



# media:scape Virtual PUCK

Complete Implementation Guide

# Overview

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# STEP 1

## Review and Understand Virtual PUCK Infrastructure Guide with IT

Prior to engaging with this document, all parties should review the Steelcase Virtual PUCK Infrastructure Guide (customer IT and Steelcase dealer). To review the Infrastructure Guide, visit [steelcase.com/mediascape](https://steelcase.com/mediascape).

To complete implementation, knowledge of these systems is required:

### Server Virtualization Systems

- You must have knowledge of your organization's server virtualization system (e.g., Citrix XenServer, VMWare, VirtualBox).

*Note: Hyper-V is not currently supported, as we use an OVA file with a VMDK virtual hard disk for the virtual machine. It is possible to work around this, but it would require converting an OVA into VHD.*

### Network Engineering

- media:scape® Virtual PUCK™ requires a DNS A-record entry for the hostname **scs-virtualpuck-registry**. This hostname must point to the IP address of the Steelcase Application Server (SAS).
- Fixed IP address for the SAS virtual machine (VM).
- Fixed IP address for the media:scape digital the SAS.
- Both the digital switcher and Virtual PUCK receiver require wired network connections.

### A/V Knowledge

- Virtual PUCK requires media:scape digital and will not work on legacy (analog) media:scape. media:scape was migrated from analog to digital technology in September 2013.
- Virtual PUCK connects to media:scape digital system through the AUX ports on the switcher. If there is a need to use Virtual PUCK with HDVC, additional configuration is required.

*Note: media:scape Virtual PUCK will not function if you do not have the Steelcase Application Server (SAS) running and the DNS entry in place.*

## IMPLEMENTATION JOURNEY

Completed by Customer

Fulfilled by Steelcase

### Step 1: Review and understand Virtual PUCK Infrastructure Guide with IT

The Steelcase Virtual PUCK is a system that includes several required components: Virtual PUCK receiver, Steelcase Application Server (SAS), Virtual PUCK registry and Virtual PUCK application.

### Step 2: Order Steelcase Application Server (software download)

### Step 3: Import & Configure Steelcase Application Server and Configure Network Environment

The Steelcase Application Server (SAS) is a virtual appliance that manages and disperses the 4-digit codes in a digital media:scape setting. The SAS requires a DNS entry (scs-virtualpuck-registry) that resolves to the IP address of SAS.

### Step 4: Prepare Environment for media:scape Digital and Virtual PUCK Installation

Both the digital media:scape switcher and Virtual PUCK receiver require a wired connection to the network.

### Step 5: Order or Identify Digital media:scape

### Step 6: Order Virtual PUCK Receiver

### Step 7: Install Virtual PUCK Receiver and Digital media:scape in Environment

### Step 8: Configure, Connect, Test and Manage Digital media:scape and Virtual PUCK

# Virtual PUCK Infrastructure Guide

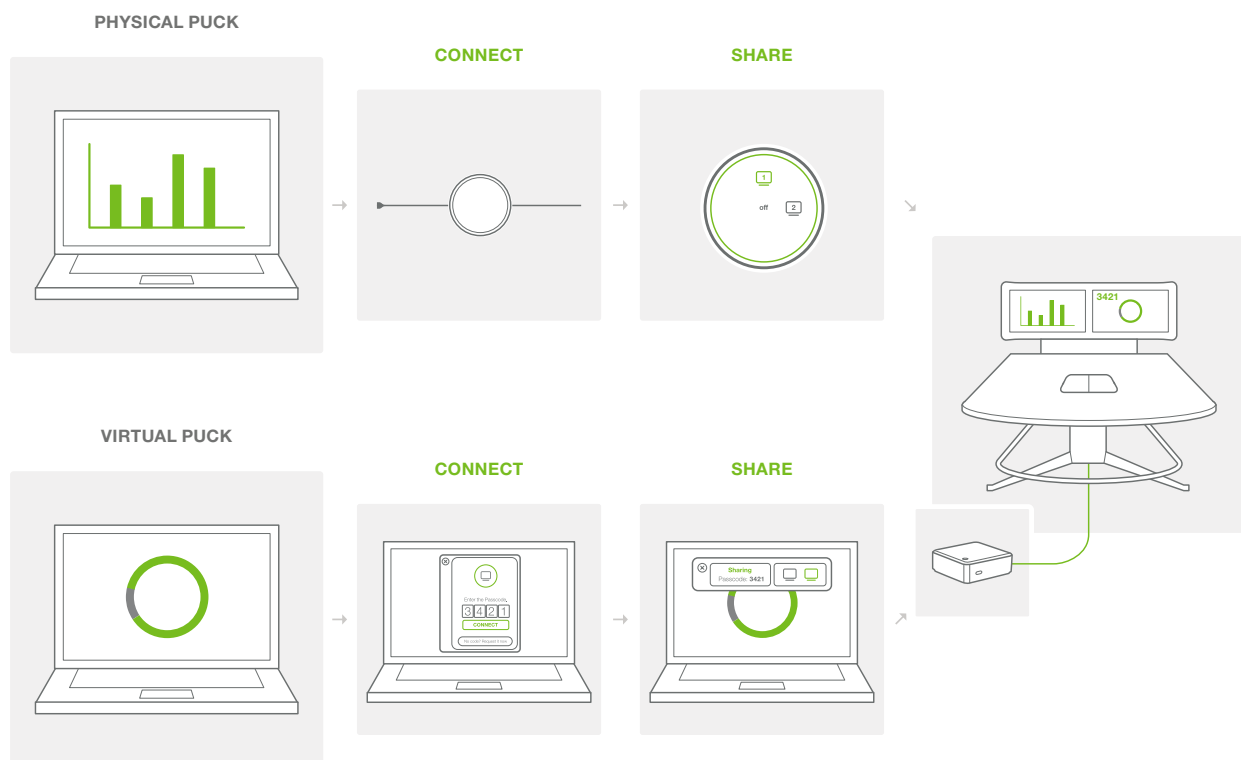
A link to the latest Virtual PUCK Infrastructure Guide can be found at [steelcase.com/resources/documents/virtual-puck-infrastructure-guide](https://steelcase.com/resources/documents/virtual-puck-infrastructure-guide).

media:scape Virtual PUCK allows meeting participants to share content wirelessly from a laptop, maintaining the simple “Open, Connect, Share” experience. The application seamlessly integrates with a media:scape setting, enabling information sharing from any participant in the room with a simple click of an icon or the touch of a physical PUCK.

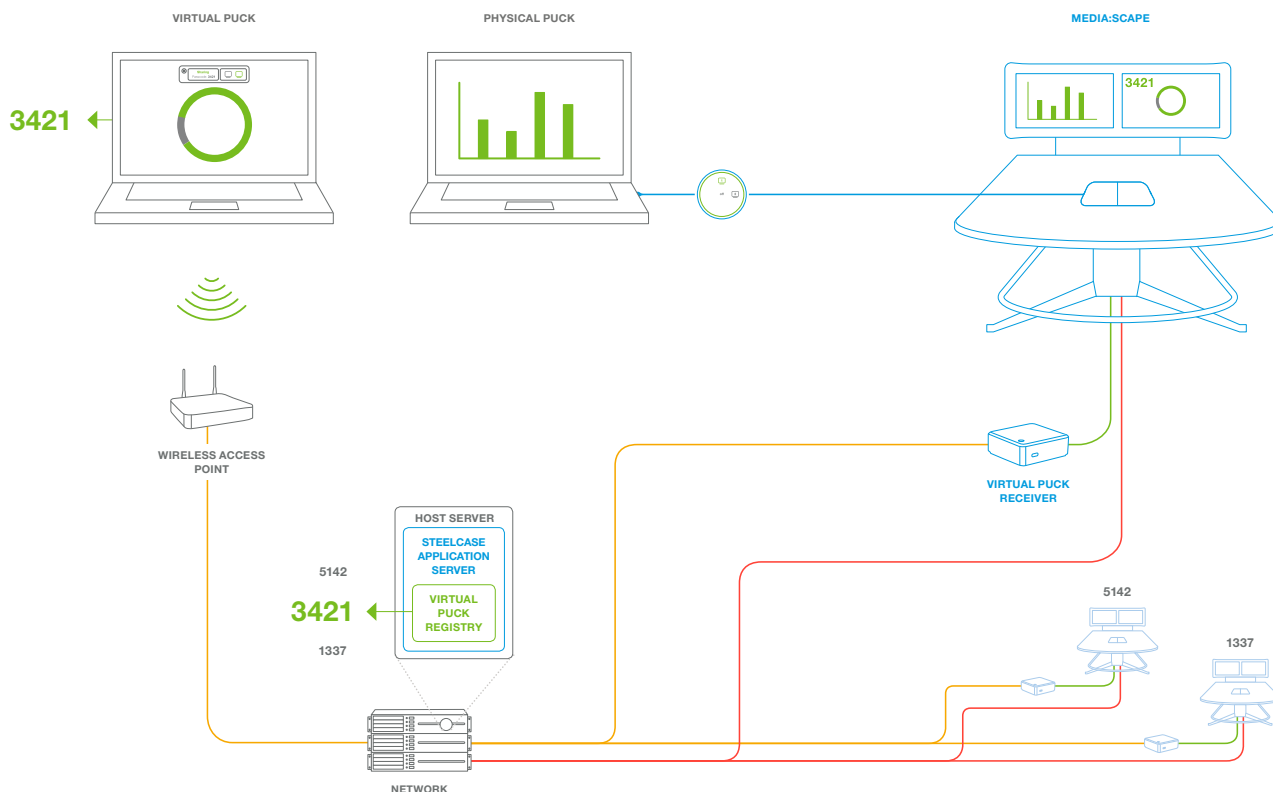
The media:scape Virtual PUCK system is made up of several components:

- **Virtual PUCK Receiver:** physical appliance installed inside a media:scape setting connected to the media:scape digital switcher.
- **Steelcase Application Server:** virtual appliance installed on a host server to house the Virtual PUCK Registry.
- **Virtual PUCK Registry:** software application hosted on the Steelcase Application Server; network communication mechanism for all Virtual PUCK receivers and media:scape settings.
- **Virtual PUCK Application:** client application installed on end users’ laptops (OS X and Windows); user interface for “Open, Connect, Share” experience.

