support for remote display monitoring on NovaiCare | NovaiCare is a safe cloud monitoring service which enables remote monitoring for the LED display. | Visit www.novaicare.com for register and login. |
| Support for environment monitoring | Onboard camera connector can monitor the environment surround the post screen. | No need to set. |
| Support for 4G module | After the 4G module is installed, the Internet can be connected via 4G network. | Turn on mobile data network on ViPlex. |



3.2 Networking Diagram



VVNOX and NovaiCare could be accessed directly or by way of bridge connection to centrally manage post screens.

Taurus products can connect to Internet through the wired network, Wi-Fi and 4G network which is recommended for this solution.

3.3 Required Software

- ViPlex Handy
- ViPlex Express
- VVNOX
- NovaiCare

3.4 Required Hardware Devices

| Function | Required Hardware Device | Model |
|-----------------------------|---|--------|
| Synchronous playing | When RF time synchronization is used, it is required to purchase RF devices | E32-1W |
| Smart brightness adjustment | Light sensor | NS048D |

3.5 Relevant Configuration

Before You Begin

- Acquire the login username and password of VNNOX, NovaiCare and NovaLCT.
- Create a solution on the VNNOX without random transition and random media.
- Create an asynchronous player which associates with License on the VNNOX.
- Complete configurations required to be done before monitor on NovaLCT and NovaiCare.



Refer to software online help for specific operations of VNNOX, NovaiCare and NovaLCT.

Acquiring player Authentication Information

The authentication information is required when you bind asynchronous players on VNNOX to the Taurus through ViPlex.

Step 1 Visit www.vnnox.com and log in to VNNOX Lite or VNNOX Pro.

Step 2 Perform the following operations to view the correct authentication information.



- VNNOX Lite: Choose  > **Account**.
- VNNOX Pro: Choose  > **Organization Management > System Management** and select the **Player Authentication** tab.

Configuring ViPlex Handy (Android and iOS)

Step 1 Log in to the Taurus. Refer to [4.1 Taurus Login upon ViPlex Handy \(Android and iOS\)](#) for specific operations.

Step 2 Click the screen name to enter the **Screen management** page.

Step 3 Set rules for smart brightness adjustment.

1. Select **Screen Settings > Brightness Control**.
2. Click **Brightness Mode** to select **Smart**, and then click **OK**.
3. Click **Smart Brightness Adjustment Parameters**.
4. Click **Edit**.
5. Click  to set rules for timed brightness adjustment. Then click **OK**.
6. Click  to set rules for auto brightness adjustment. Then click **OK**.
7. Click **Auto adjustment parameters** to set the corresponding relation between ambient brightness and screen brightness. Then click **OK**.
8. Click **OK**.

Step 4 Set Internet connection mode for the Taurus.



1. Select **Network Settings > Mobile Data Setting**.
2. Turn **Mobile Data** on.

Step 5 Bind the asynchronous player.

1. Select **Remote Management > VNNOX**.

2. Set the VNNOX server and player authentication information.
 3. Click **Obtain** and select a player from the dropdown box of **Player**.
 4. Click **OK** after setting.
- Step 6 If display remote monitoring is required, perform the following procedures. Otherwise, ignore this step.
1. Select **Remote Management > NovaiCare**.
 2. Turn **NovaiCare** on.
 3. Select the service node of NovaiCare from the dropdown box of **Server**.
 4. Click the right side of **Possessor** line.
 5. Enter the login username of NovaiCare in the pop-up dialog box, and click **OK**.
 6. Click **OK** after setting.
- Step 7 Repeat above steps to configure other Taurus products in cluster till all Taurus products have been configured.

Configuring ViPlex Express (Windows)

- Step 1 Log in Taurus and see detailed operations in [4.2 Taurus Login upon ViPlex Express \(Windows\)](#).
- Step 2 Select Screen Control.
- Step 3 Set rules for smart brightness adjustment.
1. Select **Brightness adjustment**.
 2. Select the target terminal in the terminal list.
 3. Click  on the **Smart** page.
 4. Set rules for timed brightness adjustment and click **Add**.
 5. Set rules for auto brightness adjustment and click **Add**.
 6. Click **Cancel**.
 7. Click **Apply**.
- Step 4 Set the way to connect Taurus to the Internet.
1. Select **Network configuration**.
 2. Select the target terminal in the terminal list.
 3. In the **Mobile network configuration** area, turn on mobile network.
- Step 5 Bind asynchronous players.
1. Select **Server configuration**.
 2. Select the target terminal in the terminal list.
 3. In **Configure parameters for connecting screens to VNNOX**, configure VNNOX server and player authentication information.
 4. Click  next to **Player** and select a player.
 5. Click **Bind**.
- Step 6 If you want to monitor displays remotely, please perform this step; otherwise, skip this step.

