

Solstice Pod Admin Guide



The Solstice Pod connects to a meeting-room display and leverages existing WiFi/Ethernet networks to facilitate wireless content sharing and collaboration. This document provides technology managers with instructions for evaluating, deploying and managing one or multiple Pods.

Looking for Something Else?

- **Using Solstice:** If you are already in a Solstice-enabled room and looking for information on how to use Solstice to share content and collaborate, please [go to our quickstart guide](#).
- **Security Guidelines:** For information on deploying Solstice in a security-conscious environment, please refer to the [Solstice Pod Baseline Security Standard \(BSS\) document](#).
- **Specs and Reference Info:** For hardware specifications and a detailed list of configuration options and other reference info, check out the Solstice Pod [Specs and Reference Material](#).
- **Deployment Overview:** See all the components of a Solstice deployment and find documentation in our [Deployment Overview](#)

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Scenario 1: Trying Out the Pod for the First Time

If you have a Pod and want to experiment with [all the features](#), follow the steps below. Setting up and trying out the Pod is straightforward. The way you set up and evaluate your first Pod may be different than how you configure and deploy Pods throughout your organization depending on your network and use cases. This section will help you get a Pod up and running quickly so you can test performance and take a first-hand look at end-user features.

Step 1: Unpack your Pod

The Pod is delivered with an HDMI cable and 12V power supply. Use the HDMI cable to attach the Pod to a display and power the Pod by connecting the supplied power adaptor to a standard power outlet. Optionally, if you have a touch-enabled display and would like to try out the Pod's touch features, connect a USB cable from the Pod to the USB port on the display.

A green LED bar will illuminate on the front of the Pod as soon as it receives power. The Pod will take a few minutes to boot up, and display the default welcome screen. In this default state, the Pod will display connection instructions on the welcome screen along with its default name of 'SolsticePod'. For your convenience, we ship the Pod with both the wireless access point enabled and Ethernet configured to support DHCP if it were plugged in. You'll have a chance to change these settings based on your deployment plans later.

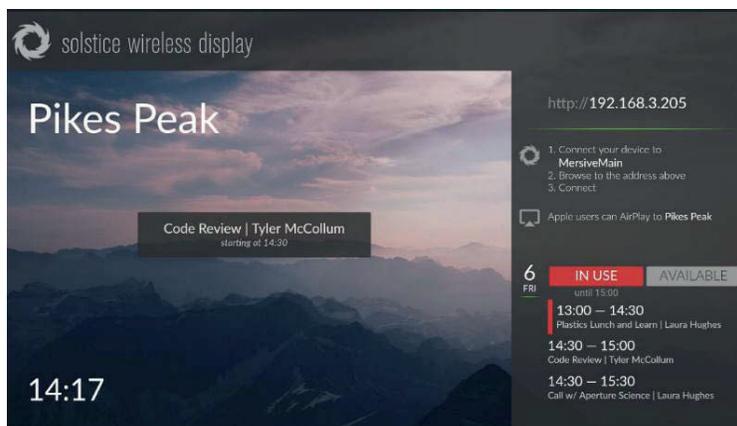


Notice that the welcome screen instructions will display the default 'SolsticePod' hotspot network name/SSID. If you're not able to connect the Pod to a DHCP-ready Ethernet network, (if you are, jump to [Scenario 2](#)) you can evaluate the Pod using the SolsticePod hotspot network. The standard deployment configuration is to attach the Pod to an existing network via Ethernet, but the WAP provides a convenient mechanism to evaluate a Pod. Just keep in mind that your devices (and the Pod) won't have internet access during your evaluation with the Pod in WAP mode. Features that require internet access – such as the welcome screen RSS feeds and sharing YouTube videos – won't be available.

Important note: The Pod is shipped with the Wireless Access Point (WAP) enabled to make it easy to connect and evaluate Solstice's collaboration features. However, WAP mode is not recommended for long-term deployment for security and performance reasons. For more info on configuring the Pod for deployment, refer to Scenarios 2 and 3.