## How Content Gets to media:scape



## Technical System Diagram



## STEP 2

### Order Steelcase Application Server

#### Steelcase Dealer Role

The Steelcase Application Server (SAS) can be ordered through a Steelcase dealer using the style number VS10. When the Steelcase dealer enters the order, there is no charge to the customer. As VS10 is a virtual good, the dealer will identify an email address (often of the technical lead) where VS10 download instructions will be sent. Once the dealer receives the email confirmation from the VS10 order, the dealer forwards the instructional email to the customer IT contact. This email provides the customer with the download link, along with the license key needed to activate the product.

*Note: If you experience trouble locating this instructional email after ordering, contact Steelcase Tech Support with your Steelcase Sales Order number for assistance.*

#### Customer Role

The customer IT contact will receive the forwarded email, which will contain download instructions. The customer IT contact will then follow the directions from the email, retrieving his or her license and downloading the SAS along with the appropriate supporting documentation.

The SAS is in .OVA file format and is compatible with Citrix XenServer and vSphere.

*Note: Standalone Hyper-V is not currently supported at this time due to the .OVA file format.*

# STEP 3

## Import & Configure Steelcase Application Server and Configure Network Environment

The Steelcase Application Server is a key element in the media:scape Virtual PUCK system. This virtual appliance (.OVA) is imported into a virtualization system (e.g., XenServer, vSphere).

**This configuration will require access to work within the existing server virtualization system, along with knowledge of IT networking concepts such as:**

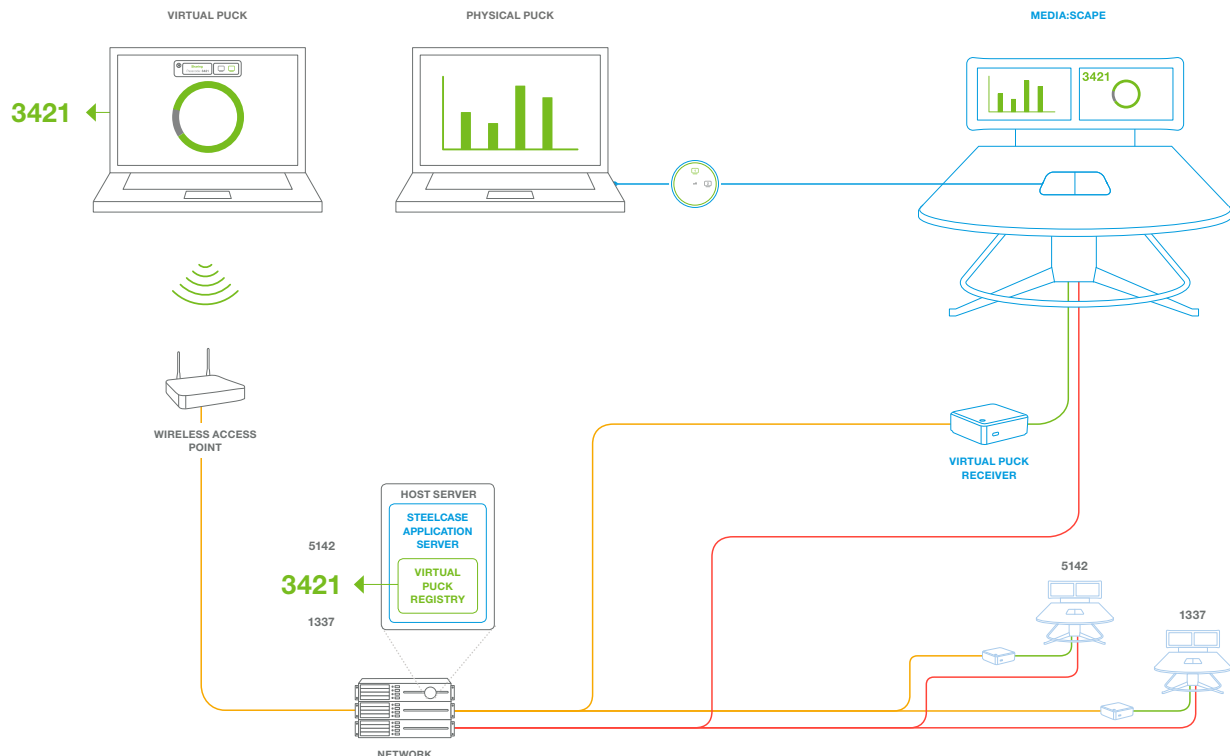
- Static IP addresses
- NTP
- SSL
- Familiarity with using a command line interface

As a result, we recommend this work be completed by an IT engineer.

The process of implementing the Steelcase Application Server is just one step within a larger process of implementing the media:scape Virtual PUCK system. To understand the entire implementation process for media:scape Virtual PUCK, reference the *Steelcase media:scape Virtual PUCK Technical Infrastructure Overview*.

**The following section will review how to:**

- Import the necessary Steelcase Application Server (SAS) virtual machine file in the virtualization environment
- Configure new system
- Determine whether to use time server
- Determine whether to use SSL and, if necessary, how to implement
- Assign a fixed IP to the SAS through command line (SAS interface)
- Record the fixed IP address of the SAS
- Create a DNS entry, use the fixed IP address of the SAS to set up a DNS entry to the “scs-virtualpuck-registry,” and ensure the hostname correctly points to the SAS
- Confirm that the DNS entry is working and SAS is reachable by using a web browser to navigate to “scs-virtualpuck-registry,” which should bring you to a login page for the Steelcase Application Server



## Review Minimum System Requirements

### Steelcase Application Server

#### MINIMUM SYSTEM REQUIREMENTS

CPUs	1
RAM	2 GB
Storage	20 GB

#### RECOMMENDED SYSTEM REQUIREMENTS

CPUs	2
RAM	4 GB
Storage	40 GB

#### NETWORK REQUIREMENTS

Static IP Address	1
DNS Entry	scs-virtual puck-registry

#### TECHNICAL SPECIFICATIONS

Virtual Appliance Delivery Method	2GB OVA Virtual System
Web Interface	Virtual PUCK Registry
Number of Virtual PUCK Receivers	200
Database	Internal

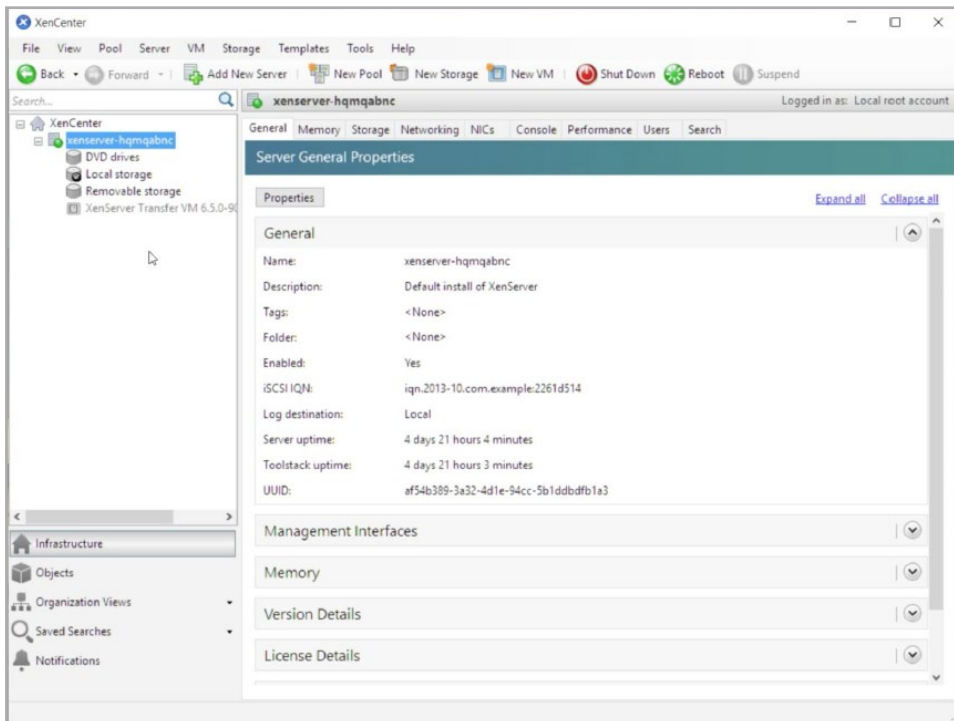
*Note: For complete system specifications, refer to pages 22-23.*

## STEP 3 PART 1

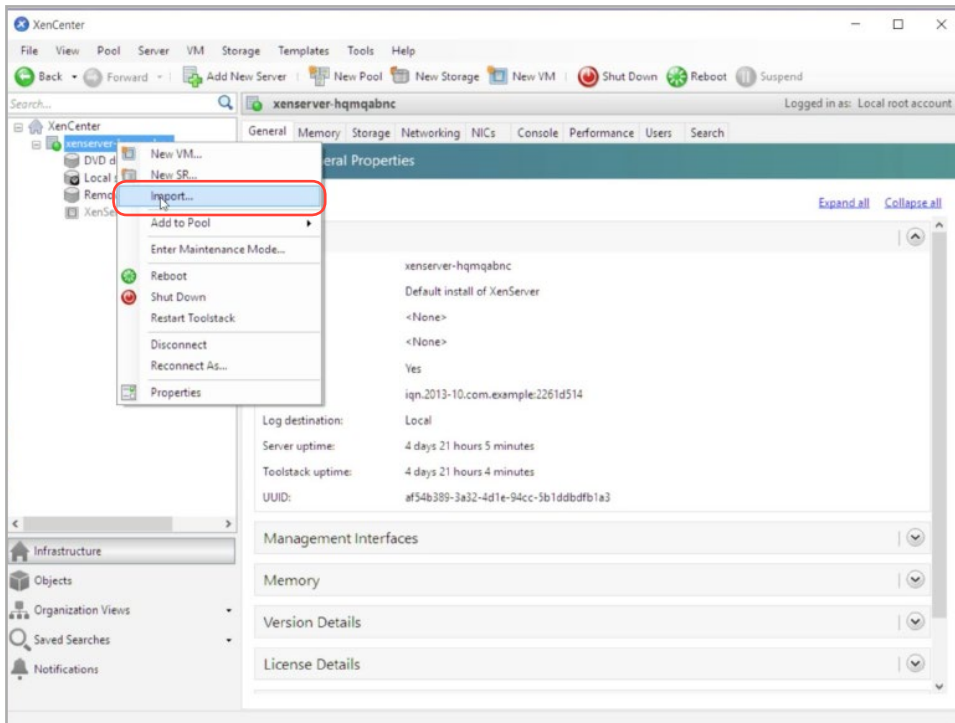
### Import the Necessary SAS Virtual Appliance File into the Virtualization Environment

Before starting the process, **make a copy of the .OVA to import**, in case a second attempt is necessary to prepare the Steelcase Application Server for use.

