# Silvair Commissioning

Troubleshooting guide

8 February 2024

SN-223 rev. 1.6



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### **Problems**

#### 1. When I try to add a device to the zone, a "Device is not activated" message (and $\bigcirc$ ) appears

Contact Silvair Support to check the device activation. Make sure to include:

- Device name
- App logs (tap and select Send logs > More... > Save to files)

#### 2. I do not see a device to add in the Silvair mobile app

- 1. Move as close to the device as possible. It seems that the Bluetooth connection was lost. Then, in the **Silvair mobile app**, set the slider to **All**.
- 2. Do one of the following steps to check if the device has not already been added to a different zone or project.
  - Power the device off and on.
  - Monitor the flashing of the status LED of the device.
- 3. If the device does not flash a few times after power on, or the status LED flashes every two seconds, it means that the device has been added to a different zone or project. In such a case do one of the following steps to remove this device from the zone or project.
  - Refer to the device datasheet for instructions about how to reset the device. In most cases you need to press and hold a reset button for some time. But some devices have a switch that triggers a reset when a magnet is applied to them. When the reset is triggered, the status LED will flash every one second. After the reset is complete, the status LED will flash every 0.3 seconds.
  - In the **Silvair mobile app**, find which zone the device has been added to. Tap  $\dot{\heartsuit}$  next to the device name to make sure that this is the correct device. If the correct device flashes quickly, tap  $\hat{\Box}$ .
- 4. Make sure that the device is correctly connected to the power source and installed according to its installation guide.
- 5. If you still do not see the device, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Device type and manufacturer
  - App logs (tap and select Send logs > More... > Save to files)

#### 3. I cannot add a device. The device appears as "Failed" instead of "Completed"

- 1. Move as close to the device as possible. It seems that the Bluetooth connection was lost.
- 2. Make sure that your mobile device is connected to the internet and that Bluetooth is on.
- 3. Go back to the list of devices and tap Configure all.
- 4. Move to the zone and do a mesh quality test.

In the Silvair mobile app for iOS/iPadOS, go to the project and in the area field, tap : > Mesh quality > Start test.

- 5. After the test is complete, tap the zone. If some devices are shown in red, see <u>SN-202 Optimizing mesh</u> <u>network performance</u>.
- 6. If you still get this error, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Device type and manufacturer
  - App logs created after failed attempt of adding the device (tap and select Send logs > More... > Save to files)

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#### 4. I cannot control or configure devices or change the function of devices with the mobile app

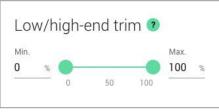
- 1. Move as close to the device as possible. It seems that the Bluetooth connection was lost.
- 2. Do a mesh quality test.

In the Silvair mobile app for iOS/iPadOS, go to the project and in the area field, tap : > Mesh quality > Start test.

- 3. After the test is complete, tap the zone. If some devices are shown in red, see <u>SN-202 Optimizing mesh</u> network performance.
- 4. Make sure that these devices work correctly.
  - a. On the **Test** tab, tap or next to each device name to make sure that the device flashes.
  - b. On the **Devices** tab, tap the device and then **Diagnostic > Element 0 Health Server > Silvair Registered Faults** to make sure that there are no errors.
- 5. Make sure that these devices are correctly connected to the power source and installed according to their installation guide.
- 6. If you still cannot control or configure devices or change the function of devices, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Name of the zone and devices
  - App logs after failed attempt of control, configuration, or function change (tap and select Send logs > More... > Save to files)

#### 5. Light level in the zone is lower than expected

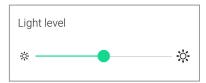
- 1. Make sure that the number and power of the installed luminaires is sufficient.
- 2. In the <u>Silvair web app</u>, go to the project and area.
- 3. On the **Commissioning** tab, click the zone and then .
- 4. Make sure that the light levels are set as intended.
- 5. Set the Max. value for the Low/high-end trim to 100%.
- 6. Click Save.
- 7. In the **Silvair mobile app**, go to the zone and tap **Configure all** to configure all devices in the zone again.
- 8. If a Daylight harvesting scenario is used, see <a href="SN-209 Silvair Daylight Harvesting">SN-209 Silvair Daylight Harvesting</a>.
- 9. If the light level is still lower than expected, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Name of the zone



