COPADATA
do it your way

zenon guida

Everywhere Server by zenon

v.7.11

Indice

1. Benvenuti nell'help COPA-DATA

GUIDA GENERALE

Nel caso in cui non abbiate trovato delle informazioni che cercavate o se avete dei consigli relativi al completamento di questo capitolo dell'help, mandate una Mail a documentation@copadata.com (mailto:documentation@copadata.com).

SUPPORTO ALLA PROGETTAZIONE

Se avete delle domande concernenti progetti concreti, potete rivolgervi per E-Mail al support@copadata.com (mailto:support@copadata.com).

LICENZE E MODULI

Nel caso in cui doveste constatare che avete bisogno di altri moduli o licenze, rivolgetevi ai nostri dipendenti all'indirizzo sales@copadata.com (mailto:sales@copadata.com).

2. Everywhere Server by zenon

The **`Everywhere Server by zenon`** is for visualization of real-time data of a zenon project configuration on smartphones.

Available are:

- Real-time display of values of a zenon project
- Authentication with the zenon user interface

- Selection of the equipment model of the active project
- Individual variables can be activated
- Display of values in lists ...
  a) ... with graphic progress bars
  b) ... with dynamic pointer instruments
  c) ... Alarm message with occurrence time

> **Informazioni sulla licenza**
>
> *The* ***Everywhere Server by zenon*** *must be licensed.*
>
> *As a client, mobile apps for the iPhone and Windows Mobile are used. These apps are available for free in the respective app stores.*

3. Licensing

EVERYWHERE SERVER BY ZENON

Il **everywhere Server** si va a prendere la licenza dalla dal Runtime e non ha bisogno di una licenza propria. Se il Runtime non dispone di una licenza corrispondente, non si potrà usare l´Everywhere Server.

Per questo motivo può succedere che il Runtime funziona, ma l´Everywhere Server non può essere avviato per la mancanza delle necessarie autorizzazioni di licenza. In questo caso usate il tool di registrazione licenza per ottenere la licenza di cui avete bisogno.

4. Technical requirements

To use the server for the use of the Everywhere app, the following requirements must be met:

- On the computer on which the **Everywhere Server by zenon** is running, zenon Runtime must also be running
- This computer/server must be reachable on the internet. It must therefore have a public IP address
  Caution: 192.168.nn.nn is not a public address!
- The corresponding port must be enabled accordingly:
  - HTTPS port: 8050

5. Installation server

The **Everywhere Server by zenon** is automatically installed with each installation of zenon. It runs in the context of zenon Runtime. There is thus no separate program that needs to be started.

The following programs are available for the configuration of the **Everywhere Server** :

- Everywhere.Config.exe (A pagina: 7):
  Configuration dialog of the **Everywhere Server by zenon**
- Everywhere.CertificateCreator.exe (A pagina: 9):
  Is used for the creation of certificates for communication via HTTPS

6. Server startup

The server starts at the same time as COPA-DATA Runtime. The requirement for this is that the checkbox Enable Everywhere Server has been activated via the Everywhere.Config.exe program. It is only started when Runtime is started if this checkbox is active.

Attenzione

If Runtime is closed, **Everywhere Server** is also stopped!

DISPLAY IN THE TASK BAR

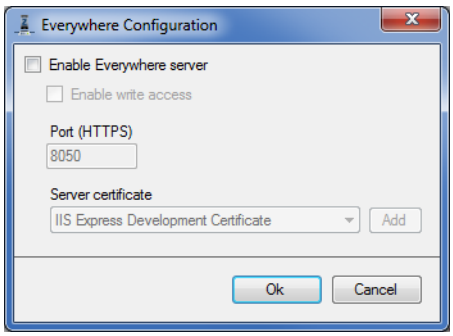
If the server is running, an icon is shown in the task bar.

6.1 Server configuration

The **`Everywhere Server`** is configured using the program `Everywhere.Config.exe`. You can find this program in the folder `C:\Program Files (x86)\Common Files\COPA-DATA\STARTUP`.

