

## **ABOUT STAT SIGNAL SYSTEMS, INC.**

Founded in 1994, StatSignal Systems, Inc. is a privately held R&D and technology licensing company focused in the area of low-power RF wireless mesh networking and Internet related technology. The company holds numerous patents in the area of wireless sensory data migration 'to and through' distinct devices and allowing Internet accessibility to data and control of said devices. Over the past four years, the company has focused on applying its patented technology to the commercialization of a disruptively simple and cost-effective AMR solution to meet the increasingly demanding customer service, operational, and value-added service needs of utilities. For more information, please visit our website at [www.statsignal.com](http://www.statsignal.com).

iMODULE, SensNODE, AiNODE, StatSignal Pocket Network, and M.E.S.H. are trademarks of StatSignal Systems, Inc.

© Copyright 2003 StatSignal Systems, Inc.



[www.statsignal.com](http://www.statsignal.com)  
2859 Paces Ferry Road, Suite 700, Atlanta, GA 30339  
404.252.5512



---

# ENDLESS OPPORTUNITIES

DATA FROM EVERY  
SOURCE THE MIND  
CAN IMAGINE



THE WORLD OF UTILITY METER READING IS FAR FROM PERFECT. THERE'S THE ENDLESS MOVE-IN, MOVE-OUT READINGS OF APARTMENT COMPLEXES AND INACCESSIBLE OR GATED COMMUNITIES. SOME LOCATIONS ARE SO DANGEROUS YOU CAN'T PAY YOUR FIELD TECHS ENOUGH TO VISIT THEM. ALL TOO OFTEN, COSTLY TRUCK ROLLS ARE REQUIRED JUST TO ADDRESS COMMON BILL DISPUTES. NOT TO MENTION THE CUSTOMER SERVICE AND ACCOUNTING TIME YOU BURN UP TRYING TO RECONCILE INACCURATE READINGS OR SATISFY REGULATORY REQUIREMENTS.

## UNTIL NOW

STATSIGNAL DOESN'T MERELY ELIMINATE THESE OBSTACLES. IT TAKES AMR BEYOND SIMPLE METER READING. STATSIGNAL'S TWO-WAY, LOW-POWER RF WIRELESS MESH NETWORKS GENERATE A FAR DEEPER UNDERSTANDING OF UTILITY SYSTEMS AND CUSTOMER BEHAVIOR THAT IMPROVES DECISION MAKING ACROSS UTILITY SECTORS.

STATSIGNAL TECHNOLOGY MEANS UTILITIES CAN NOW INCREASE OPERATIONAL EFFICIENCIES AND ADD NEW PRODUCTS AND SERVICES AT SIGNIFICANTLY REDUCED CAPITAL INVESTMENT THAN TRADITIONAL AMR ALTERNATIVES.

### STATSIGNAL: THE TECHNOLOGY ENABLER

Low-power RF mesh technology innovation has been a StatSignal hallmark since 1994. Today, we license our proven and patented RF LAN to WAN enabling technology solutions across a range of industries and applications. We collaborate with an impressive roster of best-in-class OEMs, systems integrators and manufacturing partners to help drive AMR solutions to market.

STATSIGNAL OPENS  
THE DOOR TO  
ENDLESS OPPORTUNITIES.



StatSignal enables near real-time, two-way communication to all meters and finally delivers a long-promised AMR solution. The result is a dynamic, flexible infrastructure that provides greater access to your data and lets you better manage meter operations, distribution systems, and customer service.

The benefits are not limited to basic AMR. StatSignal lets you create end-user customer value-added services and new revenue streams such as smart thermostats, water conservation programs, and security e-monitoring. These services are achieved through the inherent capabilities of our communications infrastructure and the ability of the technology to expand as new applications become available.

## DATA "TO AND THROUGH" THE NETWORK DEVICES

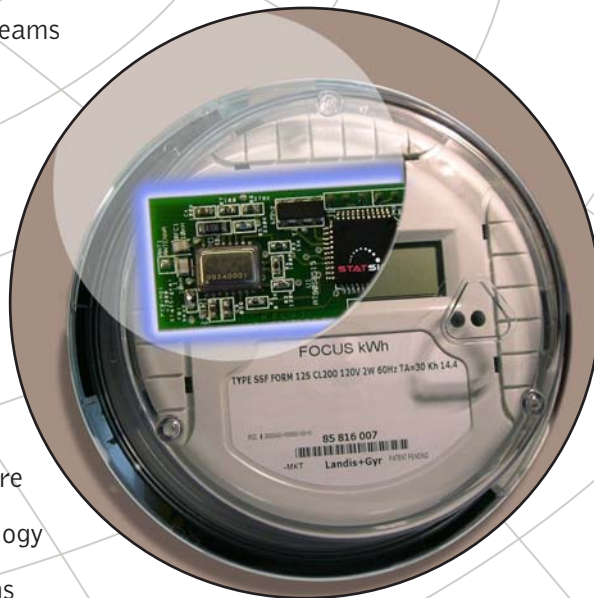
StatSignal's patented "to and through" communication protocol enables low cost data acquisition and control via proven two-way communication technologies. StatSignal's iMODULE™ circuitry and protocol are embedded into each end device, such as a meter or load control switch.

for moving data back and forth from the Pocket Network via the pre-existing WAN to and from your Data Center using industry standard TCP/IP or UDP protocols.