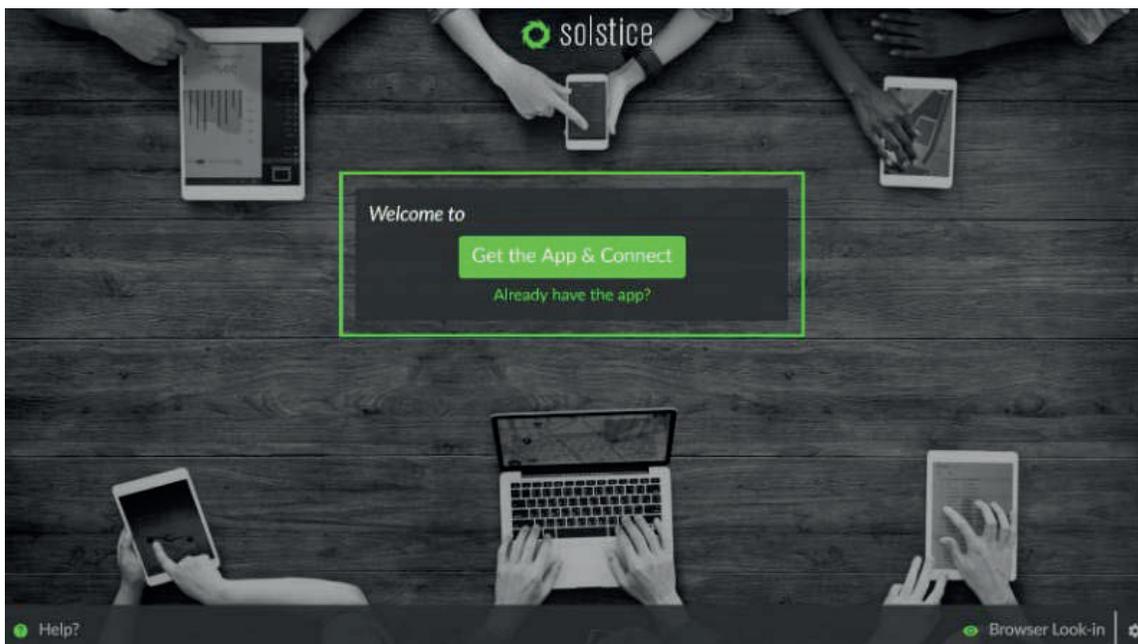
Step 2: Get the Free User App

Once your Pod and display are powered on, it's time to get the free Solstice app (which gets installed on each user device) to connect to the Pod. Admin permissions are not required to install the Solstice app. Instructions to get the app and connect are shown on the Solstice welcome screen.



Follow the Steps on the Screen:

1. Connect to the 'SolsticePod' network.
2. Enter the IP Address shown on the display into a browser on your device.
3. Click the 'Get the App & Connect' button and run the downloaded app.



Android or iOS devices will be directed to their app stores. However, this requires internet access which is not available when connected to the Pod's hotspot network. For this evaluation, these users will need to hop over to a network that has access to the internet to install the Solstice mobile app. For full rollout/deployment, Pod(s) should be deployed on internet-enabled networks. See [Scenarios 2](#) and [3](#) in this guide for more info.

Although Solstice users don't need to download the user app before they walk into the room, we've also provided download links here for convenience.

Windows: download from www.mersive.com/download or directly from the Pod

Mac: download from www.mersive.com/download or directly from the Pod

iOS: <https://itunes.apple.com/us/app/solstice-client/id887643816?mt=8>

Android: https://play.google.com/store/apps/details?id=com.mersive.solstice.client_v2

Important note: Whether you download the laptop apps from the Pod or our website, admin rights are never required to use them.

