



Nevaya Cast Details

An Overview

Nevaya Cast product outline

introducing neveyacast.

Whilst Google Chromecast offers an inbuilt "guest mode" for use beyond the home, many hoteliers have still been somewhat nervous to introduce the device into guest entertainment systems due to specific security challenges faced by commercial venues. The hospitality industry requires a safe and secure application; what would prevent users from casting malicious content to surrounding bedroom TVs? How vulnerable could a guest's device become?

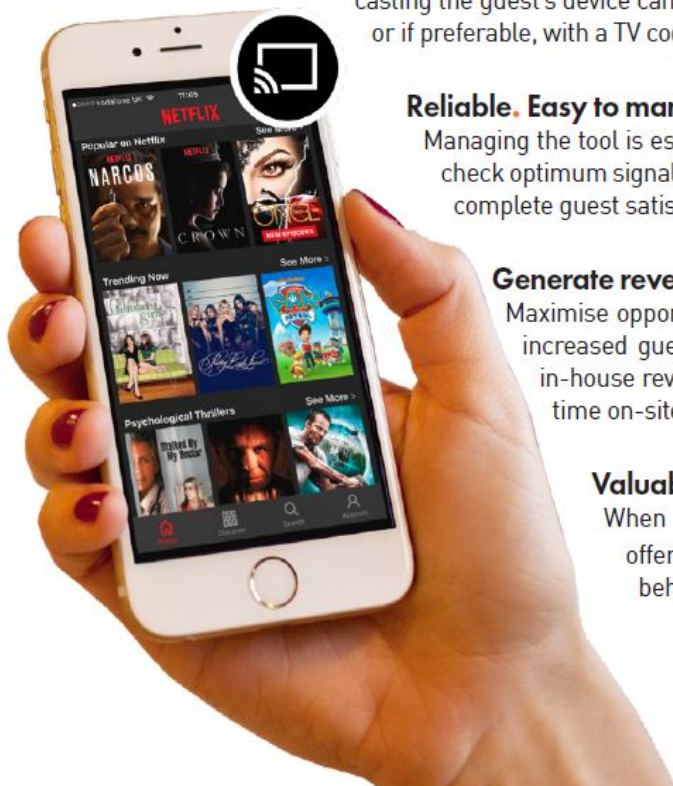
neveyacast, powered by Google Chromecast, has been specifically designed to provide all the enjoyable benefits of media-streaming entertainment, in a complete solution.

Complete reassurance for your business.

With **neveyacast**, guests only ever access the Chromecast device specifically connected in their bedroom. Hoteliers can feel reassured that there is no risk of a hotel guest viewing devices from any surrounding rooms, casting to any surrounding rooms, or accessing any of the Chromecast settings.

Intuitive guest experience.

Guests can easily and effortlessly cast content to their big in-room TV screen. Designed with super WiFi integration, casting the guest's device can be as simple as just connecting to the bedroom WiFi, or if preferable, with a TV code.



Reliable. Easy to manage.

Managing the tool is especially easy as Nevaya's system makes it possible to check optimum signal strength is maintained on each Chromecast device for complete guest satisfaction.

Generate revenue through guest satisfaction.

Maximise opportunities to improve your business reputation through increased guest satisfaction, review ratings and occupancy. Boost in-house revenue, such as F&B, by enticing guests to spend more time on-site enjoying their preferred entertainment.

Valuable data.

When integrated with the WiFi network, **neveyacast** offers hoteliers a wealth of valuable insights into the behaviour and preferences of their guests.

enhanced guest experience.

Uninterrupted home experience.

With **nevayacast**, guests never have to feel the frustration of a break in their box-set viewing, or struggle to view their favourite entertainment on the small screen of their smartphone.

Your device is the best remote.

The average person spends over 4 hours per day on their smartphone, so a guest's instinctive preference to use their personal device over a hotel TV remote control is obvious. It's easy to control the TV from anywhere in their hotel bedroom, furthermore guests can keep using their device without interrupting what's playing or draining their battery.

Watch what you want.

