

# Perfectly networked

## Ergonomics in the zenon network [1/4]

Optimal networking provides a clear overview, efficiency and speed – a requirement for ergonomic operation of facilities. zenon features comprehensive network properties that can be easily activated with a mouse click. The parameters for server, standby and clients are set with a few mouse clicks; the network is activated with a mouse click. Networks can be created very quickly this way.



### COMMUNICATION IN THE NETWORK AND WORLDWIDE

Automation needs secure provision of data and process control - in the company and throughout the world. zenon is optimally prepared for this. It communicates using various network structures and provides information in the LAN, WAN and on the Internet.

### CONSISTENCY

zenon works consistently in the network with all current Windows and web-based systems. Already in the engineering phase universality proves to be the decisive feature for success: one project for all platforms. Continuity also has many advantages in the networking of facilities.

### CONFIGURATION 'OUT OF THE BOX'

The complete zenon network technology, including redundancy, is fully integrated in zenon. This means that here too, you work with the principle of "setting parameters instead of programming" and set up your network with a few mouse clicks. This technology is a global pioneer and unique on the market.

### REMOTE TRANSPORT

With "zenon Remote Transport", zenon projects can be transported to any PC and any CE terminal with the click of a mouse. Furthermore, the start project can be set remotely and zenon Service Engine can be started or stopped.

In addition, system information can be read, log files requested and the operating system can be restarted. The Remote Transport also supports the online reloading. This way, an updated change in the project is transferred and then accepted online without Service Engine restarting.

### NETWORKING

All zenon stations also act consistently in the network. This way, for example, a CE terminal can be both client and server. All network functions, such as project data synchronization or central data storage, are available with no differences.

### CLIENT AND SERVER: ALWAYS UP TO DATE

In the zenon network, data is always up-to-date and reliable across all modules. If the project is changed on the server, the client automatically collects all current data online without having to end the Service Engine. This also works in conjunction with CE terminals, PDAs or on the Web.

### NETWORK MONITORING

zenon offers complete system monitoring in the network too, so that all network states can be reacted to quickly and correctly. On board, you can find the zenon internal system messages that are also logged in the CEL fully automatically.

### SECURITY

zenon provides comprehensive protection from unwanted data loss and from unauthorized access. With the integrated security options, you can integrate zenon into your existing security set-up without additional costs. Security in zenon has been at the forefront of design for a long time, with continuing internal and external research projects and in-house development at the COPA-DATA headquarters.

### FAST FACTS

- ▶ Central data administration
- ▶ Simple project maintenance and support
- ▶ Online reloading
- ▶ Seamless Redundancy
- ▶ Spontaneous data traffic / a low amount of data
- ▶ Integrated vertically and horizontally

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## Overview

<b>Network 'out of the box'</b>	<p>Simple configuration with a mouse click:</p> <ul style="list-style-type: none"><li>▶ Platform-independent without conversion</li><li>▶ Automatic resolution adaptation for different monitor resolutions with the display quality remaining the same</li><li>▶ Simple change of the hardware platform without extra adaptations or reconfiguration</li><li>▶ Can be networked consistently</li><li>▶ Hot reload (reloading of Service Engine without restarting)</li></ul>
<b>Network implementation</b>	<p>The whole network logic is pre-integrated in zenon:</p> <ul style="list-style-type: none"><li>▶ Data synchronization</li><li>▶ Redundancy</li><li>▶ Multiple-project administration</li><li>▶ Horizontal transparency</li><li>▶ Logging</li><li>▶ and much more</li></ul>
<b>Integration</b>	<p>All zenon modules are integrated into the network solution.</p>
<b>Data traffic</b>	<p>Saving of network resources through spontaneous data traffic between server and client. The connection also works with a low bandwidth, such as when a mobile phone is used as a modem.</p>
<b>Network topologies</b>	<p>Different topologies possible:</p> <ul style="list-style-type: none"><li>▶ Client-server network: Here, one and the same project runs on the server and on all clients.</li><li>▶ Multi-server network: A client accesses different servers at the same time and can therefore visualize the data from different projects.</li><li>▶ Multi-client station</li><li>▶ Circular redundancy</li></ul>
<b>Security in the network</b>	<ul style="list-style-type: none"><li>▶ Client authentication</li><li>▶ Encryption and compression</li><li>▶ Integrated user administration</li><li>▶ zenon redundancy</li><li>▶ Individually-configurable user authorizations</li><li>▶ Complete logging in the network</li></ul>
<b>Monitoring in the network</b>	<ul style="list-style-type: none"><li>▶ Status information in the network</li><li>▶ Constant monitoring of which components are online/offline</li></ul>
<b>IPv6</b>	<p>Integrated</p>