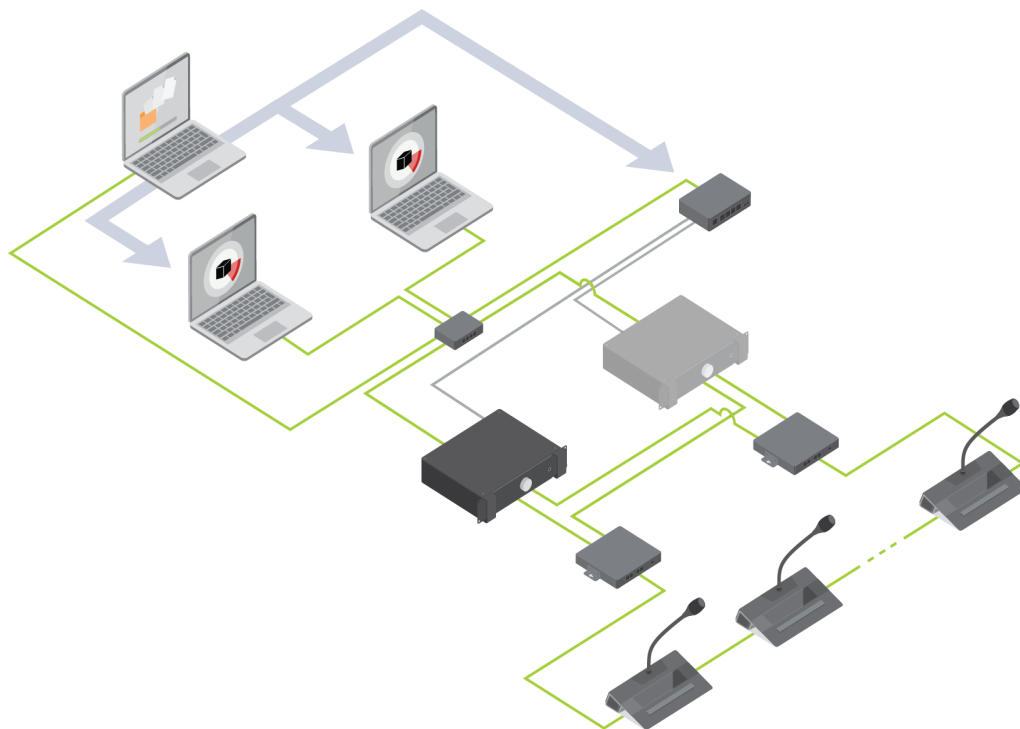


PLIXUS REDUNDANCY

USER & INSTALLATION GUIDE

VERSION 4.0



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GETTING STARTED

About This Manual

Throughout this guide we use different icons to designate different types of information:

	This is a note. A note gives additional information, such as the meaning of the color of the LEDs. A note also provides information that may only be applicable to some situations.
	This is a tip. A tip gives you an alternative way to do a particular step or procedure, or lets you know of an option that you may find helpful.
	This indicates that something is very important. Important information is something that you need to do in order to accomplish a certain task.
	This provides safety precaution information, that is, information that you need to be careful about to prevent potential problems when using our systems.

Compatibility

This user manual applies to the following products:

Product	Version
CoCon for Plixus Core	≥ 5.4
CoCon	≥ 6.0
Plixus	≥ CRP 5.4

ABOUT PLIXUS REDUNDANCY

Concept And Design

The Plixus Redundancy application ensures that your system keeps running when the CoCon Room server or the Plixus engine would malfunction. The application automatically takes over the Plixus engine or the CoCon Room server, in case one of these would become inactive. The Redundancy application controls the engines by means of the GUDE 1141-1 power distribution unit (PDU).

