

# Telstra Remote Telemetry

Telstra Remote Telemetry is a complete IP-based solution that provides the security of a virtual private network (VPN) with the extra assurance of genuine dual path monitoring.

You have a choice of wired VPN access with the ability to use the unrivalled 4G coverage of the Telstra Mobile Network or BGAN Satellite for redundancy. Single path monitoring is available for less critical sites via the wireless service.

Since it is IP-based, you can gather telemetry data from multiple remote locations and either collect it at a central point or enable these locations to communicate with each other. All telemetry data can be viewed from the hosted user interface client, while management data is viewable via the UAUI interface.

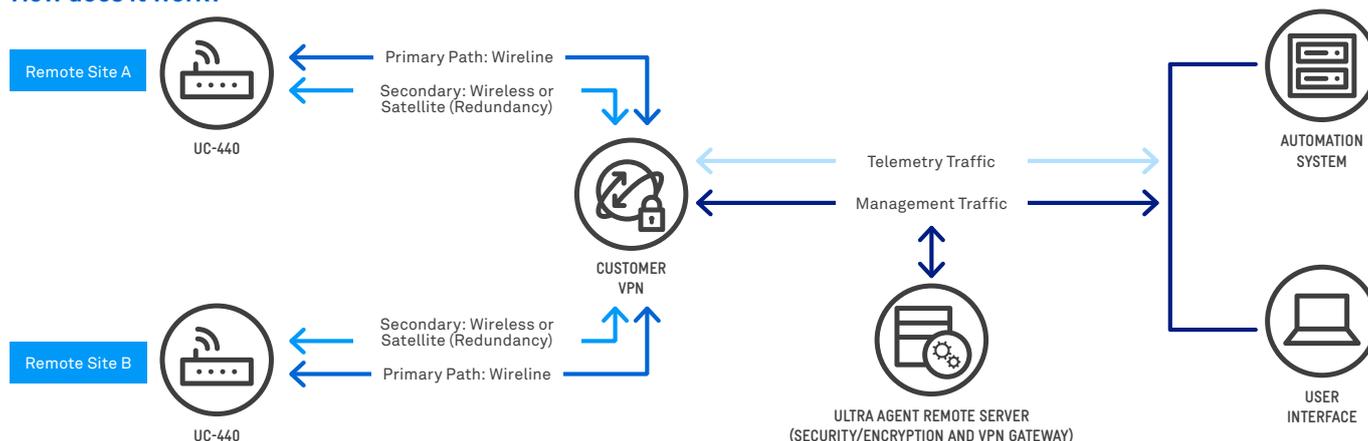
Security is first class. Restricted topology lets you deny and/or permit traffic flows based on your rules. All telemetry data travels

across a virtual private network with ISO-27001 security certification. In addition, traffic is viewable 24/7 by Telstra to help ensure system integrity and performance.

Only requiring an on-site communicator unit and downloadable software, the solution is simple to install, activate and use. And since it works with most data sources and automation systems, including SCADA and SCATS platforms, there's no need for costly upgrades.

Telstra Remote Telemetry is also designed to adapt to new technologies as they arise and the communicator hardware is ruggedised making it suitable for industrial applications.

## How does it work?



**Note:** If a dual path option is chosen, the customer can select what they want to use as a primary path and secondary path.

## Technology at a glance

### 1. UltraLink (UC-440)

UltraLink Telemetry Communicators enable the transport of telemetry traffic over IP networks. The UC-440 offers an unparalleled level of functionality and reliability for telemetry users seeking to move their transport infrastructure to IP without replacing their existing telemetry infrastructure. Typical use case examples include:

- RTUs in water management, farming, mining and other SCADA applications
- EFTPOS terminals and ATMs
- Security alarm panel communications
- Traffic light network management

### 2. UltraAgent and UAUI

UltraAgent and UltraAgentUI provide the following management facilities:

- **Fault Management** – Interfaces continuously polled and alarms raised to report fault conditions.
- **Configuration Management** – Creation and automatic download of site-specific configuration data and software version management.
- **Administration** – Logging of operator actions and unit status.
- **Performance Management** – Utilities to monitor performance of WAN and local interfaces.
- **Security** – Every UltraLink is uniquely keyed and serialised.

