

## Customer Requirement:

Increasing production output by reducing machine down time

## Banner Solution:

DX80G9M6S-PM8 Gateway  
DX80N9X6S-PM8L Node  
TL50 Tower Lights  
K50 Lights

## Why Banner?

Long-range bidirectional wireless system supports up to six discrete inputs and six discrete outputs for each Node

## Customer Benefits:

**Improved Performance** – Reduced machine down time and greater production output



SureCross PM8 Gateway

## SureCross Wireless I/O Network:

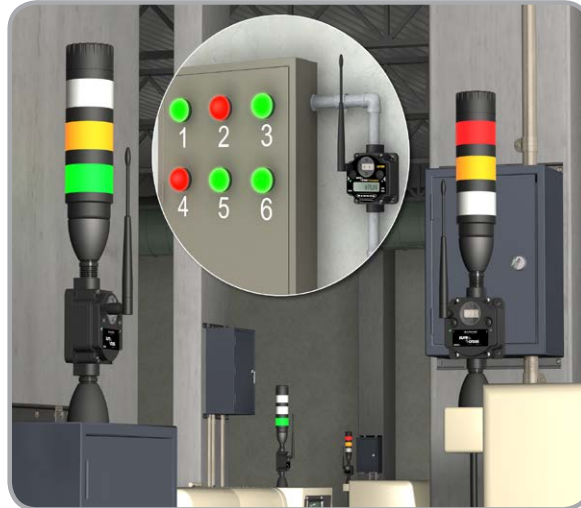
- Long-range wireless network communicates through entire plant
- Operates using 10–30V dc
- Reliable data transmission via FHSS technology and TDMA control architecture
- Bi-directional communication between the Gateway and Nodes with fully acknowledged data transmission

## Learn More:

Visit [www.bannerengineering.com](http://www.bannerengineering.com) for product information and to locate a distributor

- [SureCross PMx Gateways and Nodes](#)

## Remote Machine Monitoring Allows Supervisors to Take Immediate Action



*A wireless I/O Node and tower light monitors machine status and alerts supervisors when a machine stops running*

## Background

Machines run out of parts or break down, causing significant delays. Reducing these delays and down time would increase production output.

It was determined that all important machines and process should be monitored at a central location to allow supervisors to immediately address problems.

## Challenge

Wiring to each machine was too expensive and time consuming. Hard I/O wiring would also make it more difficult to reconfigure the plant layout, which is done periodically.

The machines being monitored were in a variety of locations, some near the centralized area and some on the other side of the plant making range an issue for many wireless systems. In addition, a one direction wireless I/O system would not be sufficient; at some locations there would be outputs in addition to inputs.

## Solution

Banner PM8 wireless system was chosen as the most suitable wireless architecture because it had exceptional range and a wide range of I/O signal types available for future needs. To monitor the machines, the PM8L Node with six discrete inputs and six discrete outputs was installed and wired directly in line with the machine's tower light.

A PM8 Gateway with K50 Lights was installed near the supervisors' location. They could see the machine's tower light color in the plant's command center, allowing them to instantly know the status of any machine in the plant.