

Upgrade to PME from SMS

Integrating older PowerLogic Meters to new PME Software platform

PowerLogic Users Group Conference 2014



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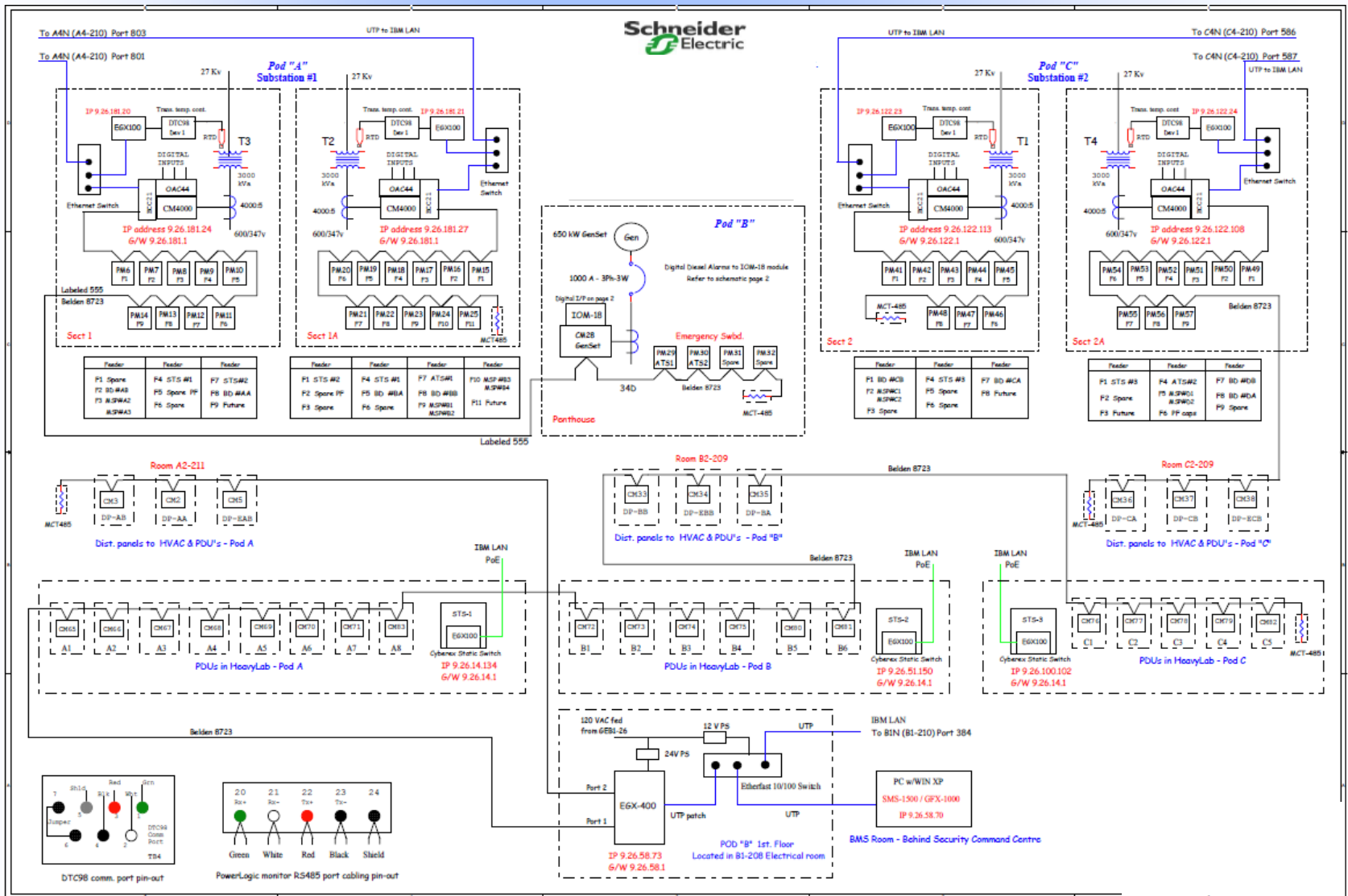
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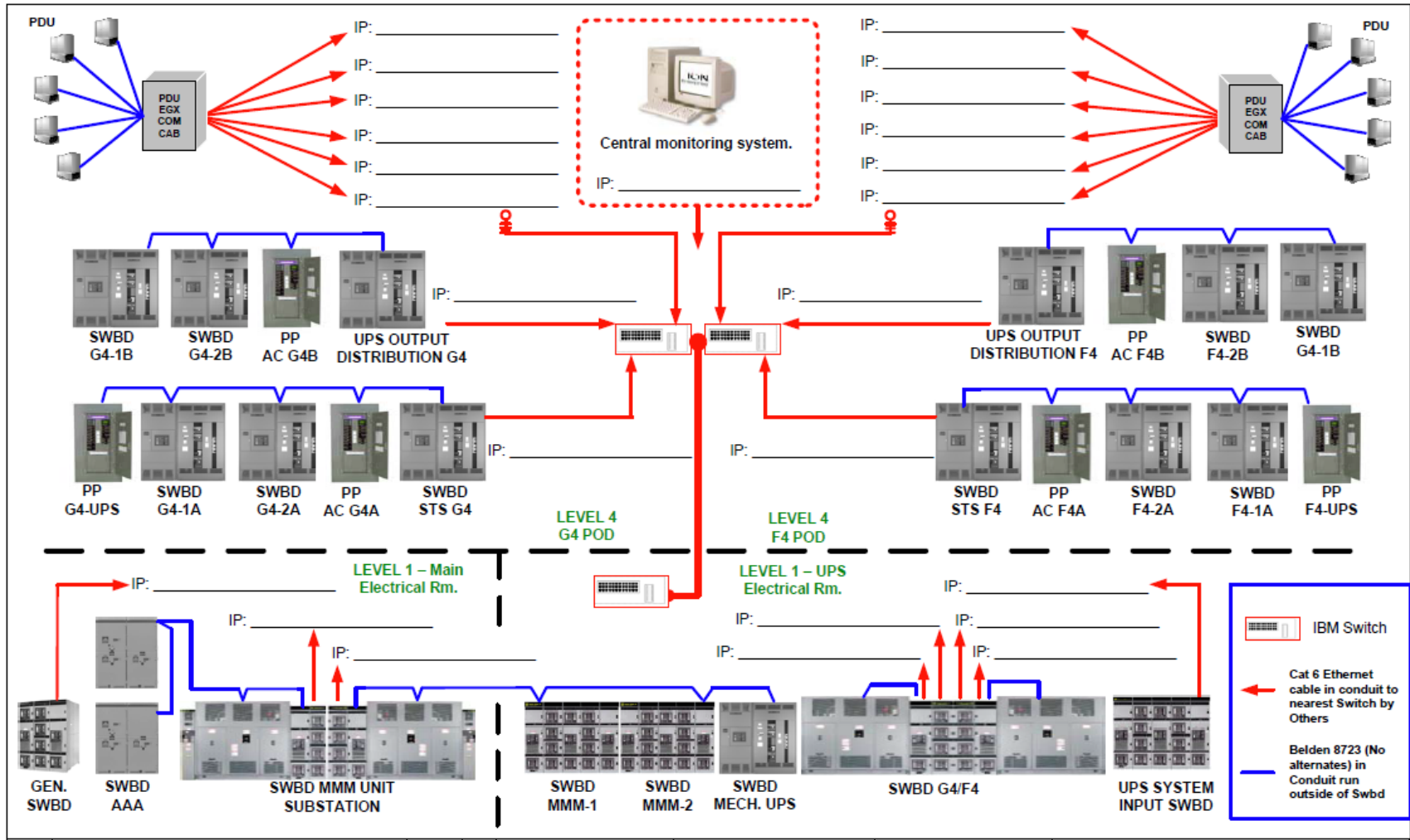
Existing Configuration

