

# PLIXUS REDUNDANCY

### **USER & INSTALLATION GUIDE**

VERSION 4.0



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# INTRODUCTION

This chapter gives a short introduction to this manual and a general description of the Plixus Redundancy application and its functionalities.

# **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.
₹Ţ÷	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**

his chapter describes the prerequisites needed to install and use the Plixus. 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  $\ge$  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.

Wh

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 the 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

Configuration mana	gement		
Configurations		0	
Save current configuration		0	
Import configuration			
Export configuration		•	
Download configuration	Download		

- > **Uninstall** the previous Cocon version
- $\,>\,$  Install Cocon for Plixus 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.

# **INSTALLATION PROCESS**

This chapter describes how to install the Plixus Redundancy application. Here you can find all technical details needed to correctly install all required components.

# 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: <u>https://salessupport-</u> 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 Plixus 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 Plixus 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": "M0:01"
          }
  },
  {
          "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": "M0:02"
    }
}
```

]

#### 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"
        }
1
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

This chapter describes how to configure the Plixus Redundancy network using the Plixus Redundancy Core web server. It includes a description of how to connect to the built-in web server together with how to initialize units and configure audio settings to guarantee a successful meeting.

# 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 PLIXUS 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

	ment Vanables			Edit User Variable		×
Userv	ariables for DIV			The ship areas	and where	-
Varia	able	Value	^	vanaole name:	MRACHUME .	_
Che	colateyLastPathUpdate	132778841392179964				
JALA	A, HOME	Clyedundancy-1.1.0 jdk-11				-
MOU	Z.PLUGIN, PATH	Cl/hogram Files Udbil/Foxit Software/Foxit Reader/plugins),		Variable value:	Cyedundancy-110yde-11	_
One	Orive	CIUsersUsiv/OneOnive - Televic Group NV				
One	OriveCommercial	CIUsershidiv/OneOnive - Televic Group NV				
Parts		ClubertuBivApeData/Local/Programs/Python/Python3955ci				
TEM	10	Chilkenhdiv AppData/Local/Temp		Browse Directory.	. Browse File OK Cancel	
		AND 1	¥			

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:

Variable	Value			
Java_Home	C:\Redundancy\jdk-	10.0.2		
OneDrive	C:\Users\SUPPORT_PO	C\OneDrive		
Path	C:\Users\SUPPORT_P	AppData\Loca	\Microsoft\Windo	wsApps;c:\
TEMP	C:\Users\SUPPORT_PO	C\AppData\Local	\Temp	
TMP	C:\Users\SUPPORT_P	C\AppData\Local	\Temp	
		<u>N</u> ew	Edit	<u>D</u> elet
ystem variables				
Variable	Value			
ComSpec	C:\WINDOWS\system	32\cmd.exe		
DADIR	C:\Program Files (x86)	\CheckPoint\En	dpoint Security\En	dpoint Co.
FP_NO_HOST_CHECK	NO			
NUMBER_OF_PROCESSORS	4			
OS	Windows_NT			
Path	C:\WINDOWS\system	32;C:\WINDOWS	C:\WINDOWS\Sys	tem32\Wb
PATHEXT	.COM:.EXE:.BAT:.CMD	:.VBS:.VBE:.JS:.JS	E:.WSF:.WSH:.MSC	
		Ne <u>w</u>	Ed <u>i</u> t	Delet
			01	
			UK	Cance
environment variable				×
%USERPROFILE%\AppData\Lo	cal\Microsoft\Window	/sApps	New	
%USERPROFILE%\AppData\Lo ::\Redundancy\jdk-10.0.2	ocal\Microsoft\Window	rsApps	New	
%USERPROFILE%\AppData\Lc ::\Redundancy\jdk-10.0.2 &JAVA_HOME%\bin	ocal\Microsoft\Window	/sApps	<u>N</u> ew <u>E</u> dit	
&USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 &JAVA_HOME%\bin	ocal\Microsoft\Window	/sApps	<u>N</u> ew	
&USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 &JAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>N</u> ew <u>E</u> dit	
&USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 &JAVA_HOME%\bin	ocal\Microsoft\Window	vsApps	<u>N</u> ew Edit	
%USERPROFILE%\AppData\Lc ::\Redundancy\jdk-10.0.2 KJAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>N</u> ew <u>E</u> dit <u>B</u> rowse <u>D</u> elete	2 2
%USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 %JAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>N</u> ew Edit Browse Delete	2
%USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 &JAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>New</u> Edit <u>B</u> rowse <u>D</u> elete Move <u>J</u>	20vn
%USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 %JAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>E</u> dit <u>B</u> rowse <u>D</u> elete Move J	e 2wn
%USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 %JAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>New</u> <u>Edit</u> <u>B</u> rowse <u>D</u> elete Move <u>J</u> Edit <u>t</u> ex	۵۰۰۰ ۹ ۱۹۹۹ ۱۹۹۹ ۱۹۹۹ ۱۹۹۹ ۱۹۹۹ ۱۹۹۹ ۱۹۹
%USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 %JAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>New</u> Edit Browse Delete Move J Edit tex	e 20vn
%USERPROFILE%\AppData\Lc :\Redundancy\jdk-10.0.2 %JAVA_HOME%\bin	ocal\Microsoft\Window	rsApps	<u>New</u> Edit <u>B</u> rowse <u>D</u> elete Move J Edit tex	e 2wn

>

- 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.

Services							_	$\times$
File Action View	Help							
⇐ ➡ 📷 🖾 Q	😼 🚺 🖬 🕨 🖩 🕪							
Services (Local)	Services (Local)							
	Televic Redundancy Service	Name	Description	Status	Startup Type	Log On As		^
		Task Scheduler	Enables a us	Running	Automatic	Local System		
	Stop the service	CP/IP NetBIOS Helper	Provides sup	Running	Manual (Trigg_	Local Service		
	Restart the service	Calephony Telephony	Provides Tel	Running	Manual	Network Se		
		🙀 Televic Redundancy Service	Back-end se	Running	Automatic	Local System		
	Description:	🍳 Themes	Provides use	Running	Automatic	Local System		
	Back-end service for Televic Redundancy Application	🆏 Time Broker	Coordinates	Running	Manual (Trigg_	Local Service		
	redundancy Application	🎑 Touch Keyboard and Handw	Enables Tou	Running	Automatic (Tri	Local System		
		🍓 Update Orchestrator Service	Manages Wi	Running	Automatic (De	Local System		
		🍓 UPnP Device Host	Allows UPnP		Manual	Local Service		
		🎑 User Data Access_353525c	Provides ap	Running	Manual	Local System		
		🎑 User Data Storage_353525c	Handles stor	Running	Manual	Local System		
		User Experience Virtualizatio	Provides sup		Disabled	Local System		
		🎑 User Manager	User Manag	Running	Automatic (Tri	Local System		
		User Profile Service	This service i	Running	Automatic	Local System		
		Q Virtual Disk	Provides ma		Manual	Local System		
		🍓 Volume Shadow Copy	Manages an		Manual	Local System		- 14
		🍳 Volumetric Audio Composit	Hosts spatial		Manual	Local Service		
		WalletService	Hosts object		Manual	Local System		
		Carl WarpJITSvc	Provides a JI	Running	Manual (Trigg_	Local Service		
		Waves Audio Services	Waves Audi	Running	Automatic	Local System		
		Web Account Manager	This service i	Running	Manual	Local System		
		C WebClient	Enables Win	Running	Manual (Trigg	Local Service		 ×
	Extended / Standard /							

- 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 (
7	listen 8081;
8	server_name localhost;
9	
0	location /auth (
21	alias/fe-client/;
12	)
3	
4	location / (
5	alias/fe-client/;
6	)
17	
48	
49	location /static (
0	index index.html;
51	)

After changes you need to restart the redundancy service.

# **USE THE APPLICATION**

This chapter describes how to use the Plixus Redundancy application.

# USE THE REDUNDANCY APPLICATION

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

televic	Redundancy				
			(Pa)		
		Log In			
	10000				
1		Log In			
1 Same		Password	6		1
802				-	1
199		Stay Logged In	Log In		-
	find the second	v1	.1.0		
1.12					

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

tele	evic	Redundancy			v1.1.0 Log Out
	Syst	tem Status Dashboard			Room Name
		Room Server		Room Server	
		Name: RoomServer1		Name: RoomServer2	
		IP: 192.168.0.244		IP: 192.168.0.246	
		Plixus IP: 10.40.204.210		Plixus IP: N/A	
		Status: RUNNING		Status: OFFLINE	
		Ready for take-over: No		Ready for take-over: No	
		Plixus Central Unit	Activate	Plixus Central Unit	
		Name: Plixus1		Name: Plixus2	
		IP: 10.40.204.210		IP: 10.40.204.210	
		Status: OFFLINE		Status: RUNNING	
		Switch IP: 192.168.0.45		Switch IP: 192.168.0.45	
		Switch Config: M0:O1		Switch Config: M0:O2	
		L			

3. To activate the other Plixus engine, **click** on the **engine** and **confirm**. As a result Plixus2 is shut down and Plixus1 is activated:

telev	ic Redundancy	v1.1.0 Log Out	
	System Status Dashboard	Room Name	Â
	Room Server Name: RoomServer1 IP: 192.168.0.244 Plixus IP: 10.40.204.210 Status: RUNNING Ready for take-over: No	Room Server         Name: RoomServer2         IP: 192.168.0.246         Pixus IP: N/A         Status: OFFLINE         Ready for take-over: No	
	Plixus Central Unit Name: Plixus1 IP: 10.40.204.210 Status: RUNNING Switch IP: 192.168.0.45 Switch Config: M0:01	Plixus Central Unit     Activate       Name: Plixus2     IP: 10.40.204.210       Status: OFFLINE     Switch IP: 192.168.0.45       Switch Config: M0:02     Switch Config: M0:02	

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

# TROUBLESHOOTING

This chapter describes how to handle different known errors.

# **KNOWN ISSUES**

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

Services	×
	Windows could not start the Televic Redundancy Service service on Local Computer.
	Error 1067: The process terminated unexpectedly.
	ОК

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

Televic Redundancy S	ervice Properties (Local C	Computer) 🗾			
General Log On Recov	very Dependencies				
Log on as:					
Local System account     Allow service to interact with desktop					
This account:	Televic\dpiterim	Browse			
Password:	•••••				
<u>C</u> onfirm password:	•••••				
Help me configure user account log on options.					
OK Cancel Apply					



#### **TELEVIC CONFERENCE**

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