



Solstice Conferencing Deployment Guide

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About Solstice

Solstice is the Mersive award-winning collaboration software, installed on a dedicated hardware platform to deliver turnkey wireless content sharing and video conferencing tools. Plug any HDMI room display device into the Solstice Pod, and connect it to the network(s) that participants use to connect and share to the display. Users on the network can then follow on-screen directions to connect wirelessly to Solstice and share content. Meeting hosts can connect Solstice to meetings using their preferred video conferencing service.



Solstice Product Suite

- **Solstice Pod:** The dedicated device installed on an organization's network and connected to an HDMI display monitor that runs the Solstice wireless collaboration software.
- **Solstice Cloud:** Cloud-based management allows administrators to easily manage, configure, monitor, and update Solstice deployments. Solstice Cloud analytics provide metrics and data on an organization's meetings and monitors the health of its Solstice deployment. [Learn More](#)
- **Solstice web app:** Updated browser-based sharing allows meeting participants to share a piece of content from their device to a Solstice display from their laptop without needing to download and install an app. [Learn More](#)
- **Mersive Solstice app:** This app installed on user laptops and mobile devices enables robust sharing and management of content on the Solstice display. [Learn More](#)
- **Solstice Active Learning:** Software-enabled active routing solution for multi-team learning environments that allows presenters to control, share, and engage with learners. Features include a

simple routing space design tool, drag-and-drop video sharing between screens, and instant messaging that can broadcast information to each display on demand.

- **Solstice Discovery Service (SDS):** An IT-friendly, non-broadcast mechanism allows users to discover and click-to-connect to Solstice displays from their own devices to start sharing content. [Learn More](#)
- **Solstice Dashboard:** Windows-based on-premises-only management tool that can monitor, configure, and update Solstice Enterprise Edition Pods and Windows Software instances on a shared network. Should not be used with Solstice Pods managed in Solstice Cloud.

Deploy Solstice

Use Solstice Cloud online management to set up and manage your Solstice Pod deployment. Then deploy the Mersive Solstice app on end users devices. See the topics below to learn more about a Solstice setup and how to [deploy Solstice Pods](#).

Key Terms

- **Solstice display:** The sharing space created by Solstice, shown on a flat panel monitor or projector connected via HDMI video cable to a Solstice Pod or Solstice Windows Display Software instance.
- **Solstice host:** Core Solstice software, running on a Solstice Pod or Solstice Windows Display.
- **User device:** Devices brought by users that can connect to a Solstice display with the [Mersive Solstice app](#) (Windows, macOS, iOS), the [Solstice web app](#) in a browser, or other app-free methods.
- **Posts:** Individual pieces of information shared to a Solstice display, including desktop, application window, browser tab, or media files.

Ways to Configure Solstice Displays

Mersive strongly recommends using the Solstice Cloud management portal, which can be accessed from any platform and location with access to the internet and offers configuration templates to define and apply common configurations to current and future Solstice Pods. Pod configuration options are:

- **Configure centrally via Solstice Cloud:** Solstice Cloud is a secure cloud-based management portal that enables the central manage a deployment of Solstice Pods from any location. With Solstice Cloud, administrators can easily deploy, configure, manage, monitor, and update Pods. Solstice Cloud also provides intuitive [analytics](#) for Solstice meetings.
- **Configure individually:** Every Solstice display can be configured via the individual configuration panel accessed from the Settings icon in the lower right corner of the Solstice welcome screen. This can be accessed physically by connecting a USB mouse and keyboard to the Pod. Or it can be accessed remotely from the same network by entering the Pod's IP address in a web browser. If the presence bar at the bottom of the Solstice screen is hidden, long-click with a mouse or press the Esc key to show the presence bar and Settings icon.
- **Configure over local network using Solstice Dashboard:** For admins who need an on-premises solution, or who are unable to use cloud-based solutions like Solstice Cloud, Solstice Dashboard is a centralized management tool installed on a local machine or server that can be used to monitor, configure, and update groups of Solstice Enterprise Edition Pods on the local network. Solstice Dashboard should not be used to configure Solstice Pods already managed in Solstice Cloud.

Centrally Deploy and Manage the Mersive Solstice App

[Centrally Deploy Mersive Solstice App on Windows with MSI](#)

[Centrally Deploy Mersive Solstice App on Windows with SCCM](#)

[Configure Mersive Solstice App Defaults on macOS](#)

Solstice Setup

The Solstice Pod leverages existing TCP/IP-based networking. Because the Solstice Pod is a network-attached device, IT administration and Network Security should be involved in designing an appropriate deployment.

Before you deploy Solstice, it is recommended that you read the information below and ensure your network meets the necessary requirements.

System Components

Physical setup and configuration of a Solstice-enabled room is straightforward. The system only requires a few components.

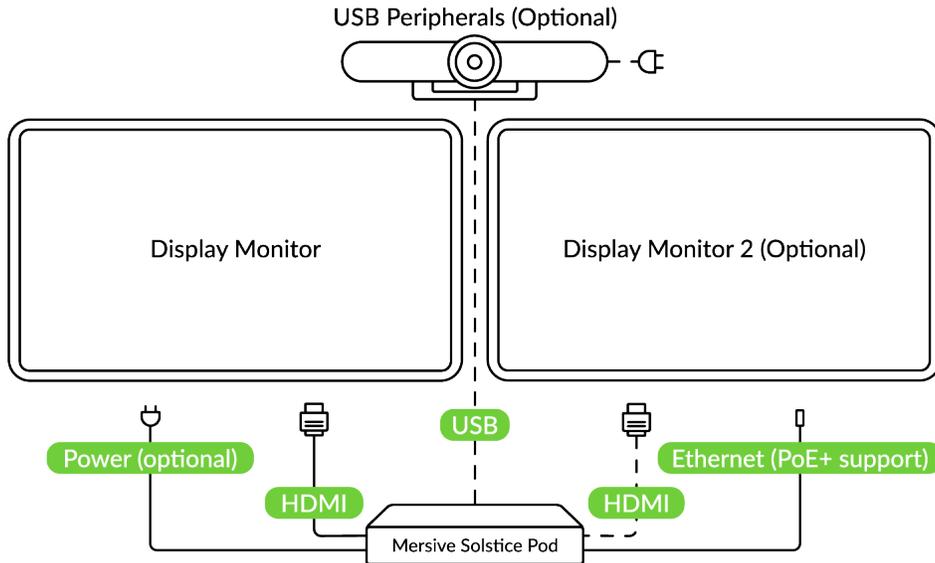
- **Solstice Pod.** The Solstice Pod is a network-attached wireless collaboration device. It provides a virtual space for wireless content sharing and collaboration and supports bring-your-own-meeting (BYOM) [video conferencing with Solstice](#). The first time a Pod running Solstice 6 or later is run out of the box (or after a factory reset), a series of guided setup screens show on the attached HDMI monitor. It walks through common settings and important checks, provides tips for resolving common issues, and points to more information to help an installer successfully deploy the Solstice Pod.



For security-conscious environments, initial configurations for a Solstice Pod can take place on a standalone network before being deployed on your enterprise network. This ensures Pods are configured to be secure before being attached to your network. However, some guided setup checks fail without internet access.