- **Multiple Buildings:**
 - **Multi-Tenant Office and Data Center**
 - **Education, Office and Data Center**
 - **Software Development**
 - **Critical Data Centre**
- **Different Configurations:**
 - **PowerLogic Meters /Devices with SMS software**
 - **PowerLogic Meters/Devices with ION software**
 - **Third Party Devices via Modbus**

PowerLogic Meters/Devices with SMS Software



PowerLogic Meters/Devices with ION Software



Third Party Devices via Modbus



Power Logic Devices



CM4000



CM3350



PM850

Breakers Micrologic Trip Units



Temperature Controller Model 98

EGX 100/EGX300



EGX400



Third Party Devices



PDU



UPS



Switchboard



RPP



**BAS
Interface**



**Generators
Interface**

Limitations

- Delays due to device response latencies.
- There are limits to be considered for serial communication via RS-232 or RS-485.
- These limits include:
 - the number of meters that can be contained in one loop (max. 32)
 - the speed of the communication within the loop
 - the length of cabling allowed in the loop (max. 50 ft. for RS-232 and 4000 ft. for RS-485)

Limitations

- It may be necessary to break long chains of serial devices in one loop into smaller loops.
- The number depends on:
 - the type of device (how much data is being logged)
 - the server hardware and network
 - the size of the system (how many devices overall).
- Devices connected directly by Ethernet respond very quickly in comparison to devices with a serial connection.

Constraints

- SMS software is based on Microsoft Windows XP.
- Microsoft support for Windows XP has ended.
- Companies/Corporations are removing from their network all applications based on Microsoft Windows XP.
- The O/S today is Microsoft Windows 7 or similar network/server O/S (Linux or Windows Server).
- SMS software is not available on Microsoft Windows 7 or Linux.
- SMS software will not be developed/supported by Schneider.

Solutions

- Disconnect the existing SMS Metering from the network:
 - Central Workstation access to all meters is lost
 - Meters can be read locally only (become WYSIWYG meters)
 - Access to programming, logging and history is local (via Laptop)
- Upgrade each building to new StructureWare PME software:
 - Powerful PC (local server) is required for reliable communication performance
 - Cost of maintaining individual/local Server at each building
- Upgrade all buildings to new StructureWare PME software on Central Server:
 - Powerful Server hardware supported by the Company Network
 - Each building will have the Client version installed on local Workstation

Planning

- Review existing installation at each building
 - Devices (types, quantities)
 - Communication Topology
 - Network Connectivity Diagram
- Determine the type of Server required:
 - Processor (CPU, RAM), Storage (HDD)
 - O/S (Windows Server version)
- Determine the size of StructureWare PME required:
 - Total number of devices
 - Allow for future growth
 - Number of Client Workstations
- Obtain Proposal from Schneider for:
 - Server/Software Configuration
 - Communication Configuration (Network Wiring)
 - Firmware Update
 - Meters Configuration
- Obtain Funding (\$\$) for implementation

Options for Implementation

- One-Time Implementation:
 - All Buildings at the same time
 - One Project only
 - Consistency of the Metering System during implementation
 - One-time Budget/Funding release
- Phased Implementation
 - Phase 1 – Central Server Implementation
 - Phase 2 – Critical Data Centre Building(s)
 - Phase 3 – Non-Critical (Base Building) System(s)
 - Multiple Projects at different times
 - Inconsistency of the Metering System during implementation
 - Easier for Budget/Funding release

Implementation

- Pre-start documents:
 - Checklist
 - Naming Conventions (devices, server, user account)
 - Preliminary Network Diagram