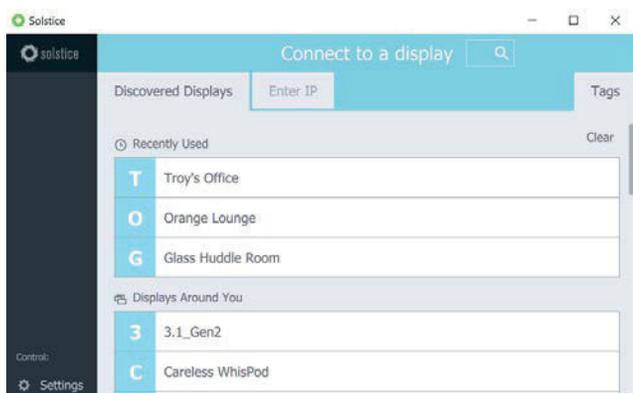
Keep in mind your Pod shipped with the most recent apps pre-installed. These will be installed

for any user that downloads the app from that Pod. Each new version of the Pod will carry the corresponding version of the app. If a user connects with an older version of the Solstice application, they'll be given the option to upgrade to the latest version. In this way, administrators can focus on managing their Pod deployment and users will remain up to date.

Step 3: Connect to the Pod

Now that you have the user app, let's connect to the Pod. Firstly, your device must always be on the same network as the Pod to connect – in this case the 'SolsticePod' hotspot network.

When you launch the Solstice app, you will see the 'discovery' panel. This screen shows all the Solstice displays on your network so that you can simply click the display that corresponds to the appropriate room and connect. For now, the discovery panel is likely to only show the single Pod you're evaluating.



Don't see any Solstice Pods for connection?

You probably don't have Solstice Discovery set up yet, but that's ok! For now, you can select the 'Enter IP' option and type the IP address visible on the Solstice Pod welcome screen. To learn more about setting up Solstice Discovery, refer to 'Make Pods Available for Discovery' in Scenario 2 or jump straight to the [SDS guide](#).

Click on the SolsticePod display and enter the on-screen PIN if prompted.

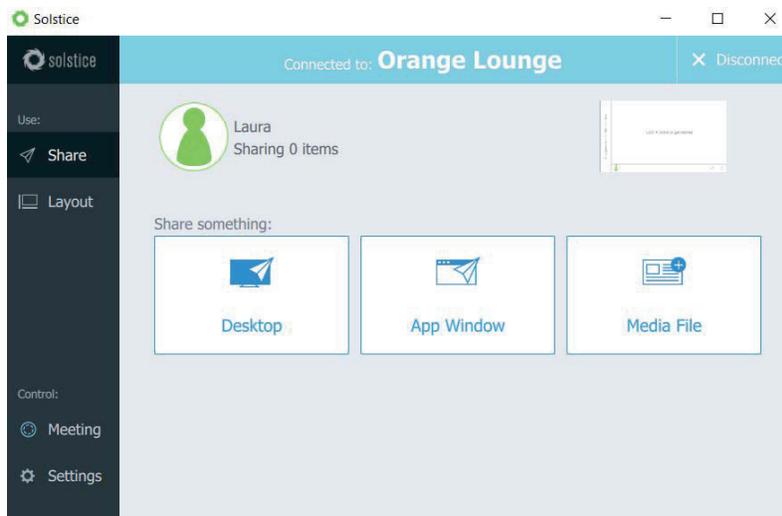
Regardless of which device you are using to evaluate Solstice, the user interface and experience is nearly identical. This allows users to freely move between devices when sharing content to the display without the unnecessary trouble of changing user interfaces.

Step 4: Share from your Solstice App

Once you are connected to the Pod, you can try out several features of Solstice, including:

1. Sharing your entire desktop or device screen
2. Sharing a specific application window (not possible on all mobile devices)
3. Sharing media files (images and videos)
4. Arranging, hiding, and otherwise controlling various content posts from your WYSIWYG app interface
5. Moderating a session, approving a join request, and previewing a post submission

When you connect to a Pod, you'll be presented with the sharing panel. The sharing panel allows you to toggle on/off sharing various content sources to the screen. From PC-based devices, you can share desktops, application windows, images and videos. From mobile devices, you can share the device screen, images and videos stored on the device, and even images/videos captured live from the device camera.



Try sharing more than one thing to the display using the 'sharing' panel. For example, it's useful to share a couple different application windows and some media files to see how things work. Try sharing your desktop to start. Next, open a PowerPoint or PDF document and share via the app window sharing options. Now resize the PowerPoint or PDF to half screen and note the difference between the desktop post and shared app window post on the display.

