

Upgrading TPS/LCN to Experion



With minimal risk and effort, a TPS system can be upgraded with Experion Stations and controllers. This provides the benefits of an upgraded system while protecting your investment in existing equipment and the associated configuration and graphics.

Benefits of Upgrading to Experion

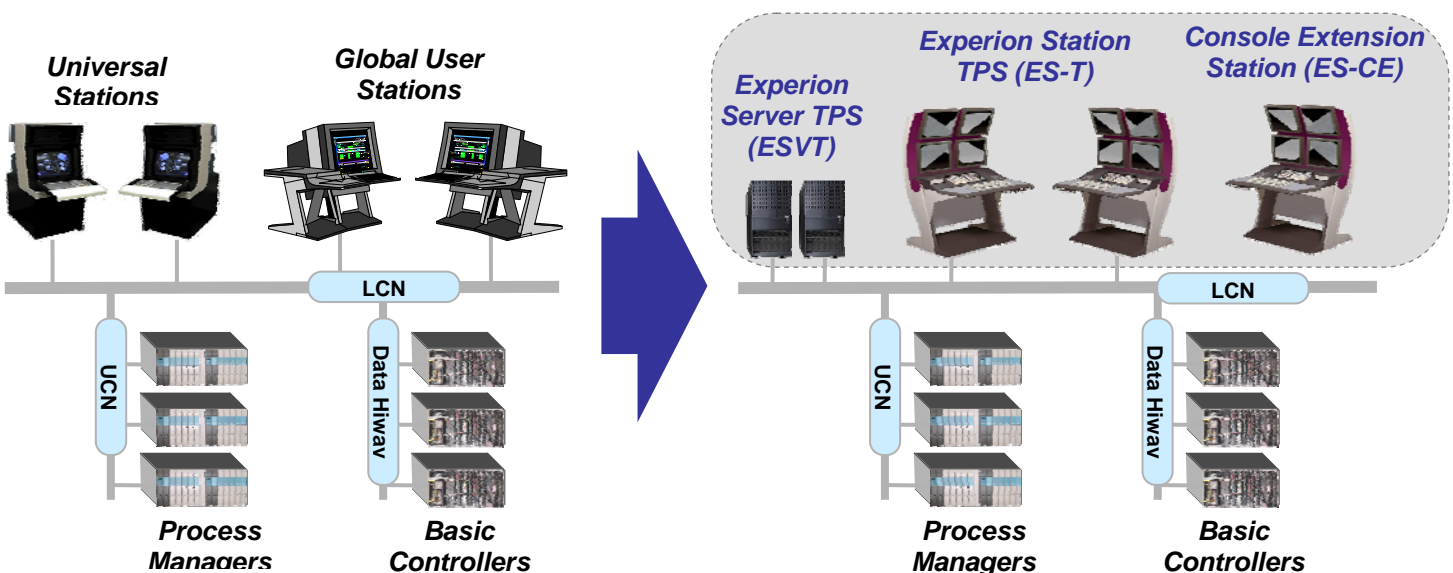
Upgrading a TPS system with Experion Stations and Server provides the following benefits:

- Improved operator effectiveness and Abnormal Situation Management[®] with a common platform for integrating the Experion[®] Process Knowledge System (PKS), TDC 3000[®] and non-Honeywell control devices, offering integrated alarming and trending
- Advanced applications for integrated digital video and secure access to graphics on the business network
- Optimized graphics built with HMIWeb technology to minimize operator load and reduce mistakes according to Abnormal Situation Management Consortium guidelines

- Support for extended system topologies created by connecting to other Experion Servers with Distributed System Architecture (DSA) technology

These benefits are all available with existing LCN controllers. Adding Experion C200 or C300 controllers and ACE nodes provides additional benefits:

- Building and online monitoring of control strategies with easy and intuitive tools
- Continuous logic, sequential and model-based control in a single engineering and runtime environment
- Integration of smart field devices including HART and FOUNDATION Fieldbus
- Low installation cost through reduced footprint and simplified wiring through a unique vertical design



Upgrade with Experion Stations

Automatic Configuration

Configuring an LCN-connected node is simple and intuitive. Initially, LCN units are mapped to Experion assets. Once this is complete, LCN points are discovered automatically in Experion. Any future changes are synchronized automatically. No initial configuration or ongoing maintenance of points is required.

History configuration is copied from LCN to Experion in one simple step via an automated tool.

Experion Stations

Experion Stations TPS (ES-T) are fully functional Experion Console Stations which have a direct connection to the LCN. ES-Ts are the primary interface to TPS data on an upgraded system.

Console Extension Stations connect to ES-Ts for data and alarms. Up to three console extensions stations can be connected to each ES-T. They are optionally available for locations where it is not possible to connect directly to the LCN or where large numbers of screens and keyboards are required.

Experion Stations install in the Icon Series Console furniture and support the SafeView® multi-window management application. Integrated and operator entry keyboards can be connected.

Consistent Alarms Behavior

The view and control of alarms on an upgraded system is fully consistent. For assigned LCN units, the alarm summaries on all

Experion Station TPS, GUS and Universal Stations are identical. Alarms can be silenced and acknowledged from any of these stations and all other users see and respond to this.

