IoT

Orion IoT Turnkey Platform Services

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IoT Solutions

►► Get started today and call us at 800-660-9340. ◄◄

There are many moving parts to digitizing your business. That's why it's best to work with a company like Orion who can manage all aspects of the IoT implementation so you move forward with confidence. Adding to the peace of mind, Orion guarantees the energy savings the IoT system will yield. Here are some of the operational applications and programs that can be part of your IoT digital platform.

- Space Management
- Asset Tracking
- HVAC Cost Reduction
- Utility Demand Response
- Improved Customer Experience
- BMS & Cloud Connectivity
- Energy Management Dashboard
- Optimized Operations

START YOUR PROJECT

What's the process? How do you get started?

1. Walkthrough audit of facility is completed by Orion

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2. Data is reviewed by Orion project proposal team

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3. Final proposal is presented to your company

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4. When an agreement is reached, the project is scheduled

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From basic motion sensors, to wireless network systems, to cloud based IoT solutions, we've got you covered. Orion partners with the most trusted control platforms to provide you with a portfolio of controls options for every application. Orion enhances your current controls system or recommends what controls system can best support your goals.

1

Walkthrough audit of facility is completed by Orion

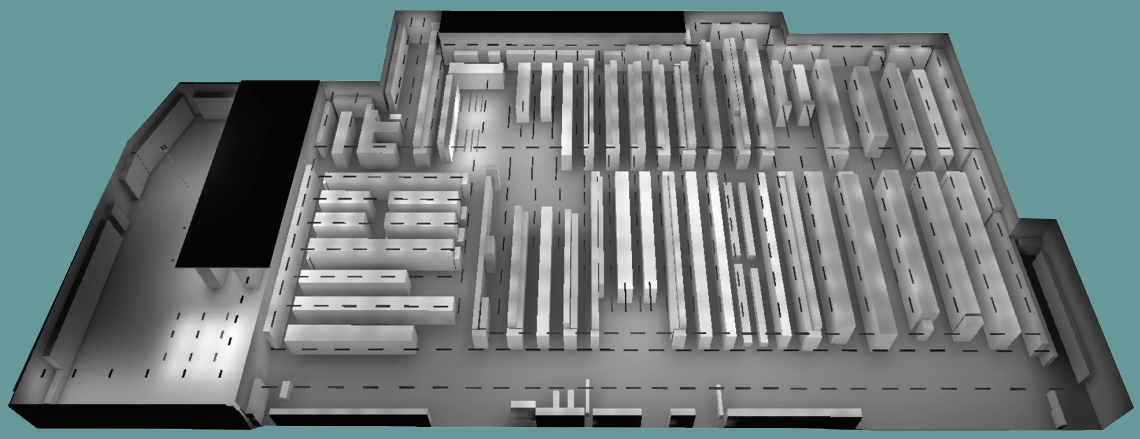
Orion staff, comprised of highly trained industry veterans, will conduct a thorough walkthrough audit of your facility.