Features	Benefits
<b>Onsite equipment</b> UC-440 communicator incorporating: <ul style="list-style-type: none"> <li>• router</li> <li>• activated SIM card</li> <li>• built in 4G cellular modem, ADSL2+/VDSL2 modem, multiple Ethernet ports, serial port and a USB port.</li> </ul>	<ul style="list-style-type: none"> <li>• Small, sturdy and lightweight aluminium unit.</li> <li>• Uses less power than previous models.</li> <li>• Simple to install – zero-touch activation and easy to integrate with new technologies.</li> <li>• No need for costly upgrades – works with most data sources and automation systems including legacy systems.</li> <li>• Ability to choose the way the unit connects to the network.</li> </ul>
<b>Wired and wireless access</b> <ul style="list-style-type: none"> <li>• Multiple wired connection options – WAN, ADSL, NBN FTTP, and NBN FTTN</li> <li>• Wireless 4G connectivity with fall back to 3G in non 4G areas.</li> <li>• Satellite connectivity via the Inmarsat BGAN network.</li> <li>• Optional Bluetooth support.</li> </ul>	<ul style="list-style-type: none"> <li>• Flexibility to work with your preferred access network.</li> <li>• Connect in more places with Australia's largest mobile network – including areas with no wired networks.</li> <li>• Works in areas where wired/wireless connectivity is unavailable.</li> <li>• Continuity of operations – automatic switchover to wireless if there is an outage to the wired network.</li> <li>• Option for single path wireless monitoring for less critical sites.</li> </ul>
<b>Management interface</b> <ul style="list-style-type: none"> <li>• Client based access to Telstra Remote Telemetry UltraAgent servers.</li> </ul>	<ul style="list-style-type: none"> <li>• Stay informed by viewing telemetry system data logs and historical reports.</li> <li>• Quickly access information from your web browser.</li> <li>• 99.9% target availability for your telemetry data for assurance.</li> <li>• Easy to install and use software application.</li> </ul>
<b>Telstra Managed Radius server</b> <ul style="list-style-type: none"> <li>• Authenticates each connection for ADSL and Wireless (does not apply to Satellite or NBN).</li> </ul>	<ul style="list-style-type: none"> <li>• No need to deploy and manage your own Radius server.</li> <li>• Easy to configure security for ADSL and Wireless.</li> </ul>
<b>Restricted topology</b> Restricted topology uses access control lists allowing you to set policies to deny and/or permit traffic flows based on: <ul style="list-style-type: none"> <li>• source and/or destination IP address</li> <li>• TCP, UDP or other protocol port identified by its number</li> <li>• TCP or UDP application protocol port.</li> </ul>	<ul style="list-style-type: none"> <li>• Logically separate traffic and restrict access to different entities or departments for additional security.</li> </ul>
<b>High security</b> <ul style="list-style-type: none"> <li>• IPSEC encryption.</li> <li>• Dedicated VPN access.</li> <li>• ISO-27001 security certification.</li> </ul>	<ul style="list-style-type: none"> <li>• Confidence that your data is protected.</li> <li>• Traffic is immune to web-based interference.</li> <li>• Assurance of best practice data security.</li> </ul>
<b>Competitive pricing</b> <ul style="list-style-type: none"> <li>• Single monthly charge for equipment, management access, 24/7 monitoring and support.</li> </ul>	<ul style="list-style-type: none"> <li>• An affordable solution that's easy to budget for.</li> </ul>

## Technical information

**Remote End Site:** A private IP address pool or pools is provisioned on the Telstra network to dynamically or statically allocate IP addresses to the remote UltraLink devices via Telstra Managed Radius.

A private IP address is allocated to remote UltraLinks by the Telstra Managed Radius for the establishment of the PPP session. Each UltraLink device is assigned a minimum of one dynamic IP address which identifies the access carriage. Where you have chosen the dual path option, then a second IP address is allocated to the UltraLink for identification of the second access path (these can be from the same pool).

Telstra Managed Radius authenticates each connection by unique username and password generated by the Ultra Agent and assigned in the zero touch process. Please note that zero touch does not apply to NBN or Satellite.

Each IP address pool in the Telstra network may consist of one or more IP address ranges. The minimum supported size of address range within an IP pool is 256 addresses (i.e. /24 – Class C address range).

The Telstra network terminates the PPP session (from remote end points ie, UltraLink) for dynamic access on the Dynamic Access Edge routers. For NBN and Satellite access the Radius servers do not allocate IP addresses.

**Head-End:** Head-end sites are assigned an address from a private IP address range, which is used to assign IP addresses to the various components related to Telstra Remote Telemetry such as the Ultra Agent UI terminal.

Contact your Telstra account representative for more details.

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A private and static IP subnet is used for the connections (e.g. Business IP) between your head-end and the Telstra Remote Telemetry VPN. The head-end router interfaces with the Telstra network.

## About Telstra

We provide network services and solutions to more than 200 of the world's top 500 companies. They rely on us to do business across 240 countries and territories and to enable greater productivity, efficiency and growth.

Our solutions offer the best of all worlds – skilled people and a rich portfolio of services delivered on our world-class Telstra Next IP® network and Telstra Mobile Network. To ensure reliable performance, they're monitored and maintained from our dedicated centres using advanced management and operational systems. And they're backed by Telstra Enterprise-grade Customer Service® and one of Australia's largest and most qualified field and technical workforce.

## Things you need to know

Telstra Remote Telemetry and the UC-440 communicator are provided on a rental basis only. Unless specifically contracted beforehand, you are required to install the remote site equipment and activate the service yourself. You will need to have a Telstra Business IP service to access the Telstra Remote Telemetry network (normal access charges apply).

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