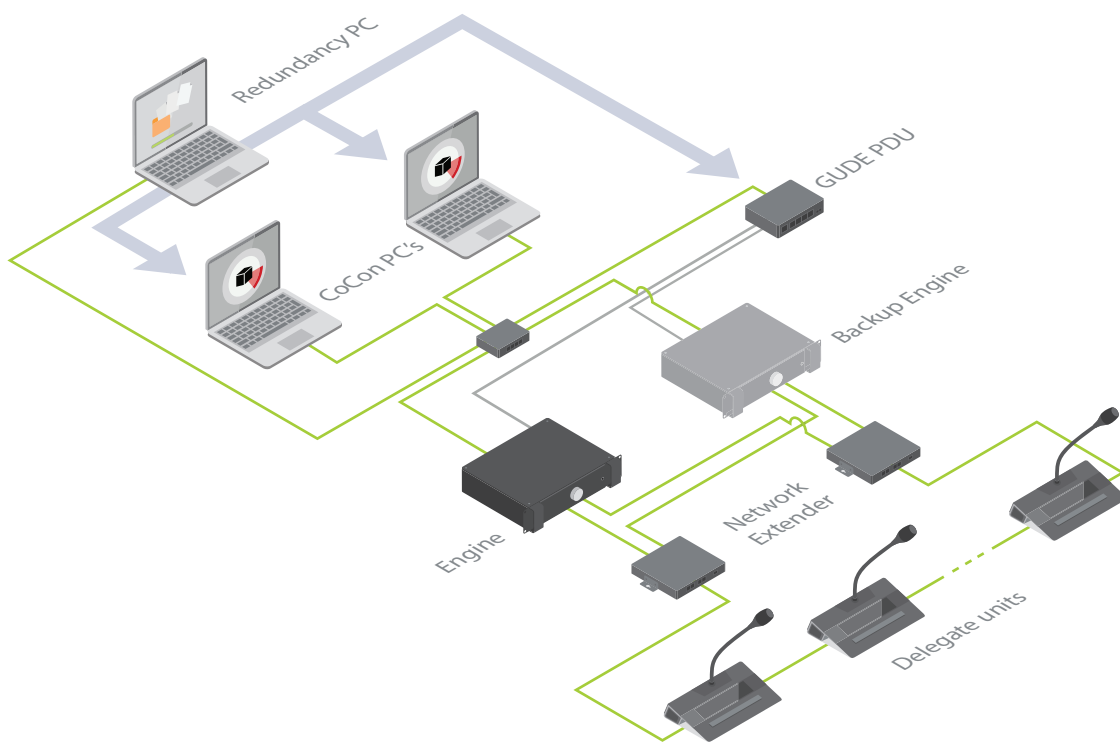


Figure 1-1 Schematic overview of how to use Plixus Redundancy for a Plixus system with or without CoCon.

INSTALLATION DESIGN

This chapter describes the prerequisites needed to install and use the Plexus Redundancy application.

NOTES BEFORE INSTALLATION



To enable and use the Redundancy application, the service must be running.

The engines are powered using a power switch. The only supported model is GUDE Expert Power Control 1141-1 : <https://gude-systems.com/en/products/expert-power-control-1141/>.

Preconditions

You can use Plixus Redundancy to manage:

- > CoCon
- > The Plixus engine
- > CoCon & the Plixus engine

SUPPORTED COCON AND PLIXUS CRP VERSIONS

The Plixus Redundancy application supports CoCon for Plixus Core version 5.4 or CoCon \geq 6.0.

You can download all CoCon and Plixus versions on the Televic Conference website:

<https://www.televic.com/en/conference/support/software-updates/cocon-and-plixus>.



During the Plixus update process you need to use both update files (**crp-x.x-essential.tuf** and **crp-x.x.xx-multimedia.tuf**). First use the multimedia.tuf file, reboot and update again using the essential.tuf file.

