Cisco Vision Dynamic Signage Director

Cisco® Vision Dynamic Signage Director is a core component of a fully deployed Cisco Vision Dynamic Signage solution and provides you the needed flexibility to coordinate, manage, and orchestrate the efficient delivery of customized, engaging digital content to hundreds, or even thousands of TV displays throughout your venue.

Cisco Vision Dynamic Signage Director Capabilities and Benefits

Using Cisco Vision Dynamic Signage Director (Director) enables you to offer the customer experiences needed to differentiate and grow your business. Sports & Entertainment properties, retailers, hospitality providers and transportation hubs can seamlessly integrate various forms of multimedia to capture these opportunities. Live streaming and external broadcast video targeted and coordinated advertisements and sponsor promotions, digital menus, directional signage and external web content such as news, scores, and social media can be offered in unique combinations to displays of all sizes throughout the venue.

Some notable capabilities of Cisco Vision Dynamic Signage Director include:

- Ability to segment TV displays into groups and zones independent of physical location
- Flexible and synchronized content presentation including support for multiple transparent overlays
- Instantaneous change up of venue graphics and playout at any location to support differing events
- Automated display and advancement of content based on incoming trigger or wall clock time
- Manual intervention and content advancement with ad-hoc ability for a celebration or emergency
- Proof of Play collection per Digital Media Player (DMP) per advertising item for accurate counts of playouts
- Centralized control and software management of all multimedia endpoints (DMPs)
- Role-based access for delegation of roles and responsibilities across venue staff
- Local control designation to groups of TV displays enabling mobile application interaction

Using the open HTML based triggering integration feature of Cisco Vision Dynamic Signage Director, signaling can be sent to systems that drive LED boards, screens, or any other externally controlled system. This enables a compelling "moment of exclusivity" opportunity for partnering brands and sponsors. External systems can also trigger Director to take an ad-hoc

action and/or change up content on TV displays being managed, or even power all TV displays off, enabling external control.

Cisco Vision Dynamic Signage Director Functions

Cisco Vision Dynamic Signage Director is controlled via a web-based portal that serves as the management interface for planning and scripting prior to content playout on the DMPs. Director serves as the central point of operation during a live or scheduled playout of content utilizing standard Web technologies to allow you to build and deliver a dynamic, continually changing experience for your audience.

The following functions comprise Cisco Vision Dynamic Signage Director:

- Library
- Device Management
- Script Management
- Event Management
- Designer
- Configuration
- Management Dashboard
- Dynamic Menu Boards
- Turn TVs Off
- Manage Software
- System State Report
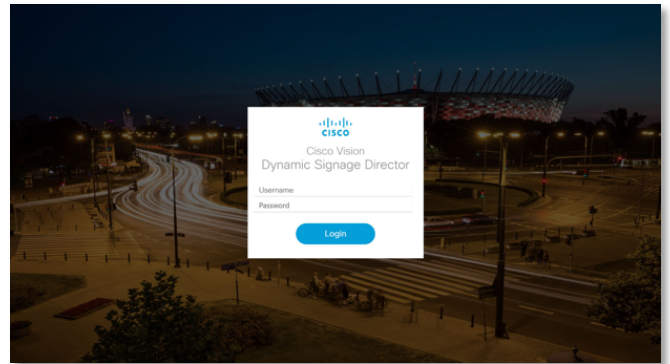
Library

Digital assets of all types are uploaded and stored in the Library for use in playlists and scripts and are arranged by type. Types of assets include images, videos, widgets, channels, and external content. Each asset item can be supplemented with one or more free-form tags to make future asset search easier and also have validity dates associated to indicate when they should be used. Assets can be grouped into folders to separate by intended use, campaign, or other user needs.

Playlists are the sequential definition of assets to be played and are created within the library to be used elsewhere in the system along with the assets themselves. Building a playlist is a drag and drop affair from the available assets in the library with additional settings to control the run time for an asset and indicate if proof of play should be recorded for the assets in the playlist as they play out.

Device Management

Keeping an eye centrally on what is happening out on the individual devices in the venue is what the Device Management functionality provides. Each display device has an attached DMP that provides a snapshot of what is currently playing to Device Management. This allows the administrator to see the content that is currently playing on a specific device without having to travel to the physical location and see it for themselves.

Device Management also provides overall summary information around the DMP, ability to control power out to the attached TV display, and channel control functionality to change streaming or external URL channel content.

