### **CYBERSECURITY**





ZIV focuses on cybersecurity throughout the entire life cycle of its products from design, implementation, testing and manufacturing through to deployment, operation, maintenance and disposal









#### Role Role Based Access Control (RBAC)

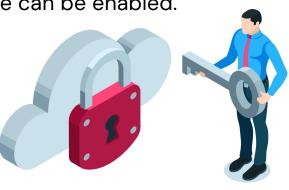
Up to **20 roles** can be configured in the devices, each containing one or more permissions (**up to 8**) to comply with least privilege and segregation of duty policies.



## Local and Centralised User Authentication

Users can be authenticated against LDAP or RADIUS centralised repositories, or against local user databases in the device, where up to **20 local users** can be defined applying strong password policies.

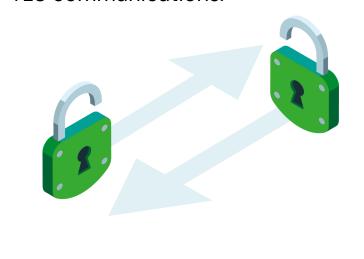
Return to local authentication when centralised repositories are not available can be enabled.



### Secure Communications

Secure versions of the protocols are available in the devices (SSH, SFTP, HTTPS, PROCOME over TLSv1.2, LDAPS / StartTLS).

Mutual authentication is available in TLS communications.





Physical Ports and Services can be configured, so that unused ports and services can be disabled.

# Credential Management (PKI)

Each device has a unique X.509 identity, signed by ZIV's Certificate Authority. **Trusted Certificate** Authorities can be configured (CAs). Revocation (based on CRL and/or OCSP) and expiration of remote certificates are checked during TLS communications and firmware upgrade processes.



# Firmware Security

The firmware of the devices is digitally encrypted and signed by **ZIV** based on X.509 certificates using CMS/PKCS#7 DER format, so that only authorised and valid firmware can be uploaded to the devices.



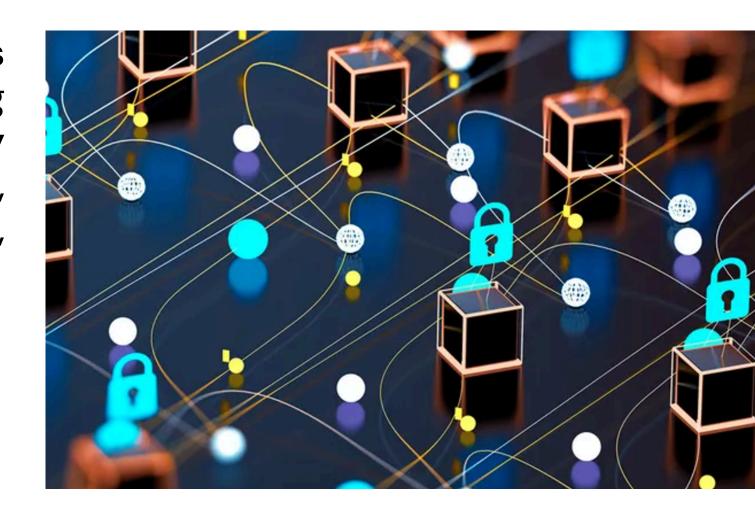
# Logging and Auditing

A wide range of cybersecurity events are generated, stored, and sent to centralised servers (up to 3) using Syslog, complying with RFC 5424, using a format largely based on IEC 62351-14.



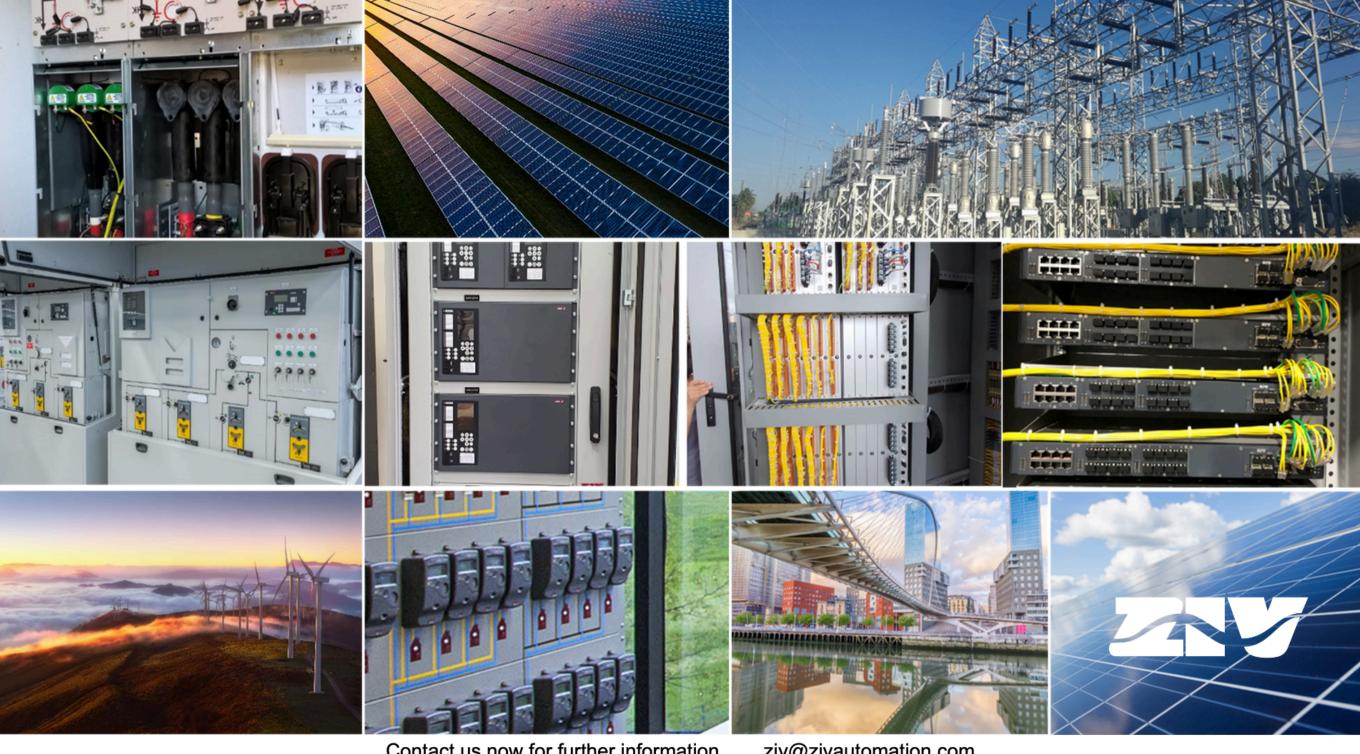


ZIV cybersecurity solution has been implemented considering the leading cybersecurity standards and guidelines, such as IEC 62443, IEC 62351, IEEE 1686 and NERC CIP





#### CYBERSECURITY Applies to all of the company procedures & products



Contact us now for further information

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