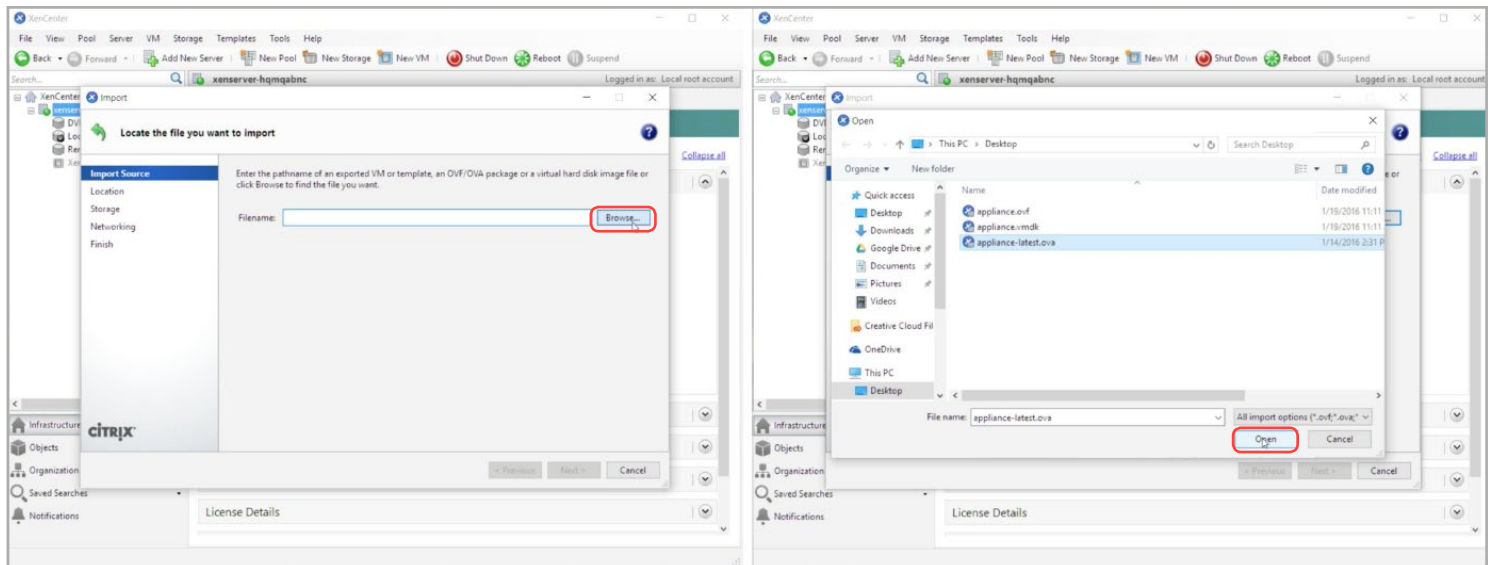
Open your virtualization software. For this example, XenCenter was used. XenCenter is an application that allows you to easily import virtual appliances into your XenServer host machine. To learn more about XenServer and XenCenter, visit [xenserver.org/open-source-virtualization-download.html](http://xenserver.org/open-source-virtualization-download.html).





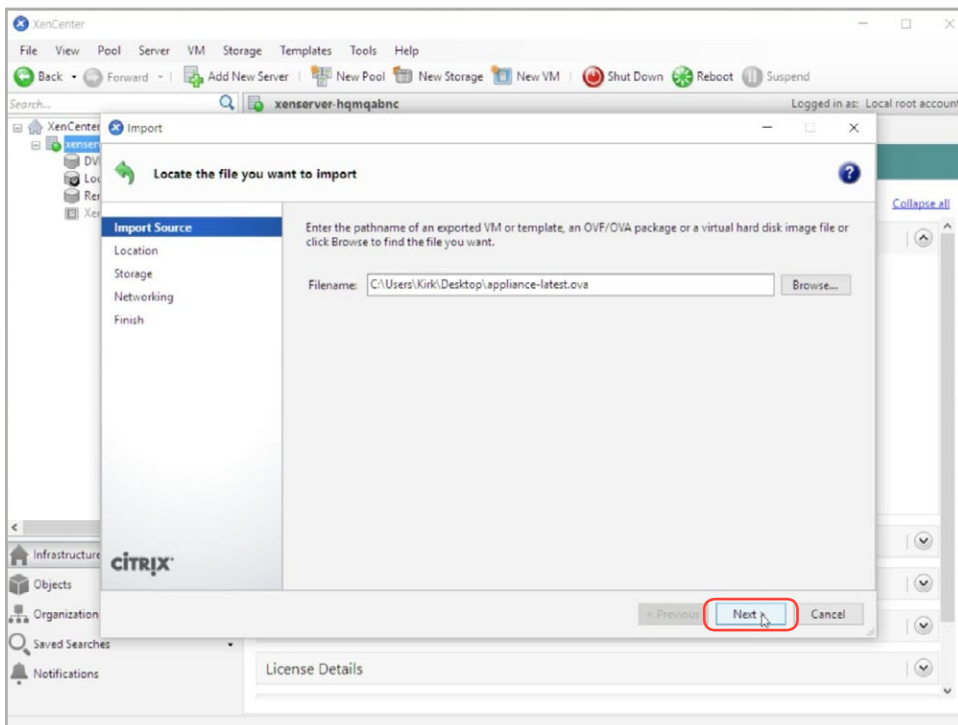


Right-click on the host server and select **Import** to upload your .OVA file.

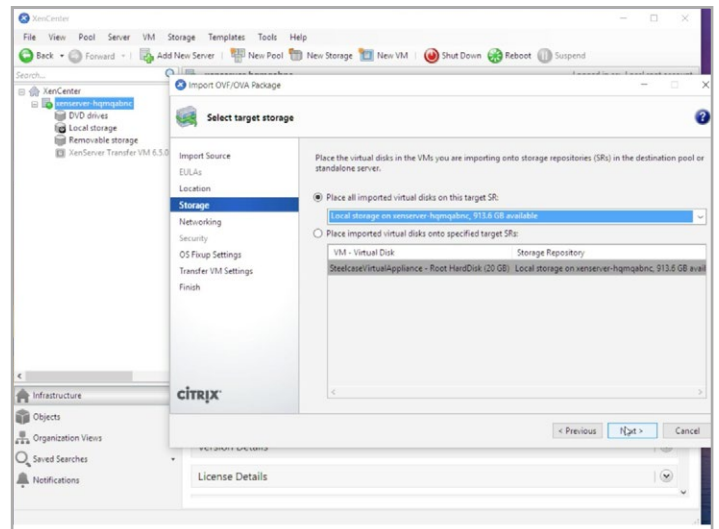
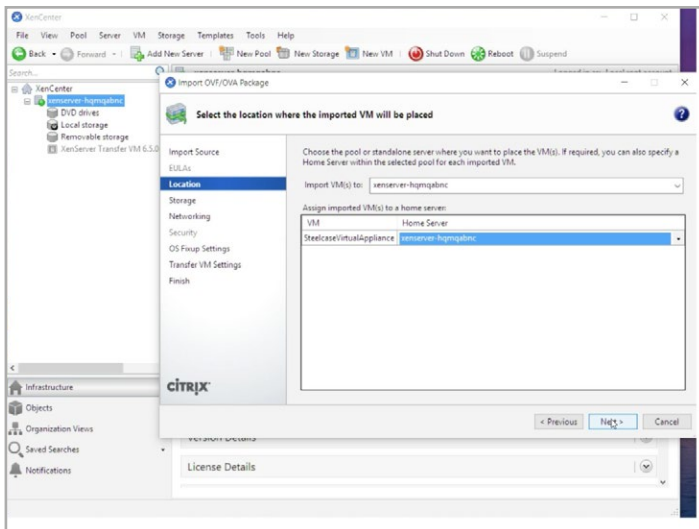


Click **Browse** on the import screen, navigate to the copy of your .OVA file, and click **Open**.

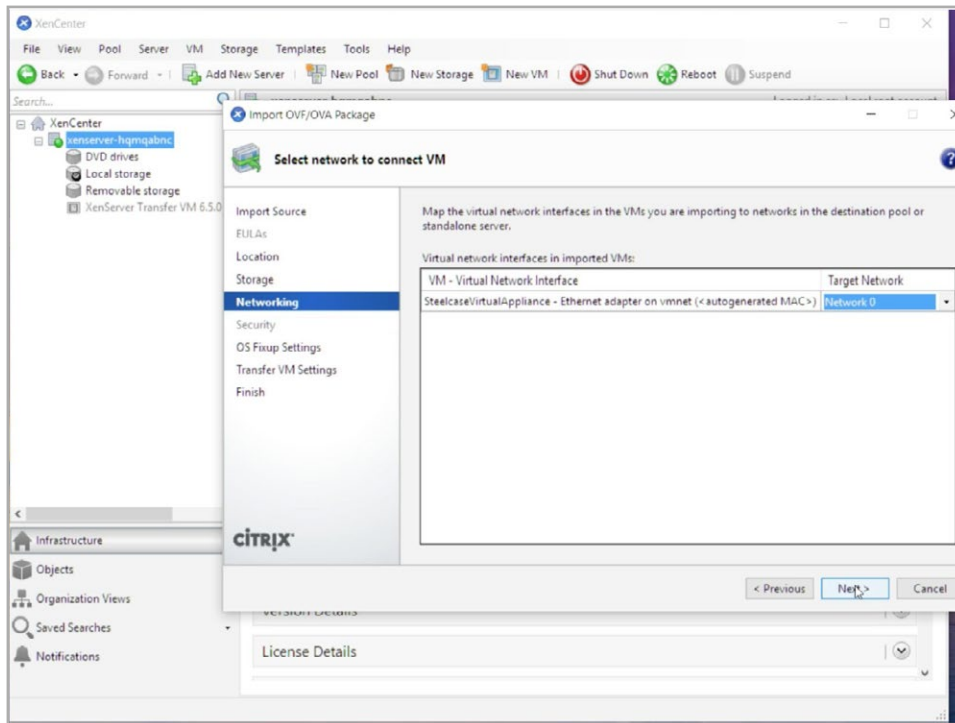
After selecting the copy of the downloaded .OVA file, click **Next**.