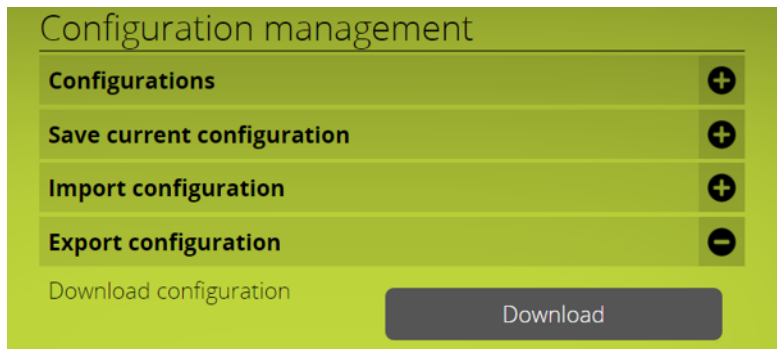


When you use Plixus CRP 5.4, you need to enable Core mode.

Update Older Systems

If you are using an older version, you need to perform the following actions before installing a newer compatible version:

- > Make a backup of the **Cocon SQL database**
- > Make a backup of your **Plixus configuration** using the Plixus web server



- › **Uninstall** the previous Cocon version
- › Install Cocon for Plexus Core version 5.4 or Cocon \geq 6.0
- › When you first start the Cocon server, you need to run through the configuration wizard to update the database. Please check if you are selecting the correct database.

INSTALL THE APPLICATION

Installation Of Redundancy_application_release Package



To get the Plixus Redundancy application, please **contact our Sales Support team**:

- > Open a ticket on the Sales Support page here: <https://salessupport-conference.televic.com/Tickets/>
- > Or call the following number: +32 (0)51 33 20 04.

Unzip the *Redundancy_application_release.zip* and copy the folder named *release* to the destination folder, e.g. *c:\Redundancy*.

Backend Service Configuration,

There are four configuration files that you need to adjust during the installation:

- > **bin\config\application.properties**
- > **bin\config\plixus.json** (for Plixus **engine redundancy**)
- > **bin\config\roomserver.json** (for **CoCon Room Server redundancy**)
- > **frontend/assets/config.json**



The user name of the PC where the CoCon Server is installed, as well as the PC where the redundancy tool is installed, **should not contain spaces!**

BIN\CONFIG\APPLICATION.PROPERTIES

On line 33, add the **path to the Python executable**. E.g.

```
redundancy.plixus.executable=C:\Users\pdm\AppData\Local\Programs\Python\Python37\python.exe
```

See "Configuration for engine redundancy" on page 18 for instructions how to install Python.

BIN\CONFIG\PLIXUS.JSON

When you need engine redundancy, you need to adjust this file.

Fill in the properties of the Plexus engines that need to be monitored and managed. Use the **same IP address** for both engines. Both engines also need to have the **same configuration**. For each engine, define which socket of the GUDE 1141-1 PDU controls which engine: **the IP address and power socket must be correct**.

The example below shows a Plexus setup with two configured engines with the same IP address. The first one is connected to the first port (M0:O1) of the GUDE 1141-1 PDU with IP address 192.168.0.45. The second engine is connected to the second port (M0:O2) of the same GUDE 1141-1 PDU.

```
[
  {
    "name": "Plixus1",
    "ip": "192.168.10.9",
    "port": 8890,
    "requestTimeout": 10,
    "startupTimeout": 120,
    "pollInterval": 5,
    "PowerSwitchConfig": {
      "ip": "192.168.10.10",
      "port": 80,
      "requestTimeout": 10,
      "type": "GUDESwitch",
      "config": "M0:O1"
    }
  },
  {
    "name": "Plixus2",
    "ip": "192.168.10.9",
    "port": 8890,
    "requestTimeout": 10,
    "startupTimeout": 120,
    "pollInterval": 5,
```

```

    "PowerSwitchConfig": {
        "ip": "192.168.10.10",
        "port": 80,
        "requestTimeout": 10,
        "type": "GUDESwitch",
        "config": "M0:O2"
    }
}
]

```

BIN\CONFIG\ROOMSERVER.JSON

If your system requires **Room Server redundancy**, you need to adjust this file.