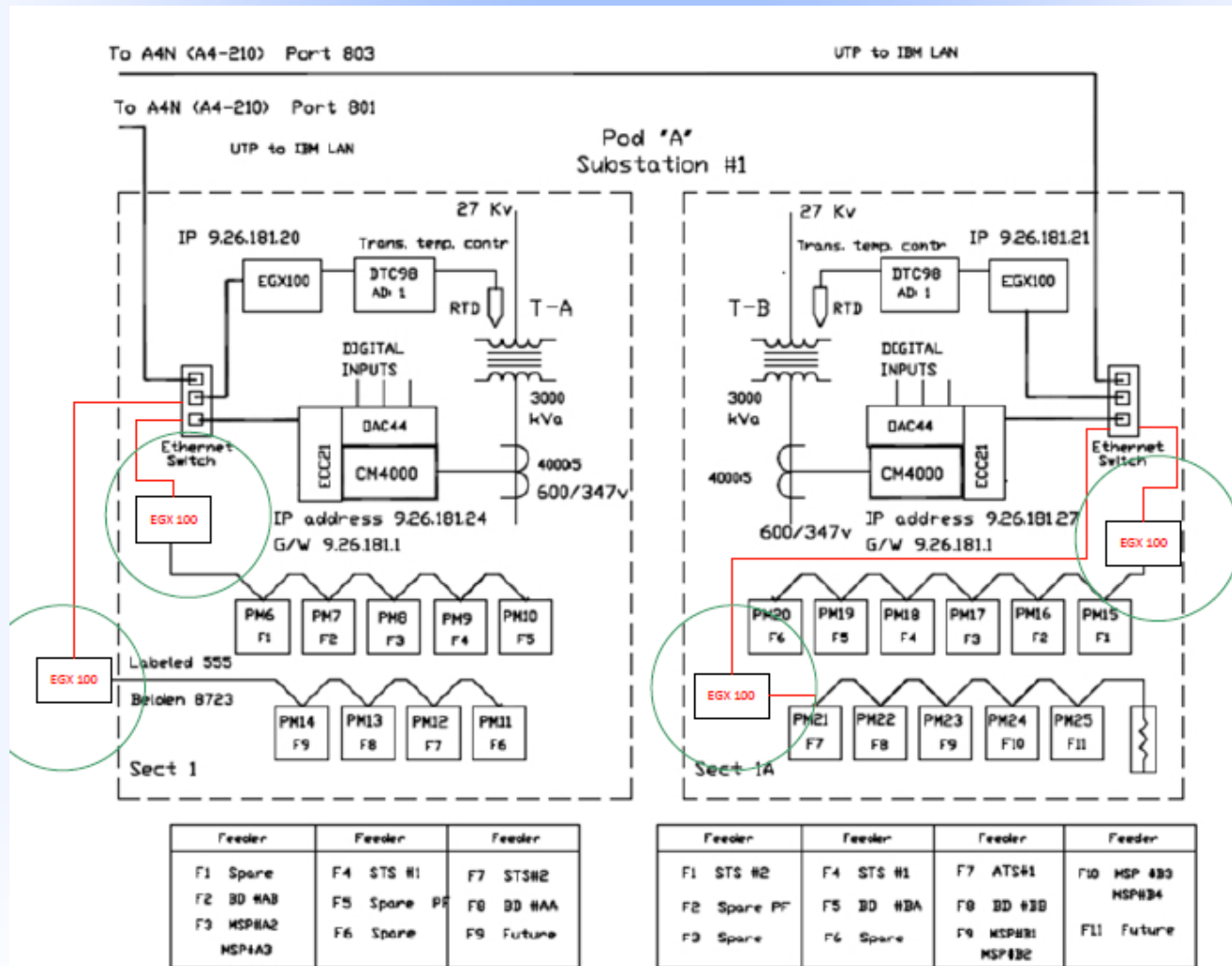
Implementation

- Implementation:
 - Server/Software Configuration
 - Communication Configuration and Verification
 - Firmware Update
 - Meter Configuration
 - Logging Setup
 - Alarming setup
 - Waveform Capture Configuration
 - Build the System
 - Graphic Screens Configuration
 - Dashboard Configuration
 - Database Maintenance Setup
 - Report Configuration