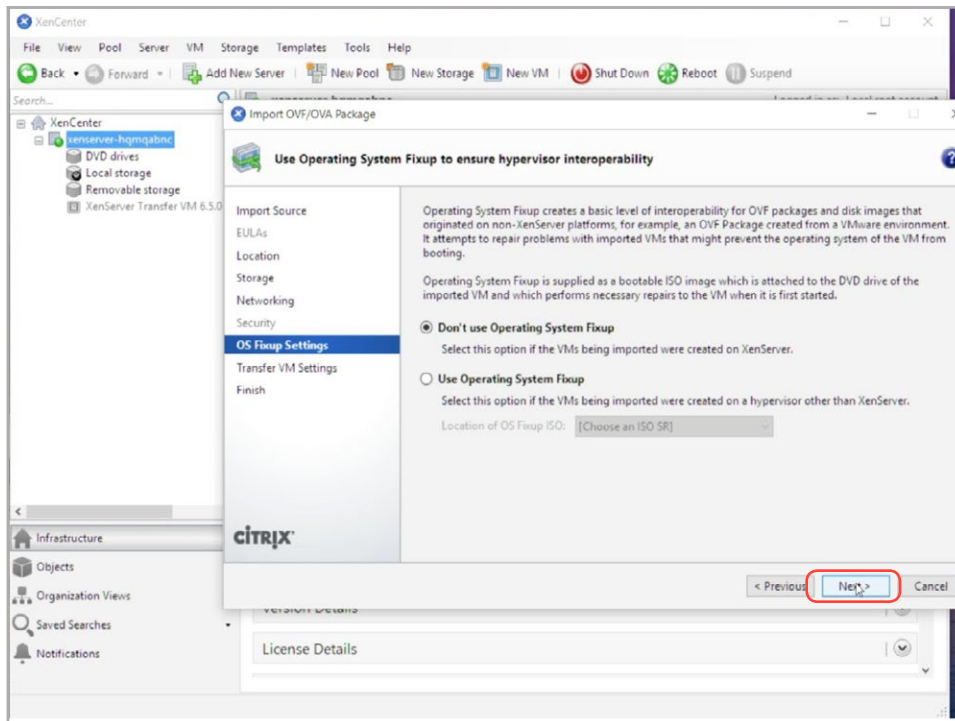
Select the host server and click **Next**.



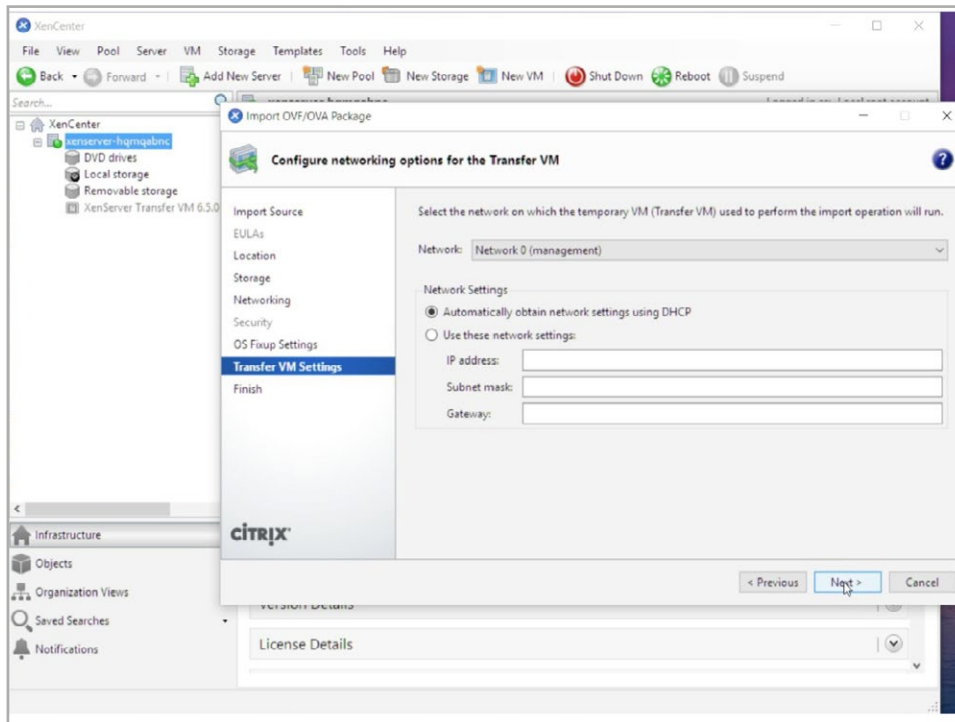
For storage, the Steelcase Application Server requires a minimum of 20 GB.



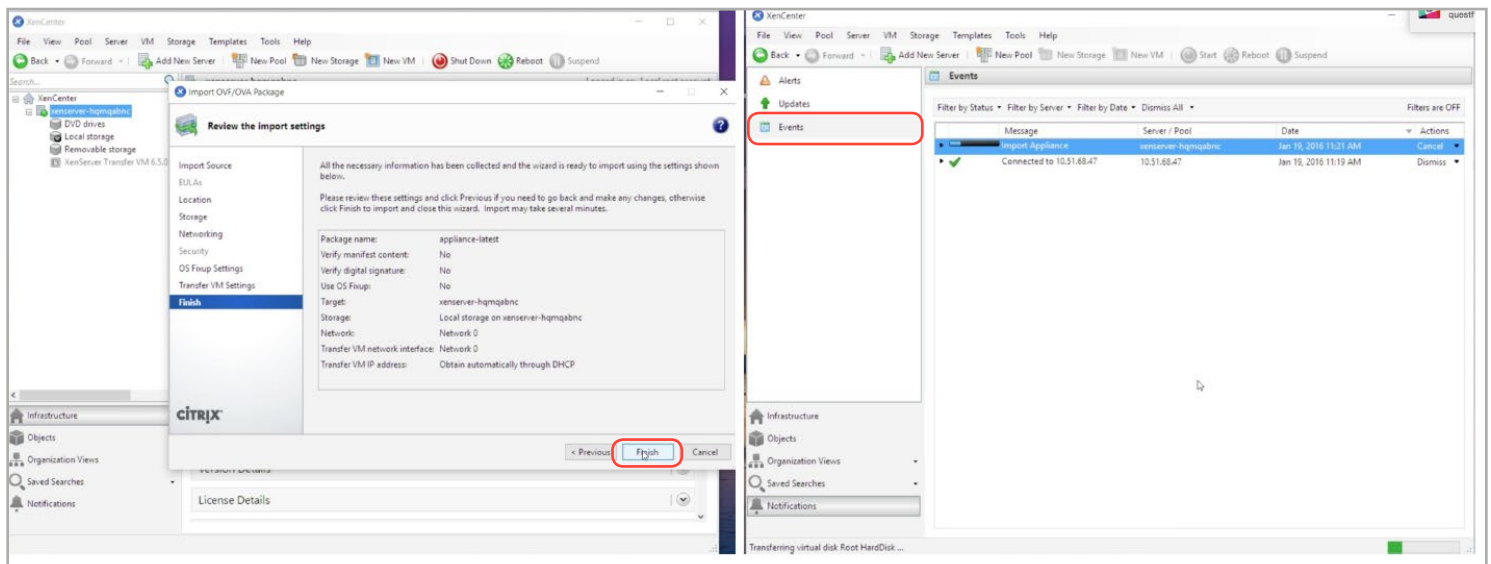
The Steelcase Application Server requires a bridged connection to the network. It should use the same physical network port as the host machine.



In XenCenter, select **Don't use Operating System Fixup** and click **Next**.



In the Transfer VM Settings section, leave the network settings as **DHCP** and click **Next**. You will configure the network settings from inside the VM in the next section.



Click **Finish** and then view **Events** in XenCenter to confirm the appliance is being imported. After importing the .OVA, start the virtual machine and begin setup of the SAS through the XenCenter console window.

## STEP 3 PART 2

## Configure Steelcase Application Server

```

Steelcase
CentOS release 6.4 (Final)
Kernel 2.6.32-358.el6.x86_64 on an x86_64

Welcome to your Steelcase Application Server!

This server has not yet been configured. Configure now by logging in with:

* username: root
* password: configure

localhost login: _

```

Log in with username: **root**, password: **configure**

## Configure New System

```
This server has not yet been configured. Configure now by logging in with:

* username: root
* password: configure

localhost login: root
Password:

Welcome to your Steelcase Application Server!

Your server has not yet been configured. To complete installation, please:

1) If desired, install your virtualization environment's guest additions

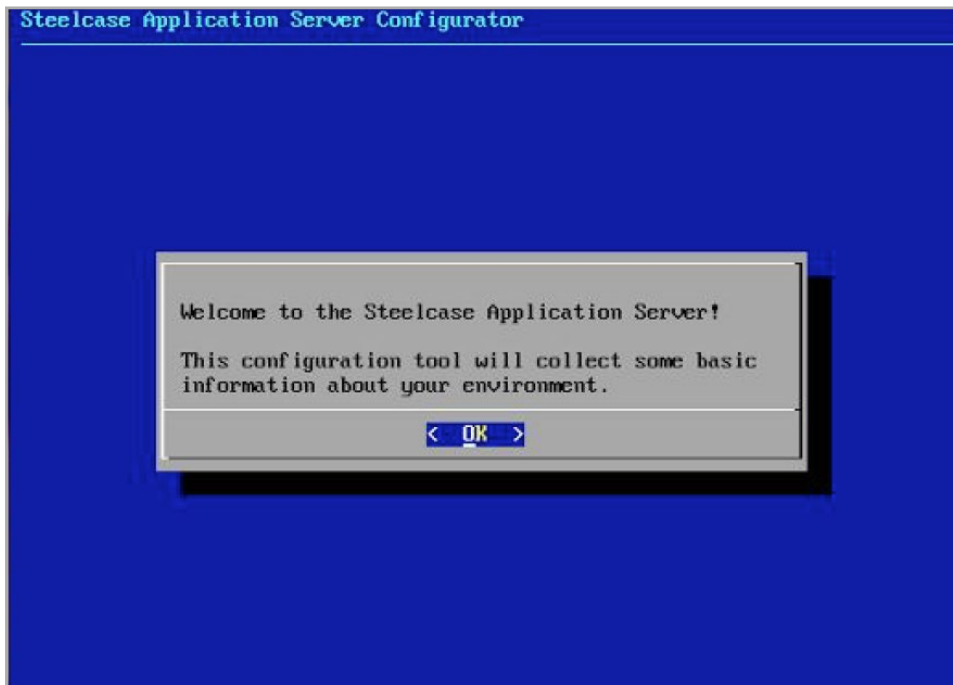
2) To configure a new Steelcase Application Server installation, run (as root):
   /opt/configurator/configure.sh

OR

2) To restore from a backup snapshot, run (as root):
   /opt/archivist/archivist restore SNAPSHOT_NAME

Configure new system with: /opt/configurator/configure.sh
Restore snapshot with: /opt/archivist/archivist restore <snapshot>
root:/root#
```

