

Enhanced Fab Performance through Interface “A”

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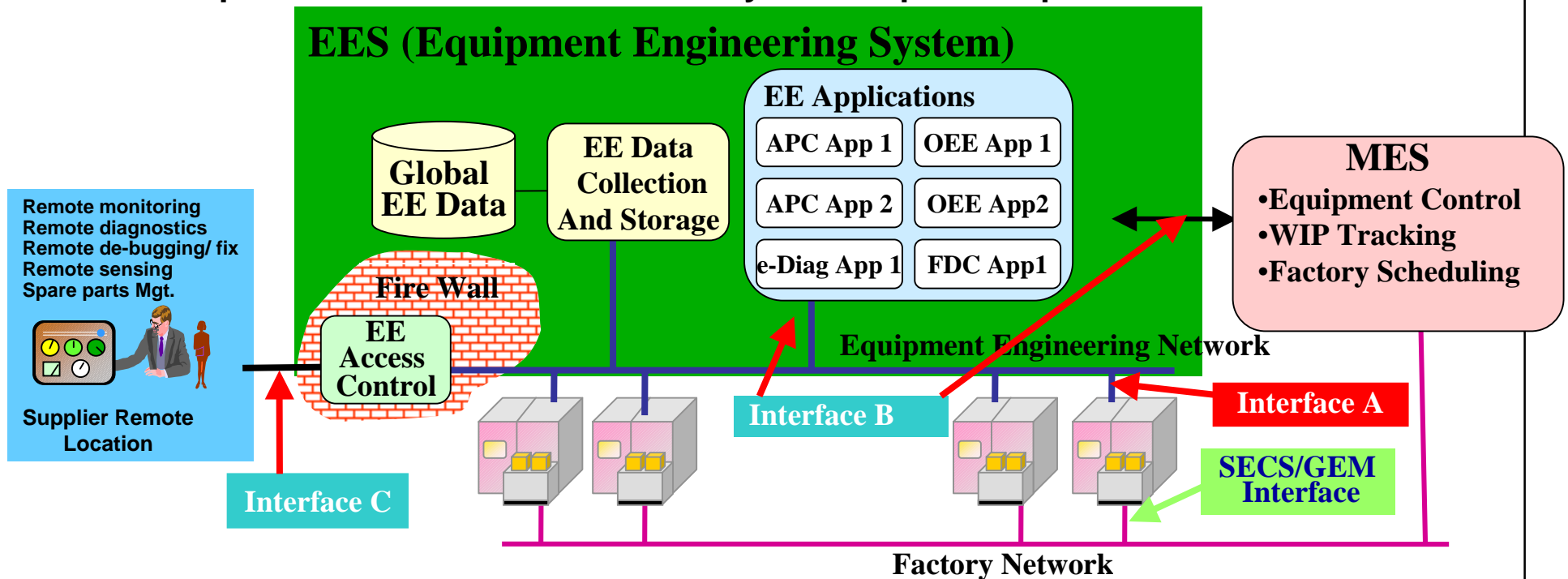
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Agenda

- Overview of the Interface layers
- IBM's **e**-Manufacturing Direction
- Overview of the IBM Architecture
- Requirements for Interface “A”
- Summary

e-Manufacturing Interfaces

- Equipment Interface (Interface A)
provides tool data with a specified protocol in a secure manner
- EEC Application Interfaces (Interface B)
delivers factory data between applications with a specified protocol in an open, secure manner
- External Access Interface (Interface C)
provides data outside the factory with a specified protocol in a secure manner