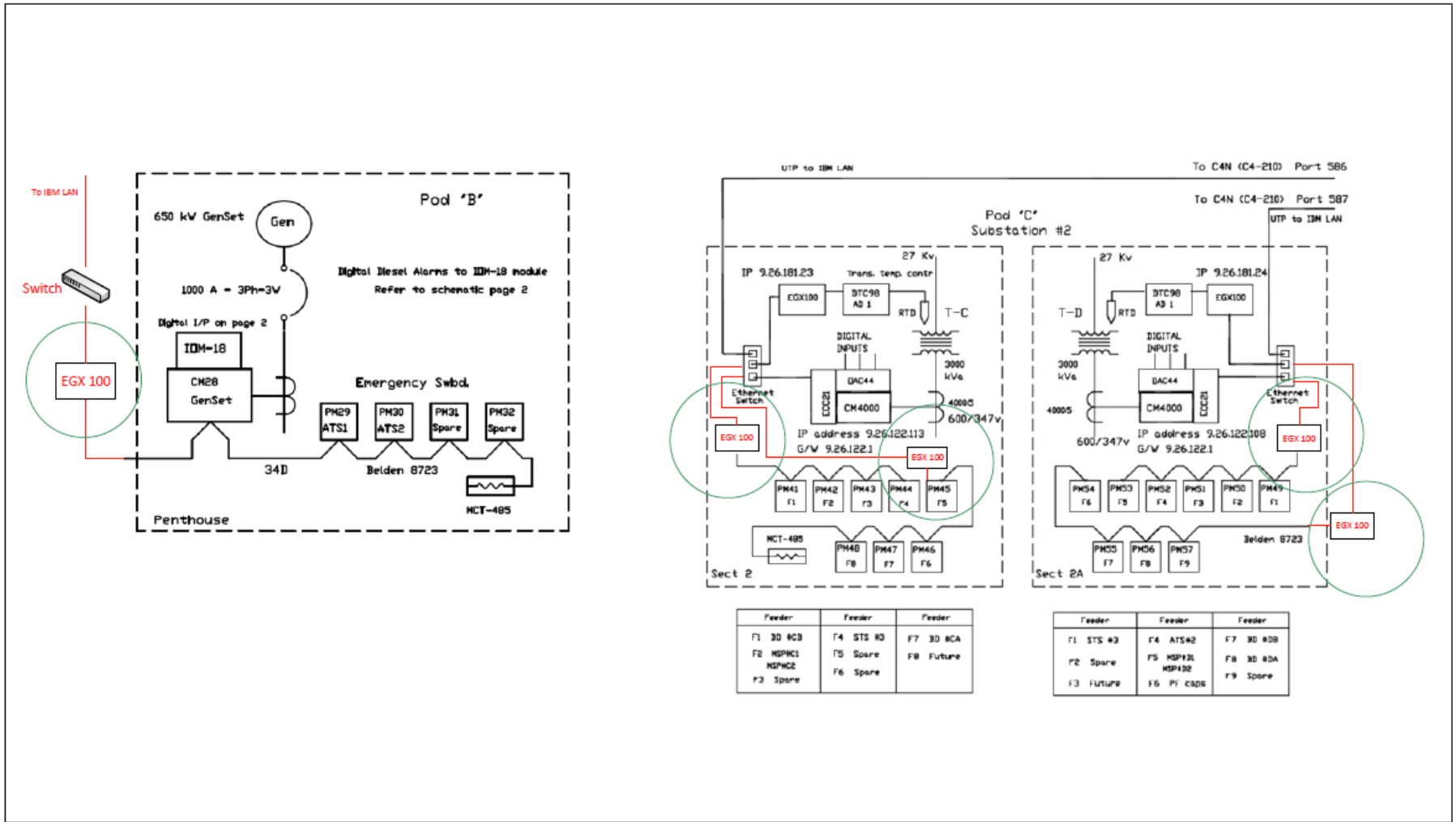
Implementation

- Training and Records:
 - Customer Training
 - System Files Backup
 - Final Customer Acceptance
 - As Built Drawings and Manuals