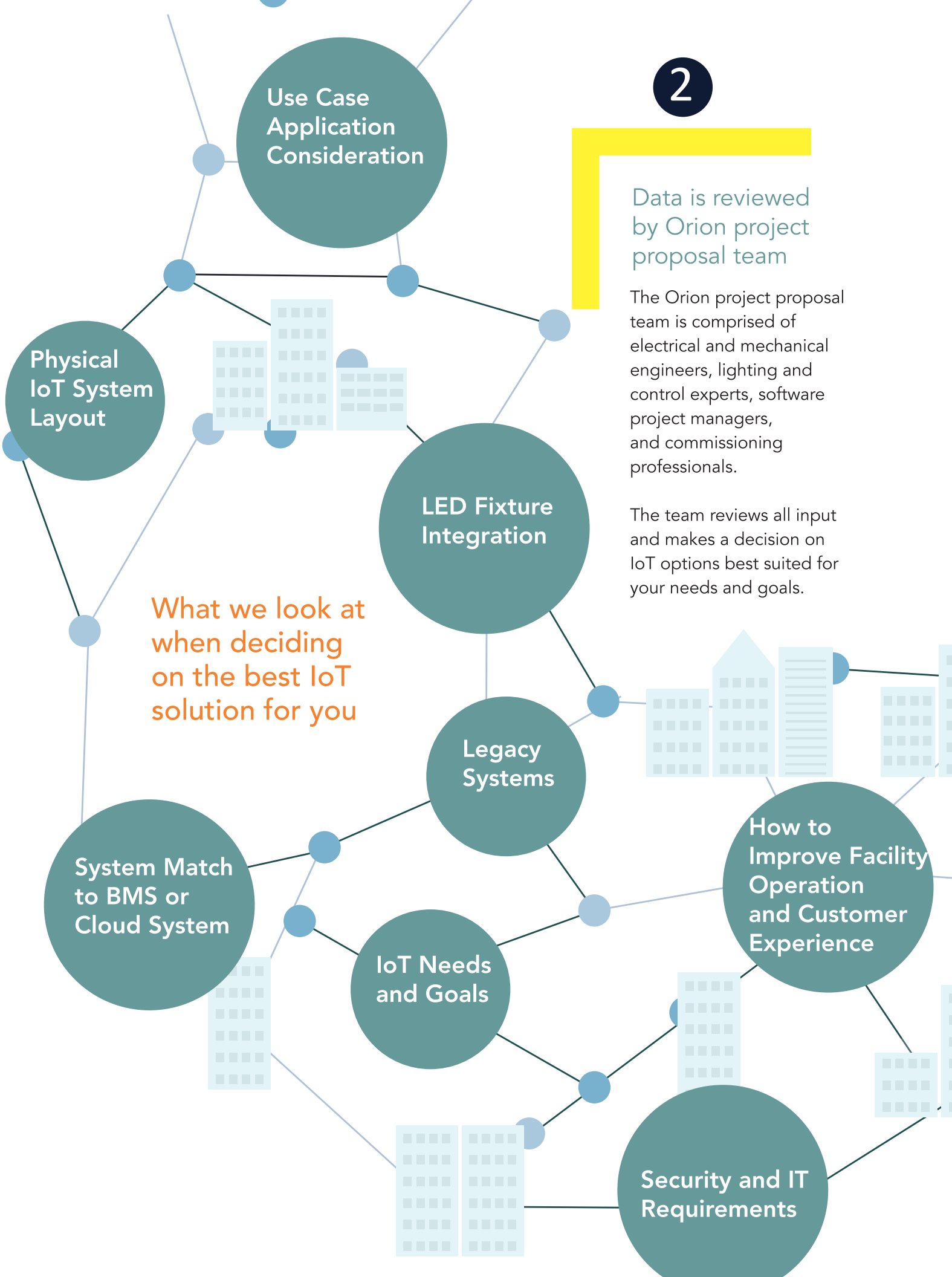
All project site details are examined, and measurements are taken to provide an in-depth 2D and 3D view of facility.

Audit inputs:

- CAD files or other drawings with fully defined dimensions
- Ceiling, fixture and object heights
- Existing fixture locations
- Design requirements (ex: FC levels)
- Proposed fixture type, if specified

3D renderings of your facility provided





2

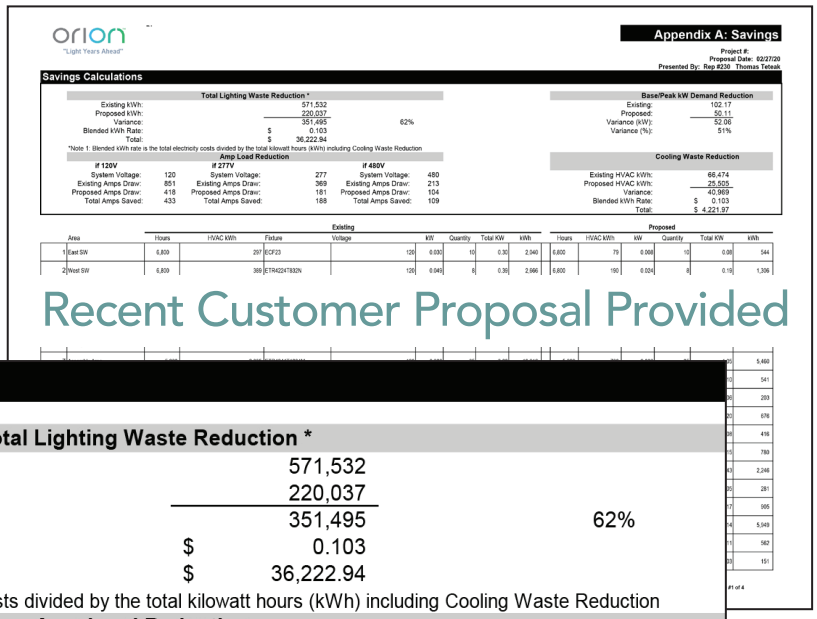
Data is reviewed by Orion project proposal team

The Orion project proposal team is comprised of electrical and mechanical engineers, lighting and control experts, software project managers, and commissioning professionals.

The team reviews all input and makes a decision on IoT options best suited for your needs and goals.

