SYSLOG

To keep logs of various events happened on the device, messages can be displayed in CLI, saved in device's RAM or sent to an external syslog server.
Message format: seq:time stamp: %facility – severity – MNEMONIC:description.
Seq → a sequence number indicating the order/sequence of messages, may not be displayed depending on config.
Timestamp: indicating the time the message was generated, may not be displayed depending on config.
Facility: a value indicates which process on the device generated the message.
Severity: a number indicating the severity of logged event.
MNEMONIC: a short code for the message indicating what happened.
Description: detailed information about the event being reported.
There arre 8 severity levels: 0→ Emergency: system is unusable. 1→ Alert: actions must be taken immediately.
2- Critical: Critical conditions. 3- Error: Error conditions. 4- Warning: Warning conditions.
5- Notice: Normal but significant conditions. 6- Informational: informational messages. 7- Debugging: Debug-level messages.

Syslog messages can be displayed in: 1- CLI when connected to the device via console port.
2- VTY lines: displayed in CLI connected to device cia SSH/Telnet (disabled by default).
3- Buffer: by default all syslog messages are displayed use **Command: show logging** to display messages in the buffer.
4- External Server: the device can be configured to send syslog messages to an external server via UDP port 514.
Command: logging console <level num |name>. For console line logging.
Command: logging monitor <level num|namr> for vty lines logging. Must be used with **command: terminal monitor** in priv mode every time a device is connected via telnet or SSH.
Command: logging buffered <size in bytes optional> **< level num/name>** for buffer logging.
Command: logging <host optional> **<ip>** for external server logging.
Command: logging trap <level num/name> for setting logging level for external server.
Command: **line console 0** followed by **logging synchronous** will cause a new line to be printed if interrupted by a message.
Command: service sequence-numbers to enable sequence numbers.
Command: service timestamps log datetime/uploadtime to enable timestamps.
Datetime: displays when the event occurred. Uptime:displays how long the device had been running when the event occurred.