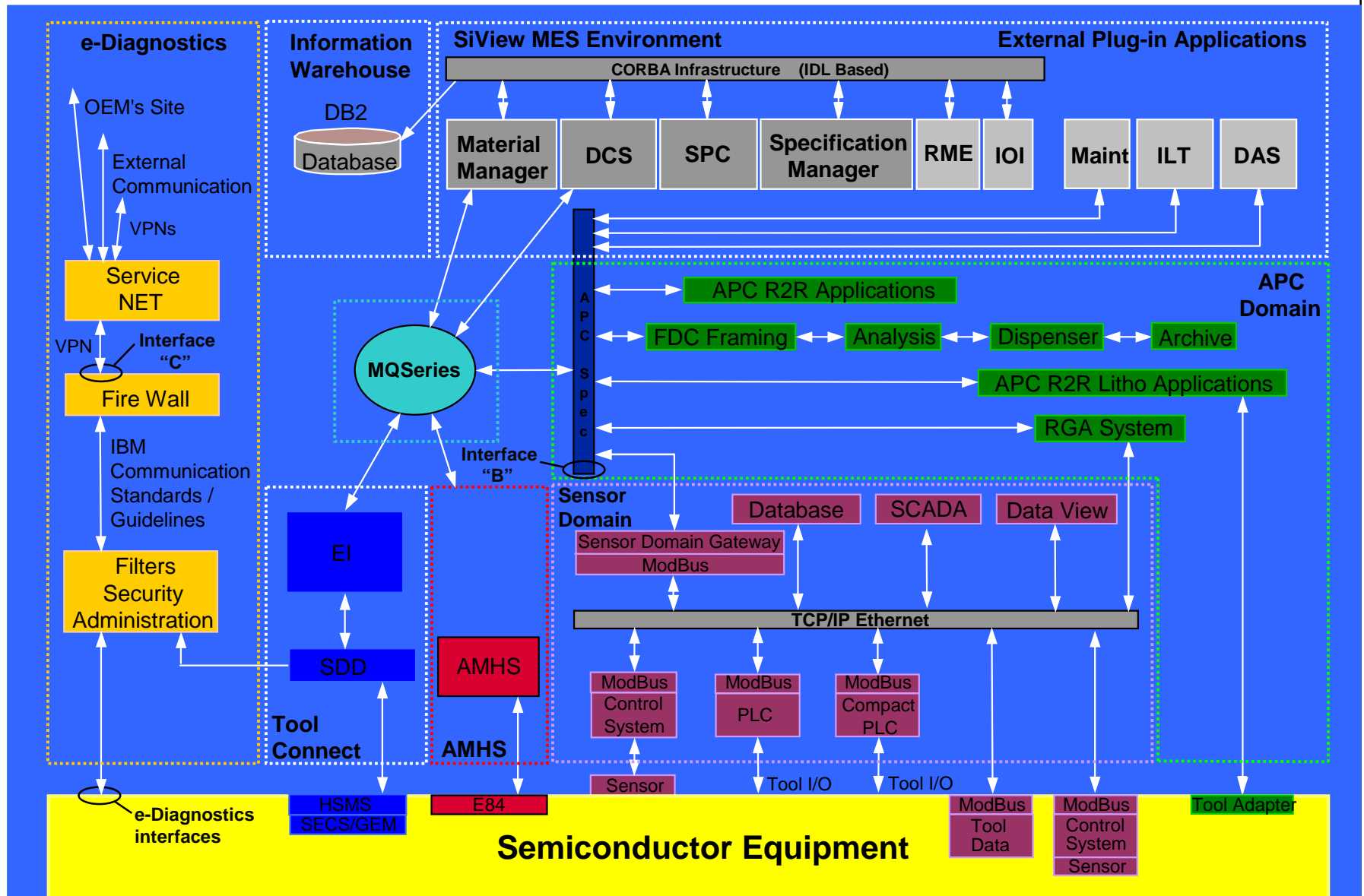
IBM's e-Manufacturing Direction

- **e-Manufacturing is the foundation of the IBM On-Demand strategy**
- **Interface “A” will become a critical link in our overall e-Manufacturing architecture**

Interface “A” opens opportunities for interlocking performance information (e-Diagnostic data) with control information (APC, SPC, and OEE) leading to improvements in Yield, Predictive Maintenance, and lower cost of support.

- **Delays in Interface “A” are beginning to drive “one-off” solutions**
- **Interface “A” must be closed ASAP**