- **Display monitors.** Connect the Solstice Pod to up to two display monitors via HDMI to view content shared to the Solstice display.
- **USB room camera and/or audio devices (optional).** To turn your Solstice room into a BYOM video conferencing room with [Solstice conferencing](#), attach a USB room camera, microphone, and/or speakers to the Solstice Pod via USB.
- **User devices.** These devices are brought to the room by users attending a Solstice collaboration session and are used to share content to the Solstice display. User devices can share to the Solstice display using the Mersive Solstice app, or a variety of app-free sharing options (AirPlay, Miracast, browser-based sharing, HDMI input). Video conference hosts may also use laptop devices to share the Solstice display with a video conference.
- **Mersive Solstice app.** The Mersive Solstice app is installed on user devices and is used to share and control the Solstice display. The Mersive Solstice app can be downloaded from mersive.com/download/. It can also be deployed centrally for Windows devices using [MSI](#) or [SCCM](#) installers. For users unable to install the app on their device, multiple app-free sharing options are supported, such as AirPlay, Miracast, browser-based sharing, or wired HDMI input.
- **Ethernet (recommended).** Mersive recommends connecting your Pods to an Ethernet network for best performance. The Solstice Pod can be connected to Ethernet, a wireless network, and up to 3 VLANs simultaneously.

Sample Room Setup Diagram



Physical Setup Tips

Because the Solstice Pod does not store user credential information, unencrypted passwords, or users' data that is shared to the Solstice display, Pods do not have to be located in secure locations. However, other considerations related to theft and environmental conditions should be considered.

- Solstice supports plug-and-play USB devices. Devices, such as room cameras, should be connected to the Pod via USB and must be in-room. View list of [supported devices](#). DSPs and other processing hubs may not be compatible and should be avoided.
- Display monitors must be directly connected to a Solstice Pod through HDMI video cables to an HDMI port on the back of the Pod.



When connected to two display monitors, the Solstice Pod sends audio out over the inner HDMI port (HDMI 2). However, when a media file is shared, both ports send audio.

- Select an appropriate physical mounting solution for the Pod that cannot be detached. Consider the use of mounting locks and/or hidden VESA mounting systems behind the display. Specific mounting orientation is not an important factor as the Pod is operational in any orientation.
- Ensure that appropriate environmental controls are taken into account. The device should operate within an ambient temperature range of 0° C (32° F) to 50° C (122° F). This may require ventilation or active airflow. Never stack Solstice Pods on top of each other.
- The Pod should not be mounted in direct contact with a surface that exceeds 30° C (86° F).

Network Requirements

Solstice uses all TCP/IP standard network traffic to communicate across all the required and optional components of the Solstice system. The network(s) that Solstice is ultimately deployed on needs to allow peer-to-peer TCP connections. Additionally, for enterprise networks, firewall exceptions may need to be made and network ports may need to be open to allow certain Solstice capabilities to function.

Firewall Exceptions

URLs

You may also need to make firewall or proxy bypass exceptions for the following sites:

- Required for software updates, Solstice Cloud, default RSS feed, default digital signage feed:
 - `mersive.com`
 - `*.mersive.com`

Specific sites required for Solstice Cloud management (formerly known as Kepler):

- `kepler.mersive.com`
- `kepler-backend.mersive.com`
- `kepler-auth.mersive.com`
- `kepler-auth-svc.mersive.com`
- `kepler-onboarding.mersive.com`
- Required for pod activation, licensing, and subscription updates:
 - `kepler-backend.mersive.com` (Solstice 5.5.3 and Solstice 6+)
 - `manager.flexnetoperations.com` (Solstice 5.5.2 and lower) - Retired Aug 15 2023
- To detect captive portals, Solstice 6.0 and earlier may periodically attempt a connection to:
 - `clients3.google.com/generate_204`



Learn how to [disable captive portal checks](#) in Solstice versions 5.3 to 6.0.

Programs

Windows deployments using a tool that limits program access, like an anti-virus program, device management service, or a local firewall such as Windows Defender Firewall, may need to whitelist or allow the following program files used by the Mersive Solstice app on Windows:

- `rsusbipclient.exe`
- `SolsticeClient.exe`
- `SolsticeConference.exe`
- `SolsticeVirtualDisplay.exe` (Mersive Solstice app 5.5.2 and earlier)



Windows installers for the Mersive Solstice app version 6 and later automatically add Windows Defender Firewall exceptions for `rsusbipclient.exe` and `SolsticeClient.exe`.

If the programs are not listed, add the programs manually using the installation path of the Mersive Solstice app. Example installation paths are as follows:

- MSI & SCCM (installed with admin access from mersive.com/download/) app v5.3+ installers location:

```
C:\Program Files\Mersive Technologies, Inc\Solstice\Client
```

- MSI Solstice Conference drivers (installed with admin access from mersive.com/download/) installer location:

```
C:\Program Files\Mersive Technologies, Inc\Solstice\Solstice Conference
```

- Quick Connect app (installed with user access from v5.3–5.5.2 Solstice Pods or mersive.com/download/) location:

```
C:\Users\%username%\AppData\Local\Mersive\SolsticeClient
```

Open Network Ports

Depending on which features your end-users will use, certain network ports/routes must be open for Solstice to work correctly. Ports used for communication between a Solstice host (Pod) and Mersive Solstice user apps apply for both standard Solstice content sharing and Active Learning uses. Ports specific to Solstice conferencing video and audio sharing are identified below.

TCP

- **7:** Used for gateway check. (Feature deprecated on Pods running Solstice version 5.3.2 and later.)
- **80, 443:** Used if the Solstice host is allowed to connect to the internet for license activation and software upgrades. When pushing a local update file to the Pod, these ports need to be open between the Pod and the Dashboard. These ports are also used by the OpenControl API to interface with 3rd party systems. When network encryption is enabled, the Solstice Dashboard sends SLR updates via port 443.



If you are using a Solstice Pod or Solstice Dashboard on 4.1 or later, communication to Mersive's license server only occurs over https/port 443.

- **1337:** Used for integrating a personal Microsoft 365 calendar with the Mersive Solstice user app.
- **5443:** Used to communicate with the Solstice OpenControl API, including setting passwords for Solstice Pods.
- **6443:** Used for browser-based sharing connections.
- **7236:** Miracast WiFi Direct control port used to establish and manage sessions between the source device and the Pod.
- **7250:** Port on which the Pod listens for Miracast packets when Over Existing Network mode is enabled.
- **6000–7000, 7100, 47000, 47010:** Should allow inbound AirPlay® traffic to the Solstice host.
- **53100, 53101, 53102:** Used by default for basic communications between the Solstice host and end user devices, as well as Solstice Dashboard management. The base port (53100 by default) can be changed in the [Network Settings](#) of the Pod's local configuration panel or Solstice Dashboard.



Changing the Solstice base port for a Pod also changes the sequential streaming port (Solstice base port +1) and notification port (Solstice base port +2) used by Solstice. You must ensure that all three ports are opened on your network.

- **53103–53106, 53118, 53119:** Used by Solstice video conferencing functions in addition to the default base ports 53100–53102.
 - TCP ports used for Windows devices: 53103, 53104, 53118, 53119.
 - TCP ports used for macOS devices: 53105, 53106.

 Changing the Solstice base port for a Pod also sequentially changes the ports Solstice uses to connect to video conferences. For example, if you change the configured Solstice base port to 53101, the ports used by the Solstice Conference drivers change to 53204–53220.

