

SCU & DPU *FAST FORWARD* MIGRATION PROPOSAL

PRESENTED TO:

9 East 71st New York, New York

PRESENTED BY:

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Summary

Siemens Industry is pleased to present this proposal for the upgrade of the environmental monitoring and control system at 9 East 71st.

This document contains technical information about the scope of the project and the methods to accomplish the project with minimum disruptions to the facility. The information contained in the appendices describes the equipment furnished as part of this proposal.

This proposal offers a solution to increase processing performance, 18 x greater memory capacity (up to 72 MB) and increase system performance Up to 100 x faster communications.

Current Situation

The existing building system was designed and installed by Landis & Gyr with is now Siemens Industry. The Building Automation System currently is controls the building Air handlers and chillers systems at 9 East 71st. These systems are using technologies from the early 80s and have passed there life span.

Current Issues

Thirty years is an eternity in the semiconductor industry. Third-party components essential to the Standalone Controller Unit (SCU) are simply no longer being made. True to our commitment, we have ensured a supply of repair and replacement parts to facilitate the servicing of SCUs as long as possible. Still, now is the time to fast-forward your building automation system into the future.

Proposed Solution

We propose to upgrade 6 existing controls (SCU) and 3 Digital Point Units (DPU) systems with a state-of-the-art PXC Controllers.

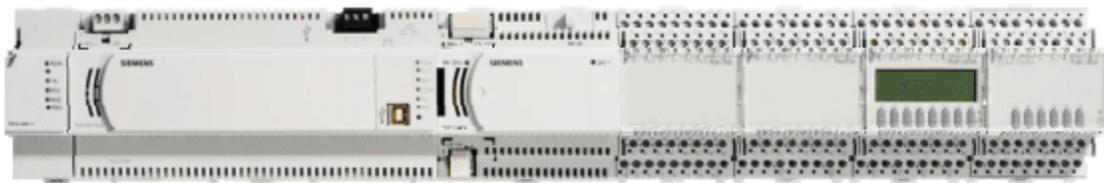
The Standalone Control Units (SCU) at 9 East 71st were introduced in 1983. Yet every SCU that has been installed since then has proven that Siemens commitment to compatibility. Major technological advantages in our building automation system have continued to be supported the always reliable controllers.

But 30 years is an internally in the semiconductor industry. Third-party components essential to the SCU & DPU are simply no longer being made. True to our commitment, we have ensured a supply of repair and replacement parts to facilitate the servicing these controllers as long as possible. Still, now is the time to fast-forward your building automation system into the future.

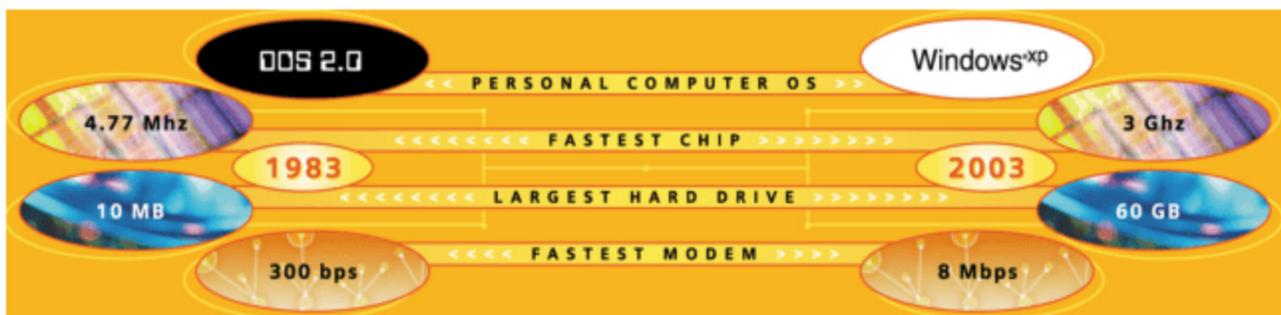
Investment Protection – System 600 Apogee[®] is built on a twenty-one years history of backward and forward capability for the entire family of System 600 products. This ensures that as future technological advances become available 9 East 71st and now will be able to integrate them into their existing system. Additionally, its open system architecture allows for integration to over three hundred other systems.

Power Open Processor has the following enhancements,

- More memory from 4MB (SCU) to total of 72MB,
- Faster processing from 16MHz (SCU) to Power PC running 48MHz,
- An option for direct connection to an Ethernet TCP/IP Building Level Network (EBLN),
- Space for a compact flash card for future use.
- Adaptive Control (see attached data sheet)



The “Power” Open Processor refers to the latest generation controller platform for use in the industry leading our new PXC controllers. These controllers are based upon a state-of-the-art design, architect around the Motorola Power PC microprocessor and offer the latest in performance and extensive memory capacity. With a faster processor and more memory, it positions 9 East 71st with the ability to take advantage of future APOGEE features and enhancements as they become available.