## MIGRATION ENABLED SENSORY HARDWARE (M.E.S.H.™) — THE DEVICES ARE THE NETWORK

Each network SensNODE acts as a repeater or router, relaying traffic for every other SensNODE. Data and commands migrate from device to device and automatically reroute in response to changing network environments and possible interferences. The devices are the network, which means a dynamic, non-line of sight communication and lower infrastructure costs are achieved!

By creating intelligence in the AiNODE, StatSignal has drastically reduced end point device costs and increased the ability for utilities to remotely manage meters.



These devices (SensNODES™) report through a dynamic network manager (AiNODE™) to make up the StatSignal Pocket Network™ (LAN). The AiNODE serves as the transition point



**TRAFFIC HOPS FROM DEVICE TO DEVICE  
ALONG A FULL TWO-WAY, REDUNDANT MESH  
UNTIL IT REACHES THE NEAREST AINODE.**



# JUST CONSIDER THE YOUR FINGERTIPS:

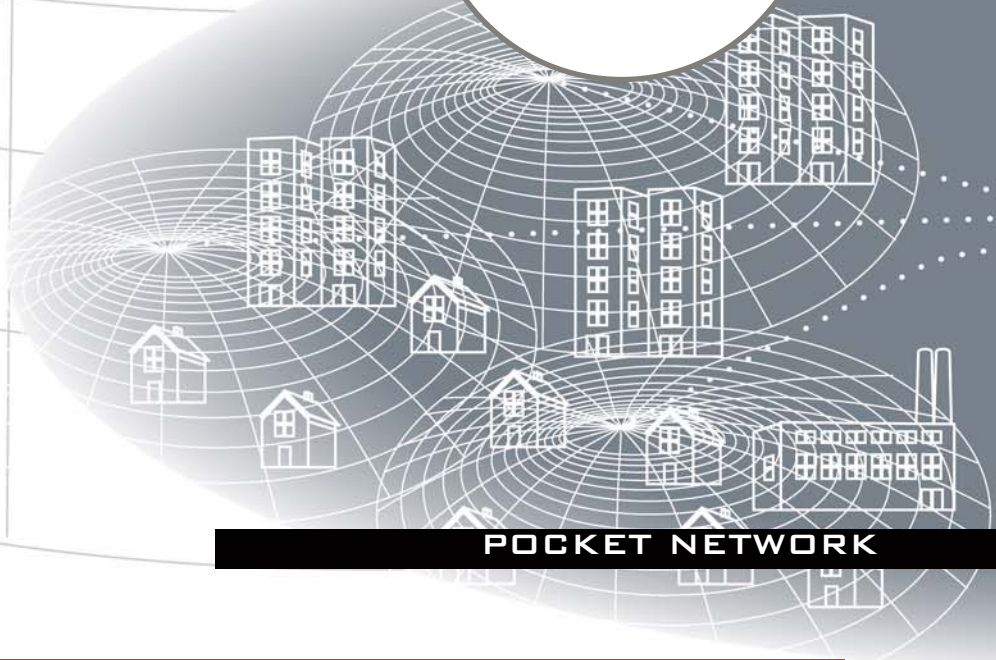
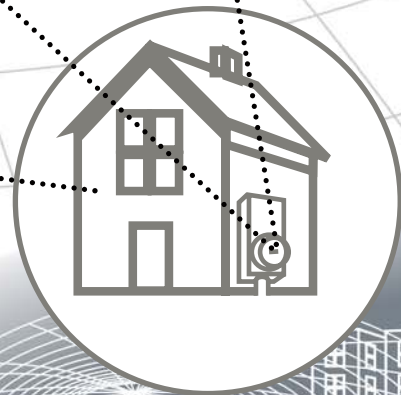


## KNOWLEDGE EXTENDS THROUGHOUT A UTILITY'S OPERATIONS

Data is stored in a database and can be manipulated by various query and control applications extended throughout a utility's operations. This solution enables quantifiable improvements and savings in

- Revenue assurance
- Customer service
- Field service operations
- Distribution
- System reliability and efficiency
- Marketing and business development
- Regulatory compliance.

