

CENTUM **Evolution Through Migration**

Migrating to a Production Control System for 21st-Century Networks

Migration to a state-of-the-art production control system while maintaining legacy facilities lets you integrate your business domain (corporate decisions) and control domain (production) through networking.

As consumer needs become more diverse and competition among companies intensifies, the market environment is undergoing enormous changes. For example, e-commerce, supply chain management, and increased information technology spending are changing the way business is done. Executives are now faced with the question of how changes in the market can be rapidly reflected in the production environment. Integration of business decisions with production is now an important issue for the production environment. It is critical that companies implement flexible production control systems capable of accelerated production that allow production volumes and the products made to be easily changed according to market needs.

With CENTUM, "Evolution Through Migration" means using the resources of your legacy CENTUM system while migrating to a production control system compatible with 21st-century networks. This system enables stable production under normal conditions, as well as accelerated production when needed.

- **Integration of business domain and control domain**

High-level information systems such as enterprise resource planning (ERP) and manufacturing execution system (MES) are connected with the DCS through an information "highway" (PIMS; Exaquantum) based on OLE for Process Control (OPC). This connection enables migration to a production control system capable of rapidly responding to market conditions.

- **Better efficiency for unusual operations**

Seamless connection with advanced operations assistance (AOA) enables better efficiency for operations such as plant startup, shutdown, and grade changes. Functions integrated with the operations monitoring screen reduce the workload for operators while allowing the know-how of veteran operators to be standardized and integrated for significant efficiency gains.

- **Getting the most out of production facilities**

Connection with advanced process control (APC) functions enables process control optimization and further improvements in production efficiency.

Networked Production Control System

Networked production control system integrated in real time with market information and corporate information

Flexibility for accelerated production

Legacy production control system
Optimizing plant operations with a high-precision, high-reliability control system.
Stable production

Market requirements

- Growing diversity of needs
- Accelerating pace of market changes
- Intensifying competition among companies
- Better production efficiency
- Globalization of production



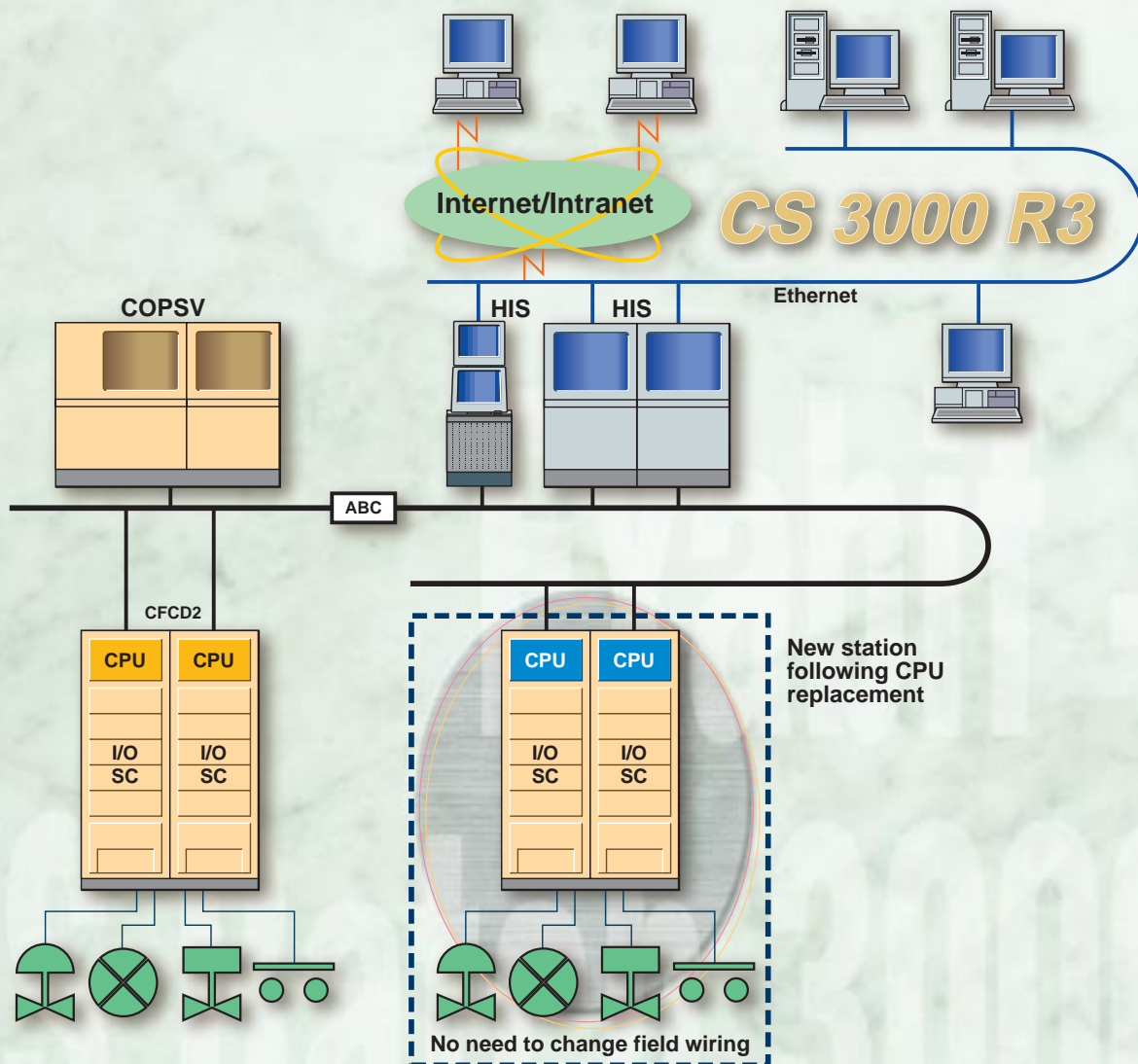
Step 2: Upgrade FCS CPU

Enabling networked control functions

This step enables networked control functions. In addition to increasing CPU power and application capacity, this step allows you to introduce the latest networked control functions.

