TCU 100

Acquiring data at the meter is one half of the equation in a successful fixed network system. The other half is delivering that information back to the utility, which is equally important. With the onset of advanced metering initiatives and more robust collection of interval and event data, ensuring your information arrives where and when it should becomes critical. Devices that transport data across the network are a critical link, connecting utility and consumer.

Itron's new TCU 100 reads data from Itron electricity meters, gas and water endpoints, and repeaters. The TCU 100 is the tower-based configuration of Itron's CCU 100. It can be used to extend the reading distance of each collector by the increased height of the collector's antenna. The extended coverage increases the number of meter endpoints per collector, thereby reducing the number of collectors required for a service area and lowers the initial capital investment. With the TCU 100, the network can be scaled to optimize the assets in the field giving utilities the flexibility to balance equipment and coverage with budgets.

Data is forwarded from the collector to the utility over a public wide area network (cellular-based WAN or broadband) or a private WAN supporting IP-addressable packet data. Once delivered to the utility, the data is automatically uploaded to the Itron Fixed Network Software and can be used for advanced applications and analysis in a meter data management system. Data uploads occur at scheduled intervals. The TCU 100 can also facilitate on-demand read requests when needed.

The streamlined TCU 100 enclosure contains a back-up battery and connects to the antennas mounted atop the tower. The TCU 100 operates on a dedicated power supply from a source within the tower site. In the event of an outage, the collector sends an alarm to the Itron Fixed Network Software with information describing various events, including power loss, restoration and low-battery conditions.

FEATURES AND BENEFITS

Itron's latest fixed-network collector, the TCU 100, offers deployment flexibility and performance to support the needs of today's evolving utility by providing:

» Two-way communication to endpoints and to the repeater to collect on-demand reads, issue network commands and download firmware

» Robust interval data collection, when coupled with a meter data management and analysis system, helps utilities:

- Improve customer service
- Refine forecast consumption
- Manage and control tamper and theft
- Develop new rate-based and customer incentive programs
- Better respond to customer "what-if" questions

- Time-synchronization of endpoint clocks, ensuring that data collected is accurately time-stamped
- Retrieval of missing interval data in the event of a network outage
- Dedicated power option
  - Includes AC receptacle for powering miscellaneous items added into the cabinet shelf when AC power is installed
- External terminations for antennas and other connections to simplify installation and maintenance
- Solar-powered configurations for locations where hard-wired power is not readily available
- Multiple communication options for public and private WAN backhauls. Public and private technologies can be combined in a deployment, providing a hybrid approach best suited to the communication strengths of a given area

TCU 100 w/ pedestal base

Specifications

Functional		
Power Requirements	Power source: Power consumption: Power connectors: Back-up battery:	90VAC to 265VAC; 47 Hz to 63 Hz 7.5 Watts typical watertight and keyed 6VDC, 25 AH lead-acid, 8 hrs battery operating time
Operating Environment	Operating and storage temperatures: Operating humidity:	-40C to +60C (-40F to 140F) ambient 0 to 95% non-condensing relative humidity
Product Details	Product identification: Certification:	numeric and bar code serial number meets or exceeds applicable ANSI C12.1 or equivalent standards
Operational		
Endpoint Transceiver Operating Frequency	903 – 926.8 MHz	
Backhaul Specifications	Ethernet HSPA/UMTS CDMA EV-DO Rev A CDMA 1Xrtt	Flexible private LAN options via Ethernet connection EDGE/GPRS/GSM CDMA 1XEV-DO Rev 0 CDMA IS-95
Regulatory and Standards		
	FCC, CFR 47, Part 15 Class B certified	
Physical		
Dimensions	39” x 20” x 12” (99.1 cm x 50.8 cm x 30.5 cm)	
Weight	75 lbs. (34 kg) with battery	
Regulatory and Standards		
	Pole Mount Pedestal Mount H-Frame	
Host Processing Software		
	Itron Network Software	Optional Hosted Services
Reference Materials		
	Installation Guide: Quick Ref Guide: Tech Ref:	TDC-0xxx TDC-0xxx TDC-0xxx

At Itron, we’re dedicated to delivering end-to-end smart grid and smart distribution solutions to electric, gas and water utilities around the globe. Our company is the world’s leading provider of smart metering, data collection and utility software systems, with over 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water.

To realize your smarter energy and water future, start here: **www.itron.com**

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