Lastly, share a dozen images saved locally on your device via the media file sharing option. You've now put 14 posts on the screen. You'll notice that your posts carry an outline color that matches your user color, assigned when you connected. If you have a second device handy, connect to the Pod from that device too and share something to see how different users are represented on the shared display.

Did you know? If you have an iPad, iPhone, or even an OSX device, you can Airplay the device screen directly to the Pod. Swipe up from the bottom of the screen and look for 'SolsticePod' in the AirPlay menu. You'll see that your device mirrored live to the display.

Step 5: Control your Posts

By selecting the 'layout' icon/option in the grey sidebar menu, you can access Solstice's intuitive What-You-See-Is-What-You-Get (WYSIWYG) control interface. Here, every connected user can drag and drop content to reorganize it on the display, drag posts off the screen into the 'on-deck' area on the left-hand side to keep them available in the session without having them visible on the display, delete posts, resize posts, and more. While posts are aligned to a grid by default, enabling users to manipulate them in free-form mode is as easy as unchecking 'align to grid' in the layout panel. You can also access a menu of additional per-post options by long clicking on an individual shared post. These include making the post full screen, deleting it, creating a stack of multiple posts, and access info about the post.



Next, toggle back to the sharing panel and try sharing a video. Select the media file option, navigate to a video saved on your device, and experience the smooth 1080p playback. Note a video playback menu also appears over the post back on the layout panel.

Lastly, you can try out Solstice's moderator mode by enabling session moderation in the Setting menu of the Solstice client. For a walkthrough of moderator mode, check out the [moderator mode section](#) of the Solstice user training video or read about moderator mode in the Solstice User Guide.

Scenario 2: Your Initial Rollout

In [Scenario 1](#), we just used the WAP to demo Solstice's end-user collaboration features. However, for your initial rollout, we recommend attaching your Pod(s) to your existing WiFi/Ethernet network(s) for improved performance, security, user workflows, and to give users access to the internet while using Solstice. In this section, we'll cover this and other important rollout considerations.

Rollout Considerations

There are 4 core considerations for any Solstice deployment:

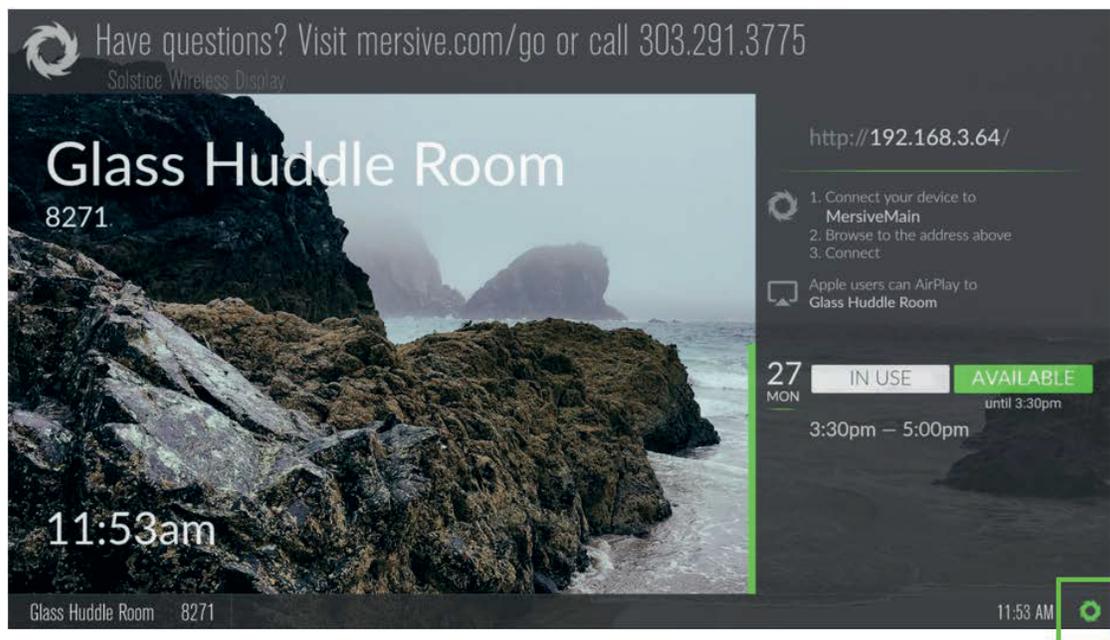
- How are the Pods attached to your network(s)?
- How do users connect to the Pods?
- How should the Pods be configured, functionally and visually?
- What is the long-term management plan?