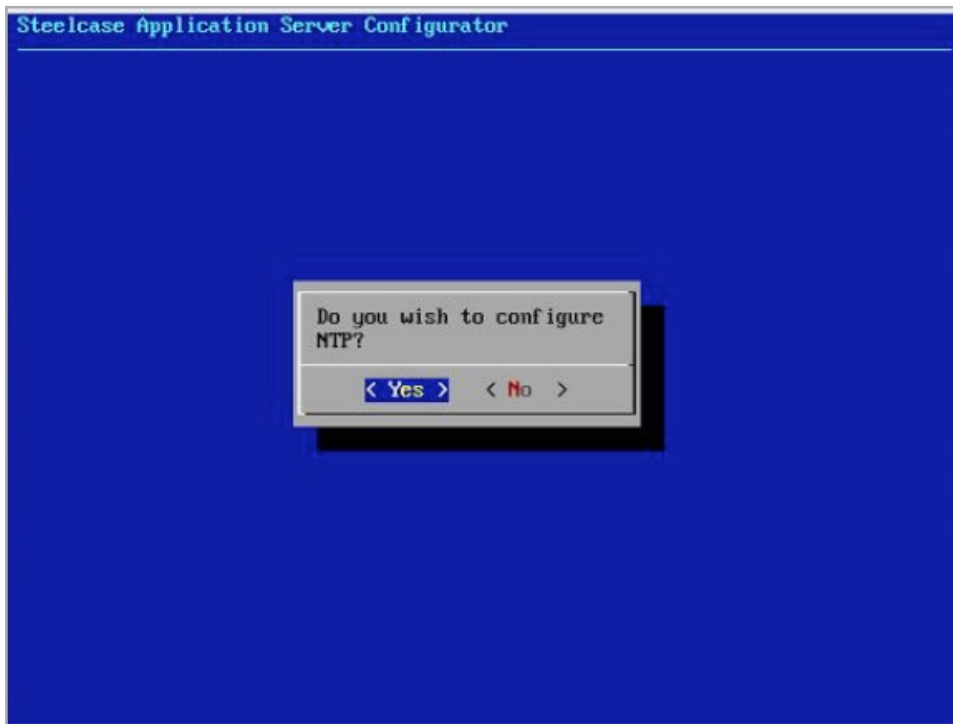
Type **/opt/configurator/configure.sh** and press **Enter**.



Press **Enter** to confirm **OK**.

Enter and confirm a new root access password when prompted.

## Determine Whether to Use Time Server



Select **Yes** to configure NTP.

*Note: If desired, enter a network time protocol (NTP) server. It is recommended that you use NTP to provide an accurate system time and an accurate time for your Steelcase products. If you do not have your own NTP server, you can use [pool.ntp.org](http://pool.ntp.org) (this requires that the SAS has access to the internet and is able to resolve DNS addresses).*

Select a time zone (e.g., Detroit, Los Angeles, etc.).

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## Determine Whether to Use SSL and How to Implement

SSL is recommended to protect usernames, passwords and other sensitive information. If you answer “yes” to enable SSL during the configuration process, the server will use a self-signed certificate already present on the virtual machine. Also, the appliance will force all web traffic to go over to HTTPS. See below for instructions to enable SSL if you did not indicate “yes.” It is recommended that you do not use the included certificate (as it will cause warnings in users’ browsers). Instead, replace the default certificate and key with your own at these locations:

- **Certificate:** /etc/nginx/ssl/server.crt
- **Server key:** /etc/nginx/ssl/server.key

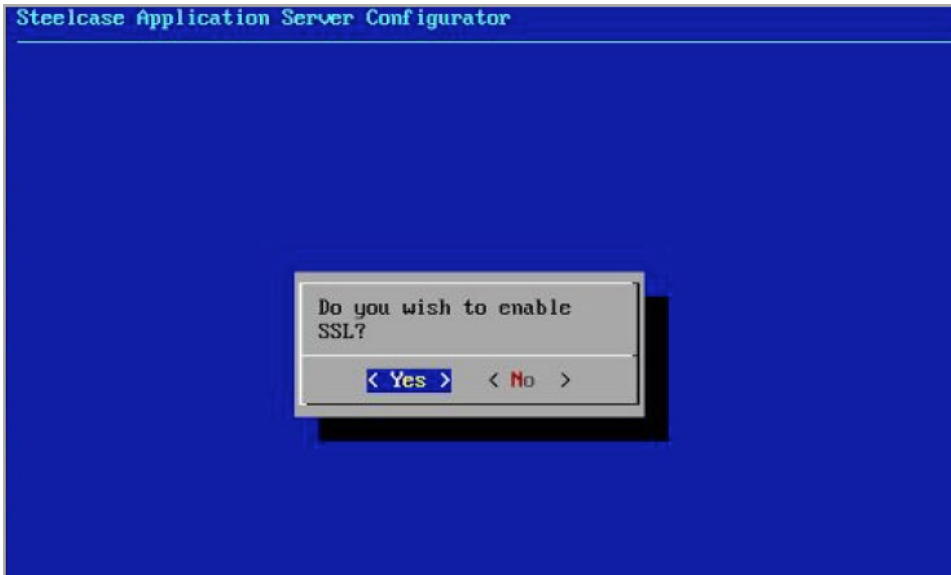
These keys will be included in the system backups. After modifying these files, nginx will be reloaded automatically. If your keys do not automatically take effect within 60 seconds, you should:

- Check the error log in **/var/log/nginx/error.log**
- Attempt to restart nginx manually: **service nginx restart**
- Clear your web browser’s cache

### Changing SSL Settings Later

SSL support can be changed at any time:

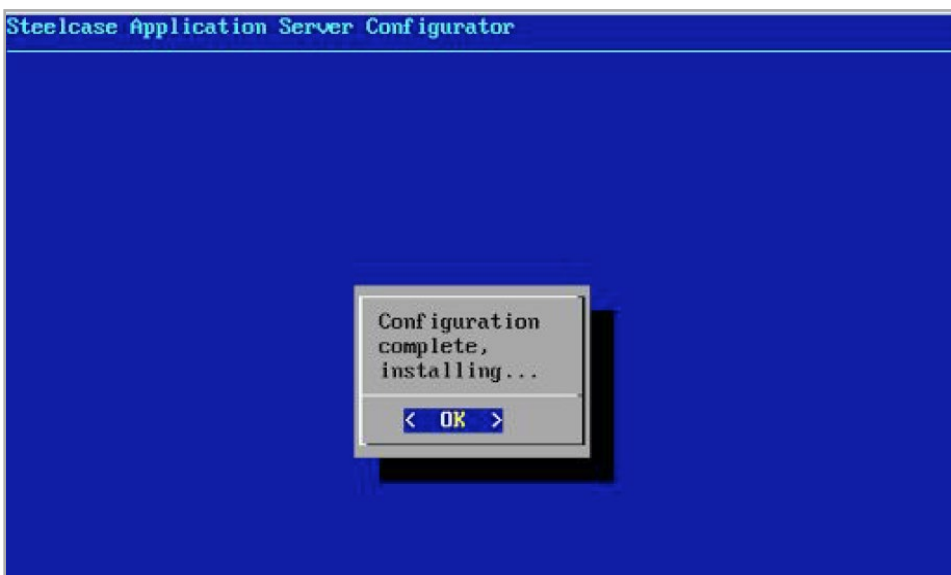
- **To enable:** Create the file `/etc/ssl-enabled.nginx` with a command such as `touch /etc/ssl-enabled.nginx`
- **To disable:** Remove the file `/etc/ssl-enabled.nginx`



Choose **Yes** or **No**.

*Note: If answering "Yes," remember to replace the default certificate and key with your own at these locations:*

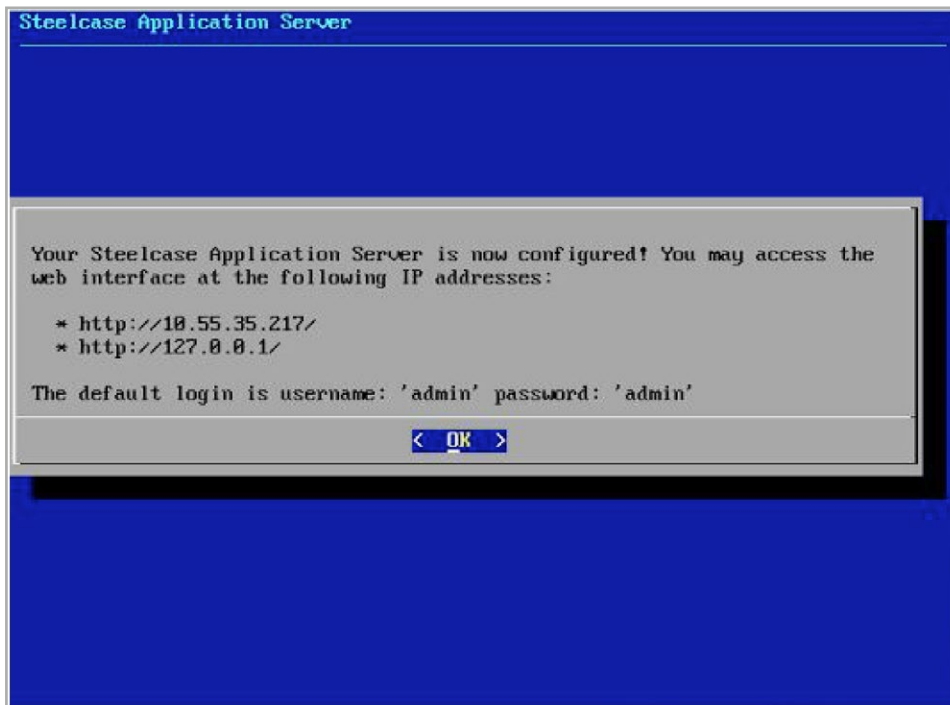
- **Certificate:** `/etc/nginx/ssl/server.crt`
- **Server key:** `/etc/nginx/ssl/server.key`



Press **Enter** to complete configuration.