Change the **IP addresses** to the address of the **PCs running the Cocon Room Server**. The user name must be a user with **Administrator rights** on that PC. The encrypted password can be generated using the **encryptor.bat** in bin\scripts\password\encryptor.bat. The command to get the encrypted password of "test" is as below:

```
.\encryptor.bat test
```

```
Result: EIRE+l0EMnk8N1f1TcL00w==
```

Below you can find an example content of the Room server.json file:

```

{
    "name": "RoomServer1",
    "ip": "192.168.0.244",
    "port": 8890,
    "requestTimeout": 10,
    "startupTimeout": 240,
    "pollInterval": 5,
    "username": "<domain>\\<username>",
    "password": "<encryptedpassword>",
    "useHttps": false,

```

```

        "roomServerAppPath": "C:\\Program Files (x86)\\Televic
Conference\\CoCon\\Server\\CoCoS.exe",
        "roomServerServiceName": "CoConRoomServer"
    },
    {
        "name": "RoomServer2",
        "ip": "192.168.0.246",
        "port": 8890,
        "requestTimeout": 10,
        "startupTimeout": 240,
        "pollInterval": 5,
        "username": "<domain>\\<username>",
        "password": "<encryptedpassword>",
        "useHttps": false,
        "roomServerAppPath": "C:\\Program Files (x86)\\Televic
Conference\\CoCon\\Server\\CoCoS.exe",
        "roomServerServiceName": "CoConRoomServer"
    }
]

```

Make sure to set:

```
useHttps:"false"
```

FRONTEND/ASSETS/CONFIG.JSON

Change the 'roomName' parameter the name of your room.

Logging

There are three different loggings available:

- > Backend service logs: **bin/logs/spring.log**
- > Windows service wrapper logs: **bin/logs/TelevicRedundancy.wrapper.log**

> Powerswitch Manager: **bin/log/PowerSwitchManager.log**

CONFIGURATION FOR ENGINE REDUNDANCY

1. Download and install **Python3.7** from <https://www.python.org/downloads/release/python-374/>
2. After you installed Python, make sure the location of python.exe is set in the application.properties file.

CONFIGURATION FOR ENGINE REDUNDANCY

1. On each PC running Cocon, configure **windows remote**:

a. Install **PsExec**

<https://docs.microsoft.com/en-us/sysinternals/downloads/psexec>

Download PsTools (which is a zip file) and extract psexec and put in e.g. c:\windows\system32

b. In Windows Powershell (Administrator mode), run the following six commands:

```
New-Itemproperty -name LocalAccountTokenFilterPolicy -path HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System -PropertyType DWord -value 1
```

```
Set-NetConnectionProfile -NetworkCategory Private
```

```
winrm quickconfig
```

```
winrm enumerate winrm/config/listener
```

```
netsh advfirewall firewall add rule name="Windows Remote Management (HTTP-In)" dir=in action=allow protocol=TCP localport=5985
```

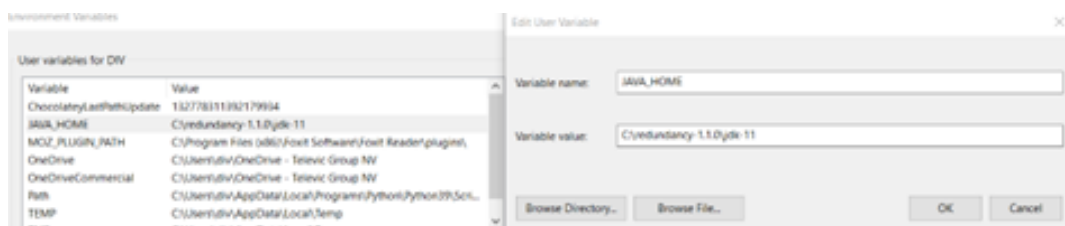
```
winrm set winrm/config/client '@{TrustedHosts="192.168.0.246"}'
```



The IP addresses are the addresses of the PC running the redundancy service and the CoCon server(s).