Script Management

Script Management provides an easy-to-use interface for creating scripts, staging assets for script play, and defining the screen layouts for the scripts. Scripts once defined can be run manually in a live environment, or scheduled in a periodic

environment. Sequential, Ad-Hoc, and Emergency states can be defined within a script to play the right content at the right time. Operation of a script can be done by an operator, set time, or automated by an external system by setting up an inbound trigger.

Event Management

The Scheduler pane provides a calendar-based script scheduling function which allows you to perform the following tasks:

- Schedule a single occurrence or recurring event series.

- Modify or cancel a single occurrence, a recurring event series, or an occurrence within a recurring event series.

- Automate the start and stop of an event script.

- Define event script parameters when scheduling.

- View scheduled event scripts by day, week, and month.
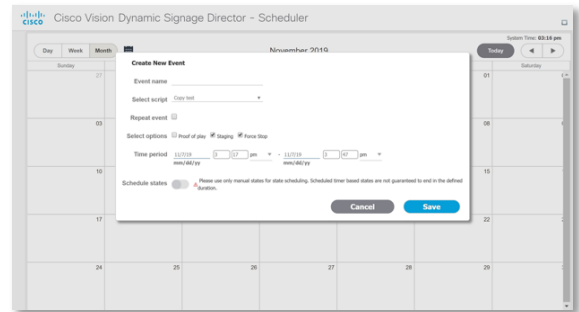
Designer

The Designer interface is the gateway for creating and dedicating region areas within your displays to interesting and engaging ads, tickers, menus, videos and graphics. This interface allows you to create and edit widgets which are dynamic elements that draw the attention of passersby. Template can be created and edited to define regions for the screen using predefined or custom templates to create advertising space and push back video content.

Configuration

Configuration provides a robust interface for performing administrative tasks such as adding users, configuring channels (video and URL), configuring devices (DMPs, third-party remotes, and video displays), defining external data integration sources, and collecting proof of play data. You can set up multiple venues and assign locations, playlists, scripts and users by venue, as well as tags and folders for asset content.

Management Dashboard

The Management Dashboard provides an easy-to-use interface for managing and monitoring the services and status of the DMPs, attached displays, the Cisco Vision Dynamic Signage Director services, and DMP-to-switch connections for your Cisco Vision Dynamic Signage deployment. Using the Management Dashboard, you can view status, configure settings, and send commands to devices to keep your Cisco Vision Dynamic Signage network up and running smoothly. Alert icons provide at-a-glance device status to help you quickly identify issues that need your attention. Additionally, detailed status for devices and monitored services is easily accessible from the Management Dashboard interface to help you pinpoint and troubleshoot issues occurring on the network.

Dynamic Menu Boards

The Dynamic Menu Board feature provides the ability to create custom dynamic menu boards which can be quickly updated to reflect changes in item price or availability. Fonts can be imported and sized to get the look you need. In addition to the prices, these menu boards can incorporate eye-catching animation and enticing video of the food and beverage offerings and any accompanying promotions.

Multiple stores and menus can be defined to easily manage a venues worth of diverse food and beverage.

Turn TVs Off

With hundreds, or even thousands of TV displays in a Cisco Vision Dynamic Signage deployment, it is important to many that all TVs are turned off when not in use, or the venue needs to be dark. The Cisco Vision Dynamic Signage Director Turn TVs Off feature allows an operator, administrator, or API to control the power to all TVs within one or more zones, or across the entire venue. By using the Turn TVs Off portal feature administrators can:

- Define which TVs (which zones) are to be controlled by the Turn TVs Off feature.
- Exclude select TVs from being controlled by the Turn TVs Off feature.
- Optionally grant access to others like security personnel to turn off the TVs.

System State Report

The System State Report feature enables you to easily capture and export system state data for the Cisco Vision Dynamic Signage Director server. This information can be viewed in your browser or downloaded and sent to a remote support engineer to help troubleshoot any issues that may occur with the system.

Manage Software

The Manage Software feature provides a single interface to manage the Cisco Vision Dynamic Signage Director software. It allows you to:

- Easily upgrade the Cisco Vision Dynamic Signage Director software to a new release.
- Install language packs for localization you want to support through the independent installation of specific Language Packs as they become available.
- Install additional fonts for use in system-generated content, such as Widgets.
- Import valuable DMP, data integration or Director certificates in one easy interface
- Upload default images for Director login background image, the DMP background image, or the Channel Guide background image.