After enabling or disabling SSL, you will see a confirmation screen as shown below. The virtual machine will default to a DHCP address. It is recommended that you modify the IP address by assigning a fixed IP address. To do so, follow the steps below.



### Assign a Fixed IP Address to the SAS Through Command Line (Recommended)

*Note: We recommend using a static IP address. To configure with a static IP address, see "Configuring a Static IP Address for the SAS" on the following page.*

**For installing Virtual PUCK:** Once the static IP address is configured, a DNS entry to associate the SAS IP address with the hostname **scs-virtualpuck-registry** must be in place for the Virtual PUCK system to function. This action must be done in the DNS, separately from the Steelcase Application Server. The creation of this DNS A-record will require the assistance of a network engineer.

#### Q: Why does the system need a DNS entry?

**A:** The Virtual PUCK client software and the Virtual PUCK receiver will use this hostname (scs-virtualpuck-registry) on the network to reach the SAS. If there is no DNS entry set up, the Virtual PUCK client software and Virtual PUCK system will not be able to function.

*Note: The DNS entry is required for the operation of the Virtual PUCK system.*

### Configuring a Static IP Address for the SAS

Add the default gateway address to the network file by following the steps below.

From the command line interface on the SAS:

Type **nano /etc/sysconfig/network**

Add your gateway address, exit and save.

Enter your default gateway address in the **GATEWAY** field. Press **Ctrl + X** and then press **Enter** with **yes** highlighted when asked whether to save changes.

*Note: It is expected that this step will be performed by or with the assistance of a networking engineer.*

A screenshot of a terminal window showing the nano text editor. The editor is open to the file /etc/sysconfig/network. The content of the file is: NETWORKING=yes, HOSTNAME=localhost.localdomain, and GATEWAY=10.55.38.1. At the bottom of the screen, a status bar indicates "[ Wrote 3 lines ]".

```
NETWORKING=yes
HOSTNAME=localhost.localdomain
GATEWAY=10.55.38.1
```

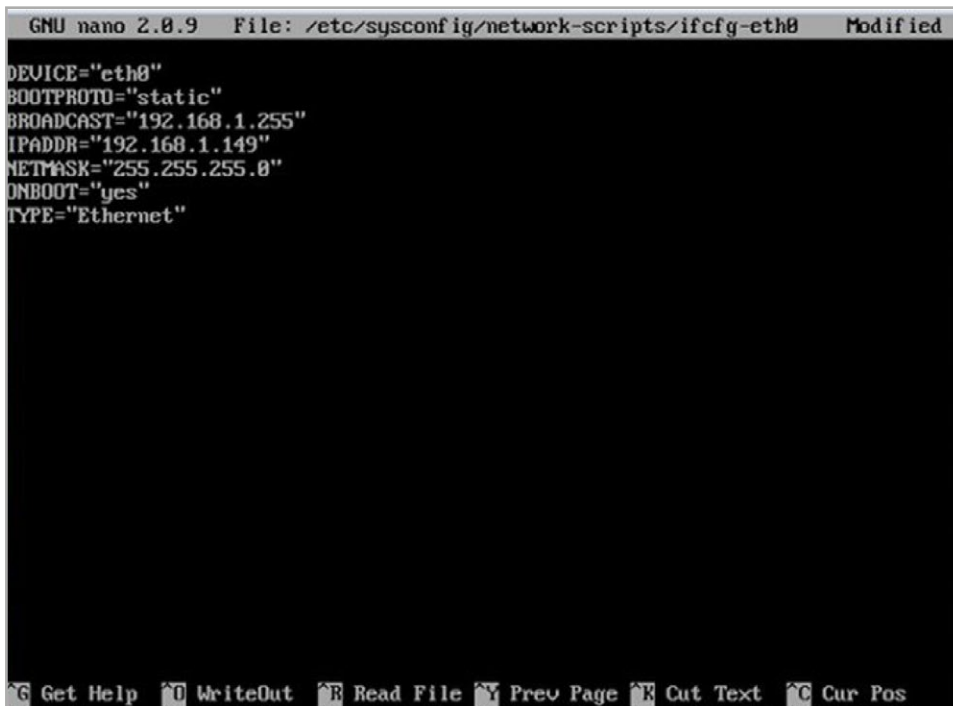
[ Wrote 3 lines ]

From the command line interface on the SAS:

Type **nano /etc/sysconfig/network-scripts/ifcfg-eth0**

Update your network settings, exit and save.

Add **BROADCAST**, **IPADDR**, **NETMASK**; change **BOOTPROTO** to **static**; and remove any other items from the script. Press **Ctrl + X** and then **Enter** with **yes** highlighted when asked whether to save changes.



```
GNU nano 2.8.9 File: /etc/sysconfig/network-scripts/ifcfg-eth0 Modified
DEVICE="eth0"
BOOTPROTO="static"
BROADCAST="192.168.1.255"
IPADDR="192.168.1.149"
NETMASK="255.255.255.0"
ONBOOT="yes"
TYPE="Ethernet"

^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^E Cut Text ^C Cur Pos
```

After saving the file, you will need to restart the network interface by typing the following commands in order for your changes take effect.

Stop the network interface: **ifdown eth0**

Start the network interface: **ifup eth0**

### Record Fixed IP Address of SAS

After the system reboots, access the console of the SAS virtual machine. Confirm the system has taken the desired IP address.

On the command line of the SAS, type **ifconfig**

Verify that the IP address, subnet mask and broadcast address are listed correctly for the eth0 network adapter.

## STEP 3 PART 3

### Create DNS Entry

Once the static IP address is configured and confirmed, a DNS entry to associate the SAS IP address with the hostname **scs-virtualpuck-registry** must be in place for the media:scape Virtual PUCK system to function. This action must be done in the DNS, separate from the Steelcase Application Server. The creation of this DNS A-record will require the assistance of a network engineer.

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#### Requirements:

- Unqualified domain name entry **scs-virtualpuck-registry** must resolve to the IP address of Steelcase Application Server.
- If using SSL, fully qualified domain name entry scs-virtualpuck-registry.yourcompany.com must resolve to the IP address of Steelcase Application Server.

*Note: Referring to the examples, you will replace “yourcompany.com” with the domain used within your network environment.*

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#### How DNS Is Used in the Virtual PUCK System

The Virtual PUCK client and Virtual PUCK receiver both connect to the Steelcase Application Server (which runs the Virtual PUCK Registry) through the hostname **scs-virtualpuck-registry** on the company network. This hostname is termed an **unqualified** domain name. Having an unqualified domain name is not mutually exclusive with having a fully qualified domain name (FQDN). If you want **SSL** to work on the Virtual PUCK Registry with a yourcompany.com wildcard SSL certificate, all hosts (laptops running the VP client) accessing the registry will need to be able to resolve scs-virtualpuck-registry.yourcompany.com. But also, for Virtual PUCK to work, all hosts and the VP receiver will need to resolve the IP address of the VP registry server using the unqualified domain name of the hostname scs-virtualpuck-registry.

You are not required to use SSL. It is an option which you select when you set up the Steelcase Application Server (SAS). We would strongly recommend using SSL if the SAS is accessible from the general internet. If not, you may decide that it isn't necessary. You could download a new Steelcase Application Server image file and try again without SSL.

#### Q: Why does the system need a DNS Entry?

**A:** The media:scape Virtual PUCK client software and receiver use the hostname **scs-virtualpuck-registry** on the network to reach the Steelcase Application Server. If there is no DNS entry set up, the Virtual PUCK system will not be able to function.

*Note: The DNS entry is required for the operation of the media:scape Virtual PUCK system.*

## STEP 3 PART 4

### Confirm DNS Entry and SAS Are Functional

After the DNS entry is made, verify the system is working. To do this, simply go to <http://scs-virtualpuck-registry/> (must be on company network) and view the webpage as pictured below.

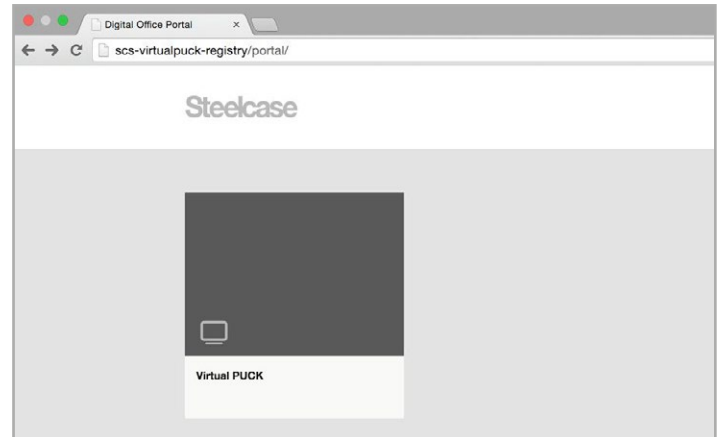
You can also confirm the DNS entry is working by issuing a “ping” command.

In Terminal or Command Prompt, type:  
**ping scs-virtualpuck-registry**

If the pings time out, your DNS entry is not pointing to a live SAS. Confirm that the SAS is running, and that a DNS entry points to the IP of the SAS, and try this step again.