Graphics Support

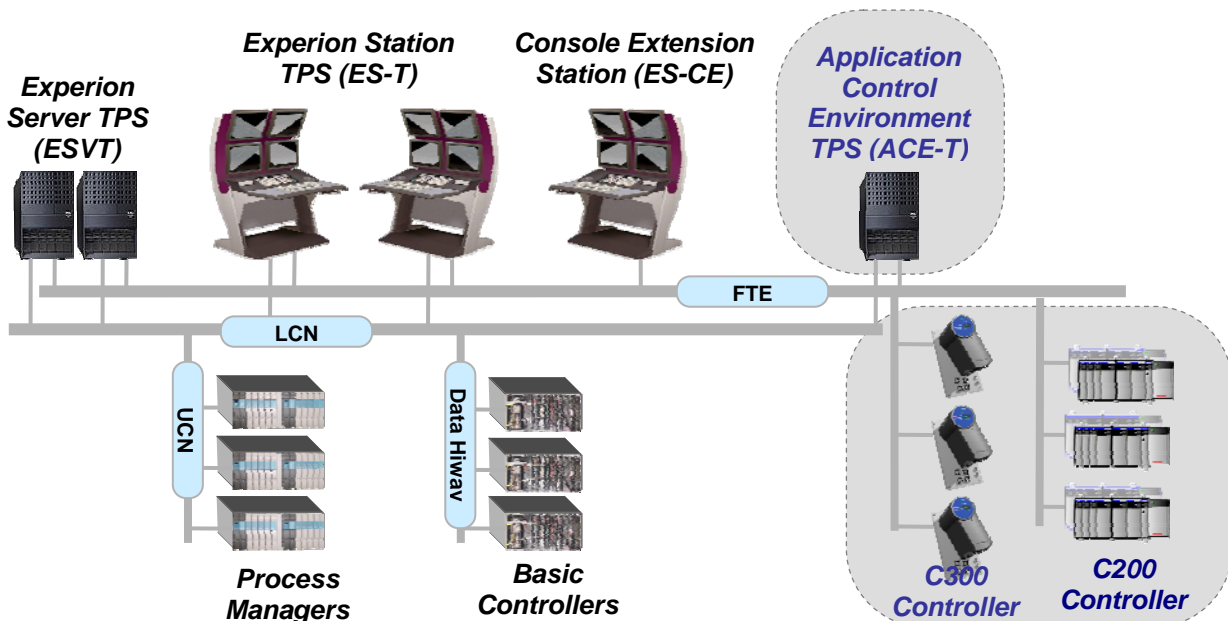
The significant investment in existing Universal Station and GUS graphics is fully protected. These graphics can be built, modified and displayed directly on Experion Station TPS.

This allows you to focus on improving operations using Experion HMIWeb graphics. HMIWeb technology graphics fully support points from LCN controllers. Solution pack shapes, conforming to the Abnormal Situation Management Consortium guidelines, are available for both LCN and Experion points and controllers. Points and controllers from both LCN and Experion can be mixed freely in any HMIWeb graphics.

A phased graphics migration and long-term coexistence are possible. Cross-screen invocation between HMIWeb, GUS and Universal Station graphics is supported.

Experion Server TPS (ESVT)

The optionally redundant Experion Server TPS (ESVT) has direct connections to the LCN. A server is required on every LCN to support Experion Stations and controllers. One redundant ESVT per LCN is supported. It is a fully functional Experion Server in addition to having an LCN connection



Expand with Experion Controllers and ACE

An Experion Server TPS can connect into extended Experion topologies using DSA. Data, alarms and history from connected Experion Servers and ESVTs is available for viewing without the need for database building or maintenance.

Expand with Experion Controllers

It is very simple to expand or upgrade by adding Experion C200 and C300 controllers. These controllers connect through Fault Tolerant Ethernet. The required infrastructure to support Experion controller is included on all ESVT and ES-Ts.

Application Control Environment TPS (ACE-T) Node

The ACE-T supports control strategies built in the same Control Execution Environment (CEE) as the C200 and C300 controllers. These are built and monitored with the same easy and intuitive tool. ACE supports Control Application Block (CAB) visual basic applications. UCNOUT and HIWAYOUT connection blocks are supported for creating cascade connections to UCN and Hiway-based controllers, including initialization and anti-windup. A single control strategy can include controllers from Experion, UCN and Data Hiway.

The ACE-T supports a minimal risk, cost and impact upgrade of supervisory control applications. Existing AM CL and algo-based strategies interacting with UCN and Data Hiway controllers can be run directly in the ACE-T without any modification. These can be upgraded at a pace that suits the user to the CEE.

Upgrade at Your Own Pace

Upgrades can be done at a pace and with a level of investment that suits the user. Experion Stations are fully supported alongside existing Universal Stations and GUS. Experion controllers can be added without any impact to existing LCN controllers.

A phased upgrade of Data Hiway control equipment to Experion controllers is supported. Experion and LCN controllers can be controlled from a single ES-T. The treatment of Experion and LCN on the Experion Station TPS alarm summary, event summary and trends is identical. It is transparent to an operator what control equipment is being used.

Upgrade Support

Honeywell offers kits that provide cost-effective ways to upgrade your LCN or TPS system to Experion. These include:

- Universal Station/GUS to Experion Station TPS
- Application Module to ESVT

Services are also available to assist with the upgrade of US or GUS graphics to HMIWeb technology and to move control strategies from the Application Module to ACE-T.

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For More Information

To learn more about Experion upgrades, visit www.honeywell.com/ps or contact your Honeywell account manager.

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