By following the steps in this section, we'll address the options for each of these considerations. However, it's also important to think through each rollout consideration within the context of your organization and involve the appropriate stakeholders – such as the IT department for attaching Pods to your host network(s) – each step along the way.

Before You Begin

There are a few ways to configure your Solstice Pods that you should be aware of before you begin. Every Solstice Pod can be configured via the individual Pod's configuration panel. The Pod's config panel can be accessed locally – by connecting a USB mouse/keyboard to the Pod – or it can be accessed via web browser from a separate device – by entering the Pod's IP address and selecting configure in the lower left corner of the quick connect page. Note the browser config can be password-protected but Pods ship without a password to make initial config easy.

Did you know? The [Solstice Dashboard](#) allows one or more technology managers to monitor, configure, and update all Solstice hosts on their network from a single screen.



In addition to the Pod's individual configuration panel, Pods with Enterprise Edition licenses can also be configured via the Solstice Dashboard software application which provides additional features and capabilities including one-to-many management. If you have purchased Enterprise Edition licenses and want more information about how to use the Dashboard for one-to-many management, check out the [Dashboard User Guide](#).

The steps below use the local configuration panel via USB mouse and keyboard connected to the Pod. This method will work for every Pod on a 1-to-1 basis.

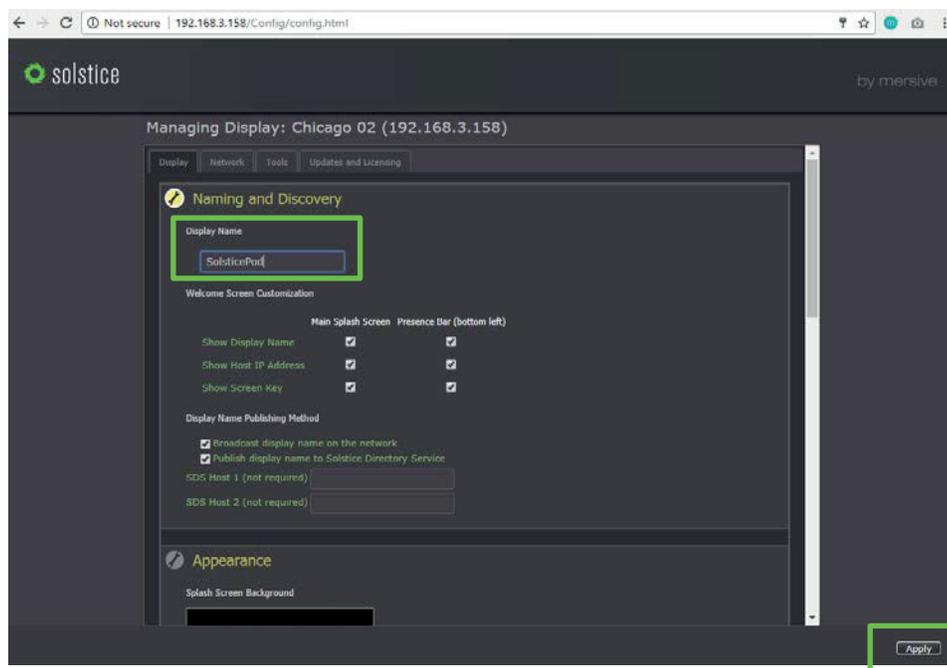
Step 1: Name the Pod

All Pods are shipped with the default name of 'SolsticePod', so we recommend immediately changing the name for identification purposes. Pods are usually named based on the location they will be deployed in, e.g. 'Conference Room 201' or 'Dave's Office'.