1. In **Configure parameters for connecting screens to NovaiCare**, configure NovaiCare server and login user name.
2. Click **Send**.


Step 7 Repeat above steps until all the Taurus products in the cluster are configured.

Configuring VNNOX


When setting timing rules and synchronous playing upon ViPlex, every Taurus product is required to be set individually, and batch setting is available for setting timing rules and synchronous playing upon VNNOX. When the public network is available, VNNOX is recommended for batch configuration to reduce manual operations.

Step 1 Visit www.vnnox.com and log in to VNNOX Pro.


Step 2 Set time synchronization mode.

1. Select  > **Players Management > Time Synchronization**.
2. Click **NTP server configuration**.
3. Configure NTP service information, and then click **Save&Close**.
4. Click **New** on the page of time synchronization task list.
5. Enter time synchronization task name and select time synchronization method, and then click **Next**.
 - NTP: Select the NTP server and then click **OK**.
 - RF: Select a time synchronization standard device and then click **OK**.
6. Click **Add** in the **Players** tab of the time synchronization task attribute page.
 - NTP time synchronization: Click all the players in cluster and then click **OK**.
 - RF time synchronization: Click all the slave players in RF network and then click **OK**.
7. When the time synchronization method upon RF network is selected, and NTP server is used for the time synchronization standard device, click **Configure** tab to set **NTP** to **Yes**, and select NTP server. Otherwise, ignore this step.
8. Click **Save** or **Save&Close**. Players added in the time synchronization task will perform time synchronization according to rules defined in the task.

Step 3 If the same image is required to be played by different screens, perform the following procedures. Otherwise, ignore this step.

1. Select  > **Players Management > Players**.
2. Select asynchronous players corresponding to all Taurus series products requiring enabling the synchronous playing function.
3. Click **Real-time control** and select **Turn on sync play** from the drop-down box.

Step 4 Associate with solution(s).

1. Select  > **Players Management > Players**.
2. Select a player and click **Attribute**, or click a player name.
3. Select a solution from the drop-down box of parameter **associate solution**.
4. Whether solution distribution type is **Manual**.
 - Yes. Click **Save&Close** to return to the player list page, and perform term 5.

- No. Click **Save** or **Save&Close**. VNNOX will automatically distribute solutions to corresponding Taurus products.
- 5. Select the target player, and click **Update solution** to manually distribute solutions to corresponding Taurus products.
- 6. Repeat above steps to associate with solutions for other players in cluster till all players have been configured.

XI'AN NOVASTAR TECH CO.,LTD

4 General Operations

Taurus series products feature Wi-Fi AP function. This chapter takes Wi-Fi AP connection as an example to introduce the Taurus login method.

Other connection methods require hardware or software configuration. Refer to **Taurus Series Multimedia Players Quick Start Guide** for specific operations.

4.1 Taurus Login upon ViPlex Handy (Android and iOS)

Before You Begin

- Acquire the SSID and password of Wi-Fi AP of the Taurus. SSID is default to be composed of AP and the last 8 numbers of SN, and the password is default as “**12345678**”.
- Acquire the login password of user “admin” of which the default password is “**123456**”.




Operating procedures

ViPlex Handy can connect numerous Taurus products.

Step 1 Connect Wi-Fi AP of the Taurus series products.

Step 2 Start ViPlex Handy.

System can automatically detect the Taurus series products and refresh **Screen list**. Users can also slide down **Screen list** to manually refresh the list.

- : denotes that Taurus is online and you can log into it.
- : denotes that Taurus is offline and you cannot log into it.
- : denotes that Taurus login is successful.

Step 3 Click **Connect** behind the screen name.

Step 4 Enter username and password, and click **Login**.

4.2 Taurus Login upon ViPlex Express (Windows)

Before You Begin

- Acquire the SSID and password of Wi-Fi AP of the Taurus. SSID is default to be composed of AP and the last 8 numbers of SN, and the password is default as “12345678”.
- Acquire the login password of user “admin” of which the default password is “123456”.




Operating procedures

The ViPlex Express can connect numerous Taurus products.

Step 1 Connect the Wi-Fi AP of Taurus series products.



Step 2 Start the ViPlex Express.

Step 3 Click **Refresh** and the screen list will be displayed on the page.

- : denotes that Taurus is online and you can log into it.
- : denotes that Taurus is offline and you cannot log into it.
- : denotes that Taurus login is successful.

After the Taurus is found by ViPlex Express, the ViPlex express will try to log into to the Taurus with the default account or the account used for last login.

Step 4 Taurus login is successful or not.

- Yes.  appears and no further operation is required.
- No.  appears and then perform [Step 5](#).

Step 5 Click **Connect** on the right of the screen information.

Step 6 Enter the username and password, and click **OK**.