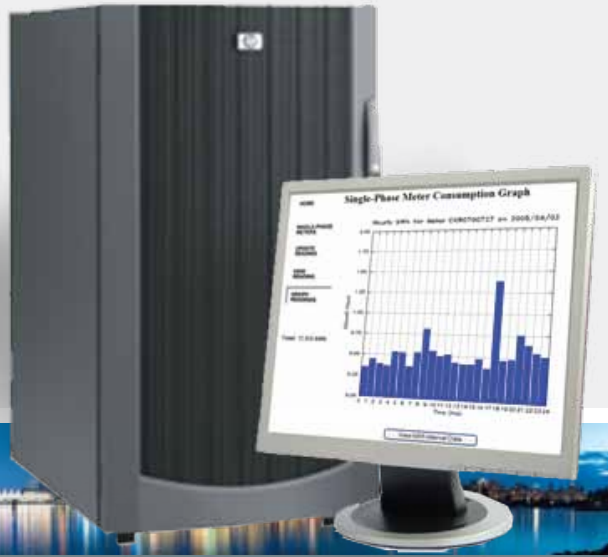


TUNet Control Center

Smart Grid command & control center for
the Tantalus Utility Network

The TUNet Control Center (TCC) is a high-performance, multi-application computer system that processes, routes and stores incoming data, and issues outgoing commands within TUNet®—the Tantalus Utility Network. It is built for full Smart Grid functionality, including Advanced Metering (AMI/AMR), Distribution Automation (DA) and Demand Response (DR). It provides the rapid and reliable two-way communications needed for dynamic billing programs and other advanced applications such as load management. It also enables technicians to remotely configure and maintain meters, add softkeys or other device-specific capabilities, change firmware in some devices, and program infrastructure apparatus. The TUNet Control Center is a packaged product suite that includes an application server, a database server, a web/presentation server and the operating systems for this hardware. Versions are available to meet the requirements of small or large utilities as well as the operational needs of single or multi-commodity enterprises.



The TUNet Control Center seamlessly bridges TUNet devices with back office applications.

Data is delivered in standard formats that make integration with other applications hassle-free, including Milsoft's DisSPatch and NISC's iVUE Outage Management Systems. Utilities can leverage TCC data and use it to make prompt, insightful operational and business decisions.

The TCC is also a central repository for data collected from TUNet-enabled meters and network devices, and provides high reliability using RAID and hardware redundancy.

The web server presents consumption, network status, outage alerts and other operational data securely via a web browser. Easy access by utility staff to up-to-the-minute usage information enables them to closely monitor consumption and network performance.

Interaction with field devices lets customer service and operations staff monitor power quality, voltage and outage/restoration status as well as perform on-request reads. It can also be used as the basis for customer signaling, online billing and web-based conservation and cost containment programs.



TANTALUS ADVANTAGES

- Controls, routes & stores all inbound and outbound data on TUNet network
- Designed for advanced Smart Grid functionality including AMI, DR and DA
- Provides MDM-like capabilities and also integrates easily with MDM systems via MultiSpeak 4
- Scalable to support from as few as 10,000 residential meters up to 1 million or more
- Produces data for multiple departments (engineering, operations, customer service) and/or utilities (electric, water, gas)
- Open systems (ASCII) for integration with billing, engineering and customer service applications
- Easy report generation through popular applications such as Excel
- Event-driven network; immediately notifies staff of outages and voltage swells, sags, and blinks via on-screen event monitor
- Outage alerts issued via email, cell phone and/or pager to on-call utility staff
- Web browser interface provides staff with easy access to data and opportunity for utility to provide high customer responsiveness
- Over-the-air reprogramming enables utility to change metering parameters remotely
- Fast report generation with built-in support for graphs, charts & diagrams; exportable to PDF and CSV files
- Central repository for all data collected from endpoints
- Configurable backup options to ensure high data redundancy

Systems Integration

- Capable of interfacing with a variety of third-party applications including MDM, CIS, Billing, OMS, LMS, GIS, MV-90
- OMS integration via MultiSpeak 3 & 4
 - Milsoft DisSPatch
 - NISC iVUE

Connectivity

- Connects to TUNet Network Controllers through TCP/IP (microwave, fiber-optic cable, 10/100 Ethernet and ADSL)
- Connectivity options include dial-up (for low-density areas), fiber or WiFi

Computer & Peripherals

- HP servers
- Linux operating system
- Oracle database

Environmental

- Suitable for standard office or server environments

Approvals / Standards

- FCC for CFR Title 47 Part 15b