> **Informazioni su**
>
> *The program Everywhere.Config.exe is only available in English.*

The configuration dialog starts by double-clicking on the program:



Parameters	Description
Enable Everywhere Server	If the checkbox is active, **Everywhere Server** starts when zenon Runtime is started. Default: Inactive **Note:** If this checkbox is not active, all other settings are also inactive and grayed out.
Enable Everywhere write access	Activates writing of variable values in the Alarm Message List. 0: read access only 1: Writing to variables and acknowledgment of alarms possible Default: 0
HTTPS port:	HTTPS port that is used by the **Everywhere Server** . Default: 8050
Server certificate	Server certificate for HTTPS communication. This can be selected in the drop-down list. This drop-down list contains all available certificates. **Note:** The certificate must contain a private key. Certificates can be created with the Everywhere.CertificateCreator.exe tool.
Add	The Everywhere.CertificateCreator.exe (A pagina: 9) program is opened by clicking on the button. This program is used for the creation of separate server certificates.
OK	Riprende le impostazioni e chiude il dialogo.
Cancel	Annulla tutte le modifiche e chiude il dialogo.

Note: *These configurations are also saved in zenon6.ini.*
You can find further information about these .ini entries in the file structure manual in the Configuration of zenon Everywhere Server via zenon6.ini chapter

> **Attenzione**
>
> *The configuration is also applicable for all zenon installations on one computer.*

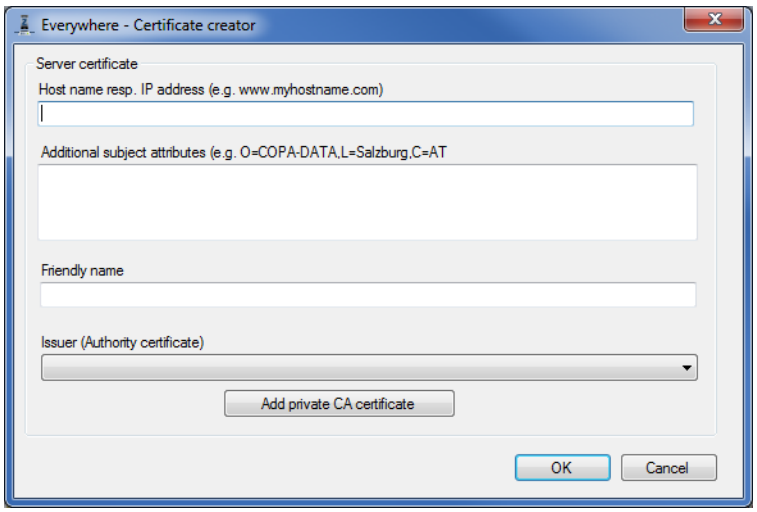
7. Saved communication

Secure data transfer and the identity of the server is maintained with the use of TLS (HTTPS).

7.1 Everywhere - Certificate creator

The **`Everywhere - Certificate creator`** is used to create new server certificates. You can find this program in the folder `C:\Program Files (x86)\Common Files\COPA-DATA\STARTUP`.

To start the program, double-click on `Everywhere.CertificateCreator.exe`. The configuration dialog opens:



Parameters	Description
Server certificate	
Host name resp. IP address (e.g. O=COPA-DATA, L=Salzburg,C=AT)	Name or IP address via which the **Everywhere Server** is accessed by the clients. This is either the IP address or the name of the computer on which the service is running, or the address/name of the firewall/router that connects the computer to the internet
Friendly name	Name for the display (optional)
Issuer (Authority certificate)	Issuer certificate that is to be used to verify the server certificate. The certificates present are shown in the drop-down list.
Add private CA certificate	Opens dialog to configure the root certificate (A pagina: 10).
OK	Riprende le impostazioni e chiude il dialogo.
Cancel	Annulla tutte le modifiche e chiude il dialogo.

Attenzione

Administrator rights are required to execute this program.