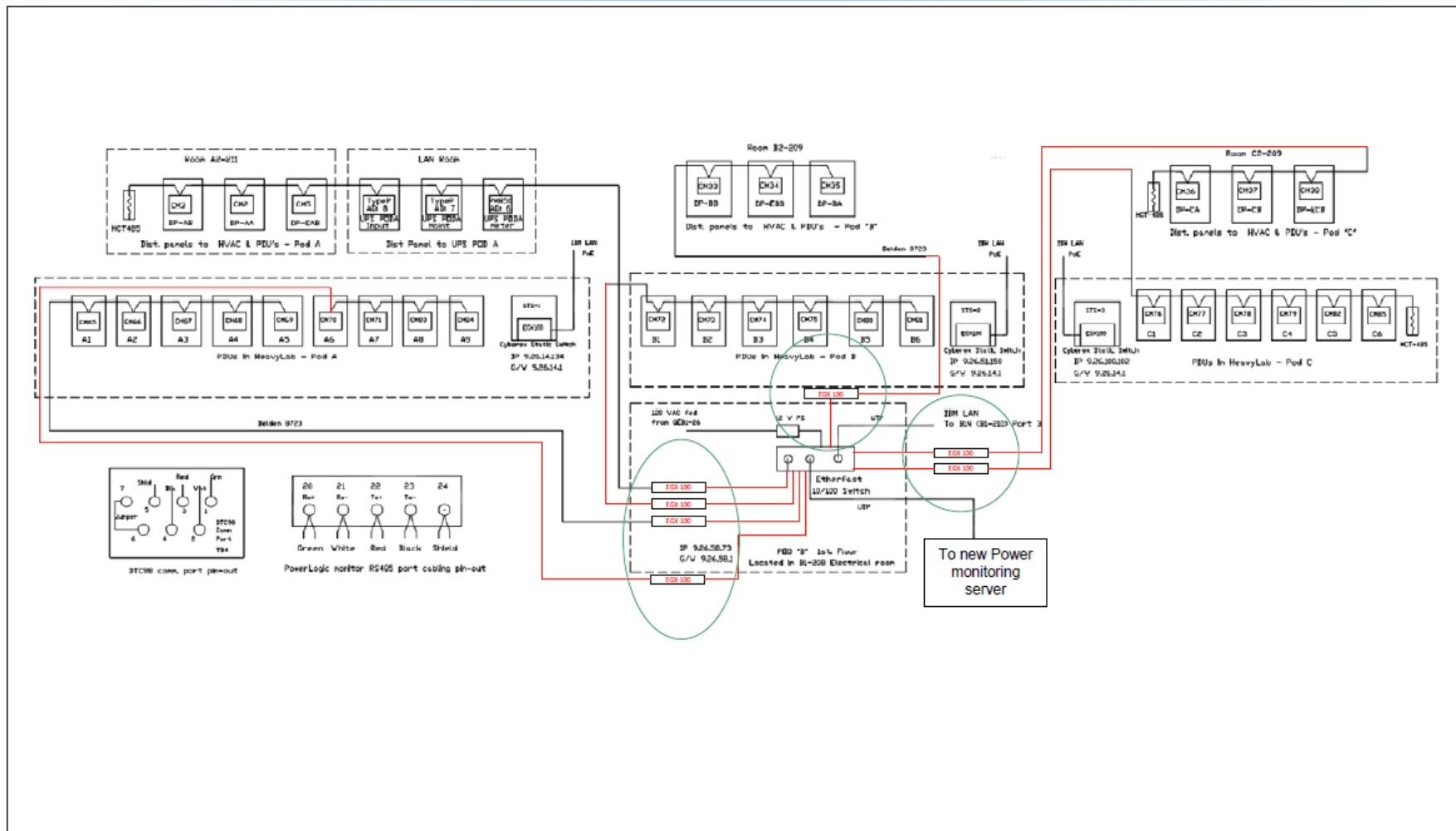
New Configuration



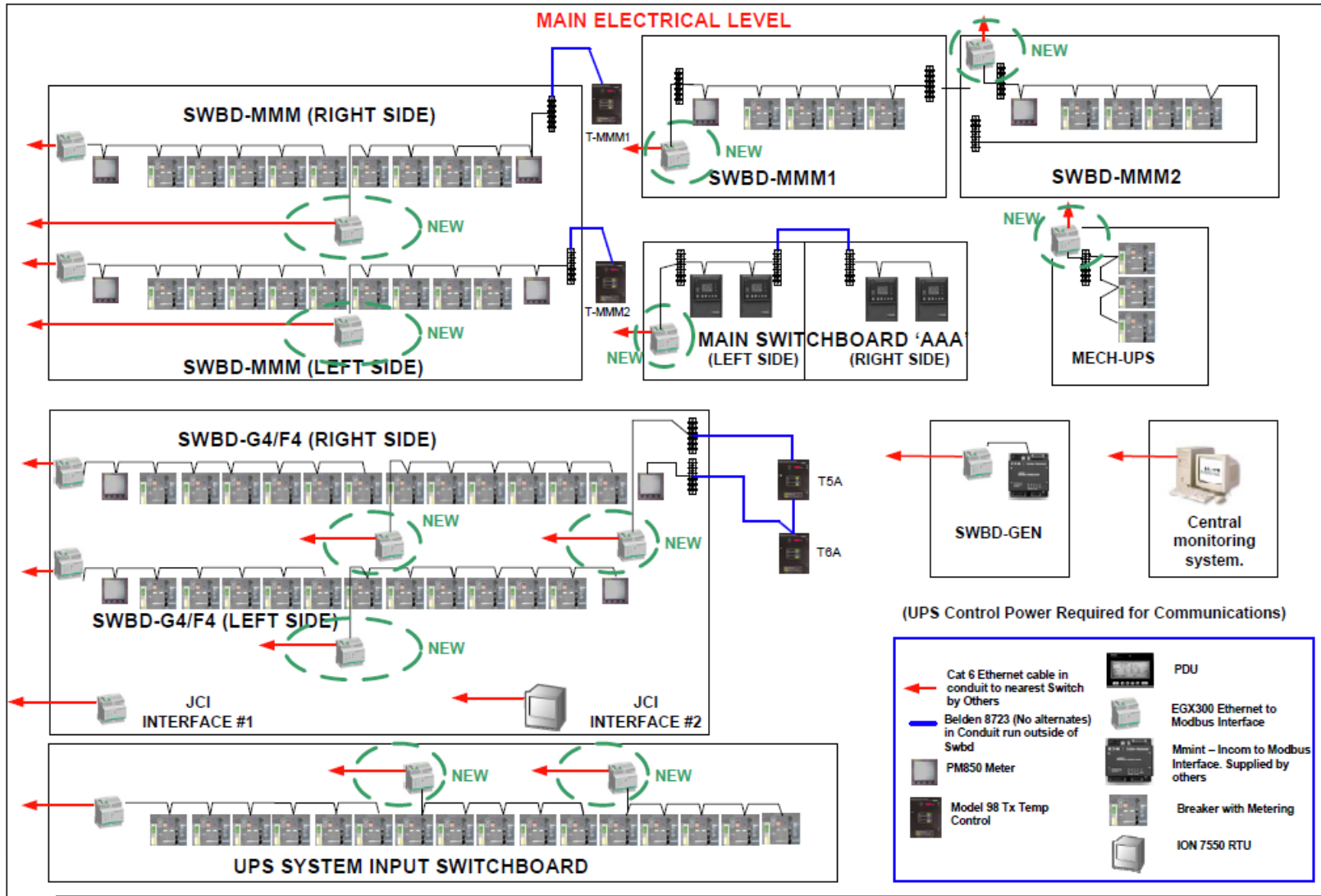
New Configuration



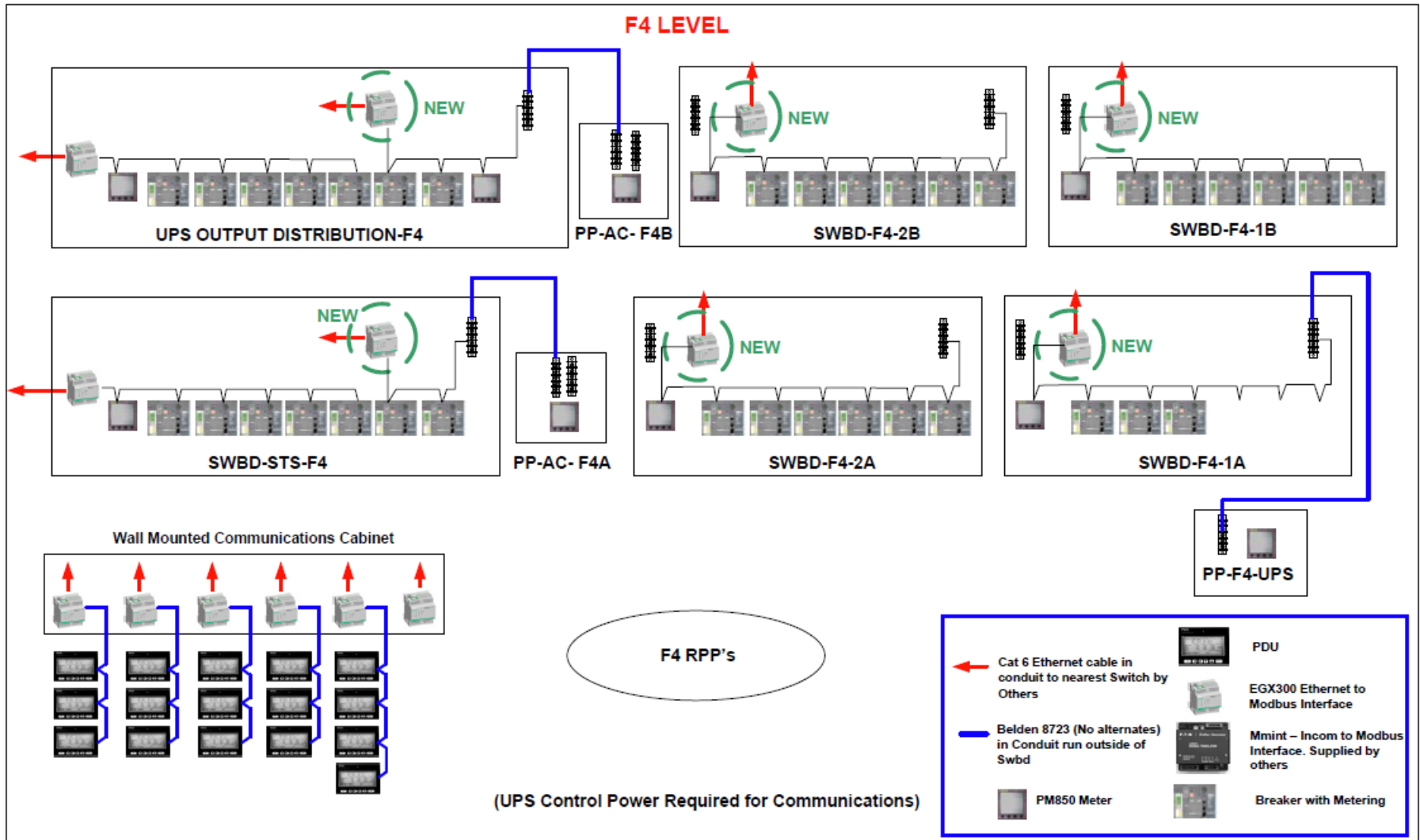
New Configuration



New Configuration



New Configuration



Highlights of StruxtureWare PME

- Scalable, Flexible Architecture:
 - Web Clients (Remote access, Reports, Diagram Tables, Alarms, Dashboards)
 - Engineering Workstations (Management Console, Vista, Designer, Reporter)
- Functions (Base Modules):
 - Data Acquisition and Integration
 - Real-time Monitoring
 - Trend Analysis
 - Power Quality Analysis
 - Alarms and Events
 - PUE
 - Reporting
 - Dashboards
- Available Optional Modules:
 - Generator Test
 - Generator Power
 - UPS Power
 - Power Losses



Questions?



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Notes