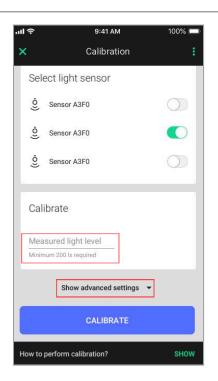


#### 6. Calibration does not start when I tap the button

- 1. Wait for more sunlight so that the measured light level is at least the minimum specified below the Measured light level field.
- 2. If the required minimum light level cannot be achieved, because for example you must calibrate at night, continue as follows.
  - Calibrating in conditions other than daylight can cause daylight harvesting not to work correctly.
- 3. In the Silvair mobile app, go to the Devices or Settings tab, tap Calibrate, and expand Show advanced settings.
- 4. Move the **Light level** slider to the right so that the light meter shows the minimum required by the app.



- 5. In the **Measured light level** field, enter the value in lux (lx) shown on the light meter.
- 6. Tap Calibrate.
- 7. If you still cannot calibrate, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Sensor type and manufacturer
  - App logs created after failed calibration attempt (tap i and select Send logs > More... > Save to files)
  - Photo/video of the setup



#### 7. "There are some issues with the light sensor" message appears when I calibrate the sensor

- 1. Make sure that the sensor is not too far away from the luminaires and is not added to a different zone.
- 2. Make sure that the correct light sensor is selected in the calibration view.
- 3. Make sure that the sensor is positioned so that the light of the luminaires is in the field of view of the sensor.
- 4. Make sure that the sensor works correctly, and is not damaged or covered with paint.
  - a. In the Silvair mobile app for iOS/iPadOS, go to the Devices tab, and tap the sensor. Then, tap Diagnostic > Element 1 Sensor Server > Data and read the value.
  - b. Point the beam of a flashlight at the sensor.
  - c. Tap C and make sure that the value changes.
- 5. Remove anything that obstructs the view of the sensor.
- 6. Make sure that the sensor is installed according to the recommendations of the manufacturer, has the correct field of view, and is not subject to light from outside of this field.
- 7. If you still get this error, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Sensor type and manufacturer
  - App logs after failed calibration attempt (tap i and select Send logs > More... > Save to files)
  - Photo/video of the setup



#### 8. There is no presence but the light is on when occupancy/vacancy sensing is used

- 1. In the **Silvair web app**, make sure that the zone linking is configured as intended and that no other linked zone triggers the light in this zone.
- 2. Make sure that there is no presence in the zone, go to the **Test** tab in the mobile app, and use buttons and sliders to check if the light responds. If the light does not respond as intended, <u>make sure that you can control the devices</u>.
- 3. If manual controls are used in the zone, make sure that the **Manual override timeout** is enabled in the profile for the zone in the web app. Then, press the **Auto** button on the wall switch, or in the mobile app go to the **Test** tab and tap **Auto**.
- 4. Check if the sensors work correctly.
  - a. In the **Silvair mobile app for iOS/iPadOS**, go to the **Test** tab, expand the sensor list. If any sensor has a green marker that is flashing or constantly on, replace the sensor.
  - b. If there is no such a faulty sensor, continue as follows.
    - i. Go to the **Devices** tab, tap the sensor that you suspect does not work correctly, and then tap **Monitoring**.
    - ii. Tap Occupancy event stats (last 72h) and see if the value has increased even though there was no presence in the zone. If the value has increased, replace the sensor.

Occupancy events stats (last 72h)
Today (13 September 2022)
10:10 - 10:15 : 0

- iii. If there are other sensors in the zone, compare their **Occupancy event stats (last 72h)** to find a sensor whose value is much larger than for the rest of the sensors.
- c. If the Occupancy event stats (last 72h) option is not available, create zones so that there is only one sensor per zone. Then, monitor where the light comes on while there is no presence in the zone to find the faulty sensor.
- 5. Make sure that the light is not triggered by trees, animals, fans, moving objects, or scheduling events.
- 6. If the light is still on with no presence, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Sensor type and manufacturer
  - App logs (tap and select Send logs > More... > Save to files)
  - Photo/video of the setup
  - Value of the occupancy event stats