Today's Implementation: IBM's 300mm Architecture



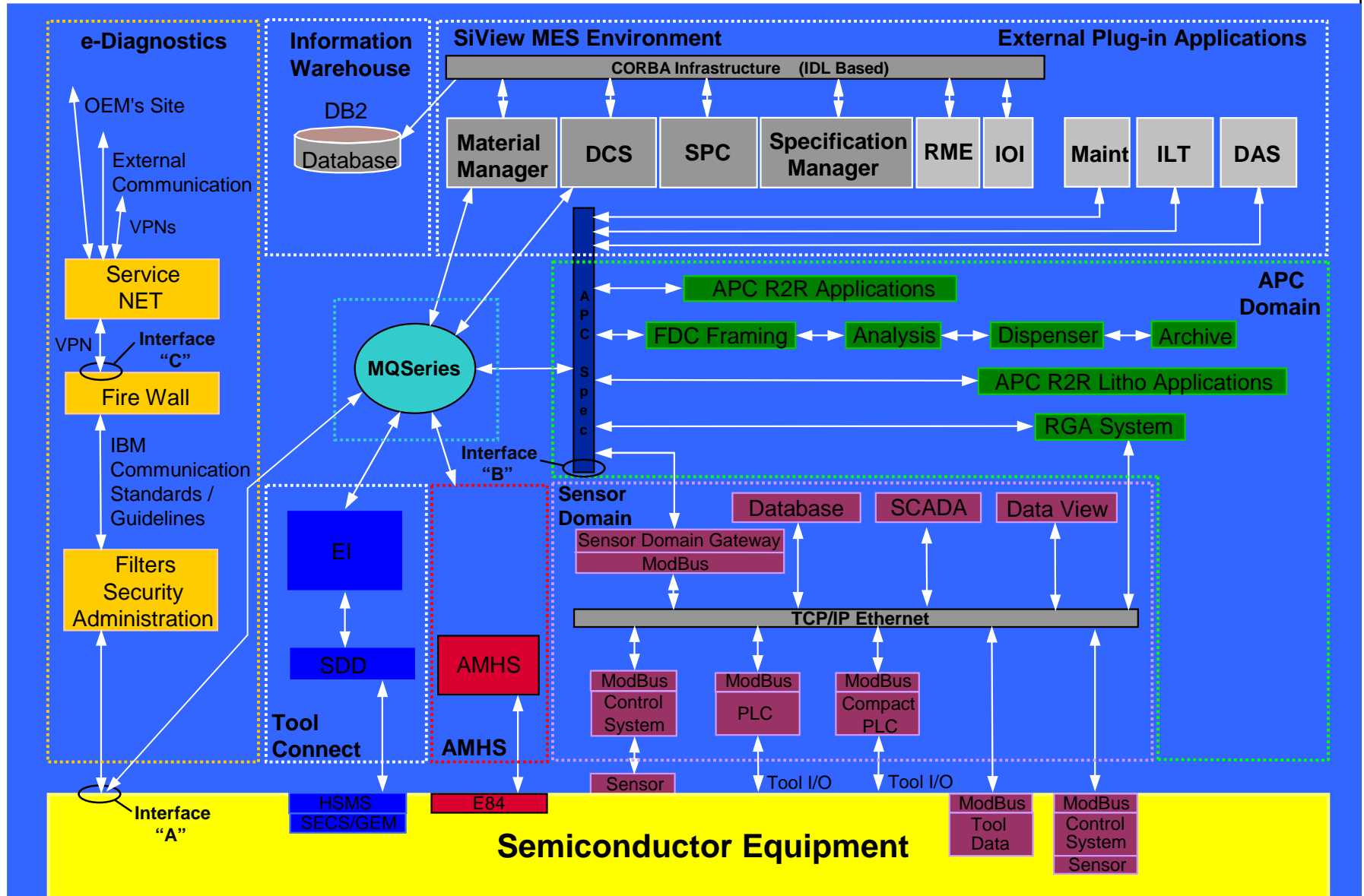
Today's Implementation: e-Diagnostics

- § IBM's e-Diagnostics environment provides full capability:
 - Secure Remote Access
 - Remote Collaboration
 - Automated Data Collection
 - Remote Tool Operation

- § Further Requirements:
 - Common data format across tool types
 - Reduce the impact to tool performance
 - Additional data not accessible in real-time

The current e-Diagnostics port could become Interface "A"
--seamless integration required

Required Implementation: IBM's 300mm Architecture



Requirements for Interface “A”

- § **Logical extension of the physical Ethernet port on the tool**
- § **Not a replacement for SPOC (Single Point of Control)**
 - The HSMS port will remain the control port**
 - Interface “A” will be the data delivery port**
 - Required data capabilities far exceed those of the SECS port**
- § **Final definition of Interface “A” is needed as soon as possible**
 - The specifications must be completed**
 - The associated standards must be adopted now**

Summary

§Interface “A” is required to optimize **e-Manufacturing**
interlock performance and control information
enhanced data available from the tool

§Without Interface “A”
unique solutions are used to obtain the data
additional expense seen for both ICM’s and OEM’s

§Solution is needed now
minimize custom development
realize industry-wide cost efficiencies