COMMON CONFIGURATION ELEMENTS FOR ENGINE AND PLEXUS REDUNDANCY

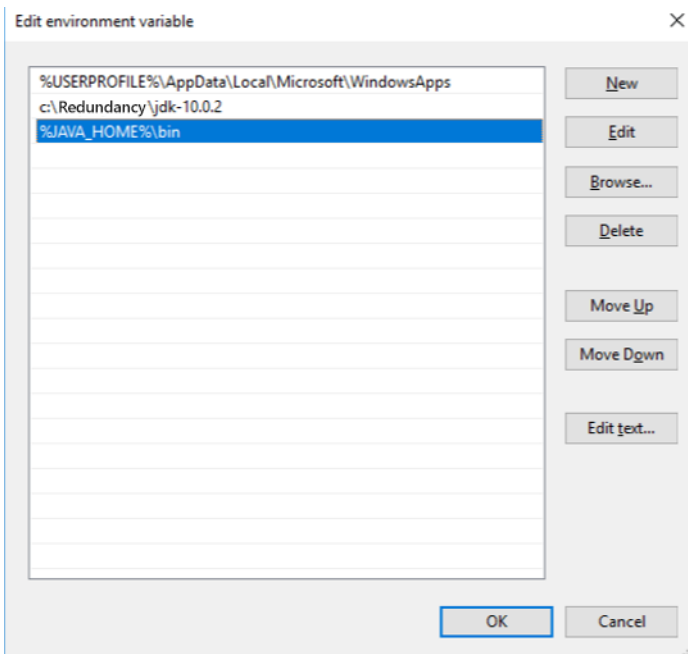
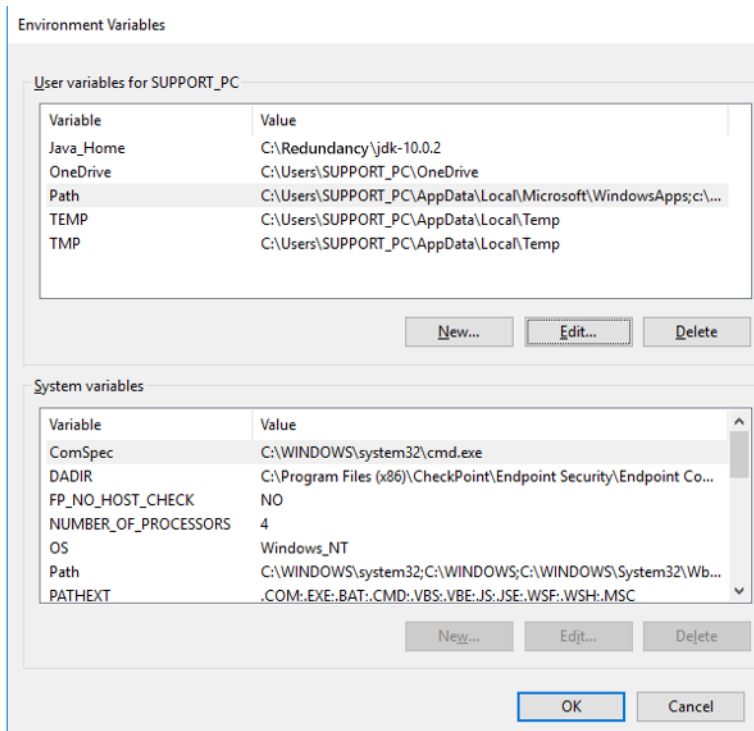
1. Install JDK 10 (java 11 is also supported)
 - a. Download <https://jdk.java.net/10/> (java 11 is also supported)
 - b. Unpack archive. E.g. to C:\Redundancy\jdk-10.0.2
 - c. Add JAVA_HOME environment variable to this path



No spaces are allowed in the path before the \bin directory names !