#### Logging into Web Interface

To log in to the media:scape Virtual PUCK management system, enter User ID: **admin**, password: **adminvpuck**



### Virtual PUCK System Port Usage Information

All Virtual PUCK traffic is over the **internal network only**. The following chart shows the ports used by the Virtual PUCK system within the internal network and the type of information that is being sent, as well as where it is being sent. This chart needs to be reviewed by the networking engineers at the customer location.

PORT	APP	SOCKET TYPE	FROM MACHINE	TO MACHINE	USAGE	DATA
5000	VP Server	TCP Server	User laptops	VP Server	VP command channel	JSON over ZeroMQ
5001	VP Registry	TCP Server	VP Servers	VP Registry	Server discovery/registration and code distribution	JSON over ZeroMQ
5002	VP Registry	HTTP Server (TCP)	User laptops	VP Registry	“Display Code” and “Connect to server” requests from VP clients	JSON over HTTP
5003	VP Server	HTTP Server (TCP)	VP Server	VP Server (same host)	Administrative command API: implements certain actions and config exposed by VP Admin interface	RESTful API
5004	VP Server	TCP Server	VP Server	VP Server (same host)	Exposes telnet interface to Switcher. Dev/debug only.	Switcher commands (plaintext)
5005	VP Admin	HTTP Server (TCP)	Admin laptops	VP Server	Web-based admin user interface	HTML/HTTP
80	VP Admin	HTTP Server (TCP)	VP Server	VP Server (same host)	NGINX web server reverse-proxy to the admin app running on 5005	HTML/HTTP
50000-59999	Video player(s)	Datagram listeners (UDP)	User laptops	VP Server	Video players rotate through a set of 10,000 UDP ports, one for each client streaming session Only up to 2 of these are bound simultaneously	H.264/MPEG2/UDP

*Note: These ports are used for communication in the Virtual PUCK system. You may have to modify your network configuration to allow communication on these ports over your internal network.*

## Complete media:scape Virtual PUCK System Specifications

### Steelcase Application Server

#### MINIMUM SYSTEM REQUIREMENTS

CPU's	1
RAM	2 GB
Storage	20 GB

#### RECOMMENDED SYSTEM REQUIREMENTS

CPU's	2
RAM	4 GB
Storage	40 GB

#### NETWORK REQUIREMENTS

Static IP Address	1
DNS Entry	scs-virtual puck-registry

#### TECHNICAL SPECIFICATIONS

Virtual Appliance Delivery Method	2GB OVA Virtual System
Web Interface	Virtual PUCK Registry
Number of Virtual PUCK Receivers	200
Database	Internal

### Virtual PUCK Receiver

#### MINIMUM REQUIREMENTS

Network Connection	100/1000 Mbps (wired)
media:scape	Digital Switcher (8x4 or 4x2)
SAS Protocol	HTTP
Virtual PUCK Client Protocol	TCP & UDP

#### TECHNICAL SPECIFICATIONS

Users	Up to 8 connected users
Concurrent Streams	1 or 2
Video Output	1 or 2 (single or dual display media:scape)
Video Output Resolution	Up to 1920x1080
Audio Output	Not supported
Web Interface	Virtual PUCK Manager
Connections	(1) 8-pin RJ45 LAN (10/100/1000 Mbps); (2) 19-pin HDMI Type A; (3) USB 2.0 Type A (future usage); (1) 19VDC 3.42A
Included Hardware	Virtual PUCK receiver, mounting hardware kit, two 3' HDMI cables, 19VDC 3.42A power supply, AC power cord

## Virtual PUCK Client Software

### MINIMUM REQUIREMENTS

Additional Hardware	None required
Latency	<100 ms UDP to Virtual PUCK receiver
Network Connectivity	802.11a/b/g/n or 100/1000 Mbps
SAS Protocol	HTTP
Virtual PUCK Receiver Protocol	TCP & UDP
Range	N/A (anywhere on WiFi)

### TECHNICAL SPECIFICATIONS

Resolution	All native resolutions supported
Audio	Not supported
Frame Rate	Up to 15 fps
Bandwidth	Typical 1-2 Mbps (up to 5 Mbps per screen)
OS Support	Mac: OS X – versions 10.9 (Mavericks) through 10.11 (El Capitan); Windows Vista, 7, 8.1 (requires .NET 4.0), 10

## STEP 4

### Prepare Environment for media:scape Digital and Virtual PUCK Installation

Virtual PUCK is only compatible with media:scape digital.

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#### Verifying media:scape Digital

Here are three easy ways to confirm that technology in a media:scape table is digital:

- Press and hold the power button for over 5 seconds; if the on-screen display shows, then it is a digital system
- If you see a black screen with green circle logo, it is digital
- If the switcher has HDMI inputs, it is digital

#### Prerequisites for Virtual PUCK

- media:scape digital switcher
- Wired network connection for media:scape digital switcher
- Wired network connection for Virtual PUCK receiver

Both the media:scape digital switcher and Virtual PUCK receiver will require individual wired connections. Make sure that there are two wired network connections available for the devices at the location in which you hope to integrate Virtual PUCK.

---

## STEP 5

### Order or Identify media:scape Digital

Virtual PUCK is only compatible with media:scape digital.

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#### Verifying media:scape Digital

- Press and hold the power button for over 5 seconds, if the on-screen display shows, then it is a digital system
- If you see a black screen with green circle logo, it is digital
- If the switcher has HDMI inputs, it is digital

#### Ordering media:scape Digital

If the media:scape table with which you hope to incorporate Virtual PUCK is analog, then the media:scape digital Upgrade Package needs to be ordered by the Steelcase dealer (style number MS02TK). See [Integrated Technologies Specification Guide](#) for more information.



# STEP 6

## Order Virtual PUCK Receiver

The Steelcase dealer will order this hardware. See [Integrated Technologies Specification Guide](#) for more information.

**MS02VPK01:** Virtual PUCK style number

**VS10:** Steelcase Application Server style number

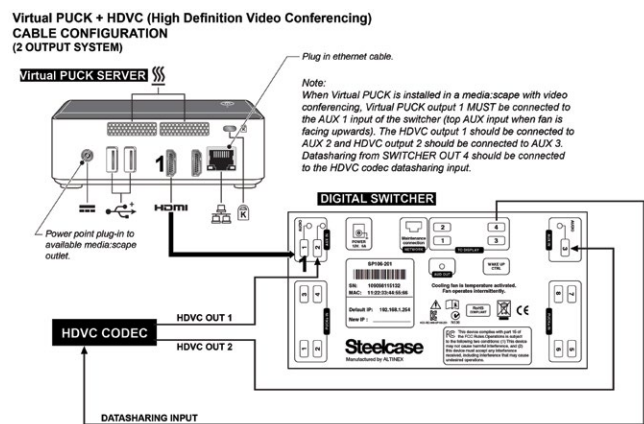
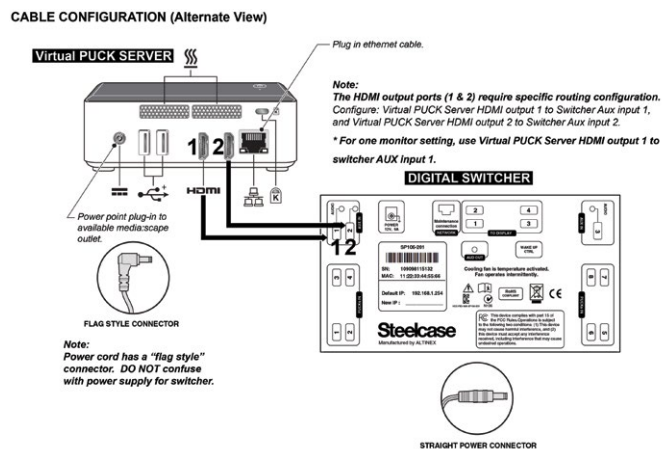
*Note: Steelcase Application Server VS10 should have been ordered in Step 2.*

# STEP 7

## Install Virtual PUCK Receiver in media:scape Digital Environment

The Steelcase dealer installation team will perform an on-site physical installation. For comprehensive installation instructions, contact your Steelcase dealer and they will download the latest assembly directions.

### Cable Configuration (Alternative View)



## DIGITAL SWITCHER CONFIGURATION

Configuration for media:scape can be accomplished using OSD. To enter configuration mode, press and hold the power button for approximately 5 seconds. After that OSD will display the current status of the switcher. In this mode, only Virtual PUCK 1 will light up. To enter configuration mode, the user needs to enter the password: 1342. The Virtual PUCK will flash and the unit will be ready for configuration. A total of 15 fields can be changed either through the OSD or TCP/UDP format. Keys 1 and 3 are used to move between fields Keys 2 and 4 are used to change setting value for that field.

If the system uses the standard cabling shown on PAGE 5, change the setting values to the following:

OUT1 AUX OVR: 1

OUT2 AUX OVR: 2

If Virtual PUCK + HDVC cabling are as shown on PAGE 6, change the setting values to the following:

OUT1 AUX OVR: 2

OUT2 AUX OVR: 3

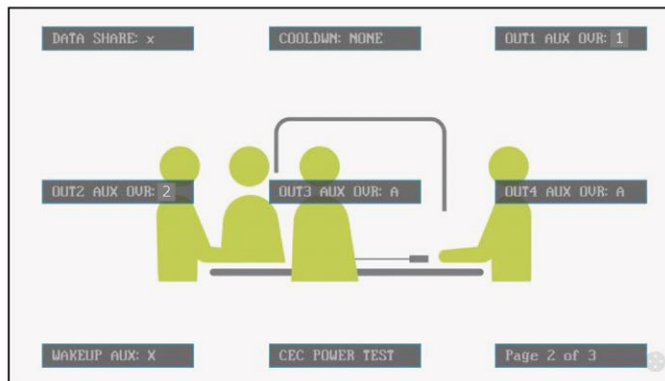
WALK-UP: 7 (only if new wux listed below,  
if original do not change walk-up setting)



NEW WUX



ORIGINAL WUX



## Completion Criteria

To complete this step, the Steelcase Dealership Installation Team will need to record the IP addresses of the digital switcher and Virtual PUCK receiver along with the room or setting name on the printed assembly directions.

