

Maritime Ports
CASE STUDY

A national government owned seaport implements OTOPIQ to secure the PLCs on its port cranes.

Device-level access control, a full audit trail and versioned configuration backup on each crane, connected or offline.

PROFILE
Government owned seaport, critical national infrastructure

REGION	ASSETS IN SCOPE	CONTROLLERS	ENGINEERING SOFTWARE
Eastern Mediterranean	**Port cranes with on board PLCs and EWS**	**Siemens S7-300 Safety (CPU 319F-3 PN/DP) and ABB**	**SIMATIC Manager Step 7 v5.6 SP2, S7 Distributed Safety, SMOTION**

The port is one of its country's main commercial gateways, handling about 40% of national container traffic. Its terminal operations run on heavy cranes, each carrying its own PLCs, from Siemens and ABB, and the engineering workstation (EWS) used to program them.

The Challenge

The PLCs and their workstation sit on the crane itself. Crane systems are sometimes connected and sometimes offline, and contractors program and maintain the controllers on site.

01

Offline operation

Network based monitoring has no view of a crane controller once it goes offline.

02

Controllers on the crane

The workstations that can change the PLCs sit on the cranes, away from central oversight.

03

Third party access

No reliable record of who accessed which PLC, when, and what they changed.

04

Configuration incidents

Bad configurations disrupted operations, like dropped containers, with no version history.

The Solution

OTOPIQ runs on the engineering workstation on each crane, where the PLCs are programmed, and stays in place whether the crane is connected or offline. It covers the port's Siemens controllers today, with support for its ABB PLCs being added.

Runs on the crane

Installed on the crane's EWS. No dependency on connectivity.

Access by role

Only authorized users can program or change a PLC.

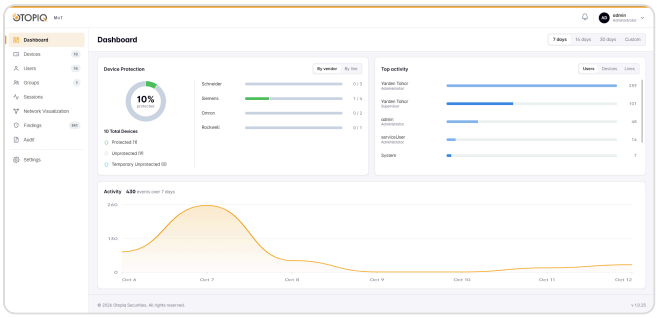
Sessions logged

Who accessed which PLC, when, and what changed.

Versioned backup

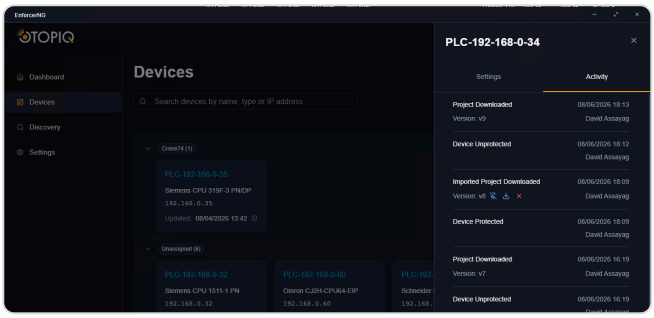
Every change saved as a version, with rollback to a known good one.

DASHBOARD



Protection status, users and activity in one view.

BACKUPS



Every change saved as a version on the workstation, ready to download, pin or restore.

Results and Benefits

- Control over who changes each crane PLC, connected or offline
- Contractor work traceable to a named user
- A known good version to return to after a bad change
- A clear record of which configuration was running when an incident occurred
- No hardware changes to the cranes

> When something goes wrong on a crane, the first question is always what changed. Now we have the answer, even if the crane was offline when it happened.

CISO, GOVERNMENT OWNED SEAPORT

For more information:

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