3

Final proposal is presented to your company


Appendix A: Savings

Savings Calculations

Recent Customer Proposal Provided

Savings Calculations

Total Lighting Waste Reduction *			
Existing kWh:	571,532		
Proposed kWh:	220,037		
Variance:	351,495		62%
Blended kWh Rate:	$ 0.103		
Total:	$ 36,222.94		

*Note 1: Blended kWh rate is the total electricity costs divided by the total kilowatt hours (kWh) including Cooling Waste Reduction

Amp Load Reduction					
if 120V		**if 277V**		**if 480V**	
System Voltage:	120	System Voltage:	277	System Voltage:	480
Existing Amps Draw:	851	Existing Amps Draw:	369	Existing Amps Draw:	213
Proposed Amps Draw:	418	Proposed Amps Draw:	181	Proposed Amps Draw:	104
Total Amps Saved:	433	Total Amps Saved:	188	Total Amps Saved:	109

Orion will provide:

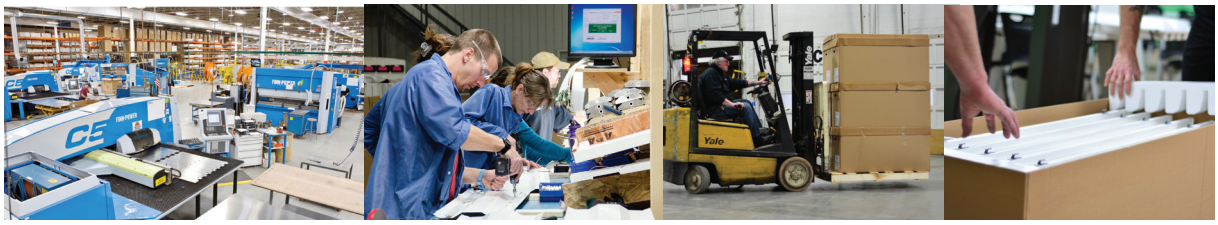
- An in-depth professional proposal on how we will meet your goals and a path to the ideal result
- A recommendation of LED fixtures and sensors to replace existing luminaires room by room. The proposal will indicate what hardware and software is required for IoT plan layout for data collection
- A financial cost analysis with payback period and return on investment (ROI)
- Available utility rebates in your area

4

When an agreement is reached, the project is scheduled

Award winning and Made in USA, Orion manufactures its own products. Product is produced with the highest quality to provide the longest life possible.

MADE IN USA



Product packaging done right

- Single or bulk packaging options
- Fixtures labled to the facility's layout
- Fully assembled and kitted fixtures
- Fast and easy installation
- Packaged to fit through doorways

Clean Jobsite Management

- Fixtures in trays
- Packaging doubles as recycling for old fixtures
- No need for a dumpster
- Debris-free installation

Project Execution

1 Plan

6 weeks prior:

- Team coordination call
- Product install training

1 week prior:

- Logistics coordination
- Statement of Work (SOW)
- Crew assignments and final Q&A

2 Execute

- Facility walkthrough with client staff
- Waste and recycling methods review
- Hours of work and facility working terms
- Review of controls and automation commissioning

3 Monitor & Control

Daily Checklists & Reports:

- IoT controls solution checklist
- Daily punch list
- Logistics inventory review for next day
- Construction and crew daily meetings
- Client daily work tracker upload

4 Close

Completion Documents:

- As-built and RMA's
- Change orders (pre-negotiated)
- Lien waivers
- Invoicing

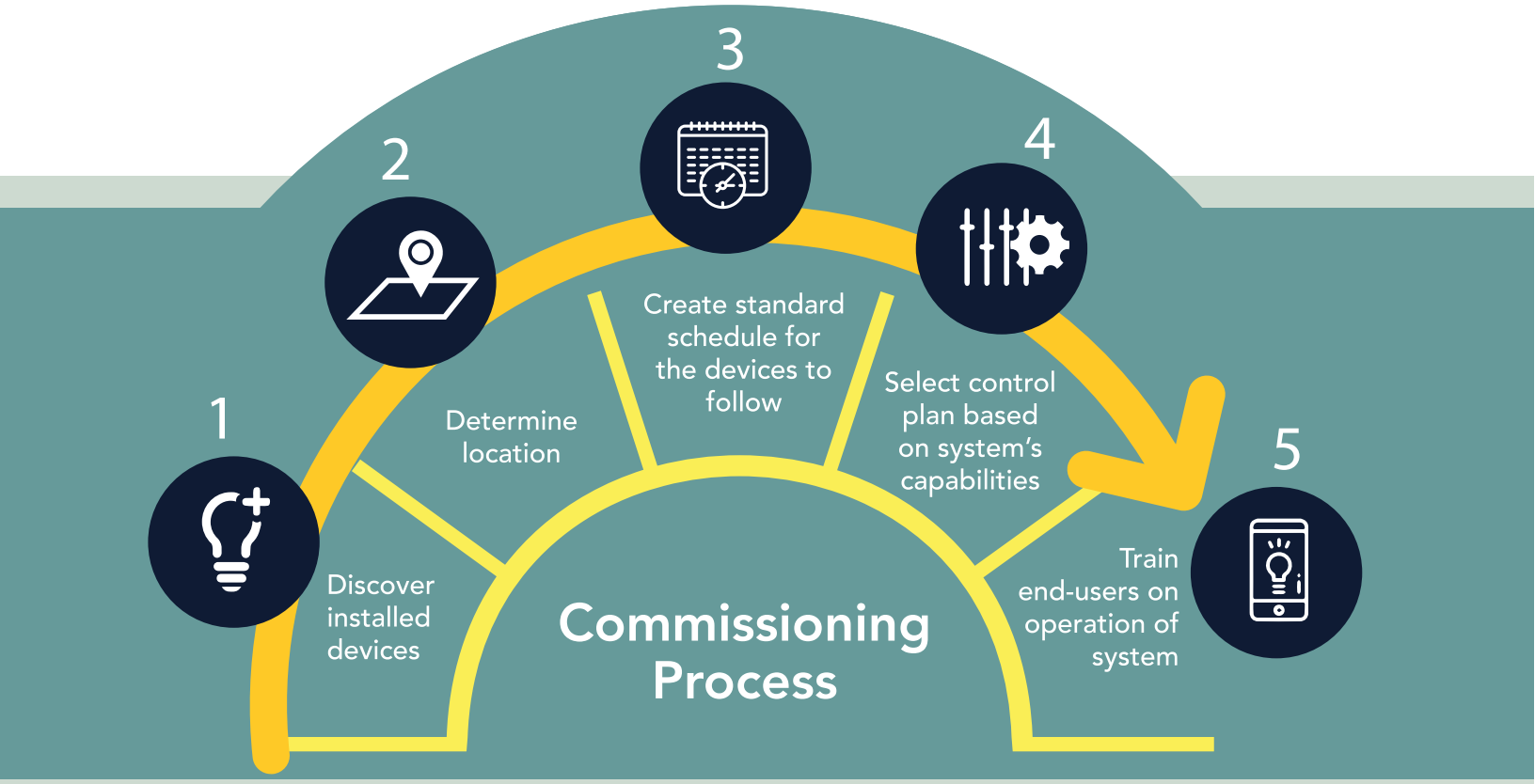
COMMISSION

"If you want something done right, do it yourself."
-Charles-Guillaume Etienne

Those in the know say this is the most important part of a project. That's why Orion does all its own commissioning to make sure that the system is fully functioning and that you get the maximum utilization of the system. As a matter of fact, we do more commissioning than most controls companies do themselves.

Our record is ***15,000 IoT sensors in one week*** for one major retailer.

So sit back and relax - we got this! We will make sure everything is working before we leave and are a phone call away if anything comes up.



IoT TERMINOLOGY

Advanced Analytics
Ability to analyze the data derived from smart controls – predictive analytics, data mining, forecasting, optimization, etc.

AI
Artificial Intelligence; intelligence exhibited by machines. AI focuses on making machines perform equal to or better than a human when it comes to accuracy, capacity and speed.

API
Application Programming Interface; allows software components to interface.

Big Data
The large volume of data too large to be analyzed by traditional data processing – both structured and unstructured – that inundates a business on a day-to-day basis. Big Data can be analyzed for insights that lead to better strategic business decisions.

BMS
Building Management System; a computer-based control system installed in buildings that controls and monitors mechanical and electrical information (i.e., lighting, ventilation, power systems, etc.).

Cloud Computing
On-demand and scalable pool of computing and data storage services that can be utilized to reduce unused resources found in traditional IT infrastructure.

Connected Factory
Provides manufacturers the opportunity to respond more quickly to changing conditions, tune up their operations and maximize value from their factory investments.

Edge Computing
Via a smart controller, pushes intelligence and processing capabilities to the network edge, closer to where the data originates and away from the cloud.

Fog Computing
Fog computing performs similarly to edge computing, using the local area network (LAN) rather than being hardwired into a smart controller.

Gateway
A physical device or software program that serves as the connection point between the cloud and controllers, sensors and intelligent devices.

IoT
The Internet of Things; the interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data.

IoE
The Internet of Everything; intelligent connection of people, data, process and things.

Platform
A software foundation that can derive critical business insights from the data you collect.

SAS Analytics
Statistical Analysis System; a software suite designed for collecting advanced analytics and business intelligence.

Smart Building
Any structure that uses automated processes to automatically control the building's operations including heating, ventilation, air conditioning, lighting, security and other systems.

Smart City
IoT data from water and energy resources, housing, traffic, parking and more can help urban areas to more efficiently manage assets, resources and services.

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We are proud of our relationships with major companies all over North America. Over 40% of the Fortune 500 have reduce energy costs while substantially improving their quality of lighting.