- Collect and monitor monthly, daily, hourly or sub-hourly data from every customer meter.
- Perform near real-time on-demand reads for bill validation and move-in/move-out requests.
- Remotely program and upgrade network devices or change customer rates.
- Communicate with, monitor and control other devices within the home or business.



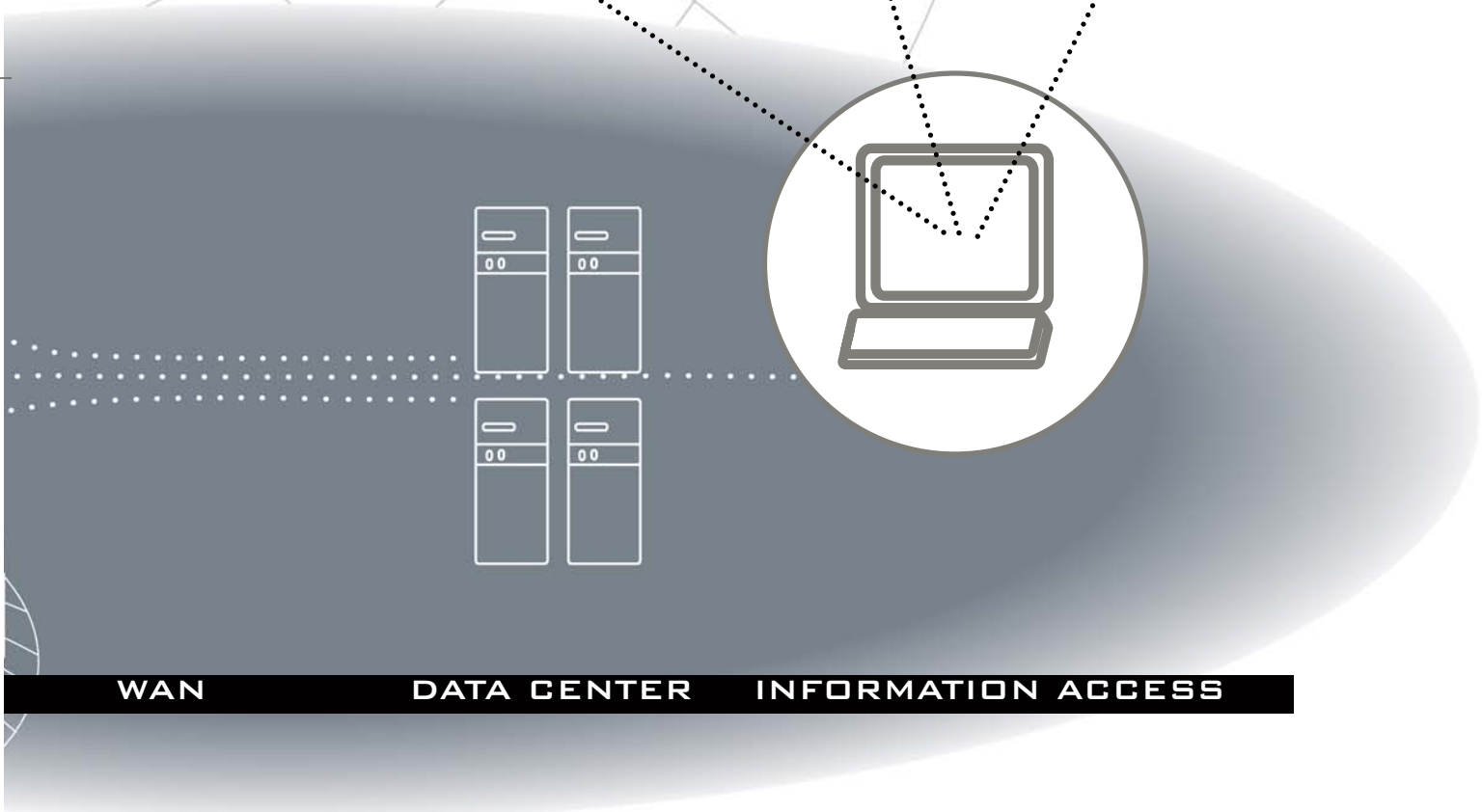
**POCKET NETWORK**

**YOUR BUILT-IN COMPETITIVE ADVANTAGE IS ENHANCED  
WHEN THE METER BECOMES A LOW COST GATEWAY TO  
THE HOME OR BUSINESS.**



# OPPORTUNITIES AT

- Enable customers to access their own usage and load information pricing options.
- Decrease revenue loss through quicker response to tamper alarms or commodity threshold monitoring.
- Share data with distribution, engineering, planning and other utility departments to increase operational efficiency through asset sizing, power outage reporting, restoration mapping, load profiling, and demand/load control programs.
- Measure, monitor and control your customers' electric, gas and water usage.
- Generate new revenue streams through value-added services capabilities.

