



**End User:** Rolls-Royce America

**Location:** Indianapolis, IN

**Integrator/Supplier:** Industrial Network Solutions

**SCS Partner Contact:** Rex Crane

**SCS Partner Contact Email:** rcrane@ins3.com

**Introduction:**

Two plants located near each other on the southwest side of Indianapolis, IN. These two plants make gas turbine engines for aircraft, helicopters, and power generators. Applications are primarily in the power house for each plant. Power houses have the ability to create steam, compressed air, chilled water, and electricity.

**Scope of Project:**

There were several applications for these plants:

1. Motor Control Center monitoring for maintenance scheduling and alarming.
2. Chillers for monitoring, control, and alarming.
3. Turbine co-gen sets for monitoring.
4. Process water supply system for monitoring, control, and alarming. Replaced Johnson Controls.
5. Access to legacy annunciator panel in both plants to allow SCADA access to the alarms.
6. Several cooling towers for monitoring, control, and alarming.
7. Air makeup units for main production plants; monitoring only - soon to be full control replacing Johnson Controls.
8. Boilers monitoring and alarming. Soon to replace Bailey for full control.
9. Online efficiency calculation and data logging for boilers and chillers using a custom ISaGRAF application called "The Consultant" provides instantaneous efficiencies values and alarming.
10. Demand monitoring and data storage on electric power purchased from utility company. They use this information to determine whether to buy power or make it.

**Solution:**

There are 2500-3000 SIXNET IO points total at this time. It started with one EtherTRAK module, literally. SIXNET products were chosen over Allen-Bradley, Johnson Controls, Bailey, and Delta-V.

**Products Used:**

Qty	Part Number	Description	Qty	Part Number	Description
	VT-....	VersaTRAK RTUs		RM-...	RemoteTRAK I/O
	ST-GT-...	Programmable Gateways		ET-....	EtherTRAK I/O
	ST-GT-1210	IPm Controller		ST-	SixTRAK I/O
	ISaGRAF	Programming			
	ET-GT-...	SIXNET Switches			



## **Resulting Benefits:**

*"I never dreamed there could be a control system as flexible, cost effective, and reliable as SIXNET. We have been using SIXNET products for more than three years without so much as a single IO point failing. I have used PLCs systems for many years and have never seen that type of reliability." - Bruce Carlson, Powerhouse Engineering Manager, Rolls-Royce*

*"The true beauty behind the SIXNET solution, aside from the affordable cost, is we can accomplish the installation in-house connecting one system or machine at a time." – Tom Jennings, Powerhouse Superintendent, Rolls-Royce*