

Synergy Control Installation and Configuration Guide

Synergy CONTROL v 1.0

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Introduction

About Synergy CONTROL

Video meetings & Video conferences have many advantages over standard “face-to-face” meetings however they generally require extra attention from IT or technical staff.

One of many repeating scenarios when administrators need to help employees is when a participant is having problems joining a video meeting. Another good example is when all participants should mute their microphones while watching a presentation but some of them forget to do so.

These are just two examples of many situations that can occur while video meetings are taking place. Sometimes it is necessary to invite participants to a scheduled meeting before it starts, or you may need to compare a list of all connected participants in an active meeting with a list of participants who have been invited to a specific meeting.

We think that it is convenient, efficient and more so necessary for large organizations to have a tool where video meeting administrators have the ability to have full control of all meetings whether they are ad-hoc or scheduled (both active and inactive) and can react promptly on any required actions or changes.

We present Synergy Control, the tool which supports both Pexip Infinity and Cisco CMS technologies where you can have control over all of your meetings in a very simple and effective manner.

How Synergy CONTROL Works

This section explains how the software works and gives a short overview of the implemented features.

Feature Overview

Synergy Control supports the following feature set:

- View all active meetings, both ad-hoc and scheduled, on Pexip Infinity and Cisco CMS multi-conference units.
- View all inactive pre-scheduled meetings. (only with Synergy JOIN integration)
- Search for scheduled and ad-hoc meetings with meeting name, participant name, email or meeting start date. For active meetings it is possible to search meetings that have already started within the given time frame
- Create a list of 'Favorite' meetings to follow. This includes both 'ad-hoc' and 'scheduled' meetings (active and inactive).
- Adding participant(s) to an active meeting by initiating a dial-out from the MCU
- Send or resend dial-in info to participants in a scheduled meeting by using their email address (only with Synergy JOIN integration)
- Control participant's sound, microphone and video, including group controls for all participants.
- Disconnect participants.
- View video meeting start time & duration
- View total number of participants attending the meeting in a video meeting room (this feature only works if the endpoint has people counter technology).
- Get information about packet loss, jitter and bandwidth for every participant.
- Meeting locking. This makes it possible to lock a meeting and prevent unwanted parties attending the meeting (there are some differences in functionality between Cisco CMS and Pexip Infinity)

Limitations

There are some limitations in Pexip Infinity and Cisco Meeting Server itself when it comes to active meeting controls. Some of these limitations are overcome by the integration of Synergy JOIN (if integration is conducted) but direct controls related to participants are still dependent on API possibilities of the supported technologies.

Technology	Mute/Unmute Microphone	Mute/ Unmute Video	Mute/ Unmute Sound	Disconnect Participant	Meeting Locking
Pexip Infinity	Yes	No	No	Yes	Yes
Cisco Meeting Server	Yes	Yes	Yes	Yes	Yes (1.)

(1.) In order to get Meeting Locking working properly on CISCO systems it is necessary to distinguish between host and guest calls to a VMR (or co-space). It is important to setup "guest" and "host" accounts where for a guest the 'needsActivation' parameter has to be set. Refer to the Cisco CMS documentation for more information on how to set this

(2.) If you are going to be using **Synergy CONTROL** alongside **Synergy JOIN**, the server that has got Synergy JOIN installed should not have the IIS service running or installed. By default, the Synergy JOIN API runs on port 443 and if your IIS server is using port 443 for another website, the Synergy JOIN API will not be able to communicate with Synergy CONTROL.

Installation Prerequisites

The application supports Windows platforms. It is not necessary to manually install any libraries such as .net or similar.