Did you know? All Pods are shipped with the default name 'SolsticePod'. In production, you can give each Pod an intuitive name. We recommend names that match the room name. Users will then be able to simply click the name of the Pod they want to connect to in the Solstice app.

To change the Pod name, first access the local configuration panel by attaching a USB mouse and keyboard to the Pod and clicking the Solstice icon in the lower right corner of the Solstice display interface. Then select system > configure. The configuration panel will appear.

Under the first 'Display' tab, change the 'Name' field to a descriptive name for your Pod, and click 'apply' in the lower right corner to save the change.



Step 2: Attach the Pod to your Existing Network(s)

The Solstice Pod is designed to attach to existing WiFi/Ethernet networks that users can access to connect and share content to the Pod. The Pod hardware includes two distinct network interface cards – one Ethernet and one wireless card – to provide various options for network connection.

- 1. Attach via Ethernet (Recommended).** The recommended deployment method is to attach the Pod to the primary user network via Ethernet. To do so, simply plug in a network-connected Ethernet cable to the Ethernet port in the back of the Pod.
- 2. Attach Wirelessly.** Alternatively, the Pod can be attached to the primary network wirelessly if an Ethernet connection is not available in the deployment space. To attach the Pod wirelessly to the host network, visit the 'Network' tab of the configuration panel, scan and select the correct network, and enter connection credentials.
- 3. Dual-Network Mode.** Many deployments take advantage of the Pod's dual-network mode to support secure collaboration between users on separate networks, such as corporate and guest users. Attach the Pod to the primary network via Ethernet and connect to the secondary/guest network wirelessly. **Note:** the Pod's two network interface cards are completely distinct with separate routing tables, enabling seamless collaboration without compromising the security of either network.
- 4. WAP Mode (Not Recommended).** While the Pod's WAP mode is great for evaluating Solstice's collaboration features, it is not recommended for permanent rollouts due to performance limitations and potential security risks.

Did you know? The wireless card in a Gen 2i Solstice Pod may use 2.4GHz or 5GHz channels to seamlessly integrate with your existing network.

For more detailed information about the Pod's network options and to learn about other important network factors such as configuring/opening the [necessary network ports](#), hardening your deployment from a security standpoint, and configuring static/dynamic IP addresses, please refer to our [Network Deployment Guide](#) and [Baseline Security Standard \(BSS\)](#) documents.

Step 3: Make Pods Available for Connection with Solstice Discovery

Solstice is designed to make it easy and intuitive for users to connect to a Solstice Pod. A user may always connect to a Pod by typing the Pod's IP address into a browser window or the Solstice app. However, Solstice 'discovery' can streamline the connection process by listing all Pods available for connection and enabling users to simply click a Pod name to connect. There

are three discovery methods that will enable this click-to-connect functionality in your Solstice deployment:

1. Broadcast Discovery (default)

By default, each Pod will broadcast its name and IP address on the host network via UDP broadcast packets. While this usually works great for smaller organizations with fairly simple network configurations, UDP broadcast traffic is often not allowed on larger, IT-managed networks. Broadcast discovery can be disabled in the Pod's config panel under the network tab.

Did you know? The **Solstice Discovery Service** is a simple but important component of Solstice deployments on host networks that do not allow UDP broadcast/multicast traffic. It provides the display list and other information about which displays are in use (or even scheduled) so that the app discovery screen is useful and easy to use.

2. Solstice Discovery Service (SDS) Application (recommended)

SDS is a light-weight Windows application created for networks that do not allow UDP broadcast packets. Basic SDS use requires an administrator to associate each Pod with the SDS host(s) IP address(es). This can be done in bulk very quickly using the **Solstice Dashboard** (requires Enterprise Edition Pods). Users' SDS host will be set automatically when they download the Solstice app directly from a Pod, or users can enter the SDS host IP address in the setting menu of their Solstice apps.

3. Universal SDS Override with DNS Entry

With this option, users will not be required to enter the SDS host IP address in order to leverage the non-broadcast discovery that SDS provides. An administrator **must add an SDS DNS entry** on the local network.