This upgrade program will allow 9 East 71st to preserve each of the following system assets

No Changes

Upgrades

System engineering cost	X	
Electrical installation	X	
Field panel hardware	XX	X
Sensors and actuators	X	
Field wiring	X	
Programming	X	
Workstation hardware	X	
Graphical interface	X	
Create new point database	X	
Tools to convert database		X
System commissioning	X	
Operator training	X	
System startup	XX	X
Extended system downtime	X	
Facility operation impact	X	

The new Power PC field panels have other advantages as well. When compared to the existing SCU controller, the new controller power processor has:

- ◆ 5 x greater processing performance
- ◆ 18 x greater memory capacity (up to 72 MB)
- ◆ Up to 100 x faster communications via an Ethernet port option



Your initial investment in the Siemens automation system many years ago now provides a strong foundation for the future.

This upgrade will replace 6 Standalone Control Units (SCU), 3 Digital Point Units (DPU), and upgrade the systems front end software.

I. Project Description

A. Project Schedule

The anticipate the project will take approximately two months to complete including engineering, material delivery, installation, start-up and commissioning.

The project can be broken down into four (4) components as follows:

1. Engineering, Submittals and Material Ordering.

Detailed panel layouts will be provide on AutoCad. These drawings will form the basis for the final As-Built drawings. All As-Built drawings will be provided to 9 East 71st at the completion of the project for record keeping. After the submittals are approved material will be ordered and delivered to the site.

2. Equipment Installation

The upgrade will be done on AHU by AHU . The base of the system design will be on RS-485 Network.

- SCU will be upgraded to PXC controllers.

Upgrade will be done on straight time.

We will reuse the existing SCU enclosures.

3. Start-up

After the physical installation is complete, each controller will be checked for proper operations. Controllers will add to the System 600 network for monitoring and control. At the existing Apogee graphic operator's consoles color graphics.

4. System Testing and Turnover

After each controller is upgraded, the control system will be thoroughly tested. For each controller for the proper sequence of operation will be verified in the presence of an authorized 9 East 71st representative.

B. Project Coordination Meetings

Siemens Industry will conduct weekly project status meetings with 9East 71st to ensure proper coordination and information exchange. Since the installation will be done during normal hours, access to the equipment / controllers will be scheduled during these meetings.

Summary;

The above is a brief overview of the network and controller upgrade of the monitoring and control system proposed. See the equipment data sheets in the Appendix for more information.

Siemens Industry is dedicated to the success of our clients. The successful completion of this project will extend our business relationship, one that you can continue to depend on well into the future.

C. Project Management Functions

Siemens Industry professional project management team will ensure the following critical components:

1. Minimum Occupant Disruption
2. Smooth Transition to new System
3. Total Quality

Through our broad base of industry experience and professional project management team, Siemens Industry will meet the challenge this type of project presents.

D. Project Team

This project's success not only depends on the Control System but the teamwork and coordination of the project team. This proposal is based on close cooperation of each team member from Siemens Industry and the 9 East 71st facilities staff to ensure an on time, high quality system installation. Our team members are:

TITLE	ROLE/RESPONSIBILITY
Project Manager	<ul style="list-style-type: none"> • Primary client contact • Project management • Quality control • Subcontract administration • Commissioning supervision • Payment Requisitions • Supervision of subcontractors • Supervision of systems specialists
Project Engineer	<ul style="list-style-type: none"> • Project documentation for as built • Technical coordination with subcontractors • Graphic creation • System design and programming
Systems Specialist(s)	<ul style="list-style-type: none"> • System start up, testing and commissioning • System programming • System operator training

E. Total Quality

Siemens Industry Total Quality Leadership program is setting the pace in the industry for Total Quality. This project will provide the opportunity to capitalize on a working partnership between Siemens Industry, and 9 East 71st staff where close cooperation will be a critical factor in the success of the project.

Scope of Work

We will provide and install Siemens Industry controllers to replace the 6 existing SCU and 3 DPU on the existing RS-485 network. The following scope of work is for the upgrade of the complete system. The equipment detailed below is what is required to complete the upgrade of the building.

We Include:

- ❖ Upgrade of 6 SCU panels with PXC controllers.
- ❖ Upgrade of 3 DPU panels with TX- I/O Modelers.
- ❖ New Dell workstation.
- ❖ Project management for coordination of system installation.
- ❖ All existing parts will be returned to Siemens Industry.
- ❖ All existing sensor, valves and dampers will be reused.
- ❖ Any existing sensor, valves and dampers not operating will be identified and brought to the owners attention for repair by others.
- ❖ Start-up and system checkout.
- ❖ All Controllers will have Adaptive Controls
- ❖ As-Built drawings.
- ❖ One (1) Year Warranty

We Do Not Include:

- ❖ Sales Tax
- ❖ **Set up of Adaptive Control loops**

Appendix A, System Specification Data Sheets

1. *PXC Controllers*
2. *Adaptive Controls*