Device Support

Software	Version	Comments
Cisco Meeting Server	2.4	
Pexip Infinity	19	
Synergy JOIN	3.0	Tested only in JOIN 3.0 BETA

Supported Internet Browsers

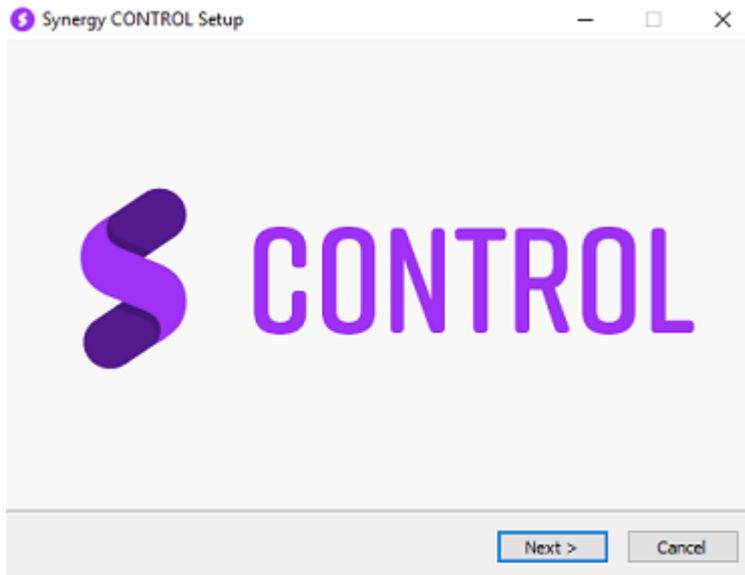
Software	Version	Comments
Google Chrome	65.0.3325	This software version was in beta at release date
Mozilla Firefox	61.01	This software version was in beta at release date

To show the content properly please use Google Chrome or Mozilla Firefox browsers. All newer versions of internet browsers should also work.

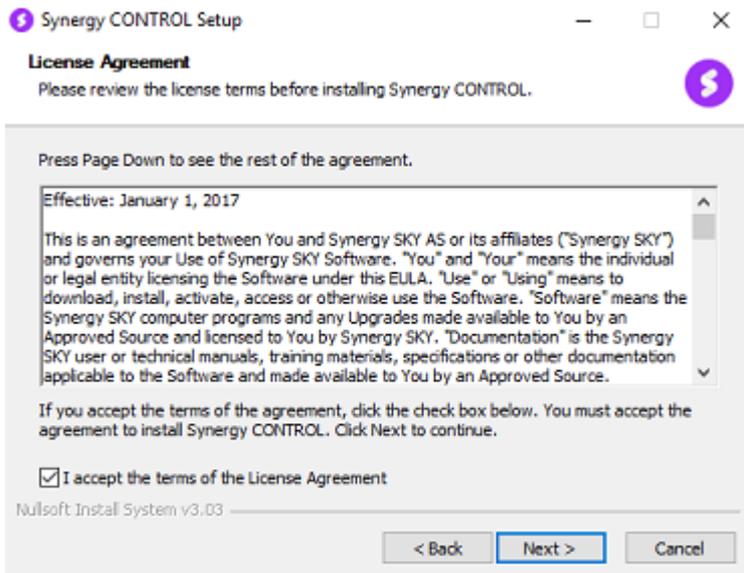
Installing Synergy CONTROL

You will be provided with an installer: SynergyControl_Setup.exe

1. Double click to run the installer.



2. Follow the install wizard. Click next to accept the license agreement, select the install location, and choose whether to launch CONTROL when the installation completes.



3. Once the install has completed, you will see a shortcut to the Synergy CONTROL application on the desktop.



Configuring Synergy CONTROL

All configuration of Synergy CONTROL is done from the server the application is hosted on. Synergy CONTROL prevents access to the configuration page is prohibited, unless you are logged on to the host server. The server will only listen to "localhost" by default. If you would like to change the configuration, you can click on the configuration button in the top right corner of the application or browse to [http://localhost:\(port\)/Config](http://localhost:(port)/Config)



Above is the button you will have to click on to access configuration the configuration page (when you are logged on to the host server)

Hosting



The screenshot shows a configuration window titled "Hosting". It contains three fields: "Bind to" with the value "http://*:5005", "Use Windows Authentication" with an unchecked checkbox, and "Authorization Group" which is currently empty.

