

Air Traffic Controller™

Smart Communications for the Smart Grid



The CalAmp Air Traffic Controller (ATC) is a flexible distributed “Communications Frontend Processor” that optimizes bandwidth over wireless Networks. The ATC is an industrial computing appliance based on Kepware OPC-UA technology that allows multiple Smart Grid applications to share one common Wireless Communication Network and maintain optimal Wireless Network performance.

The ATC is the heart of the CalAmp “Distributed Communications Architecture” that moves Intelligent Communications and Network Management to the “Edge” of a Utility’s Core Backhaul Network providing an added layer of security between the Utility’s applications and remote end device while managing Wireless Network bandwidth. The Air Traffic Controller supports Multiple Protocol Drivers that have been optimized for Wireless Communications Networks mitigating “On the Air” contention resulting in: Reduced Data latency, Improved Network Availability and Reliability. Complies with NIST interoperability standards.

Key Features

- Allows multiple applications to share a common communications infrastructure
- Supports NIST interoperability and security standards by utilizing OPC-UA architecture
- Protocol drivers have been optimized for wireless communications
- Distributes Network Managements to the “Edge”
- Optimizes RF bandwidth
- Provides protocol diagnostic tools

High Speed

Long Range

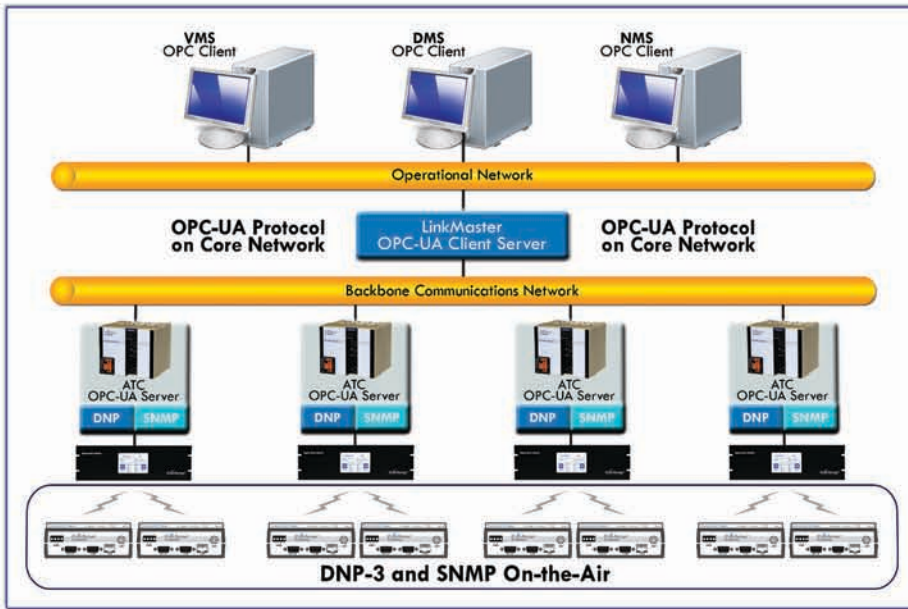
Ruggedized

Safe/Secure

Diversity

Connectivity

Air Traffic Controller



FEATURES and BENEFITS

Integrated Solution

- Includes all required hardware and application software
- No programming required
- All configurations stored on-board in compact flash memory
- Automatic restart on power loss
- Available redundancy Option
- Embedded Operating System Security features
- Optimizes Data Collection with preconfigured Protocol Drivers
- Smart RF Bandwidth Management
- Imbedded Protocol diagnostic tools
- Distributed SNMP Management allows management of any SNMP manageable device
- Allows Smart Grid Applications to share one Wireless Communication Network
- Provides Network Segmentation
- Enhanced Security Layer meeting NERC-CIP and NIST requirements
- Complies with NIST interoperability standards
- Expandable communications interface capability
- Integrated I/O available per user requirements

Wide Selection of Tested Drivers

- Supports over 100 field-tested Protocol drivers (including DNP and SNMP)
- Custom Protocol Drivers can be easily added
- Multiple drivers can be used simultaneously
- Communication via Ethernet, serial ports, USB ports, or PCI backplane

Easy Configuration

- On-board configuration interface
 - Configured with secure remote management session
 - No additional configuration software required
- Based in OPC-UA Client /Server architecture
- Import/export/backup/restore functions

SPECIFICATIONS

CPU Processor

- AMD LX800 500 MHz x86

Memory

- System: 512 MB DDR-333 (Optional 1 GB)
- Battery-backed: 512 KB SRAM
- Cache Memory: 128K L1 / 128K L2
- Flash Memory: Compact Flash Type I or II with DMA

Ports

- Two USB 2.0/1.1 High Speed
- Two Ethernet 10/100T IEEE 802.3
- COM 1 Isolated Serial RS232/RS422/ RS485
- VGA

Battery

- Rechargeable Lithium

Jumpers

- Battery enable/clear CMOS
- RS232/RS422/RS485

Switches

- Reset switch

Clock

- Precision RTC accurate

Timers

- Minimum interrupt & interval 1.67619 us

Fan

- Fanless operation

ENVIRONMENTAL

Temperature

- -40°C to +85°C (storage)
- -10°C to +60°C (operating)

Form Factor

- Stand Alone Computing Appliance

Power

- 115 VAC; 10-W max power consumption