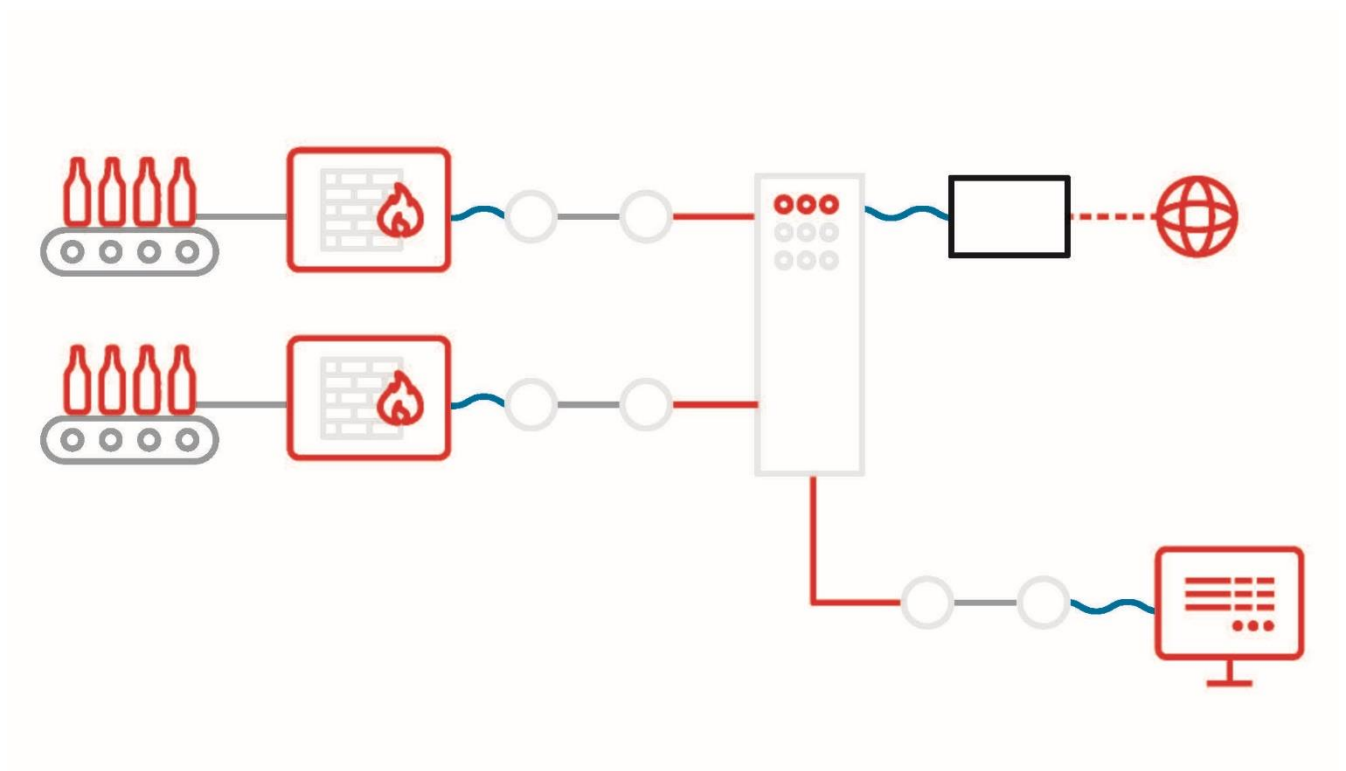


Technical News Bulletin

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Lineserver 3

- Production Data Interface for all connected machines
- Job offline preparation
- Production supervision
- Additional backup for all connected machines

Introduction

The Lineserver 3 provides centralized functions for all forming lines that are controlled by a FlexIS 2 or 3 control system. The forming lines need to be connected to the Lineserver through the FlexIS plant network, which can be specified in the package. It is however also possible to integrate the Lineserver 3 computer into an existing Lineserver/FlexIS plant network.