At the top of the configuration page, you can choose which ip and port the server should listen to in the "Bind To" field. If you want it to listen to all network interfaces you can use * as the hostname, e.g. http://*:80. In the image above the port that has been used is 5005. Remember to open the port you choose in your firewall.

If you want to setup access restrictions in Synergy CONTROL, tick the checkbox named "**Use Windows Authentication**". This will allow access to anyone with a local Windows user or Active Directory user authentication.

If you would like to include more restrictions, please enter a group name in "**Authorization Group**" in the form "**DOMAIN\GroupName**" or "**SERVER\GroupName**". This can be either a local group or a group in Active Directory. Only users in this group will be allowed access.

Synergy JOIN

In the Synergy Join section of the configuration page you can specify the Synergy JOIN API URL, username and password, as well as enable/disable people counter readings. It is possible to see results from people counters on end-points that are registered in Synergy JOIN (depending on whether or not the device supports people count). Synergy CONTROL will automatically collect authentication information through the API and use it to sign in and monitor counter devices on end-points.

The default credentials for the Synergy JOIN API are:

username: admin

password: SynergySkyWord01

These values can be changed in Synergy JOIN by an administrator.

JOIN API configuration

Api Url:

Username:

Password:

Enable People Counter readings (from end-points which supports the feature)

Test Connection

When the server starts, it will attempt to discover whether Synergy JOIN is installed on the same server. If it is, this field will be repopulated.

Bridge Configuration

In the “**Bridge Configuration**” section, you can configure which MCUs Synergy CONTROL should gather data from. Select the MCU type and click '**Add Bridge**', then fill out the Name (name of the bridge for your internal use), Hostname, Username and Password

Bridge Configuration

Disabled

Type: test

Name:

Hostname:

Username:

Password:

Test Connection **Delete Bridge**

If a bridge needs to be deactivated, tick the 'Disabled' checkbox.

The Test Connection button can be used to verify that the correct username and password has been entered.

For Cisco CMS the **Discover Nodes** button is available. This will attempt to detect whether this MCU is part of a cluster, and will add the other cluster nodes to the system. If the password for the other cluster nodes is different from this node the passwords must be filled out.

Test Connection **Discover Nodes** **Delete Bridge**

For **Cisco CMS** systems to get meeting locking to work it is important to setup “guest” and “host” accounts where for a guest the 'needsActivation' parameter has to be set. Refer to the Cisco CMS documentation for more information on how to set this.

Meeting States

It is important to be able to differentiate between **meeting states** in Synergy CONTROL

Scheduled Meeting

- A meeting can be **scheduled** by inviting participants using Outlook or Google calendar, which will be registered by Synergy JOIN if integration exists, but if an organization does not have Synergy JOIN installed (or for some reason the connection fails), scheduled meetings will not be shown in the Synergy CONTROL tabs. Scheduled Meetings can appear in both the active and inactive meetings tabs. (They can also appear in the favorites tab if the meeting has marked as a favorite).

Ad-hoc Meeting

- **Ad-hoc** meetings are meetings that have not been scheduled. These meeting types will **only** appear in the 'Active' meetings tab when they are active. (They can also appear in the favorites tab if the meeting has marked as a favorite). There is no metadata for these meetings because they have not been registered in Synergy JOIN. **Ad-hoc** meetings can only be **active** because they do not exist before they start.

Active Meeting

- **Active** meetings are meetings that have started and there is at least one participant currently in the video meeting. Both scheduled and ad-hoc meetings can appear in the active meetings tab.

Inactive Meeting

- Inactive meetings are scheduled meetings that are registered by Synergy JOIN where metadata is displayed but the meetings have not yet started. Only scheduled meetings can be inactive

Search

This tab is only visible when a search is performed and can be removed by clicking on the "Clear search" button. It is possible to search meetings by name, meeting state (active or scheduled state), meeting start and end date as well as participants name & email address.