- **53200, 53201, 53202:** Used by the Solstice host and end user devices to communicate the Solstice Discovery Service (SDS) host if SDS discovery mode is enabled.

 Browser-based sharing can use any non-privileged TCP port from 1024 to 65535. (Also see UDP port usage for browser-based sharing.)

UDP

- **123:** Used to communicate with an NTP server.
- **5353:** Required for iOS mirroring via the Bonjour protocol. It is not required when using the Solstice Bonjour Proxy. Also, if Miracast Over Existing Network mode is enabled, this port is used for multicast DNS (mDNS). mDNS is broadcast to the local subnet of each network interface the Pod is connected to. If the computer that is attempting to make an infrastructure connection is on a different subnet, this broadcast fails. If this happens, a workaround is to create a DNS entry to the Pod’s hostname.
- **6000–7000, 7011:** Should allow inbound AirPlay® traffic to the Solstice host.
- **53107–53117:** Used in Solstice video conference integration for audio and video routing. The base port (53100 by default) may be changed in the of the Pod’s local configuration panel or Solstice Dashboard.

 **Important note:** Changing the Solstice base port for a Pod also sequentially changes the ports used to share Solstice to a video conference. For example, if you change the configured Solstice base port to 53101, the video conference integration ports changes to 53208–53218.

For Solstice version 5.5 and later, see the table for more about UDP ports used by the Mersive Solstice app (client) and Solstice Pod (server) to connect Solstice to a video conference. Ephemeral source ports may be any port in the 1024–65535 range.

Client OS	Client Port	Server Port	User For
macOS	Ephemeral	53107	Video conference microphone audio
macOS	Ephemeral	53108	Video conference speaker audio
Windows	53110	Ephemeral	Video conference camera video
Windows	Ephemeral	53111	Video conference camera RTCP
Windows	53112	53112	Video conference microphone audio
Windows	53113	Ephemeral	Video conference microphone RTCP
Windows	Ephemeral	53114	Video conference microphone RTCP
Windows	Ephemeral	53115	Video conference speaker audio
Windows	Ephemeral	53116	Video conference speaker RTCP

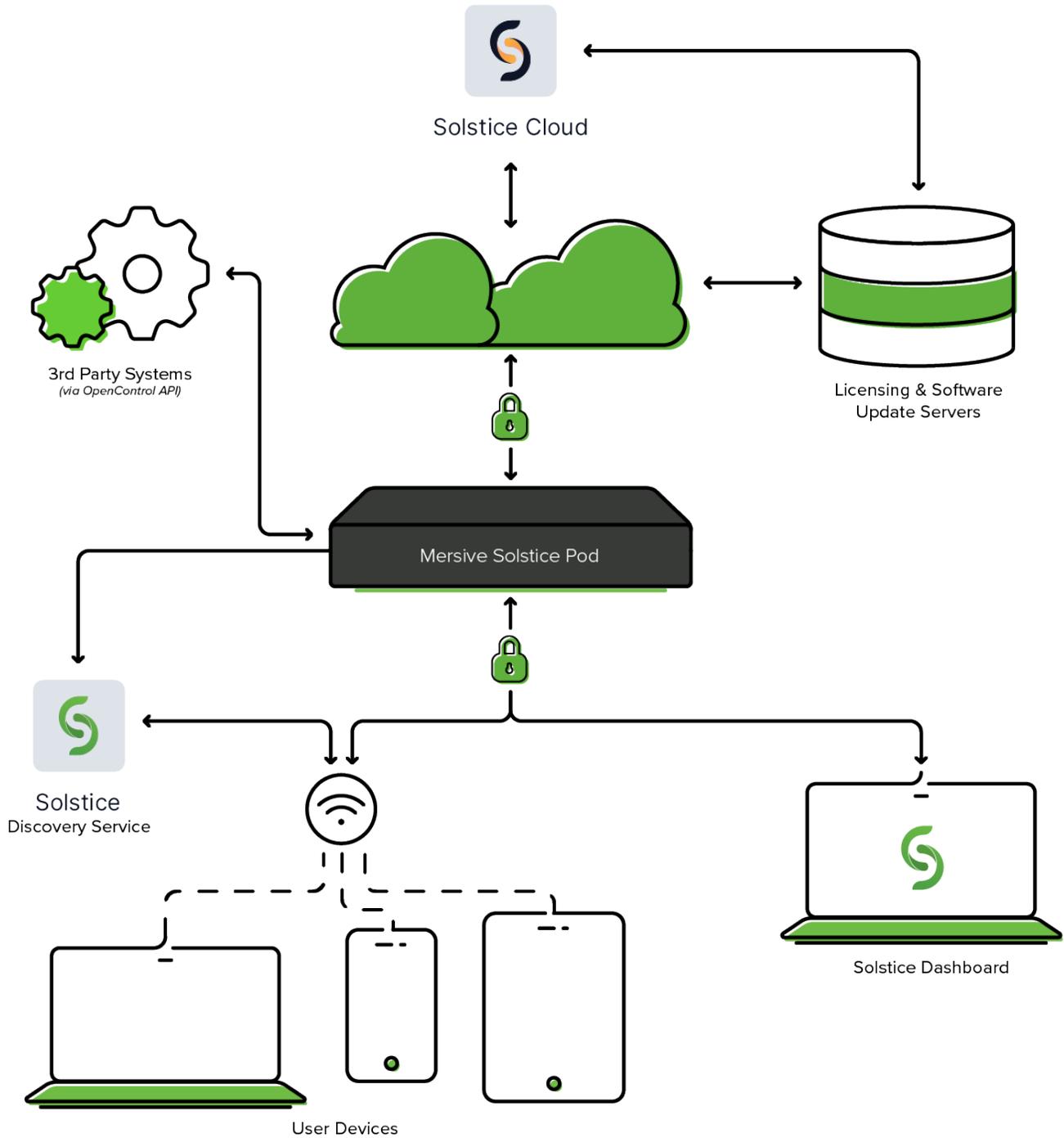
Client OS	Client Port	Server Port	User For
Windows	53117	Ephemeral	Video conference speaker RTCP

- **55001:** Used for display discovery if broadcast discovery mode is enabled.



Both Miracast and browser-based sharing capabilities can use any non-privileged UDP port from 1024 to 65535. (Also see TCP port usage for browser-based sharing.)

Network Diagram



Deploy Video Conferencing with Solstice

Solstice offers the software-based capability to wirelessly connect the Solstice content sharing and collaboration space, as well as AV devices connected to the Solstice Pod, to a video conferencing service running on a meeting host's laptop. This adds Solstice's rich, multi-participant content sharing and room cameras and mics to a laptop-based video conferencing to deliver a better meeting experience between onsite and remote users. The Room Camera + Mic section of the Mersive Solstice app for Windows and macOS pairs Solstice with room AV devices to deliver the convenience of a traditional video room system with the flexibility to use the meeting host's preferred video conferencing service.

<https://www.youtube.com/embed/5wH0g5O1zhE>

Solstice can be used with most laptop-based conferencing services to add meeting support for remote attendees in Solstice-enabled rooms. Solstice video conferencing can be enabled on Gen3 Solstice Pods running Solstice version 5.0 and later. A current Solstice Subscription is required to use this service with Pods running Solstice 5.4 or earlier.