Role Based Access Control - Users

Behind every successful Cisco Vision Dynamic Signage deployment are teams of people that have specific responsibilities pertaining to content and event management. Roles are typically performed by a mix of Cisco personnel, partners and the customer's staff.

Cisco Vision Dynamic Signage Director supports Role Based Access Control (RBAC), which limits the screens and applications that are accessible to different groups. With RBAC, Cisco Vision Dynamic Signage administrators can assign login credentials to different "roles" and users. This ensures that each person has access or visibility to only the portions of the system for which they are trained and authorized to manage.

Defined roles include overall Administrator, Concessionaire, Content Manager, Event Operator, Facility Operator, Help Desk, Support, Venue Administrator and Venue Operator. Each of these roles has differing visibility, read, and write access to portions of Cisco Vision Dynamic Signage Director to align to the specific role.

Local Area Control - Suites

Typically, TVs that are placed throughout the building and in "public" spaces are controlled centrally through Cisco Vision Dynamic Signage Director. However, TVs that are placed elsewhere, such as suites, restaurants, clubs and bars, back offices, and boxes, require the ability for local control. With Cisco Vision Dynamic Signage, owners and guests can control channel, volume, input, power, and closed captioning with the defined suite. They can do this on dedicated or mobile devices like tablets and phones to change the input on a particular video display to a locally attached DVD player or PC.

Proof of Play Reporting - Playlists

As you create playlists, you have the option to enable them for playout tracking, or Proof of Play (PoP). When playlists are PoP-enabled, details regarding the playout of the individual content in the playlist are captured. Each DMP sends reporting information per play for accuracy. Director can automatically export the PoP data (in CSV format) to a designated server using Secure FTP (SFTP) or Secure HTTP (HTTPS) for PoP-enabled scripts.

Cisco Vision Dynamic Signage Director actually generates two Proof of Play files, one summarized and the other transaction by transaction, for use either in reports or affidavits. Reports around the summary data can often be represented in a spreadsheet pivot table (examples available).

External Content Ingestion – Data Integration

Cisco Vision Dynamic Signage Director supports integration with external data sources for presentation. This could be for a wide range of scenarios where the information to be displayed is coming from a remote source that updates dynamically.

Examples can range from food and beverage items and pricing, to wait times of queues, to statistics around players and teams, to out of town scores across a league and even weather, traffic and news updates. Once the integration is established Cisco Vision Dynamic Signage Director can update displays throughout the building with periodic data updates.

Cisco Vision Dynamic Signage Director Digital Media Player Features

Release 6 of the Cisco Vision Dynamic Signage Director supports three series of digital media players (DMPs): the DMP-2K and the SV-4K (Series 2), the CV-HD and CV-UHD (Series 3), and the CV-HD2 and CV-UHD2 (Series 4). Cisco Vision Dynamic Signage feature support varies by DMP capabilities. The following table lists the features on the latest DMPs.

Table 1. Digital Media Player Feature Comparison

Cisco Vision Dynamic Signage Feature	CV-HD2	CV-UHD2
Power Over Ethernet or Local Power	Yes	Yes
HDMI out to Display	Yes	Yes
TV Control using RS-232 and IR Remote	Yes	Yes
TV Power using HDMI CEC	Yes	Yes
Audio Out and IR Remote	Yes	Yes
Touchscreen Support	Yes	Yes
Auto-Registration	Yes	Yes
Dual Video Regions with Luma Key Support	No	Yes
HDMI-In as a Channel Source	No	Yes
HDMI-In Pass-Through for HDCP-compliant devices	No	Yes
Video Stream Encoding from HDMI-In	No	Yes
Video Stream Encoding from HDMI-Out	No	Yes
Encrypted Multicast Video Channels	Yes	Yes
Remote Monitoring of HDMI-Out	Yes	Yes
Content Synchronization	Yes	Yes
On Device Storage	64 GB	128 GB
Dolby Vision and HDR10	No	Yes
UHD Local Video and HTML	No	Yes
5.1 Dolby plus/AC3	Yes	Yes
UHD Video Rendering Regions	1	2

Table 2. Major New Features in the 6 Series of Releases:

