DATRAN VI

Product Release Notice
Version 6.77

July 2021





QTECH DATA SYSTEMS

Introduction

DATRAN VI version 6.77 is now available and is provided to all software maintenance agreement (SMA) holders. Please log in to the Members section of the QTech website to download this software.

This release is on a user-friendly installer to help simplify installation and will upgrade any existing version of DATRAN VI. Please forward a copy of this document to your IT/IS Supervisor.

The following sections detail the new features and user requested enhancements in this version of DATRAN VI.

Your feedback on the product and possible future enhancements is always appreciated. Please do not hesitate to contact QTech on +64 3 366 3713 or email techsupport@qtech.co.nz.

This Release

The primary reason for this release is to provide significant improvements for large DATRAN systems using multiple Ethernet TCP/IP and cellular data communication channels.

These improvements are the result of an extensive development project to provide enhanced scalability for DATRAN systems to meet the growing demand for high-speed TCP/IP connections.
Major changes have been made to the core DATRAN services including TBServ and QComms.
Extensive field testing of the new version has been completed and this release encompasses all the changes and improvements.
Other fixes have also been completed, including an enhancement for SMS Direct when using the CM910 4G modem.

DATRAN VI v6.77 should be installed prior to installing DATRAN Supervisor v3.65.
Please refer to the associated release note for further details.

Summary of New Features and Modifications

Changes in this version:

- **TCP/IP Connections to RTUs - Restructured**
  The Management of TCP/IP connections to RTUs has been restructured. This separates the TCP connection process states from the higher layer aspects of the application message protocol (QCOMMS), to clarify the rules of communication failures and provide more consistent behaviour.

- **QComms – Rearchitected - TCP Connection Management**
  The QC-QTech service has been rearchitected to handle inbound connections better.
  This development makes DATRAN more resilient to system scaling with large numbers TCP/IP connections.
  This also rectifies a memory leak, which could be seen on large systems with multiple TCP channels, where memory use would increase over time until a service restart was needed.

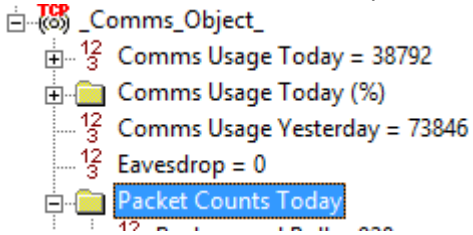
- **Master Slave Comms Fail Management Improvements**
  TCP RTU and Cellular Data RTU handling has been refactored. Comms fails are now identified only if DATRAN sends to an RTU and does not receive an Ack after the specified timeout and number of retries as defined by the RTU object.
  The following clarification notes now apply:
  1) A Master RTU in Comms Fail does not necessarily imply Slave RTUs are in Comms Fail (but is very likely if all are polled at a similar time)
  2) TCP connection level - Successful reestablishment of underlying TCP connection does not clear a Coms Fail - an expected Ack must still be received before Comms Fail status will clear.
  3) Application level - Successful receipt of a Change of State (COS) does not clear Comms Fail status. Just fixing the TCP connection is not enough. At the application level a message must be sent, and an acknowledgment must be received before the comms fail state will reset.

- **Cellular Modem – 4G CM910 Initialisation Improvements**
  The driver initialisation sequence has been improved for the 4G CM910 modem, used for SMS Direct.
  Customers reported that the 4G CM910 cellular modem (which uses a Telit 4G LE910 module) was not working when replacing older 3G CM910 modems (which uses a Telit 3G HE910 module).
  Both modems are compatible with SMS Direct, but hardware flow control must be configured for the 4G CM910 and genuine QTech connection cables are to be used.

- **TCP Server Improvement – Site Screen in Supervisor**
  Previously, TCP Server could fail to find view property nodes, which would then prevent the sites screen from loading correctly. This has been fixed when used in conjunction with Supervisor v3.65. Please install DATRAN v6.77 before installing Supervisor v3.65.

- **RTU Datalogging Diagnostics**
  A new diagnostics category has been added for RTU datalogging in XL4 Plus RTUs (v7 firmware).
  The feature allows you to print out log record values as they are retrieved from the RTU to assist analysing the data.

- **Communication Statistics Enhancements**
  The comms statistics for the channel and RTU comms object provide useful information about recent comms usage.
  This has been extended to include a new node called “Packet Counts Today” which contains:
  - Packets Sent Today
  - Packets Received Today
  - Acks Sent Today
  - Acks Received Today
  - COS's Sent Today
  - Background Polls Today



The Benefits of Upgrading

QTech's software and hardware are continually evolving. Many of our customers have been using DATRAN for over 25 years, and it has remained a stable product on a variety of platforms and Operating Systems.

DATRAN VI is a major evolution of our early products and we feel that it combines the best of the features from all these products, along with a quality control program used to manage its development and release that is essential for software being used in the roles that DATRAN is used.

We strongly recommend that all systems are updated to the current release. We suggest to DATRAN VI users without Software Maintenance Agreements (SMA) that they consider this significant upgrade, as this release is where QTech will focus its direct support.

Prerequisites for Upgrade

Prior to upgrading to DATRAN VI v6.77 from any previous version, the following should be considered:

- If your current installation is older than v6.52, please contact us as there are additional tasks required to perform the migration.
- It is important that any sites that have RTUs with firmware older than v7.0 do not have any point count values of 255. If they do, then either disable the site, upgrade the firmware, or set the point count value to 254.
- To use DATRAN XL4 *Plus* RTUs a minimum version of DATRAN v6.71.0 is required. This release is fully compatible with DATRAN XL4 *Plus* RTUs.

Compatibility and Installation

This is a full release version and replaces all existing versions.

Close Applications

Before installing it is recommended that you close all client applications.

PC Reboot

No rebooting of the target machine is required after the installation.

New Installation

To enquire about the requirements for doing a new installation of DATRAN VI, please contact QTech on +64 3 366 3713 or email your enquiry to techsupport@qtech.co.nz.

Disclaimer

While every endeavour has been made to ensure that the product description is accurate, details are subject to change. QTech Data Systems Ltd reserves the right to alter the system specifications if required. It is our intention to continue to develop the features of the DATRAN VI product range and add additional modules.

QTech Data Systems Ltd does not warrant the suitability of this product for any particular application as the conditions in which it is used are beyond our control. This is not withstanding warranty of merchantability.

Increasingly, systems are being connected to the Internet. QTech Data Systems Ltd cannot guarantee these services will be available or functional 100% of the time, because the integrity of network connections is beyond our control.

Ongoing Support

QTech Data Systems Ltd encourages clients to configure their systems to allow remote access via a directly connected modem or internet-based VPN. This allows for off-site support from either QTech Data Systems Ltd staff, or in-house staff outside of work hours.

Contact QTech

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