Key Capabilities

- Leverages video conferencing applications running on local users' laptops.
- Enables meeting hosts to wirelessly connect to plug-and-play USB devices attached to the Pod to share room audio/video in the video conference.
- Uses integrated room and personal calendars to support quick starts for scheduled video conferences.
- Allows the meeting host to share the full in-room display to the video conference so remote users can see everything happening on the display, including multi-source content sharing, markup, and more.

System Requirements

- Gen3 Solstice Pod running Solstice version 5.0 or later (latest Solstice version recommended), connected to network via Ethernet
- Current Solstice Subscription for Solstice Pods running Solstice versions 5.4 and earlier
- Meeting host laptop (Windows or macOS; recommended specs below)
- Latest version of the Mersive Solstice app with the corresponding version of the Solstice Conference drivers installed (required for meeting host)
- Third-party video conferencing application for meeting host and remote users (not required for other on-site meeting participants)
- [Solstice Discovery Service \(SDS\)](#) is recommended
- USB room camera and/or audio devices (optional) - (see [Solstice Peripherals List](#))
- Microsoft Exchange, Microsoft 365, or Google Workspace room calendars integrated with Solstice Pod (optional)

Meeting Host Laptop Specs

Solstice video conference connection capabilities are supported on laptop devices that meet the following recommendations. Meeting host laptops that do not meet the required minimum specs are not supported.

Other on-site meeting participants can wirelessly share content to the Solstice display using the Mersive Solstice app installed on their laptops or mobile devices. Solstice video conferencing is not supported on mobile devices.



Using the Mersive Solstice app only for wireless content sharing, control, and markup does not require the device to meet the minimum specs listed below. Learn more about the [Mersive Solstice App](#).

Hardware Minimums and Recommendations for Meeting Host Laptops

Solstice Video Conferencing on Windows

Spec	Recommended	Required
Operating System	Windows 10/11	Windows 10 version 1903 or later
Hardware	Intel i7 quad core processor (8th generation or later) @ 2.4 GHz 16GB memory	Intel i5 quad core processor (6th generation or later) @ 1.6GHz 8GB memory
Support Note	CPU priority management in version 5.5.2 and later of the Mersive Solstice app for Windows may support Solstice video conferencing on some devices with less than a quad-core processor and 8 GB of memory. See more details .	



To check your Windows laptop specs, open Command Prompt and enter the `dxdiag` command.

Solstice Video Conferencing on macOS

Spec	Recommended	Required
Operating System	macOS Monterey 12.3–12.6	Solstice 6.X app - macOS Monterey 12.3 to Sonoma 14.0 Solstice 5.5.2 and earlier apps - macOS Big Sur 11.X or later
Hardware	Quad-Core i7 (8th generation or later) @ 2.4 GHz	Intel i5 quad core processor (8th generation or later) @ 1.2 GHz 8GB memory
Support Notes	<ul style="list-style-type: none"> Solstice video conferencing in versions 6.X of the Mersive Solstice app is supported in macOS Monterey 12.3 to Sonoma 14.0. A new camera privacy indicator introduced by Apple in Sonoma 14.1 created an issue with Solstice video conferencing. See this Mersive Support article for a workaround. Solstice video conferencing is supported on Apple Silicon devices (Mac M1–3, etc.) running macOS Ventura 13.X to Sonoma 14.0 (Rosetta 2 required). Solstice video conferencing functionality is not supported on Mac laptops with Intel processors running macOS Ventura. Macbook Air 2021 laptops and newer can be used for video conferences with Solstice; older Macbook Air laptops are not supported. 	

Supported Conferencing Services

The table below lists the video conferencing (VTC) services Mersive recommends, which are regularly tested on Windows and macOS devices. Full support indicates Mersive has validated the VTC experience

with Solstice functionality in the dedicated video conferencing service app. In some cases, the browser-based version of a video conferencing service may offer better functionality. For best results:

- Check that your video conferencing app is updated to the latest version.
- Avoid running video conferences with Solstice in power savings or low power mode. If possible, the meeting host laptop should be plugged in to external power and running in a high performance mode.
- Don't run video conferences as virtual applications and/or in a VDI (virtual desktop infrastructure). This can cause unpredictable results and is not supported by Mersive.
- If using a 4K laptop, scale screen resolution down to 1080p when connecting to a video conference with Solstice.

Recommended VTC Services	Windows	macOS
Zoom	Full support	Full support
Microsoft Teams	Full support	Browser-based version
Google Meet	Full support	Full support

If your preferred video conference service is not listed:

1. Try your preferred video conferencing app.

Many other video conferencing app versions have been found to work with various versions of Solstice.

2. Try the browser-based version of your preferred video conferencing service.

Using the web-based version of a video conferencing service (such as teams.microsoft.com) sometimes avoids issues with sharing and connecting to Solstice room devices experienced in downloaded Windows or macOS apps. Past testing has found this for versions of Microsoft Teams, WebEx, Blue Jeans, Chime, RingCentral, and Slack, particularly on macOS.



Supported web browsers for browser-based video conferencing services are Chrome, Firefox, Microsoft Edge, and Safari.



In some browser-based video conferencing services, the Solstice display may be labeled as the Solstice Pod name.

Set Up Solstice Pods for Video Conferencing

This setup topic walks you through setting up Solstice Pods for to connect to a video conferencing application. This guide assumes that [Solstice Setup](#) is complete for your Solstice Pods, you connected your Pods to your enterprise network via Ethernet, and the [Baseline Deployment Steps](#) is completed.

Pre-Deployment Considerations

- Solstice-enhanced BOYM video conferencing is far more versatile and cost effective than a traditional room system, but there are some prerequisites to ensure a good conferencing experience. Our [Solstice Video Conferencing Checklist](#) outlines those specifications and the requirements of the various system components – meeting host laptop, local area network, and audio/video peripherals – most of which are consistent with best practice IT methodologies.
- Ensure your network has a minimum bandwidth of 50 Mbps per active Solstice video conferencing session/room, has an end-to-end latency of less than 50 ms, and allows peer-to-peer TCP connections. Note that bandwidth utilization is largely dictated by a combination of conferencing application and conference camera used.

 Ensure required network ports are open. To connect Solstice to a video conference, open the default base ports +17. (For example, if 53100–53102 are the configured base ports, open TCP/UDP ports 53100–53119.) Other network ports are required for other Solstice functionality. For more information on network port requirements for Solstice, see [Network Requirements](#).

- If you use a tool that limits program access, such as an anti-virus program or device management service, you need to whitelist the Mersive Solstice app program files. See the see [Network Requirements](#) or [Video Conferencing Checklist](#) for details.
- Deploy and configure the [Solstice Discovery Service \(SDS\)](#) (recommended).
- Solstice Conference drivers must be installed in addition to the Mersive Solstice app. These drivers, as well as all versions of the Mersive Solstice app for Windows version 6 and later, require elevated permissions to install. If users do not have elevated permissions, administrators can centrally deploy the app and drivers using [MSI](#) or [SCCM](#) installers.

 Mersive recommends the version of the Mersive Solstice app always match the software version of the Solstice Pod. Some versions of the Mersive Solstice app may require the versions to match exactly to connect Solstice resources to a video conference.