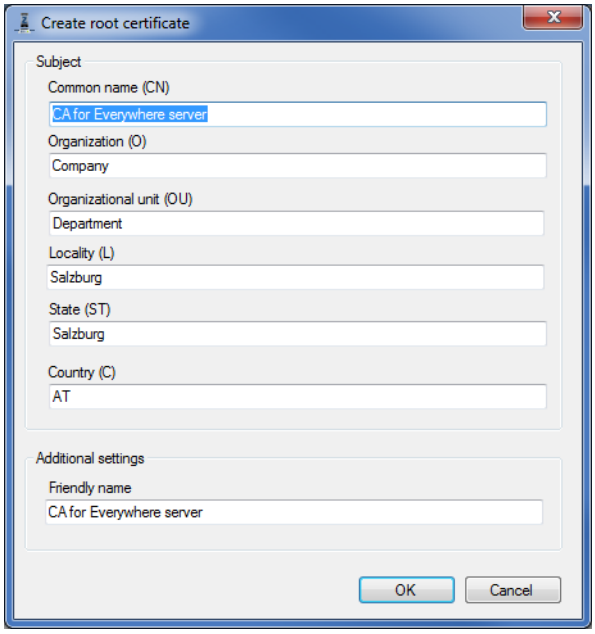
7.2 Create root certificate

A root certificate is used on the mobile device for secure communication between the server and mobile devices (iPhone, Windows-Phone). This ensures that the end device is also actually connected to the given server.

For the creation of a separate root certificate:

- Click, in the Everywhere – Certificate creator (A pagina: 9), the **Add private CA certificate** button.

- The configuration dialog opens:



Parameters	Description
Subject	
Common name (CN)	General name Default: CA for Everywhere Server
Organization (O)	Company name Default: Company
Organizational unit (OU)	Name of the organizational unit (department name) Default: Department
Locality (L)	Locality name Default: Salzburg
State (ST)	State or district name Default: Salzburg
Country (C)	Country name Default: AT
Additional settings	Additional information Default: CA for Everywhere Server
Friendly name	Short name Default: CA for Everywhere Server
OK	Applies all changes and opens the save dialog.
Cancel	Annulla tutte le modifiche e chiude il dialogo.

Informazioni su

This root certificate can also be used by a third-party provider.

7.3 Certificate on the client

The certificate is checked on Windows Phone. If this certificate is not created by a root certificate of a generally-known authority, the certificate used must be installed on the smartphone.

> **Attenzione**
>
> The iPhone does not check the certificate. Any desired certificate is accepted.

INSTALLATION OF A CERTIFICATE ON WINDOWS PHONES

Unverified certificates must be installed on Windows phones in order for them to be accepted.

Carry out the following steps for the installation:

- Put the exported certificate (.cer file) on a web server/FTP server and open it in the Windows Phone using the browser.
- Alternatively, it can also be sent as an email attachment and opened on the phone.

8. CEL entries

When logging into the Everywhere Server, a CEL entry is created if

- The login data sent was checked via Runtime.

  This happens:
  - On the first request of a session
  - Every 5 minutes after that
  - Always before a write request if more than a second has passed since the last check.

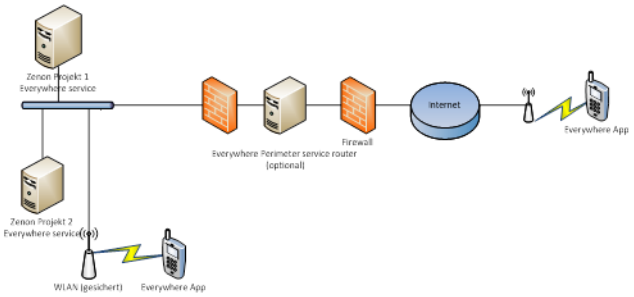
For variables that are not signed in, alarms and CEL entries are supported by an incremental transfer of value changes.

LOG ENTRIES:

Parameters	Description
Level Error	Errors that occurs during the execution of the Everywhere Server. However not an error that has something to do with the execution of client requests.
Level Warning	Errors that occur during the execution of the Everywhere server. However not an error that has something to do with the execution of client requests.
Level Success	Successfully-executed client requests that lead to a change of the internal status of the Everywhere Servers or zenon Runtime.
Level Failed	▶ Error in the execution of client requests ▶ Error in the checking of credentials
Level Msg	Status of the Everywhere Server: ▶ Start/Stop ▶ Successful creation of sessions ▶ Ending of sessions
Level Debug	Incoming and outgoing requests with ▶ SessionID, ▶ URI, ▶ Method and status
Level Deep debug	Like level debug + message body

9. Perimeter Service Router

As an option, a perimeter service router can be used for the Everywhere Server by zenon.



In doing so, the service port of the Everywhere services is either made publicly accessible or all connections from outside are processed via the router.

POSSIBILITIES FOR USE:

In addition to the security aspects, the router also allows connections to be routed via an address and a "well-known port" to different Runtime computers.