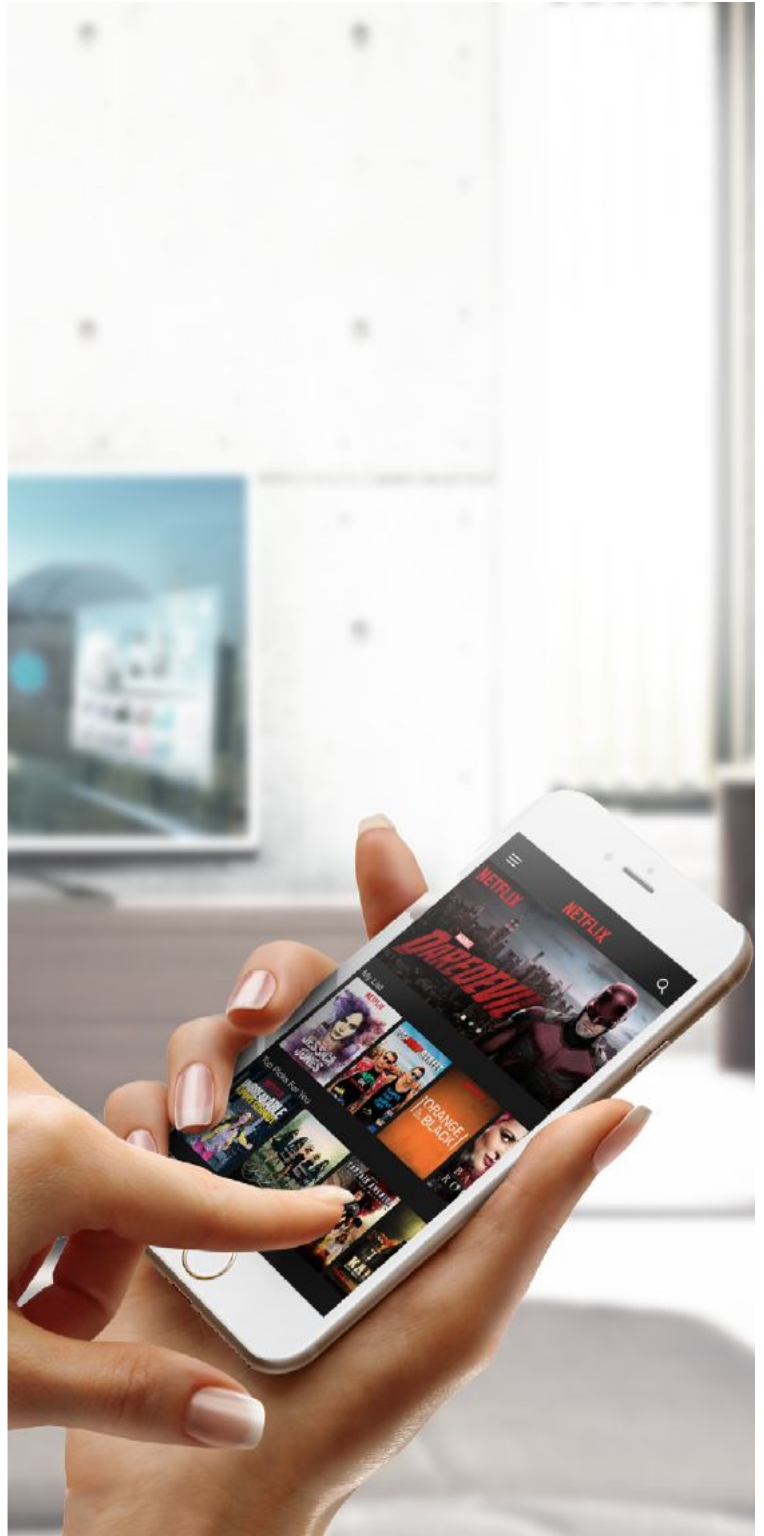
nevayacast allows guests to choose from thousands of apps, making it an incredibly personal experience for each guest, and bespoke to their individual preferences. Guests can open the apps they already know without the need for new logins or downloads.

Adaptable use of your bedroom TV.

Play games, view photos, browse social media... **nevayacast** unlocks so much potential for guests to enjoy in their hotel bedroom TV.

No hidden surprises.

nevayacast is free and easy for guests to use, eliminating any unwelcome surprises of extra charges, and making it user-friendly for all.



Technical solution

Nevaya Cast consists of two 1U appliances located at the property which operate in conjunction with the Nevaya Cast Software as a Service.

Guest WiFi integration

Nevaya Cast is easily integrated into your existing guest WiFi network and requires changes to the following elements of your network:

- Wireless LAN
- Ethernet Switching
- HSIA Gateway / Controller

We will work in conjunction with your WiFi provider to make the relevant changes to the network and will require their availability for the trial to be made live.

Integration in more detail

Wireless LAN

We strongly recommend the use of a managed Wireless LAN. To date we have seen deployments with Ruckus, Cisco, Meraki and Mojo. It is important that signal strength and throughput are good at the location where the Chromecast is to be installed, -65dBm is the minimum signal strength.