Enabling Solstice Video Conferencing

To share the Solstice content sharing space and room devices with a video conference, you must have a Gen3 Solstice Pod, and the Solstice Conferencing capability must be enabled by a Solstice admin. Before enabling Conferencing, it is strongly recommended that you upgrade the Pod to the latest version of Solstice. For information on how to update a Solstice Pod, see [Updating Solstice](#).

Enable Solstice Video Conferencing Using Solstice Cloud

1. From the Solstice Cloud Home page, in the left sidebar navigation panel, click **Manage > Templates > Room Intelligence**.

2. Create a new template, or edit an existing template.
3. Select the **Enable Solstice Conferencing** checkbox.
4. Click **Save**.
5. In the left sidebar menu of the Solstice Cloud portal, click **Manage > Pods**. The Pod Template Assignments table appears.
6. Select the Gen3 Solstice Pods you want to enable Solstice video conferencing for. You can select the box for each Pod individually, or check the box in the header row to select all Pods.
7. In the Room Intelligence column for one of the selected Pods, select the name of the template you just created or edited from the list.
8. Click **Confirm** to apply the changes. A green notification that the template was applied appears.

 If a Pod is offline, any changes made are applied when the Pod is back online.

Enable Solstice Video Conferencing Using Solstice Dashboard

1. Open Solstice Dashboard.
2. From the list of Your Solstice Instances, select the Gen3 Solstice Pods to enable for video conferencing with Solstice.
3. Go to the **Appearance and Usage** tab > **Usage and Management** section.
4. Under Solstice Conference, select the **Enable** radio button.
5. Click **Apply**.

Integrating a Room Calendar

Integrating a room calendar with the Solstice Pod allows Solstice to show information on upcoming meetings in the space. Users can simply enter the video conference information in the meeting details and invite the room to reserve meeting space. Versions 5.5 and earlier of the Mersive Solstice can then launch the scheduled video conference when the meeting host connects to the Solstice display.

Solstice administrators can integrate Microsoft Exchange, Microsoft 365, and Google Workspace room calendars with Solstice displays. There are two ways to integrate a room calendar: using Solstice Cloud, or using Solstice Dashboard. Note that Solstice Pods must have internet access for these settings to be applied.

 Solstice users who host video conferences in a Solstice room can also integrate their personal Microsoft Exchange or Microsoft 365 calendars with their Mersive Solstice apps to auto-launch scheduled video conferences. See the [Mersive Solstice App](#) topic for more information.

Integrate a Microsoft Exchange or 365 Calendar Using Solstice Cloud

1. From the Solstice Cloud Home page, in the left sidebar navigation panel, click **Manage > Templates > Calendar**.
2. Create a new template, or edit an existing template.

3. Select the **Enable Calendar Feature** checkbox.
4. From the **Calendar Type** list, select the type of calendar you are integrating (for the room): **Microsoft Exchange** or **Office 365**.
5. If you are using Microsoft Exchange server, enter the Microsoft Exchange **Server URL**.
6. In the **Authentication type** list, select the type of authentication your server is using: **Basic** or **NTLM**.
7. If you are using an **Impersonation Mailbox** or a **Delegation Mailbox**, select the corresponding radio button.
 - a. If you selected **No**, skip to step 7.
 - b. If you select either **Impersonation** or **Delegation**, you need to enter the user name and password for the impersonation or delegation account (required).

 The login credentials for email accounts need to be entered individually for each Pod on the **Manage > All Pods** page.

8. To hide meeting titles or meeting organizers from being visible on the room display, deselect **Show meeting titles** and/or **Show meeting organizers**.
9. From the **Update Interval** menu, select the frequency at which the Pod updates the calendar meeting information visible on the display.
10. Click **Save**.
11. In the left sidebar menu of the Solstice Cloud portal, click **Manage > Pods**. The Pod Template Assignments table appears.
12. Select the Pods you want to integrate a room calendar for. You can check each Pod's box individually, or check the box in the header row to select all Pods in the table.
13. Go to the Features column, click the value in that column for one of the selected Pods, then select the name of the template you just created or edited.
14. In the pop-up asking to confirm the changes. Click **Confirm**. A green notification that the template was applied appears.

 For Solstice 5.5 and earlier to auto-launch a scheduled video conference from the link in the body of a Microsoft 365 meeting invitation, the Microsoft Exchange server setting `DeleteComments` must be changed to `false` for the room's Exchange or 365 mailbox account. When set to `true` (default), the body of incoming meeting requests is removed, and the video conference cannot be auto-launched. For details on this Microsoft server setting, see the [Microsoft documentation](#).

For more on room calendar functionality in versions 5.5.1 and later of the Mersive Solstice app, see the .

Integrate a Google Workspace Calendar Using Solstice Cloud

For more information about the additional Google Workspace configurations needed to integrate with Solstice, as well as how to obtain the necessary information for the fields below, see [Google Workspace Settings for Integrating Resource Calendars with Solstice](#).

1. From the Solstice Cloud Home page, in the left sidebar navigation panel, click **Manage > Pods**.

2. Click the name of the Solstice Pod you want to integrate with a room calendar.
3. On the Pod's Configuration Settings page, expand the **Calendar** settings section.
4. Select the **Enable Calendar Feature** checkbox.
5. From the **Calendar Type** list, select **Google Calendar**.
6. Click **Upload service account credentials**.
7. Navigate to the location of the service account file you created for the Pod and select it.
8. In the **Room Email** field, enter the resource email address.
9. By default, the meeting titles and meeting organizers are visible on the display. To hide these for all meetings, disable **Show meeting titles** and **Show meeting organizers**.
10. From the **Update Interval** list, select the frequency at which the Pod updates the calendar meeting information visible on the display.
11. Click either **Save as Unassigned** or **Save as New Template**. A green notification appears to show the template was successfully applied.

Integrate a Microsoft Exchange or 365 Calendar Using Solstice Dashboard

1. Open Solstice Dashboard.
2. From the list of Your Solstice Instances, select the Solstice Pod to integrate with a room calendar.
3. Go to the **Calendar** tab.
4. Select the **Enabled** option.
5. From the **Calendar Type** list, select the type of calendar you are integrating: **Microsoft Exchange** or **Office 365**.
6. In the **Server URL** field, enter the Microsoft Exchange server URL if that is the type of calendar you are integrating.
7. In the **Authentication type** list, select the type of authentication your server is using: **Basic** or **NTLM**.
8. Enter in the **Username** and **Password** for the room calendar account.
9. If you are using an **Impersonation** or **Delegation Mailbox**, enter them into the corresponding fields.
10. By default, the meeting titles and meeting organizers are visible on the display unless the meeting is marked in the organizer's calendar application as "private." To hide these for all meetings, disable the corresponding options under **Privacy Settings**.
11. From the **Update Interval** list, select the frequency at which the Pod updates the calendar meeting information visible on the display.
12. Click **Apply**.