System Description

The FlexIS Lineserver 3 provides centralized functions for FlexIS 2 and 3 forming lines that are connected to the Lineserver Ethernet network. FlexIS 1 lines are not supported. The complete Lineserver package consists of:

- Preconfigured components for the FlexIS plant network (Ethernet communication network)
- Remote access (VPN firewall) for Lineserver and all connected forming lines
- Computer with Lineserver software (Production Data Interface, FlexIS visualization client) and accessories (monitor, mouse and keyboard, power unit, cables)

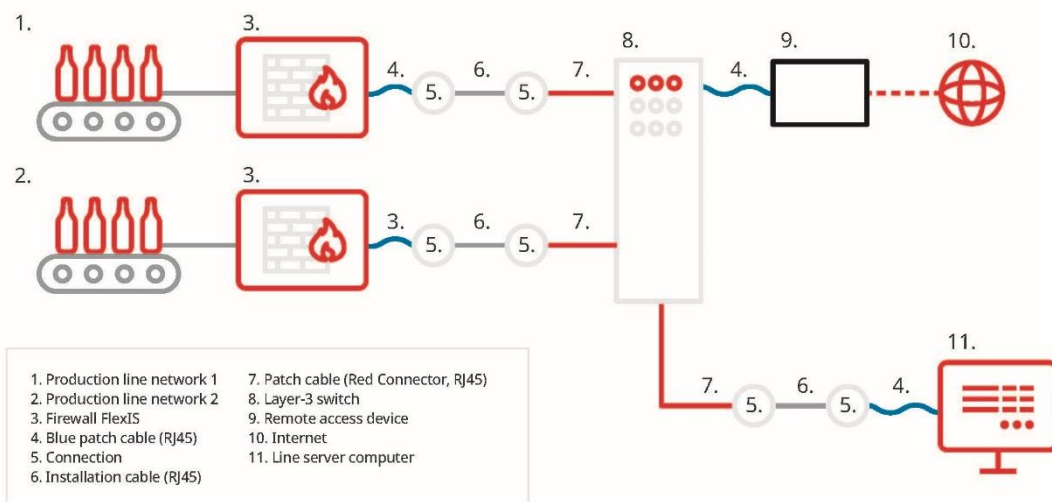


Figure: Standard Lineserver installation.

Provided Functions

- Backup collection of the automatically produced backups of all connected UC 2s (additional centralized storage on the Lineserver computer).
- Job preparation: Prepare a job offline on a specific forming line using a visualization client on the Lineserver.
- Production supervision: Monitor settings and alarms of a specific forming line using a visualization client on the Lineserver.
- Production Data Interface: It is possible to get numerous production data counters of all connected forming lines (event settings, alarms, logger and status information are however not provided). The xml-interface is very similar to the old data interface of the FlexIS 1 Lineserver. This means that an already present data collector for FlexIS 1 can be further used with only minor adaptations.

Planned Functions

- **FlexIS Data Interface:** It is planned to introduce a REST API providing not only production data but also settings of the connected IS machines.
- **ADI (Advanced Data Interface):** In a further step towards E2E data collection, the Lineserver 3 will run the Advanced Data Interface. The ADI enables the collection of correlated forming and E2E data.

Order Information

There exists a questionnaire for ordering the Lineserver and all related options:

Questionnaire_LS3_RevB.docx

Availability / Application

The Lineserver 3 is available for FlexIS 2 or 3 forming lines.

Installation Requirements

Lineserver network

Layer 3 switch:	Needs to be installed in a 19 inch rack 1H (current model Cisco Catalyst 3650)
Dimensions	44mm x 445mm x 448mm
Power infeed (autorange)	100VAC – 240VAC, 50Hz – 60Hz
Power consumption (max.)	57.1W
Operating temperature	-5°C – 45°C
Relative humidity	5% – 96% (noncondensing)
Storage temperature	-40°C – 70°C
Connections to lines:	Copper Ethernet min. Cat. 6 < 100m

Central remote access device

Phoenix Contact mGuard delta	Can be placed on the layer 3 switch
Dimensions	50mm x 130mm x 114mm
Power infeed (autorange)	90VAC – 264VAC, 50Hz – 60Hz
Current consumption (max.)	40mA
Operating temperature	5°C – 40°C
Relative humidity	5% – 95% (noncondensing)
Storage temperature	-20°C – 70°C

Lineserver computer

UC 2 computer	Typically placed in an office room or an operator stand Same requirements as for a UC 2 computer (601-11018)
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Features

Benefits

Job preparation	Prepare jobs and articles away from the machine for any connected forming line
Production supervision	Follow a critical production from the office with live data and alarms
Production Data Interface	Get production counters from each connected forming line for a production data collection system
Additional backup	Get an additional copy of the forming line backups stored on the Lineserver – second backup at a second storage place
Central remote access	FlexIS Remote Access to all connected forming lines and the Lineserver itself is provided via a single connection point