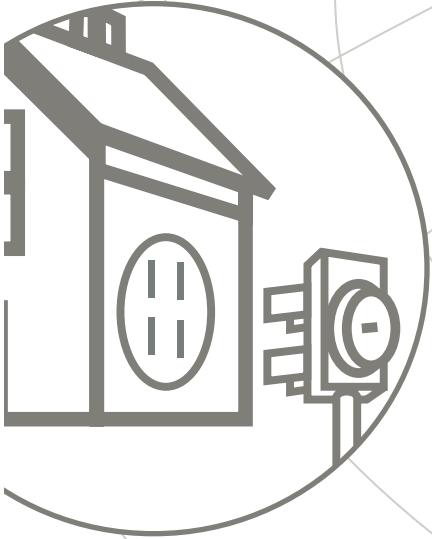


WAN

DATA CENTER

INFORMATION ACCESS

# REDUCED COST: THE CORNERSTONE OF THE STATSIGNAL NETWORK



## PLUG AND PLAY INSTALLATION

Adding new meters or relocating existing meters is as simple as plugging them into existing meter sockets. Meters automatically initialize into the network and start reporting data immediately.

Self-initialization also sets into memory all available links and optimizes performance by selecting the path with best signal strength. As needs change and technology advances, SensNODES can be upgraded, and new ones added to existing Pocket Networks with minimal effort.

## A NETWORK THAT HEALS ITSELF

Fault tolerant communication and self-healing links reduce maintenance. The Pocket Network communication uses peer-to-peer messaging to intelligently route the messages via an alternate path if a communication link is compromised. Most Pocket Network operation and maintenance tasks can be conducted remotely, eliminating the requirement for expensive field visits and delivering operational flexibility.

## EXPENSIVE "POINT-TO-POINT" CHARGES ARE ELIMINATED.

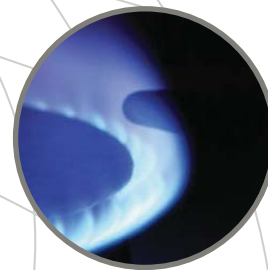
By utilizing the unlicensed 900MHz communications band in the unique Pocket Network, StatSignal reduces expensive communication charges associated with traditional pager, cellular, and high-power RF two-way networks. The aggregation of data through the AiNODE means you avoid paying communications charges at each individual network or device point.

Costs are also managed by allowing "options" WAN connectivity. The StatSignal AiNODE can bridge to any TCP/IP or UDP-based WAN such as fiber optic, DSL/Cable, PSTN or Cellular (iDEN, CDMA, CDPD, GSM). New connectivity alternatives can also be utilized.

**THE STATSIGNAL AMR INFRASTRUCTURE SUPPORTS ELECTRIC,  
BUSINESS CASE AND REVENUE GENERATING OPPORTUNITIES.**



## A SOLUTION THAT CUTS ACROSS UTILITY SECTORS



### ELECTRIC

With a fully integrated, under the glass, module for residential and commercial meters, the true benefit of advanced real time data acquisition and control is possible.

- Automated Meter Reading
- Scheduled Reads to Support Billing Cycles
- 15-Minute to Monthly intervals
- On Demand Reads
- Soft & Hard Connect/Disconnect
- Time of Use (Residential & Commercial)
- Load Profiling
- Power Outage/Restoration Reporting and Monitoring
- Tamper/Tilt Notification and Alarm Capability
- Usage Threshold Monitoring and Alarms

### WATER

Full two-way data exchange (beyond the once per month or expensive special reads) help ensure operational efficiency and usage enforcement policies.

- Automated Meter Reading
- Hourly, Daily, Weekly, or Monthly intervals
- Load Profiling
- On Demand Reads
- Threshold reports and alarms for unusual usage patterns and leak detection

### GAS

Understanding the critical supply and demand needs of natural gas market, interactive capability is enabled.

- Automated Meter Reading
- Hourly, Daily, Weekly, or Monthly intervals
- Load Profiling
- On Demand Reads
- Threshold reports and alarms for unusual usage patterns and leak detection
- Tamper Notification and Alarm Capability

### LOAD MONITORING AND CONTROL

StatSignal's robust communication infrastructure can enable a range of utility-related capabilities such as load monitoring/control, real time pricing and systems monitoring, providing an increased return on investment.

- HVAC Thermostats
- Industrial Machinery
- Load Control Switches
- Lighting

WATER, GAS AND DEMAND RESPONSE PROVIDING AN ENHANCED