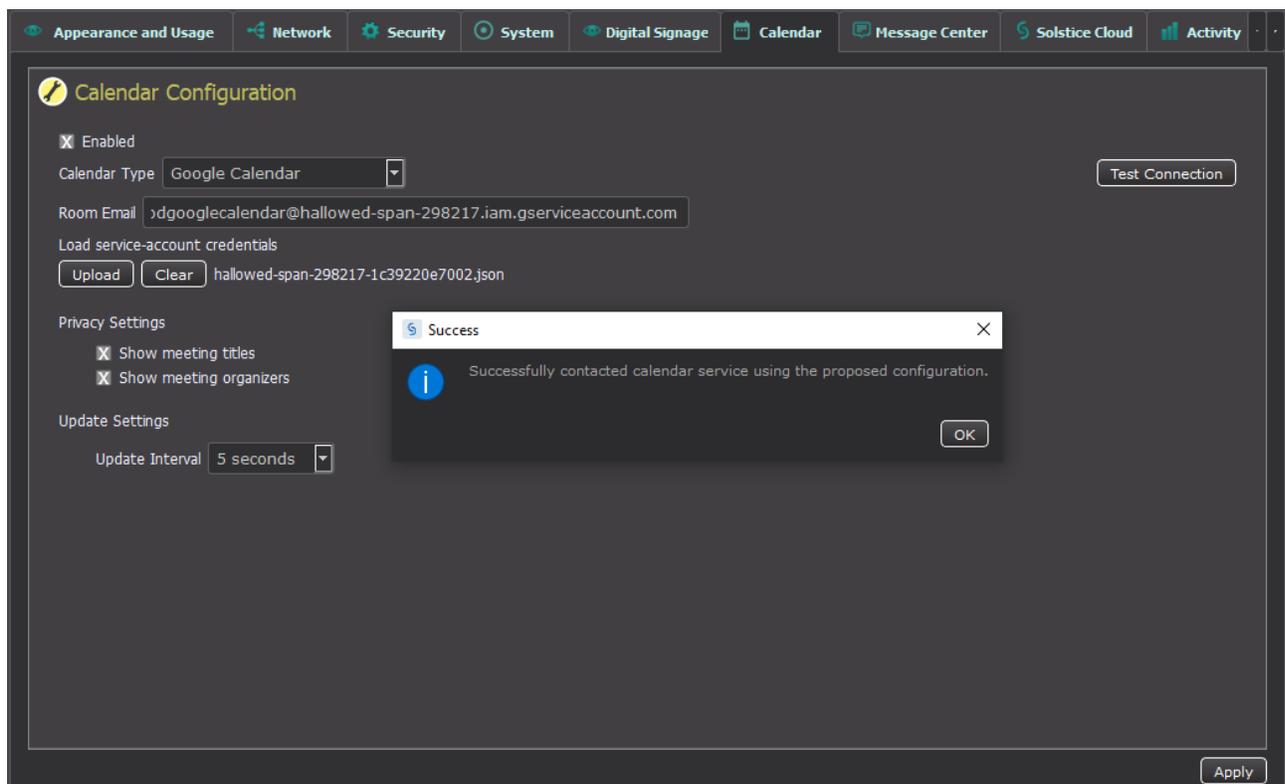
For Solstice 5.5 and earlier to auto-launch a scheduled video conference from the link in the body of a Microsoft 365 meeting invitation, the Microsoft Exchange server setting `DeleteComments` must be changed to `false` for the room's Exchange or 365 mailbox account. When set to `true` (default), the body of incoming meeting requests is removed, and the video conference cannot be auto-launched. For details on this Microsoft server setting, see the [Microsoft documentation](#).

For more on room calendar functionality in versions 5.5.1 and later of the Mersive Solstice app, see the .

Integrate a Google Workspace Calendar Using Solstice Dashboard

For more information about the additional Google Workspace configurations needed to integrate with Solstice, as well as how to obtain the necessary information for the fields below, see [Google Workspace Settings for Integrating Resource Calendars with Solstice](#).

1. Open Solstice Dashboard.
2. From the list of Your Solstice Instances, select the Solstice Pod to integrate with a room calendar.
3. Go to the **Calendar** tab.
4. Select the **Enabled** option.
5. From the Calendar Type list, select **Google Calendar**.
6. In the **Room Email** field, enter the Calendar ID email address from the Google Calendar settings.
7. Under Load service-account credentials, click **Clear** and then **Yes** if necessary.
8. Click **Upload**.
9. Navigate to the location of the service account you created for the Pod and select it.
10. Click **Test Connection**. If the configuration and credentials are correct, a success screen appears.



11. On the Success screen click **OK**.
12. By default, the meeting titles and meeting organizers are visible on the display unless the meeting is marked in the organizer's calendar application as "private." To hide meeting titles or organizers for all meetings, disable the corresponding options under **Privacy Settings**.
13. If want the calendar information to update at a slower interval, select the new interval from the **Update Interval** menu.
14. In the bottom corner of the Dashboard screen, click **Apply**. Calendar information appears on the Solstice Pod after the designed amount of time set for the Update Interval.

Enabling Screen Key (Optional)

Enabling the screen key verifies that users are in the meeting space and connecting to the correct Solstice display. It also allows quick connections to a Solstice display and Solstice video conferences by entering a display's 4-digit key in the Mersive Solstice app. Note that the [Solstice Discovery Service \(SDS\)](#) is required for this quick connect functionality.

When the screen key is not enabled, users can connect in one step by entering the Solstice display's URL. The screen key can be enabled in Solstice Cloud and Solstice Dashboard.

Enable the Screen Key Using Solstice Cloud

1. In the Solstice Cloud left sidebar, navigate to **Manage > Templates > Features**.
2. Create a new template, or edit an existing template.
3. Under Solstice Feature Options, select the **Enable screen key** checkbox.
4. Click **Save**.
5. In the left navbar, click **Manage > Pods**.
6. In the Pod Template Assignments table, select the Pods you want to enable a screen key for. You can check each Pod's box individually, or check the box in the header row to select all Pods.
7. Go to the features column for one of the selected Pods, then select the name of the template you just created or edited from the list.
8. Click **Confirm** to apply the change. A green notification appears to show the template was successfully applied.

Enable Screen Key Using Solstice Dashboard

1. Open Solstice Dashboard.
2. From the list of Your Solstice Instances, select the displays to enable a screen key for.
3. Go to the **Security** tab.
4. Select **Screen key enabled**. A pop-up warning may appear.
5. If you agree with the requirements of the warning, click **Yes, enable Screen Key**.
6. Click **Apply**.

Centrally Deploy the Mersive Solstice App

To use the Solstice Conferencing functionality, users need to install the Solstice Conference drivers with their Mersive Solstice app. These drivers wirelessly connect room audio and video devices to the host laptop and allow the meeting host to share the Solstice display to remote participants through their video conferencing app.

After the user has installed the Mersive Solstice app, the option to install the Solstice Conference drivers appears in the Room Camera + Mic tab. A user must have administrator privileges on their laptop to successfully install Solstice Conference drivers. These drivers are optional; Solstice can be used for in-person wireless content sharing and collaboration without installing the additional drivers.

For most enterprise users of Solstice video conferencing, Mersive recommends pre-installing or centrally deploying the latest version of the Mersive Solstice app and Solstice Conference drivers through the

use of centralized management (MSI or SCCM). Administrators can pre-install and configure Solstice video conferencing on user devices without giving users elevated privileges. Learn more about deploying Solstice with [MSI](#) or [SCCM](#).

Conferencing Space Setup

Now that you have configured your Solstice Pods for use with Solstice video conferencing, you can move on to setting up the Pod in its intended conferencing space. Solstice is designed to be used in both small meeting spaces, such as huddle rooms, and larger more complex conference rooms. See below for physical setup tips, as well as how to set up a standard Solstice room for video conferencing.