Feature	Description
Multimedia Video Scaling	Support for stretching a multicast video region across a video wall display for both portrait and landscape orientation for static images, widgets, local and multicast video, and external URLs.
Flexible DMP Content Rotation	Rotate the content 90 degrees and -90 degrees (or +270 degrees). This works for all content like videos, static images, widgets, local and multicast video, and external URLs.
HDMI CEC TV Control	Allows control of TV functions through Universal Consumer Electronics Control (CEC) of Power On, Standby (Power Off), and reading Power Status
Content Validation	Checks the validity so content will appear as scheduled and planned with no errors. Flag assets that may be outside specification guidelines based on aspect ratio or dimensions/resolutions.
Enhanced Content Replacement	Update content within a playlist and save it, then update another playlist, without waiting for the first content replacement command to finish.
AES CBC Video Decryption Algorithm	Allows the DMP to decrypt and display a multicast stream that is encrypted using AES CBC.
Channel Definitions Enhancements	Associates a Channel with a specific encoding video profile. Use the predefined encode profiles or create a custom profile that now allows a per channel characteristics to be set.
Automated Content Import	Schedule external content to be imported into Director at a specific time via SFTP. Multiple destinations and times can be defined.
Unicast Deployment Ability	Allows state change events to be sent via unicast allowing additional deployment options where synchronization is less critical. Multicast state change remains the recommended best practice.
Start Web Application	Renders a full screen HTML page that is not managed as External URL content or External URL channel content and removes I-frame (or x-frame-options) restrictions.
Customizable Background Images	Login, DMP, or Channel Guide images can be changed. DMP background image is seen immediately after a DMP reboot replacing the status information.

Cisco Vision Dynamic Signage Director Product Specifications

Table 3. Cisco Vision Dynamic Signage Director 6 Series Product Specifications

Specification	Details
Features	- Automatic Digital Media Player Registration and Upgrades - Event Scripting with Manual or Automatic Operation - Asset Library and Playlist Organization with Proof of Play - Ability to Target Content and Create Promotion Areas - Live Multicast Video Support with Scaling and Multiple Channel Guides - Channel Guide and IR Remote Support - Local Display Control, Captioning and Media Control - Dynamic Menu and Merchandise Boards - Administrative Local Language Support - Third-Party Touch Panel Integration - Building Management Alarm Dry Contact System Integration - Generic External Content Ingestion with Live Updates - Widgets Layout Tool with Font Selections - Network Time Protocol (NTP) and Precision Time Protocol (PTP) Configuration - External Playlist Importing of Ad Playout Information (Media Planner Import API) - Third-Party Display Control (Local Control API) - Outbound Triggering for Third-Party Systems Control (Outbound Trigger API) - Inbound Triggering for Third-Party Systems to Control Director (Inbound Trigger API) - Point of Sale (POS) Integration with Digital Menu Boards using Widgets

Supported Platforms	Cisco UCS or third-party server minimum requirements for a full deployment: • 2 processors, each equivalent to an Intel Xeon Processor E5-2460 (15 MB cache, 2.50 GHz clock, 7.20 GT/s Intel® QPI) • 10,000 Forward write operations per second • 24 Virtual CPUs • 900 GB Virtual Disk Space • 32 GB Virtual RAM (VRAM) Cisco Vision Dynamic Signage Director is tested with VMware vSphere version 5.5 in a virtual machine environment using the parameters above.
Video Endpoints	Designed for operation with the Series 2 (SV-DMP-4K-xx-K9 or DMP-2K-WW-K9), Series 3 (CV-HD-DMP-K9 or CV-UHD-xxx-K9), or a Series 4 (CV-HD2-DMP-K9 or CV-UHD2-DMP-K9) DMP driving each display location.
Language Support	Cisco Vision Dynamic Signage Director allows fan-facing elements of the system to support all left to right languages, including languages that use double-byte character sets. Check with your local Cisco account manager for a list of currently available language packs.

Cisco Vision Dynamic Signage Director Ordering Information

Table 4.   Cisco Vision Dynamic Signage Director Ordering Information

Licenses	Product ID
One Per Installation	
Cisco Vision Dynamic Signage Director Server Software License	R-SV-DR-DIR-SW-K9
One Per Digital Media Player (DMP)	
Cisco Vision Dynamic Signage Director per Display License	L-SV-DR-DISP-FSV
Options	
One license required per third-party or web-based device used for local control Web Control License for Cisco Vision Dynamic Signage Director	L-SV-DR-LCTRL-WEB
Director encoder license for up to 10 DMPs to encode video locally	L-SV-DR-ENCODER
Localization License per Non-English Language Support	L-SV-DR-LOCAL

For More Information

For more information about Cisco Vision Dynamic Signage and the interactivity it provides, please visit https://www.cisco.com/c/en/us/products/video/stadiumvision/index.html or contact your local account representative.