

CLIENT	Southern Star Central Gas Pipeline
INDUSTRY	Energy
TECHNOLOGY	Automated Meter Reading

THE OPPORTUNITY

Southern Star (SSCGP) headquartered in Owensboro, Kentucky, has a natural gas transmission pipeline spanning over 6,000 miles in the Midwest and Mid-continent regions of the United States. It serves major markets such as St. Louis, Wichita, and Kansas City.

SSCGP needs to gather accurate, reliable and timely measurement from thousands of metering points throughout the pipeline. Doing so requires the use of satellite and terrestrial communications and solar power. Most of the remote locations are located in harsh outdoor environments.

THE PROBLEM

Their satellite communications system has a long “round trip time” and sends only small data packets, making communications with Internet Protocol (IP) a challenge. Satellite’s KU band also suffer from “rain fade” and solar activity interruptions that create reliability problems. The traditional technique of polling remote devices over satellite from a single host engine is inefficient and can induce catastrophic network failures.

Several database-driven applications depend on this measurement data for billing, control and analytical functions. Each database has its own requirements for content and data format. Additionally, remote devices are manufactured by different companies that need different formats of the data, complicating the gathering and dissemination of their critical informatio

THE SOLUTION

SSCGP realized the best decision was to move their computer architecture from a polling Client-Server environment to a real-time Multi-Tier one.

Cyte Technologies, working with the IT group and field personnel at SSCGP, employed its real-time Data Broker technology to tie multiple host

applications and remote devices together through a single application-switching server. Now each device and application need only communicate with the Data Broker server in order to communicate with the rest of the system, greatly reducing the number of application interfaces and system complexity.

The Data Broker server receives data from multiple sources. It then performs preliminary validation on the data,

identifies the target applications, extracts the relevant data and sends it to the target applications in the required format.

BENEFITS

Now SSCGP can remotely analyze system-wide efficiencies and operations via a graphical user interface (GUI) on a single platform with a single application from Cyte Technologies called Agency™.

For redundancy, a Data Broker running in tandem mode on another subnet provides protection against hardware failures.

Deploying their multi-tier system has allowed SSCGP to reduce the complexity of adding future applications, new equipment and old. There is no longer a need to develop, operate and manage multiple complicated interfaces among applications. Agency™ handles it all.