#### 9. Scheduled in-node events do not work

- 1. Make sure that the project version is 202101 or later.
  - a. In the Silvair web app, go to your projects.
  - b. In the project field, click : > Edit.
    - i. Read the project version on the right of the **Project name** field.
    - ii. If the project version is earlier than 202101, click the version number and select **Update now** to update the project.
- 2. Make sure that all devices have firmware version 2.20.2 or later.
  - a. In the Silvair web app, go to the project.
  - b. Click **Report > Download** to download the *Commissioning report*.
  - c. Open the report and search for "firmware version".
  - d. If the firmware version of any of the devices is earlier than 2.20.2, update the firmware as described in <u>SN-208 OTA firmware update for provisioned devices</u>.
- 3. If the firmware of devices has been recently updated, remove the devices from the zones and add them again.
- 4. Make sure that the timezone and the time of events are set correctly.
  - a. Go to your project and click **Edit project** to make sure that the timezone is correct.
  - b. In the **Silvair web app**, go to the project and area, and click **Scheduling** to make sure that the time of each event is correct.
- 5. Make sure that the scheduled zones have a profile with a *Multiple scenes / Scheduling* scenario and that the profile settings are correct.
  - In the **Silvair web app**, go to the project and area, and click the zone and then 🖍.
- 6. Make sure that each event has zones assigned.
  - In the **Silvair web app**, go to the project and area, and click **Scheduling**. If there are no zones assigned, click the event, select a scene and make sure that the required zones are highlighted, and click **Save**.
- 7. Go on site to the zone and do a mesh quality test.
  - In the Silvair mobile app for iOS/iPadOS, go to the project and in the area field, tap : > Mesh quality > Start test.
- 8. After the test is complete, tap the zone. If some devices are shown in red, see <u>SN-202 Optimizing mesh</u> network performance.
- 9. Sync the time between the mobile device and the mesh network.
  - a. In the Silvair mobile app for iOS/iPadOS, go to the project list.
  - b. In the project field, tap : > Time sync > Sync time.
- 10. If the events still do not work, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Name of the area, zone, and event



#### 10. Scheduled gateway events do not work or the gateway does not collect data

- 1. Make sure that the gateway is powered (LED is green), connected to the internet, and has no issues.
- 2. Make sure that the gateway status in the Silvair web app is OK.

Go to the project > **Gateways**.

3. Make sure that the gateway is assigned to the related areas.

Go to the project > Gateways > : > Edit.

- 4. Make sure that the gateway is in range of the related areas. The best location for the gateway is in the center of the area and close to a relay.
- 5. Make sure that the hosts and ports listed in <u>SGW-102 Silvair Gateway user guide</u> have been added by the local admin to the list of allowed hosts and ports.
- 6. Make sure that, for scheduling, the zones controlled by the gateway have a profile with a *Multiple scenes / Scheduling* scenario and that the profile settings are correct.

In the **Silvair web app**, go to the project and area, and click the zone and then  $\nearrow$ .

7. Make sure that each event has zones assigned.

In the **Silvair web app**, go to the project and area, and click **Scheduling**. If there are no zones assigned, click the event, select a scene and make sure that the required zones are highlighted, and click **Save**.

- 8. Make sure that each event has the correct local time set.
- 9. Make sure that you can control the devices.
- 10. Make sure that the scenes are configured correctly.
  - a. In the **Silvair mobile app**, go to the **Test** tab, and press the scene buttons to check if the light behaves as intended.
  - b. If the light does not behave as intended, configure the devices in the zone again (tap : > Full reconfiguration > select devices > Configure) and try to control the light again.
- 11. If the events still do not work or the gateway still does not collect data, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - Name of the area, zone, and devices
  - Scheduling event name
  - Gateway location in the building



#### 11. All luminaires do not respond to EnOcean

- 1. Make sure that there is a device that acts as an EnOcean adapter in the zone.
  - a. Select a device to act as an EnOcean adapter. This device must be close enough to the EnOcean switch.
  - b. On the **Devices** tab, tap the device, and then tap the **EnOcean** toggle switch to set this device as an EnOcean adapter. Make sure that this device is not also set up to act as a *static proxy* or a *relay*.
  - c. Tap 'o' next to the device name to make sure that the device flashes.
- 2. Make sure that there is no warning on the **Devices** tab. If there is a warning, tap **Configure all** or **Repair**.
- 3. In the Silvair mobile app for iOS/iPadOS, go to the Test tab and tap oo to make sure that all devices flash.
- 4. If the luminaires still do not respond, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - App logs (tap and select Send logs > More... > Save to files)
  - The type of the EnOcean switch