Nevaya Cast requires the following changes:

A new Chromecast WLAN

- Create a new WLAN for the Google Chromecast devices to connect to. This WLAN will be solely for the use of Chromecasts, no guests will connect to it
- Ensure multicast traffic can traverse this WLAN
- Present this LAN to Nevaya on a single switch port, untagged
- Nevaya will manage the L3 services on this WLAN.
- During installation the WLAN must be visible, however you can hide it later if required.

Existing HSIA WLAN

- Multicast traffic must be enabled, some controllers have the option to drop 'less well known multicast traffic', ensure this option is disabled

- If layer 2 isolation is enabled on the WLAN, ensure that the MAC addresses of the Nevaya Cast LAN controller and the MAC address of the Nevaya router are whitelisted so that guests are able to communicate with these devices.
- It is important that the Nevaya Cast LAN controller and the router are able to see all guest traffic at Layer 2

Ethernet Switching:

For simplicity, Nevaya Cast requires that both the HSIA LAN and the new Cast LAN are presented on separate switch ports, as untagged traffic. Often layer isolation (between guests) is done at the WLAN layer, however if there is any isolation at the switch layer, you should ensure that the Nevaya Cast LAN appliance and router are visible to all guests

HSIA Gateway / Controller:

Layer 2 considerations

The HSIA gateway installed must be configured to allow unrestricted access to the Internet for the Nevaya Cast devices. The Nevaya Cast LAN controller MAC address should be whitelisted.

The Nevaya Cast router must also be whitelisted, all of the Google Chromecasts will connect to the Internet via this router (We'll NAT those devices to the IP you allocate us). No traffic shaping or bandwidth management should be applied to the Nevaya Cast router. We can configure bandwidth limits within our platform, both in total and per Chromecast device.

The Nevaya Cast LAN appliance and router examine packets received both at layer 2 and Layer 3 so it is essential that these appliances are in the same L2 network (collision domain)

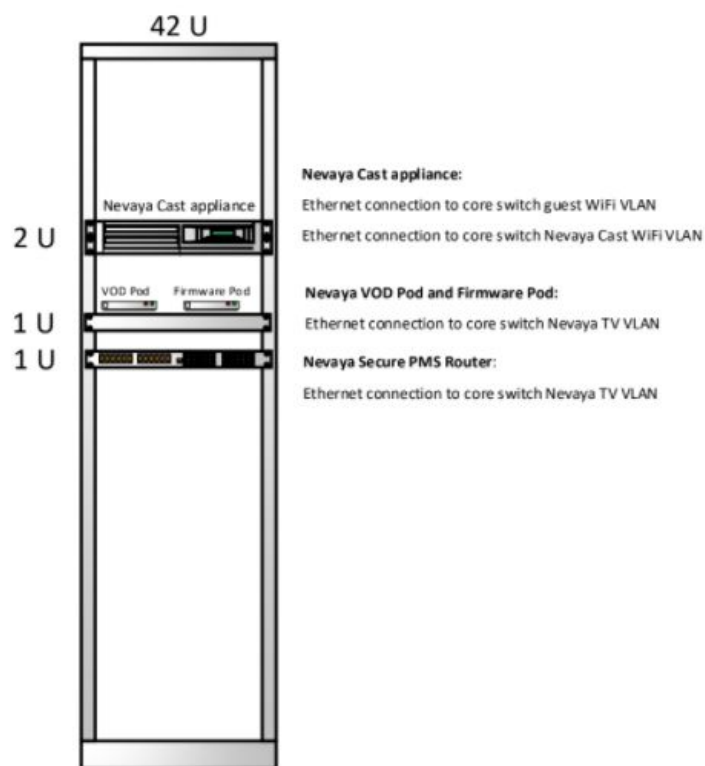
Layer 3 considerations

When a guest has connected to Nevaya Cast and we have on-boarded their device, their device will attempt to contact the Google Chromecast they have paired with. Since this Google Chromecast LAN/WLAN is not accessible via the guests default route, we need to give the guest a route to this LAN, typically via DHCP option 121. Contact Nevaya for assistance in generating this DHCP option if you are unfamiliar with this.