Search

Go!

Conferences

- Active
- Scheduled

Participants

- Name or email

Date / Time

From

27-08-2018 00:00

To

27-08-2018 23:59

Advanced search ^

Favorites

This tab is only visible when a user favorites a meeting. Reference to the favorited meetings are saved in the web browser so the list will be regenerated if the browser is closed and reopened. This list is only able to display active and/or scheduled meetings but not completed meetings.

Updating of the Favorites and Search works automatically by default. The only difference in functionality compared to the active and scheduled lists is that a user can add new meetings to the lists, either by favoriting a meetings which will be shown in Favorites or by searching for a meeting will be shown in Search results. If a meeting is completed it will be removed from all lists.

Active Meetings

This tab displays all meetings that are currently active, both ad-hoc and scheduled. The meetings in the list are automatically updated by default. This means that new and completed meetings will automatically appear and disappear from the list.

Scheduled Meetings

This tab displays all scheduled meetings whether they are active or inactive. All scheduled meetings saved by Synergy JOIN will be displayed in this tab (please pay attention that pagination is applied and it may be necessary to scroll down to see all meetings).

The meetings in the list are automatically updated by default. This means that new and completed meetings will automatically appear and disappear from the list, respectively.

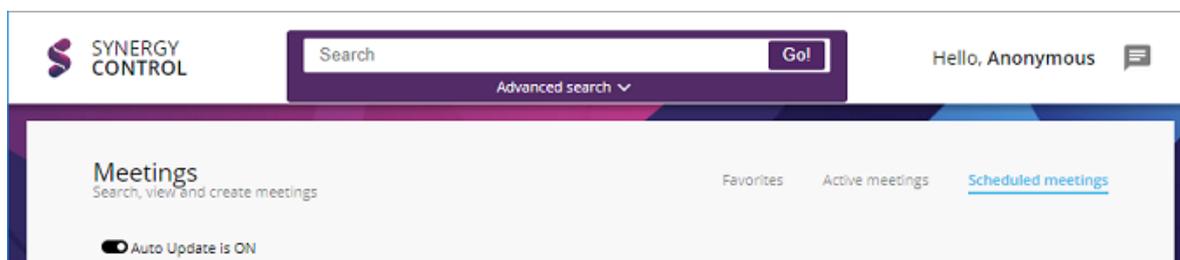
How long in the future scheduled meetings are going to be displayed is defined by the calendar or scheduling tool itself. When Synergy JOIN is started for a first time, it will try to fetch all scheduled meetings in a time window defined by calendar applications.

Example Scenarios:

- If a meeting is scheduled but not yet started it will be shown only in Scheduled tabs.
- When the meeting starts, it will be shown in Active and Scheduled tabs.
- If user favorites a meeting then it will be shown in Active, Favorites and Scheduled tabs.
- At the end if a user searches for the same meeting, it will be shown in Active, Favorites Scheduled and Search tabs.

Tab Controls

In the CONTROL tabs, you are able to see a list of meetings according to their current state or user's actions. User's actions refers to favoriting a meeting or searching for a meeting. The Search Results and Favorites tabs do not appear unless either a favorite is chosen or a search is made.



All controls which, depends on a meeting state, are available in all tabs where a meeting is listed, and it is possible to control the meeting in the same way across the tabs.

Auto Update

It is possible to turn off auto-update on meeting lists. This feature is implemented to prevent vertical movement in the meetings lists when new meetings occur or completed meetings are removed. To turn off auto-update, the switch should look like the below.



When **auto-update is OFF**, completed meetings will be marked by being a lighter (dimmed) color compared to the other meetings in the list. New meetings will not be displayed in the list until auto-update is turned back on. There will be a message shown when any changes to the list are detected.