Benefits

- Significant increase in capacity for continuous control and sequence control applications.
- Integration of multiple control stations in a single new station.
- Existing I/O cards and cabinets can still be used, so costs are low and lead time is reduced.



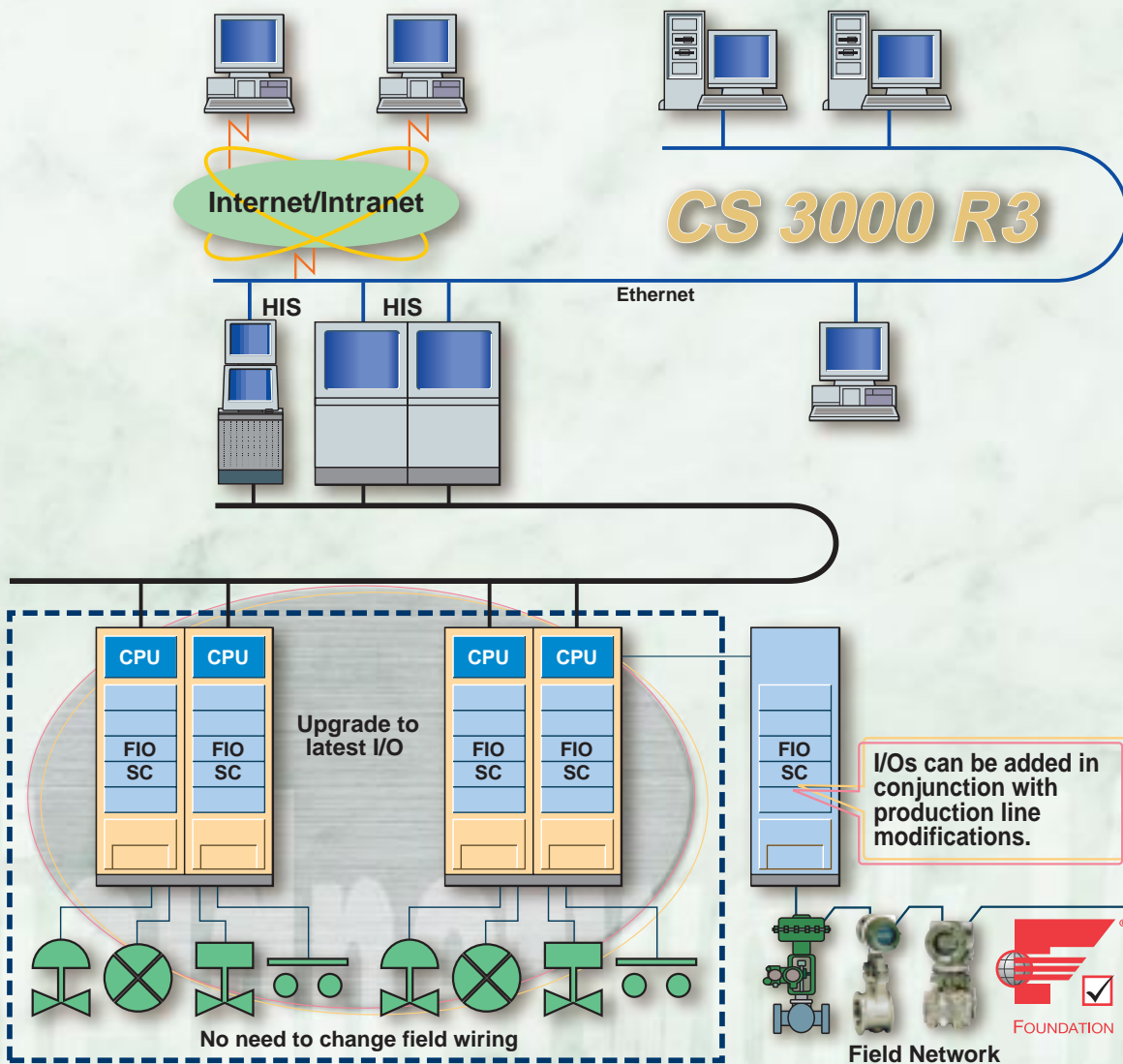
Step 3: Upgrade FCS I/O

Enabling all new CS 3000 R3 functions

This step seamlessly upgrades the existing I/O using a new Fieldnetwork I/O (FIO) which is function-interchangeable, interface-interchangeable, and nest structure-interchangeable. Support for future versions of Fieldbus can also be provided.

Benefits

- A remote node can be installed near field equipment.
- Better noise resistance (noise immunity EN50082-2; CE mark qualified).
- Better environmental durability (wider range of operating temperatures; resistant to corrosive gases in G3 environments).
- Full support for FOUNDATION Fieldbus.



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