- d. Add installed jdk and JAVA_Home\Bin to Path

See screenshots below:

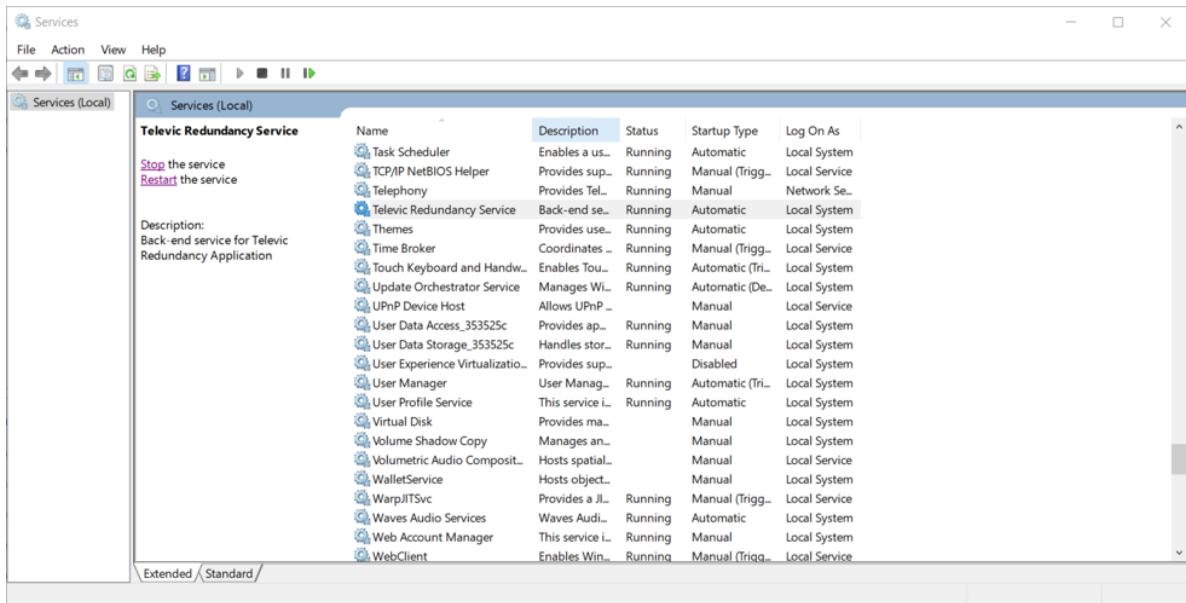


- e. Verify if environment variable is set correctly.
- f. Open CMD **As Administrator**, run “java -version” in cmd to verify installation.

2. **Install Televic Redundancy Application:**

- › Open **CMD** As Administrator.
- › Go to the **bin folder** of the Redundancy application.
- › To **install** windows service: service.bat install.
- › To **remove** windows service: service.bat remove.

3. The Televic Redunancy Application is now installed. You can now manage the service as all other windows services and perform Start/Stop actions.



4. Go to the services window and **restart the Redundancy service**.

5. Change the used port

The default port is 80. If this port is already in use and you need a different one, you need to change this in two different files (use notepad++ to do this):

a. In frontend/assets/config.json

Update 'serverUrl' to use another port (e.g. 8081):

```
{
  "serverUrl": "http://localhost:8081",
  "defaultLanguage": "en",
  "roomName": "Test Room"
}
```