Physical Setup Tips

Because Solstice Pods do not store user credential information, unencrypted passwords, or users' data that is shared to the display, the Pods devices do not need to be located in secure locations. However, other considerations related to theft and environmental conditions should be considered.

- Solstice supports plug-and-plug USB devices. Devices, such as room cameras, should be connected to the Solstice Pod via USB and must be in-room. See [Solstice Supported Peripherals](#) for more about device support. Note that DSPs and other processing hubs may not be compatible and should be avoided unless it is specifically supported.
- Display monitors must be directly connected to the Solstice Pod via HDMI video cables to the HDMI ports on the back of the Pod.



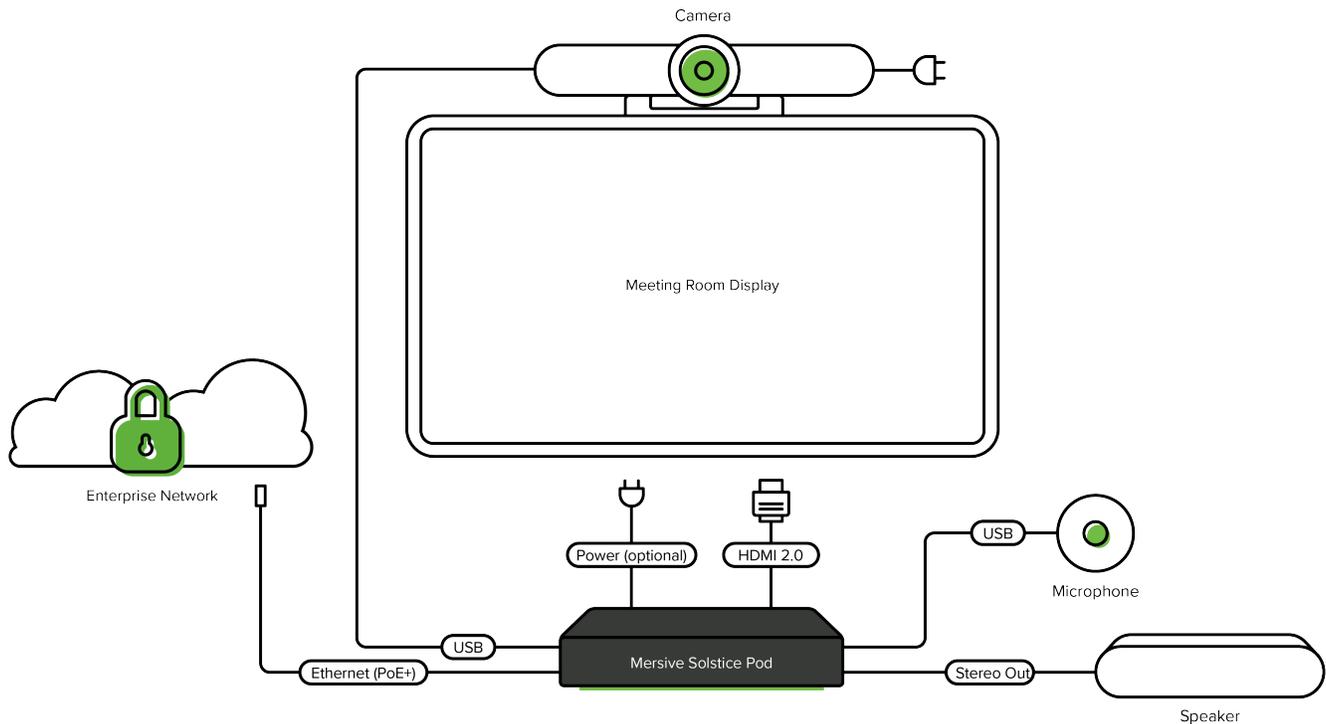
When connected to two display monitors, the Solstice Pod sends audio out over the inner HDMI port (HDMI 2). However, when a media file is shared, both ports send audio.

Physical Setup Requirements

View the full [Gen3 Solstice Pod Specs](#).

- Gen3 Solstice Pod running latest software version
- Mersive power supply (strongly recommended if USB-powered peripherals are attached)
- Ethernet cable (PoE+ supported if USB devices powered directly or with powered USB hub)
- 1 HDMI cable for each display monitor
- USB conference camera (recommended, with own power supply)
- USB microphone or speakerphone (recommended, with own power supply)
- Audio speakers (optional, 3.5 mm stereo plug supported)

Sample Setup Diagram



Physical Solstice Pod Setup for Solstice Video Conferencing

Follow the steps below for an example of how to physically set up a Solstice Pod to enable wireless video conferencing with Solstice in a standard room configuration. For assistance with more complex room setups, contact your AV/IT integrator or [Mersive Support](#).

1. Plug the Solstice Pod into your network via Ethernet (PoE+ supported if USB devices have their own power supplies).
2. If your Ethernet connection does not support PoE+ or there are USB peripherals plugged into the Pod, use the Mersive-provided power supply. Mersive strongly recommends a powered USB hub if using multiple USB-powered peripherals.
3. Connect the display monitor to the one of the HDMI ports on the back of the Pod using an HDMI cable. Up to two display monitors can be connected to the Pod via HDMI.
4. Connect your USB conference camera to one of the USB ports on the back of the Pod.
5. Connect your USB microphone or speakerphone to another USB port on the back of the Pod.
6. Connect any audio speakers to the Pod via the stereo out port.

Supported Video Conferencing Peripherals

The listed USB peripherals have been certified for use with Mersive's Solstice Pod for enhanced audio and video experiences during Solstice in-room content sharing and Solstice video conferences. USB video and audio devices plugged in to a Gen3 Solstice Pod can be wirelessly connected with a user's laptop through the Mersive Solstice app. Users can then select them as audio and video sources in their video conferencing app of choice.

Compatibilities and Best Practices

- The Gen3 Solstice Pod supports USB 2.0 and 3.0 devices. Multiple peripherals can be plugged into a Pod using a USB hub (powered hub recommended). Peripherals include microphones, speakers, cameras, and composite devices that include one or more of these capabilities.
- The Solstice Pod supports a plug-and-play experience in which no drivers or software needs to be installed on the Pod itself for the peripheral device to work as desired.

 Device management features that depend on an external application, such as RightSight for the Logitech Rally Camera, will not work with Solstice because external applications cannot be installed on the Solstice Pod. Similar features that run on the device itself, such as RightSight on the Rally Bar and Rally Bar Mini, should work with Solstice.

- Power is one of the most important considerations for the Solstice Pod and attached USB devices. Insufficient power may cause poor peripheral device performance and/or decreased Pod performance, particularly in video conferences. Follow these power recommendations for best results:
 - Use the dedicated power supply for any device that has one. The Solstice Pod is not designed to provide more than 1.5 amps total power over USB, which is not always sufficient for larger devices or more than one smaller device.
 - If connecting multiple USB-powered peripherals to a Solstice Pod, the use of a powered USB hub is strongly recommended to ensure all devices get enough power.
 - Peripherals that contain rechargeable batteries will attempt to charge their batteries via the USB connection to the Solstice Pod, which Pods are not designed for. Use a powered USB hub with this type of device.
 - Use a Mersive-provided power supply to power Solstice Pods with attached USB-powered peripherals. PoE+ can be used in addition to the power supply, but PoE+ alone may not provide sufficient power.