It is important to know that even if auto-update for meeting lists (or all tabs) is OFF, everything that happens within a meeting, like participants been connected or disconnected or sound been muted, it will still work as normally or it will be updated after a few seconds.



To turn meeting auto-update on, the setting has to be set to ON.

Meeting Group controls

Group Controls

Group controls are only available from the Active Meetings tab. Group controls give the administrator control over sound, video and microphone for all participants with a click of a button. Group control also allows the administrator to invite participants to the meeting using a URI.



Group controls (from left to right)

Dial-Out to Participant, Mute all Microphones, Turn Off All Cameras, Turn Off Sound for all, Meeting Lock, Show/Hide group controls.

Communication with the server happens asynchronously and it may happen that a command will not be applied immediately but shortly after a click. Some controls are not available on both Cisco CMS and Pexip Infinity, please check [limitation section](#). If any controls are not available for a meeting type, these controls will be grayed out as per the above image.

It is possible to apply group controls to turn off sound, video and microphone on all participants but it is not possible to turn on sound and video for all participants.

Dial-out to participant

Dial-out to a participant is accomplished using MCU capabilities depending on where the meetings is being hosted.

Administrators will have to choose the location (based on which MCU is hosting the meeting) and the protocol to dial out to a participant. The available protocols are SIP, H323, Lync/MS-SIP, RTMP and Google Hangouts Meet. Once all of the information has been entered, they will have to click on the 'Connect All' button to connect the participants to the meeting.

The call will placed to the user's end-point and they will have to answer in order to be connected to the meeting.

Participant Controls

Participant controls refer to a specific participants meeting configuration. It is possible to turn on or off a participant's video, sound and microphone, disconnect a participant and also check network data and connection quality for the participant. Some controls are not available on CMS and Pexip Infinity. Further information can be found in the [limitations section](#).



Participant controls (from left to right)

Mute/Unmute Microphone, Turn Camera on/off, Turn Sound on/off, Show Participant's Network Status, Disconnect the Participant.

Unlike Group controls, Participant Controls are bidirectional. It is possible to turn on and off a participant's assets.

	Packetloss %	Jitter	Round Trip	Bandwidth
Video Tx	0,05	9,06		0.294 kbps
Video Rx	0	0		0 kbps
Audio Tx	0,11	0		0.062 kbps
Audio Rx	0,25	0,11		0.063 kbps

The above image shows a participants network status.

Information about the participant

When a participant joins a meeting the following information will be displayed:

- Participant name
- Participant URI
- Time participant joined a meeting
- Connection duration
- People counter information

People counter information is only available if the video meeting equipment/end-point has people counter technology implemented/configured. The People Counter field shows the number of participants that are sitting in front of a video conferencing unit. This number will be updated every few seconds until the end of the meeting.



Information about participant (from left to right)

Name, URI, Connection time, Call Duration, People Counter

Metadata and control enabled by Synergy Join integration

For scheduled meetings the following information will be displayed:

- Name of the meeting organizer
- Subject of the meeting
- Dial in URI
- Extension
- PIN for meeting host

- PIN for meeting guest
- “Scheduled resources” , practically meeting rooms
- “Scheduled participants” or invited participants

By using the 'Share details' button, the administrator can send dial-in information to scheduled participants using their email address.

Invitees that are in a scheduled meeting processed by Synergy JOIN will automatically receive dial-in information from the meeting organizer. As described in the above image, it is also possible for an administrator to send dial-in information to participants. If an attendee has received dial in information from a meeting organizer, the color of the box with their details will be different to when they have been invited to a meeting by an administrator.

The participant that received dial-in information from the meeting organizer is on the left and the participant that received they dial-in information from an administrator is on the right.

It is also possible to hover over each participants email address to view additional information such as how they where invited and at what time they where invited.

Invitees

as@synergysky.com aleksandar.sunjic@gmail.com

INVITE ORIGIN
invited by: EugeneTheAdmin
invited at: 1/8/2019 9:40:57 AM