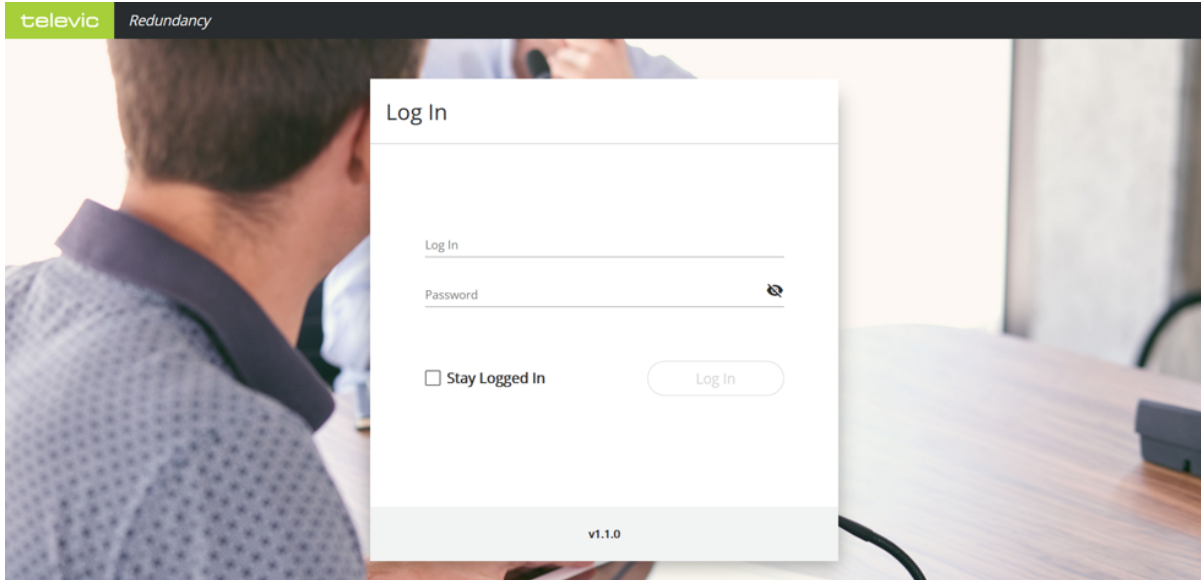
b. in line 37 of ...nginx\conf\nginx.conf:

```
34 # HTTPS server
35 #
36 server {
37     listen 8081;
38     server_name localhost;
39
40     location /auth {
41         alias ../fe-client/;
42     }
43
44     location / {
45         alias ../fe-client/;
46     }
47
48
49     location /static {
50         index index.html;
51     }
```

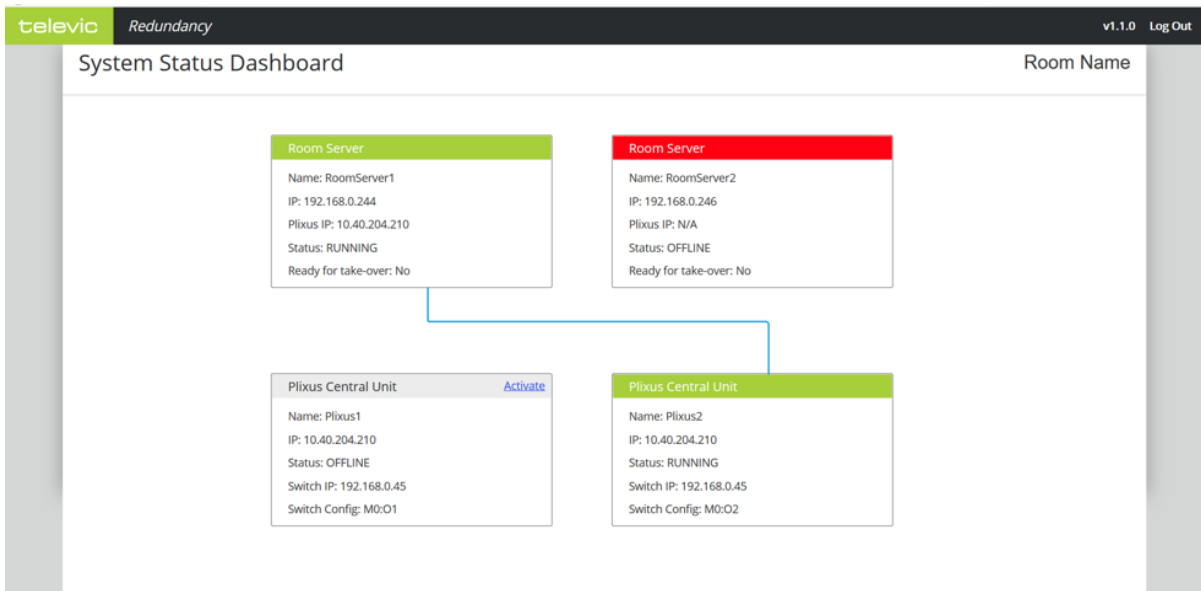
After changes you need to restart the redundancy service.