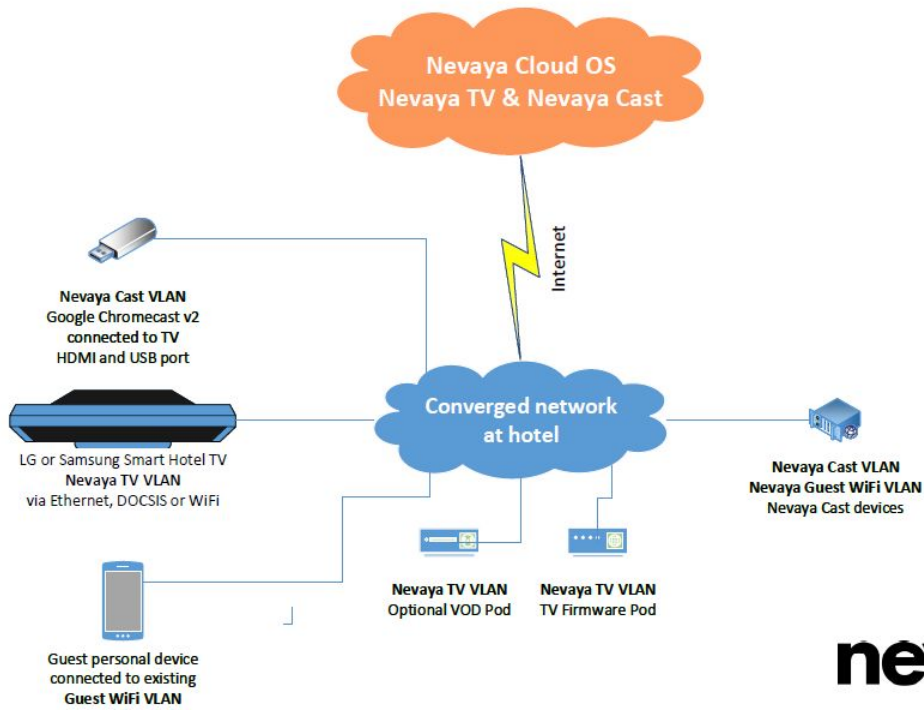
Equipment to be Installed

Comms Room

The following Nevaya Cast equipment will be installed within the comms room. Please note that the Nevaya VOD Pod, Firmware Pod and Nevaya Secure PMS router shown in the diagram will not be required for the cast installation this is for illustrative purposes only.



Nevaya TV and Nevaya Cast Schematic converged network diagram



nevaya.

Recommended Installation Configuration in guest rooms

A Google Chromecast version 2 unit should be installed ideally with a security bracket in each of the bedrooms; each TV will be configured so that the TV points to the Nevaya Cloud TV solution.