#### 12. Sometimes all luminaires do not respond to EnOcean

- 1. In the **Silvair mobile app**, go to the **Devices** tab and make sure that the device that acts as an EnOcean adapter is not also set up to act as a *static proxy* or a *relay*.
- 2. Set a different device to act as an EnOcean adapter. This device must be close enough to the EnOcean switch.
- 3. Use a different Bluetooth EnOcean switch.
- 4. Optimize the performance of your network (see <u>SN-202 Optimizing mesh network performance</u>).
- 5. If the luminaires still do not respond, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - App logs (tap and select Send logs > More... > Save to files)
  - The type of the EnOcean switch

#### 13. Some luminaires do not respond to EnOcean

- 1. Make sure that the non-responding luminaires are added to the zone.
  - a. In the Silvair mobile app for iOS/iPadOS, go to the Devices tab.
  - b. Tap + and add the luminaires to the zone.
- 2. On the **Test** tab, tap 'Q' next to the name of each non-responding luminaire to make sure that the luminaires flash.
- 3. Optimize the performance of your network (see <u>SN-202 Optimizing mesh network performance</u>).
- 4. If the non-responding luminaires are in a different zone, it can be a problem with zone linking. Refer to Zone linking recommendations section in the <u>SN-200 Silvair Commissioning user manual</u>.
- 5. Make sure that the non-responding luminaires are connected to the power source and installed according to their installation guide.
- 6. If the luminaires still do not respond, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - App logs (tap and select Send logs > More... > Save to files)
  - The type of the EnOcean switch



#### 14. Sometimes some luminaires do not respond to EnOcean

- 1. Set a different device to act as an EnOcean adapter. This device must be close enough to the EnOcean switch.
- 2. Optimize the performance of your network (see <u>SN-202 Optimizing mesh network performance</u>).
- 3. If the luminaires still do not respond, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - App logs (tap i and select Send logs > More... > Save to files)
  - The type of the EnOcean switch

#### 15. I cannot control the linked zones

- 1. Make sure that no exclamation mark shows in the floor plan for the linked zones.
- 2. Make sure that each linked zone has the correct scenario set. Refer to Zone linking recommendations section in the <u>SN-200 Silvair Commissioning user manual</u>.
- 3. Go on site to the zone that controls other zones and do a mesh quality test.
  - In the Silvair mobile app for iOS/iPadOS, go to the project and in the area field, tap : > Mesh quality > Start test.
- 4. After the test is complete, tap the zone. If some devices are shown in red, see <u>SN-202 Optimizing mesh</u> network performance.
- 5. If you still cannot control the linked zones, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL
  - A description of the required behavior of zone linking

#### 16. "Risk of exceeding the RPL limit" message appears

- 1. Divide projects into areas so that no area has more than approximately 200 devices.
- 2. Divide areas into zones according to <u>SN-213 Recommendations for complex lighting installations</u>.
- 3. To remove this message, remove all devices from all zones in the project. Then, add some devices to these zones again and add the rest of devices to some new zones. To avoid this message in the future, create smaller zones.
- 4. Use devices with firmware version 2.18 or later. If the firmware version is earlier than 2.18, continue as described in *SN-208 OTA firmware update for provisioned devices* to update the firmware.
- 5. See <u>SN-213 Recommendations for complex lighting installations</u> to take into account the factors that contribute to the RPL of a device.
- 6. Do not use zone linking so that one zone is controlled manually from more than 28 zones.
- 7. If you still get this error, contact Silvair Support to troubleshoot the issue. Make sure to include:
  - Project ID or URL

# 17. A part of the Bluetooth network does not work like the rest or cannot be controlled by the mobile app (IV index issue)

See the SN-227 IV index application note.



# **Document revisions**

Revision	Date	Editor	Changes
1.6	8 February 2024	GM	Gateway events are now scheduled at the project's local time.
1.5	16 November 2023	GM	Clarified where the mobile app for iOS/iPadOS is required. Corrected links to external documents.
1.4	20 July 2023	GM	Replaced a list of steps in point 17 with a reference to the IV index application note. Minor edits.
1.3	4 April 2023	GM	Correction in There are some issues with the light sensor.
1.2	2 March 2023	GM	Changes to the troubleshooting of the IV index issue.
1.1	16 February 2023	GM	Added steps to fix the IV index issue. Clarified the phrase about linking up to 28 zones. Some clarifications related to collecting app logs. Minor edits.
1.0	17 November 2022	GM	Initial release.

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