USE THE REDUNDANCY APPLICATION

1. When the Redundancy service is active, go to <http://localhost> in your browser. This brings you to the Redundancy login page. Log in using the user name *admin* and using the password *admin*.



2. Once logged in, the browser shows the redundancy main screen. It shows **all configured CoCon Room Servers and the Plexus engines**:



3. To activate the other Plexus engine, **click** on the **engine** and **confirm**. As a result Plexus2 is shut down and Plexus1 is activated:

televic Redundancy v1.1.0 Log Out

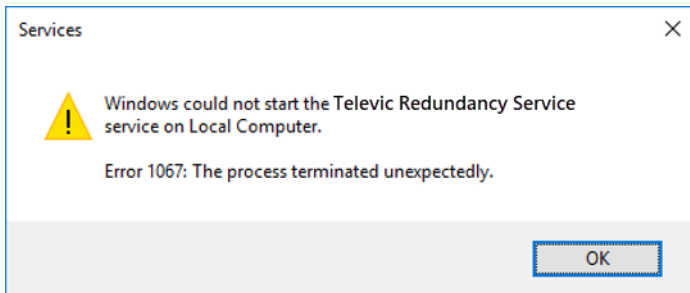
System Status Dashboard Room Name

<p>Room Server</p> <p>Name: RoomServer1 IP: 192.168.0.244 Plixus IP: 10.40.204.210 Status: RUNNING Ready for take-over: No</p>	<p>Room Server</p> <p>Name: RoomServer2 IP: 192.168.0.246 Plixus IP: N/A Status: OFFLINE Ready for take-over: No</p>
<p>Plixus Central Unit</p> <p>Name: Plixus1 IP: 10.40.204.210 Status: RUNNING Switch IP: 192.168.0.45 Switch Config: M0:01</p>	<p>Plixus Central Unit Activate</p> <p>Name: Plixus2 IP: 10.40.204.210 Status: OFFLINE Switch IP: 192.168.0.45 Switch Config: M0:02</p>

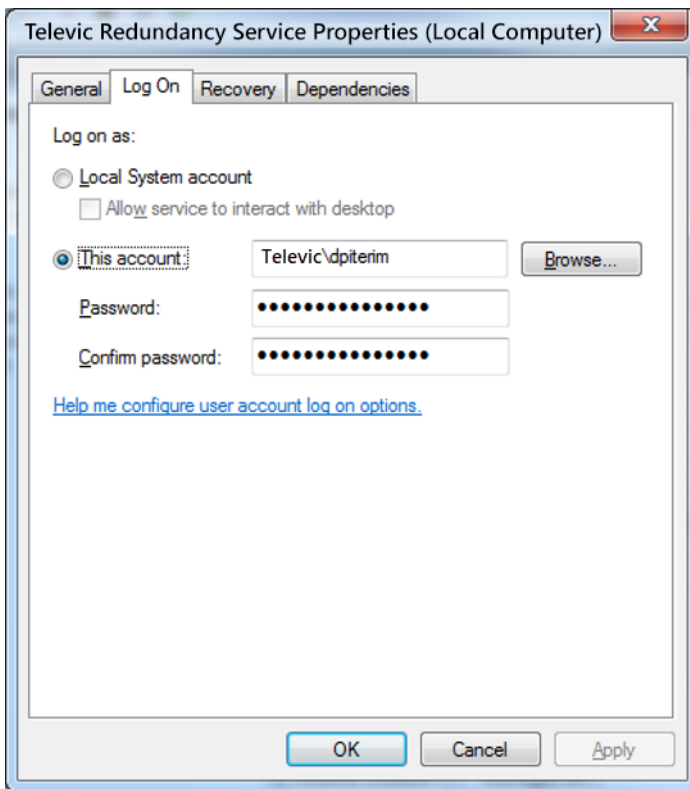
- The redundancy application monitors the Room Servers and the engines. If an error occurs, the other Room Server or engine is **automatically started**.

KNOWN ISSUES

If you encounter the following error during service start-up:



Change **Log On** for the service from **Local System account** to the **specific account**:



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GET IN TOUCH