Connectivity and Setup

- Simply connect supported devices to the USB 2.0/3.0 ports on the back of the Pod to enable users to wirelessly connect those devices to their video conferences on demand.

 Only use the USB 2.0/3.0 ports on the back of the Pod, not the USB-C port on the front of the Pod, to connect USB peripherals.

- If you have multiple USB audio devices plugged into a Solstice Pod, see [Default USB Audio Device Prioritization](#) for information on how Pods prioritize audio routing with different types of audio devices and port addresses.

Tier 1 Supported Devices

Mersive tests the most popular peripheral devices with use for Solstice video conferencing to be connected to a Solstice Pod as room audio and video resources. These devices have been certified on the latest Solstice version for use with top video conferencing services on supported versions of Windows. To connect Solstice to video conferences on macOS devices, use a [supported macOS version](#) and one of the devices marked as supported on Mac.

Device Name	Part #	Type	Supported Firmware	Works Best In	Notes	Mac	
Biamp TesiraFORT É AVB VT4	0452.900	camera	4.7.2.23349	Large conference rooms	Set Input and Output Channels to stereo: 2 input x 2 output. Disable all AEC in Tesira software: For USB, Block Parameters must be set to Speakerphone (disables Computer AEC).	■	
Biamp Devio SCR-20	0496.900 (Black) or 0490.900 (White)	conference hub	4.7.2.23349	Huddle rooms		■	
Biamp Parlé VBC 2500		conference videobar	1.3.0	Small to medium conference rooms	Supported in Solstice 6.0+.	■	
Bose Videobar VB1	842415-1110, 842415-2110, 842415-3110, 842415-4110, or 842415-5110	videobar	1.5.1_75ebaa7	Small to medium conference rooms		■	
Cisco Webex Room Kit Mini	CS-KIT-MINI	video room system	ce9.13.0.990355df13a	Huddle rooms to small conference rooms		■	
Crestron SB-1 Soundbar	UC-SB1	videobar	1.4.14-105704	Medium conference rooms		■	
Dante AVIO USB Adapter (Audinate)	ADP-USB-AU-2X2	audio adapter	4.5.10	Large conference rooms		■	

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Device Name	Part #	Type	Supported Firmware	Works Best In	Notes	Mac	
Huddly IQ	7090043790 573	camera	1.6.12	Huddle rooms to small conference rooms	Plugging the Pod into the Mersive provided power supply recommended, either in place of or in addition to PoE+. Pair with USB speakerphone to avoid a potential remote echo.		
Huddly L1 with USB Adapter	7090043790 948	camera	1.5.19	Medium to large conference rooms	Use with Huddly USB Adapter (part # 7090043790979)	■	
Jabra PanaCast	8100-119	camera	3.10.8	Huddle rooms to small conference rooms	Requires USB power injector or powered hub. Pair with USB speakerphone to avoid a potential remote echo and audio timing issues.	■	
Jabra PanaCast 50	8200-232 (Black), 8201-232 (Grey)	video room system	6.5.1	Small to medium conference rooms		■	
Logitech Rally Bar	960-001308 (Graphite), 960-001320 (White)	OS videobar	1.10.405 (10.13.405)	Huddle rooms to medium conference rooms	Pair Rally Bars running recent firmware with Solstice 5.5.1 or 6+. Connect to Pod with USB 3.0 cable. Use of a USB hub or USB extension cables are not recommended. Solstice supports Logitech RightSense functions using onboard processing.	■	
Logitech Rally Bar Mini	960-001336 (Graphite), 960-001348 (White)	OS videobar	1.10.405 (10.13.405)	Huddle rooms to small conference rooms	Connect to Pod with USB 3.0 cable. Use of a USB hub or USB extension cables are not recommended. Solstice supports Logitech RightSense functions using onboard processing.	■	

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Device Name	Part #	Type	Supported Firmware	Works Best In	Notes	Mac	
Logitech Rally Camera (in Rally System and Rally Plus)	960-001226 (Camera), 960-001217 (System), 960-001225 (Plus)	camera	1.2.69	Medium to large conference rooms	Supported in Solstice 5.4+. Connect to Pod with USB 3.0 cable. Use of a USB hub or USB extension cables are not recommended. Application-based Logitech RightSense functionality not supported.	■	
Logitech MeetUp	960-001101, 960-001201 (w/ expansion mic)	videobar	1.0.263	Huddle rooms to small conference rooms	Application-based Logitech RightSense functionality not supported.	■	
Logitech PTZ Pro 2	960-001184	camera	2.4.38	Large conference rooms	Application-based Logitech RightSense functionality not supported.	■	
Logitech Brio	960-001105	webcam	2.0.64	Huddle rooms	Pair with USB speakerphone to avoid a potential remote echo. Application-based Logitech RightSense functionality not supported.		
Magewell HDMI Gen 2 Adapter	32060	video adapter	2.6.8469	Medium to large conference rooms	Supported in Solstice 5.5.2+. Recommended settings for best performance: 720p, 30 frames, YUY2	■	
Poly Studio	7200-85830-001	videobar	2.1.1.001162	Small to medium conference rooms	Supported using USB 2.0 cable.	■	
Poly Studio X30	2200-85980-001	OS videobar	4.0.2-384012	Huddle rooms to small conference rooms	Supported using USB 2.0 USB-C to USB-A cable; plug USB-C into Poly device and USB-A into Solstice Pod.		
Poly Studio X50	2200-85970-001	OS videobar	4.1.0_00-180035	Small to medium conference rooms	Supported using USB 2.0 USB-C to USB-A cable; plug USB-C into Poly device and USB-A into Solstice Pod.		
QSC Q-SYS Core 110f	Core 110f	AV processor / controller	9.9.1	Large conference rooms	Supported on Windows and macOS in Solstice 5.4 to 5.5.1 with firmware version 9.0.1. Contact Mersive Support for help.		

Device Name	Part #	Type	Supported Firmware	Works Best In	Notes	Mac	
QSC Q-SYS PTZ 12x72	PTZ-12x72	camera	9.9	Small to large conference rooms	Set to resolution of 720p in Q-SYS Designer software.	■	
QSC Q-SYS I/O-USB Bridge	I/O USB Bridge	AV connector	9.9.1	Medium to large conference rooms	See tested Q-SYS configuration		
QSC Q-SYS NV-32-H	NV-32-H	conference hub	9.9.1	Small to medium conference rooms			
Shure ANIUSB-Matrix	ANIUSB-MATRIX	speakerphone	4.7.23.0	Huddle rooms to small conference rooms			
Shure Stem Audio Hub	HUB1	speakerphone	2.9.3.0	Huddle rooms to medium conference rooms		■	
Shure IntelliMix P300	MXA310AL-P300-P	speakerphone	4.7.24	Medium to large conference rooms	Supports all Shure Audio Ecosystem networked microphones including MXA310, MXA710, and MXA910.		
Vaddio AV Bridge Mini	999-8240-000	conference hub		Large conference rooms		■	

Tier 2 Devices Info

Information on devices certified as working with a past Solstice version can be found [here](#). Mersive does not support these devices or certify their performance with every Solstice release.