Nick Cooper Forest Rock

CIBSE **MSi Presentation**

The MSi provides system integration to help organisations gain **VISIBILITY and CONTROL**

Of their buildings, their infrastructure, their assets...



r

Typical MSi Considerations

How do we connect to each device?

How do we handle different data types?

How do we push data out to the cloud?

How do we protect ourselves from Cyber Attacks ?

How do we centrally monitor and manage our sites/buildings?

How do we communicate in real time to staff in the field ? How do we integrate with API's ?

How do we integrate different system protocols?

How do we integrate with external data sources?

How can we predict when system failures may occur ? At what stage should we provide Data Analytics ?

How do we future proof buildings and assets?

How do we ensure building governance is applied ? How do we ensure legislation is met? How do we ensure energy efficiencies ?

How do we ensure naming conventions are consistent?

Typical System Integration

Life Safety Systems

Asset Management

Security (CCTV & Access)

Critical Infrastructure

Cooling

Reliable Power

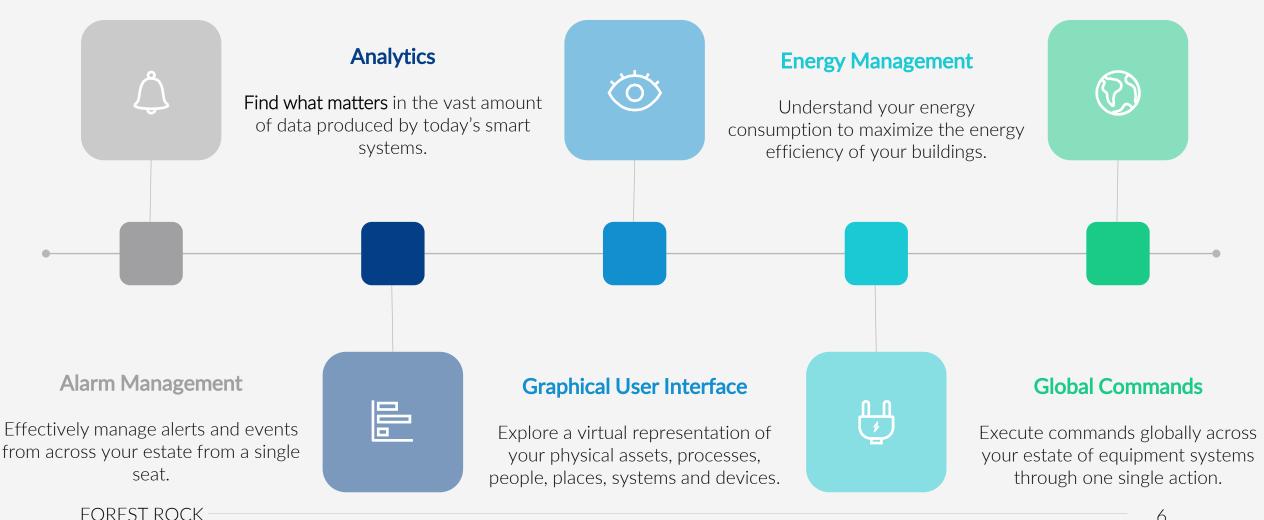
Metering/Energy Management **Room Booking & Hot desks Fault Detection** Lighting Lifts **IoT** sensors

Middleware

BMS

Single Pane of Glass

Your view from the top, across your organization.



6

 $(\langle \rangle)$

Monitor and Measure



Energy Management

Energy Dashboard, reporting engine, tenant billing, benchmarking & analysis system

Mid-Atlantic	Tab	le Equip					_
	ect v			Rules	Optio	ns	- * <u>×</u> I
All Sites							
Site		Rule	Duration		Cost		Equips
Carytown	>	(i) AHU Fan Failure		51.25hr			i) Carytown RTU-1
		(i) Lights On and Unoccupied		68.75hr	\$165		(i) Carytown Main Light
		(i) Temp Sensor Failure		672hr			i) Carytown RTU-1
Gaithersburg	>	(i) AHU Cool Failure	[5.25hr			(i) Gaithersburg RTU-1
		(i) AHU Heat-Cool Mode Cycling		32.5hr			Gaithersburg RTU-1
		(i) AHU Fan Short Cycling		73hr			Equips Carytown RTU-1 Carytown Main Lig Carytown RTU-1 Carytown RTU-1 Car
Metal Forming	>	(i) AHU On and Fan Off		35min			Carytown RTU-1 Carytown Main Light Carytown Main Light Carytown RTU-1 Carytown R
		(i) Bay Lighting On and Unoccupied		7.98hr	\$19		
Image: Constraint of the sector of the se		(i) x2					
		(i) Heat Treat Temp Too High		2.25hr			(i) Heat Treating
		(i) Heat Treat Temp Too Low		6.25hr			(i) x2
		(i) Units Down 10%		24hr			(i) Metal Forming 1
Short Pump		(i) Daily Consumption Limit		3.5hr			

Analytics Real time data with configurable dashboards and reports. $\langle \rangle$

The MSi Team

R

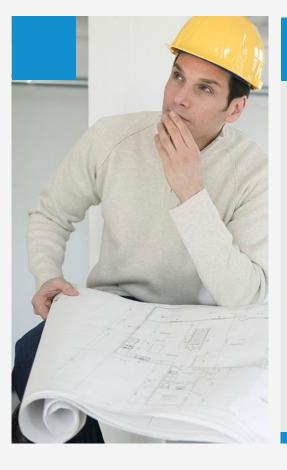
MSi Structure

Design Team – Project Management Team – Software Team – RIBA Stage 3-6



Skills

- Software & Middleware development
- Protocol driver
 development
- Cyber security
- User Experience Design
- Data and connectivity
- Analytics



Experience

 $\langle \rangle \rangle$

- Building Management Systems
- Energy Management
- Power & Utilities
- Lighting Control Systems
- Security, CCTV, Access Control
- Telecoms

Early Client Engagement

Understand the issues and client's requirements

- Integration
- Smart Building Design
- IoT and Connectivity
- Protocols
- Software Drivers
- Data Storage
- Integra **Emerging Technologies**

Provide Solutions

- **Digital Landscape**
- Smart Building Blueprint
- Less Time engineering
- Middleware & Single Pane of Glass
- Data Analytics
- Future proofed technologies
- Connect to your client, your building, your data, your assets.

 $\langle \rangle \rangle$

In Summary: The MSI.....





>

>

SOFTWARE DEVELOPERS

Proven background in software development and gateways.



Can provide an EMS system which can be customized to meet the specification

5

Company have written drivers for various protocols and APIs

DEVICE TESTING

Is able to perform device testing, and can de-risk this element of the project



Provides support, set-up, configuration and management of analytics platforms.

>

 \geq

>

ADDITIONAL SKILLS

Expertise with API's, Networks, Brick Schemas, MQTT, Cloud platforms, and Cybersecurity. *Listening and understanding the clients needs and requirements.*

THANK YOU