For more information on discovery options see the [Network Deployment Guide](#), or jump straight to the [SDS Guide](#).

Step 4: Understand and Validate Baseline Network Performance

Solstice has been optimized for high performance across a broad range of network conditions, but administrators should be aware that, as a live video streaming solution, Solstice's performance is tied to the host network. Therefore, the network should meet the minimum requirements outlined below.

These statistics are measured between a Solstice host and end user device for two common use cases.

Expected Use Case	Min. Bandwidth Available	Maximum Packet Latency	Maximum Network Jitter	Maximum Packet Loss
Business Application Sharing (PowerPoint/Documents)	0.75 MB * Number of Simultaneously Connected Devices	175ms	1.2 Standard Deviations	1.25%
1080p Full HD Video Sharing from Desktop	1.1 MB * Number of Simultaneously Connected Devices	35ms	1 Standard Deviation	0.2%

To quickly see how well Solstice performs on your network, connect to the Pod from a laptop* and share the desktop. Notice desktop audio sharing is toggled on by default. Next, open a video file on the laptop* or navigate to YouTube and choose a video to play via the web browser.

You should experience a smooth viewing experience with synchronous audio. If the video playback is not smooth and/or audio is not synchronized or is choppy, you may have a network performance issue.

*The laptop you use should be representative of those that will be used in production. Solstice requirements of user devices are not intensive by modern standards. However, very old devices with underpowered graphics processing capabilities may exhibit poor performance when live streaming to Solstice displays.

There are additional considerations when it comes to validating network performance, such as ensuring Apple AirPlay mirroring is configured correctly and fully functional if required for iOS users. To fully evaluate the performance of Solstice on your network, perform the [validation steps](#) in the Network Deployment Guide while monitoring your network with your preferred tools.

Scenario 3: Large-Scale Deployment

When Solstice is deployed at scale, there are additional considerations for administrators. As a first step to prepare for a large deployment, we encourage you to [schedule your deployment](#) with Mersive so that we can stage resources to support the on-site deployment team.

In addition to letting us know, please review the major deployment considerations, which are covered at length in the [Network Deployment Guide](#). These include:

[Host Network Considerations](#)

[On-Network Deployment and Configuration via the Solstice Dashboard](#)

[Ports Required for Web Access, Subnet Transversal, AirPlay Mirroring, and Multi-Room](#)

[Setting Up Scalable Display Discovery](#)

Scenario 4: Long-Term Deployment Management

Solstice is designed as an every-room solution, and large deployments may involve dozens or even hundreds of Pods, so ongoing, long-term management is important. In this section, we'll cover the tools and resources available to support long term deployments.

The Solstice Dashboard. The Solstice Dashboard is an invaluable tool for monitoring and managing large deployments. We recommend the technology manager(s) responsible for the Solstice deployment leverage the Solstice Dashboard as their primary tool for ongoing management and maintenance of the deployment. This may be the IT team, the AV room-owner, a combination of both, or a third party such as the AV integrator.

Note: in order to use the Dashboard for management of the deployment, the Pods to be managed must have [Enterprise Edition](#) licenses.

[download the Solstice Dashboard here >>](#)

[view the Solstice Dashboard guide >>](#)

Solstice OpenControl API. The Solstice OpenControl API exposes much of the management and control functionality found in the Solstice Dashboard for integration with third-party systems such as room control panels and other workplace technologies/systems.

[view the API guide >>](#)

Solstice Discovery Service (SDS). Solstice Discovery Service (SDS) is an important component for long-term deployments on managed IT networks. In addition to facilitating the user connection process, SDS is also required for several enterprise features including [Solstice Multi-Room](#).

[download SDS here >>](#)

[view the SDS Guide >>](#)

Coming Soon! Solstice Kepler. Solstice Kepler is a cloud-based room monitoring solution which will provide alerts, real-time deployment status, usage data, and other valuable analytics. Kepler will be an add-on service for Solstice enterprise deployments.

[learn more about Solstice Kepler >>](#)