**Setting a static IP address** on the digital switcher will also be helpful. Commands can be sent to the switcher via Telnet connection. Refer to the [Digital media:scape User Guide](#) for additional details. The commands to assign a static IP address via TelNet to the switcher are as follows:

Static IP: [CSP+192.168.1.45]

Gateway: [CSG+192.168.1.1]

Subnet Mask: [CSB+255.255.255.0]

Turn off DHCP: [DHCP0]

Soft reset: [SFT]

# STEP 8

## Configure, Connect, Test and Manage media:scape Virtual PUCK

### Getting Started

The first time you launch media:scape Virtual PUCK, you will need to open a browser on your laptop and go to <http://scs-virtualpuck-registry/>. In this section, note that Virtual PUCK receivers may also be referred to as Virtual PUCK servers.

When prompted, enter the default username and password on the login screen (username: admin; password: adminvpuke).

*Note: Virtual PUCK requires media:scape switcher firmware version 1.1.21 or later.*

**Troubleshooting Tip:** If your Virtual PUCK receiver is no longer accessible over the network, you can still access the management interface. To do so, attach a monitor, mouse and keyboard to the Virtual PUCK receiver and press **Ctrl + Alt + F** to open a web browser and enter <http://localhost> into the address bar.

### Registry Tabs: Server List

The Server List tab shows an active inventory of all Virtual PUCK receivers (the “servers” here are Virtual PUCK receivers).

## Virtual PUCK™ Registry

Server List Configuration

Name	Online	Server Address	Server Version	Switcher Address	Switcher Version
Chicago Area C	✓	10.36.97.252	0.9.5.3-613	10.36.97.251	SP106-20x v1.0.18
Duluth DevTest	✓	10.35.72.156	0.9.5.3-613	10.35.72.174	SP106-20x v1.0.18
Duluth media:scape	✓	10.35.43.193	0.9.5.3-613	10.35.43.90	SP106-20x v1.0.18
Duluth Sandbox	✓	10.35.72.158	0.9.5.3-613	10.35.72.159	SP106-20x v1.0.18
GH 2E Center A	✓	10.50.76.88	0.9.5.3-613	10.50.76.89	SP106-20x v1.0.18
GH 2E South K	✓	10.50.76.84	0.9.5.3-613	10.50.76.83	SP106-20x v1.0.18

*Note: When first installing a new Virtual PUCK receiver, the name field will be blank; follow the directions on the next page to configure the receiver.*

## Registry Tabs: Configuration Tab

The Configuration tab allows you to change the Admin password for the Virtual PUCK Registry login.

*Note: This password is for the Virtual PUCK Registry application only. Each Virtual PUCK receiver may also have its own password.*

*Important: Before Virtual PUCK clients can be used to connect to media:scape, Virtual PUCK receivers MUST be configured in the Virtual PUCK Registry (i.e., both the Room Name and Switcher Address must be set).*

The screenshot shows the 'Virtual PUCK™ Registry' interface with the 'Configuration' tab selected. Under the 'Change Admin Password' section, there is a sub-header 'Change the password of the admin user for logging into this configuration screen.' Below this are three input fields: 'Current Password', 'New Password', and 'Confirm Password'. A blue 'Save' button is located at the bottom right of the form.

## Configuring the Virtual PUCK Receiver

Once you have accessed the Virtual PUCK Registry interface, click on the Virtual PUCK receiver name on the Server List to view/set/change the server configuration settings in the Virtual PUCK Manager.

### Room Name

Give the Virtual PUCK receiver a room name that matches its physical location. This is the name that will appear in the Registry as well as the drop-down menu on the Virtual PUCK Client interface.

### Switcher Address

To find the IP address of the switcher, hold down the media:scape power button for 5 seconds. The IP address will be displayed on the screen (as shown below).



## Advanced Settings

Click "Show" next to "Advanced Settings" to see options for updating or reviewing the current software revision, changing the network configuration, changing the password for that specific server or changing the address of the location of the Steelcase Application Server.

## Accessing and Viewing Virtual PUCK Receiver Logs

Click the "Logs" tab to access and review the Virtual PUCK receiver's various log files (e.g., Virtual PUCK receiver, Virtual PUCK Registry, Virtual PUCK Admin, video player logs, web access, etc.).

*Note: Until both the Room Name and Switcher Address have been set, the Server Status will show as Offline (red).*

## Virtual PUCK HDVC Compatibility

Virtual PUCK in HDVC compatibility mode is optimized for two- and three-monitor media:scape systems and media:scape Kiosk. When integrated with HDVC, Virtual PUCK is able to share to only one display due to the fact that the remaining auxiliary (AUX) ports on the media:scape switcher are being used by the HDVC system.

The screenshot shows the 'HDVC Compatibility' section. It states 'Virtual PUCK can be used together with a Video Conferencing system. Doing so changes the behavior of Virtual PUCK.' Below this is a 'WARNING: This feature requires correctly configured hardware.' To the right, there is a checkbox labeled 'Enable HDVC Compatibility' which is checked. At the bottom right, there is a blue 'Save' button.

Configuration

The media:scape digital switcher must be configured to support Virtual PUCK and HDVC. The required switcher configuration settings are:

- OUT1 AUX OVR: 2
- OUT2 AUX OVR: 3
- WALK-UP: 7 (only for new video “green media:scape circle logo” files)

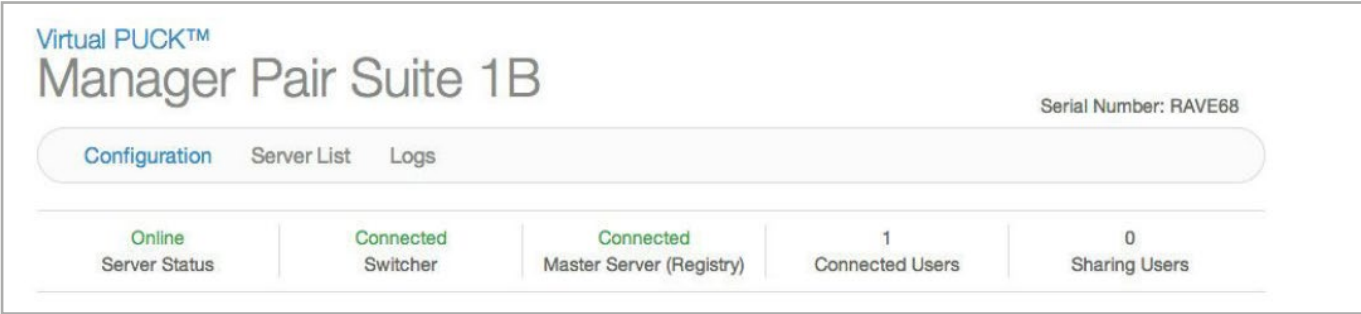
It is also important to note that the Virtual PUCK output 1 should be connected to AUX 1 input on the media:scape switcher. The HDVC system output 1 should connect to AUX 2 input of the switcher, and HDVC system output 2 should connect to AUX 3 input of the switcher.

*Important: In HDVC compatibility mode, Virtual PUCK is not optimized for a single display application.*

**TIP:** During an active video call, the best method to acquire the 4-digit Virtual PUCK code is to request the code in the Virtual PUCK client. Although you can press the “power-on” button to retrieve the code, the video call signal will be interrupted while the walk-up experience plays. We recommend using the “Request Your Code” feature in the Virtual PUCK client application to display the code.

Dashboard

At the top of Virtual PUCK Manager window is a dashboard. The following chart explains the information shown there.



DASHBOARD ITEM	POSSIBLE VALUES	GREEN	RED
Server Status	<ul style="list-style-type: none"><li>• Online (green)</li><li>• Offline (red)</li><li>• Unavailable (red)</li><li>• Unconfigured (red)</li></ul>	<p><b>“Online” means:</b></p> <ul style="list-style-type: none"><li>• The server software process is up and running</li><li>• The Room Name and the Switcher Address are set, and the Switcher status indicator is Connected (green)</li><li>• The Master Server (Registry) is Connected (green)</li></ul>	<ul style="list-style-type: none"><li>• No code will be displayed on media:scape screens</li><li>• Virtual PUCK clients cannot connect to this media:scape setting</li></ul>
Switcher	<ul style="list-style-type: none"><li>• Connected (green)</li><li>• Disconnected (red)</li></ul>	<p><b>“Connected” means:</b></p> <ul style="list-style-type: none"><li>• Switcher Address is set</li><li>• This Virtual PUCK server has established an active, usable network connection to the Switcher</li></ul>	<ul style="list-style-type: none"><li>• Virtual PUCK server cannot communicate with or control the media:scape</li></ul>
Master Server (Registry)	<ul style="list-style-type: none"><li>• Connected (green)</li><li>• Disconnected (red)</li></ul>	<p><b>“Connected” means:</b></p> <ul style="list-style-type: none"><li>• Virtual PUCK server is able to connect to the Registry</li><li>• Virtual PUCK server has registered itself as available with the Registry</li></ul>	<ul style="list-style-type: none"><li>• Virtual PUCK server cannot connect to the Registry</li><li>• Virtual PUCK server is not registered as available for client use</li></ul>
Connected Users	Number of connected Virtual PUCK clients. (Merely informative; allows an administrator to understand if the Virtual PUCK server is currently in use.)		
Sharing Users	Number of actively sharing Virtual PUCK clients. (Merely informative; allows an administrator to understand if the Virtual PUCK server is currently in use.)		

## Steelcase Technical Support

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### media:scape Product Page

[steelcase.com/products/collaboration/mediascape/](http://steelcase.com/products/collaboration/mediascape/)

### Documentation & Downloads

[techsupport.steelcase.com](http://techsupport.steelcase.com)

### USA and Canada

**Phone** 888.783.3522 (*Support available in English and Spanish*)  
Monday through Friday, 8 am to 8 pm Eastern time

**Email** [techsupport@steelcase.com](mailto:techsupport@steelcase.com)

### Europe

**Phone** +33 3 88 13 36 36 (*Support available in English, French and German*)  
Monday through Friday, 8:00 to 18:00 Central European time

**Email** [emea.techsupport@steelcase.com](mailto:emea.techsupport@steelcase.com)

### APAC

**Phone** +60 3 2027 6161 (*Support available in English and Mandarin*)  
Monday through Friday, 8:00 to 17:00 KL time

**Email** [apac.techsupport@steelcase.com](mailto:apac.techsupport@steelcase.com)



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