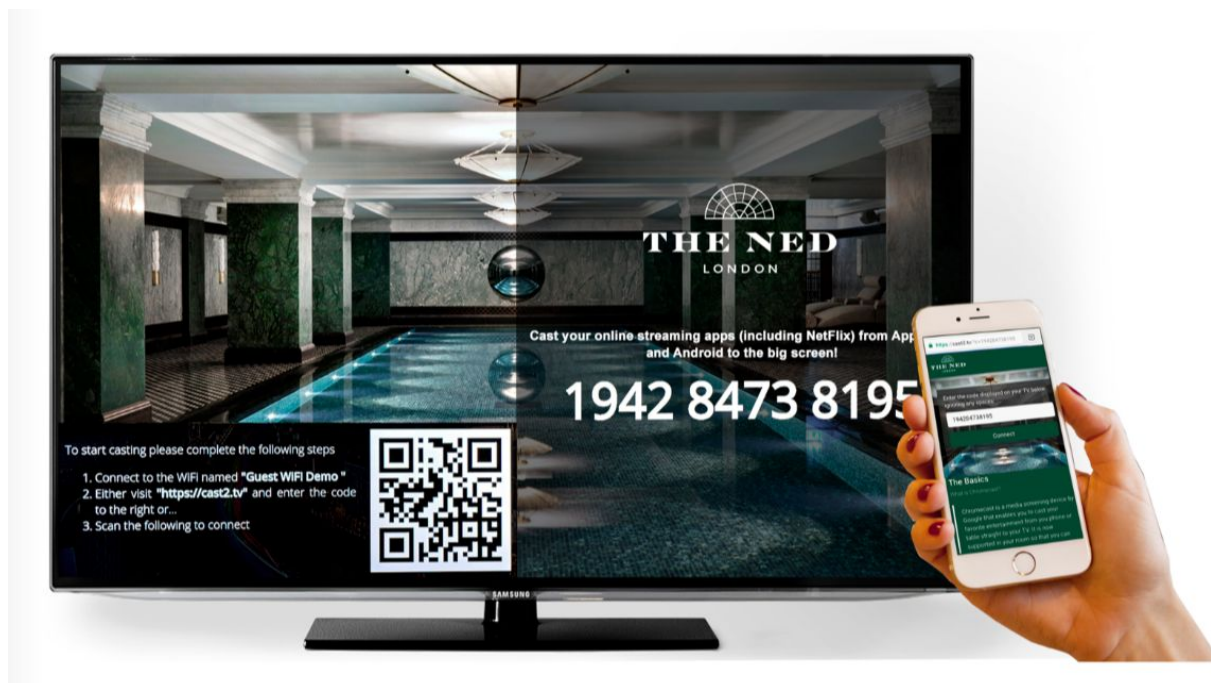


TV interface

The guest room TV's will be configured with Nevaya TV to provide the best guest experience for using Nevaya Cast. This will enable the guests to have full access to TV channels and will also allow the guest to easily navigate to Nevaya Cast. Please note the imagery and welcome messages can be customised with ease.

The guest experience

Once the guest has navigated to Nevaya Cast they will see an image as shown below. In order for the guest to connect they will simply need to follow the onscreen instructions. Scanning the QR code is the fastest way to connect, which is now supported natively on Apple iOS, and should they not have a QR code reader then they can enter the code displayed on the TV. Please note that this code will be shortened by Nevaya during an imminent product update.



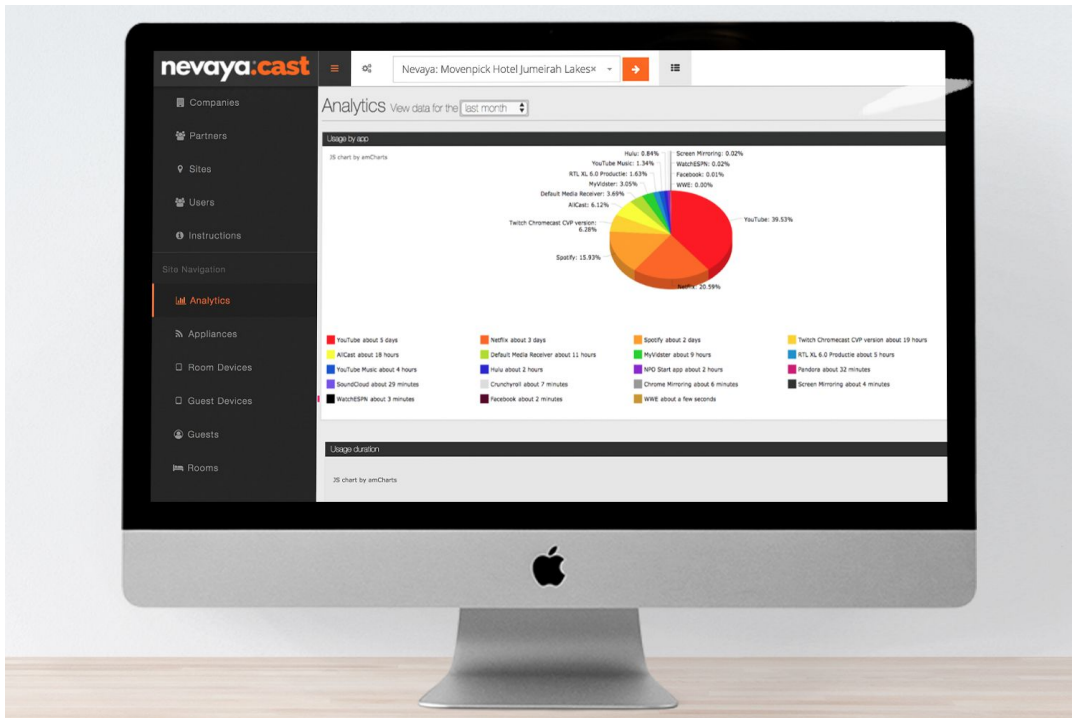
Once the device has connected they will receive hotel branded confirmation screen and they will be able to stream content from any App on their device that supports Google Chromecast casting e.g. Netflix, Spotify, YouTube, Disney Plus, FOXTEL and 1000s more.



The guest device will remain connected for a specified period of time. We recommend 24 hours but this can be adjusted as required; this is done in order to ensure guest privacy. In our roadmap we have the ability to remember the guest device when they return to the hotel and will eliminate the need to rescan the code but for the purpose of the trial this will not be active.

Data analytics that can be gathered:

The screenshot below shows the typical analytics that can be viewed on demand via the Cloud portal on a daily, monthly and weekly basis giving an insight into the guest usage and behaviour.



We also have the ability via the portal to understand the Google Chromecast device status in real time including the WiFi signal in the room as shown below:

