

T4000 Release Notes:

T4000 V4.8.0.4906

25/11/2020

New Functionality:

- Added CSV/IP alarm capturing functionality for ContactID
- Added GSM Single SIM functionality
- Added support for the BG95 LTE module

Changed Functionality:

- Modified the firmware build number that is sent in the initial connection of the Inner Range Serial protocol
- Modified how the panel password is stored

T4000 V4.7.3.4840

06/09/2021

Issues Resolved:

- Fixed an issue with Upload/Download where after a number of sessions have been performed there is a chance that future sessions will not be able to run. This was causing some users to experience difficulty starting Upload/Download on Optus

T4000 V4.7.2.4827

07/07/2021

Issues Resolved:

- Fixed an issue with devices that were using a single SIM plan and router mode

T4000 V4.7.1.4821

28/06/2021

New Functionality:

- Added some "hard coded" SkyTunnel paths so that regardless of the configuration that is applied, the communication with SkyTunnel will be able to be established
- Added an additional test that can be configured to determine if the Ethernet path is working for flexi-routing

Changed Functionality:

- Modified the database defaults to attempt to connect to additional SkyTunnel instances
- Modified support for a change in the GSM module firmware
- Minor update to the periodic review that is generated about the state of router mode

- Enhanced the support for single SIM devices to alternately swap the network being attempted when there has been no host communications

Issues Resolved:

- Fixed bugs around triggering, untriggering and disconnecting from SkyTunnel

T4000 V4.6.3.4790

18/05/2021

New Functionality:

- Added support for new Vodafone Global SIM cards

T4000 V4.6.2.4749

01/03/2021

Issues Resolved:

- Fixed an issue where in some cases the T4000 could not establish communication with a Challenger panel

T4000 V4.6.1.4738

09/02/2021

Issues Resolved:

- Fixed an issue where the T4000 could reset when trying to establish communication with a Challenger panel

T4000 V4.6.0.4709

01/02/2021

New Functionality:

- Added querying the time zone information from the GSM module once an hour
- Added the ability to clear the system password
- Added querying the names of the first 20 configured areas when establishing the connection with a V10 Challenger panel
- Added querying the names of the first 20 configured relays when establishing the connection with a V10 Challenger panel
- Added querying the names of all 16 areas when establishing the connection with a V8 Challenger panel
- Added the ability to do "timed control" for the first 20 relays that have names from a V10 Challenger panel
- Added the ability to do "timed control" for the first 20 relays of a V8 Challenger panel
- Added the ability to do "timed control" of PGMs from a Paradox MG5050 or SP6000 panel

Changed Functionality:

- Modified the "output follows input" functionality to make it edged triggered instead of level triggered

- When the database is being committed, added a parameter to determine the source that has triggered the database commit and added a database defaulted time stamp
- Modified the monthly check to see if the database is defaulted to check against the new database defaulted time stamp
- Increased the number of MIP connection database endpoints from 8 to 16
- Increased the number of SkyTunnel path database endpoints from 6 to 12
- When communicating with a Challenger panel, changed the serial interface that is used to always be RS232
- When communicating with a Challenger panel, made some modifications that will likely assist in establishing a connection
- When communicating with a Paradox panel, changed the serial interface that is used to always be TTL
- When communicating with a Paradox panel, made some modifications that will likely assist in establishing a connection
- Reinstated the functionality to make it possible to perform ping whilst routing (flexi-routing)
- Modified how the database defaults are generated
- Modified some of the database defaults for a specific customer
- Modified how the DNS server is configured to be different for Ethernet and GSM
- Increased the minimum SIM swap period from 3 minutes to 5 minutes to allow time for connection attempts via all of the available SkyTunnel paths
- Modified the automatic enabling of zone inputs to be able to be overridden
- Randomised the MIP connection that is used

Issues Resolved:

- Fixed an issue when communicating via the Inner Range serial protocol where SkyTunnel was not being triggered for T4k Expander comms
- Fixed an issue when communicating via the Inner Range serial protocol when processing a ContactID + Text alarm where the '@' symbol was not inserted between the ContactID round data and the text description
- Fixed an issue where the "database uncommitted" state was not updated when a database record was modified
- Fixed an issue when attempting to connect to SkyTunnel where if a connection attempt via DNS did not work, then don't retry it again immediately
- Fixed an issue when performing IRfast dialler capture where the DTMF power ratio was forgotten

T4000 V4.4.3.4705

29/09/2020

Changed Functionality:

- Prevented the T4000 from generating a status message when there is an Ethernet cable plugged in but there is no network

T4000 V4.4.2.4661

05/08/2020

Issues Resolved:

- Fixed an issue when determining the duration that an event should be attempted to be reported for
- Fixed an issue when communicating via the Inner Range serial protocol where SkyTunnel was not being triggered for T4k Expander comms
- Fixed an issue where the "database uncommitted" state was not updated when a database record was modified
- Fixed an issue where the "max alternate network duration" was set to 4 minutes instead of 4 hours

- Fixed an issue with communications to the MultipathIP server where the connection chosen as a result of broadcasting was the lowest connection index instead of the lowest priority number

T4000 V4.4.1.4628

21/02/2020

New Functionality:

- Added support for T4000 deployed in Australia to be able to connect to the new private Telstra network

T4000 V4.4.0.4497

01/11/2019

New Functionality:

- Added controlling of Paradox MG5050 and SP6000 panel areas and PGMs via a serial connection
- Added support for T4000 deployed in Australia to be able to connect to the new private Optus network

Changed Functionality:

- If a network outage was detected, added a timer to revert to normal functionality after a configurable time (4hrs by default)
- Increased the number of MultipathIP connection endpoints
- Increased the number of SkyTunnel connection endpoints
- Modified the credentials that are used when authenticating with the Optus GSM network to use the new private network
- Modified the database defaults to allow more flexibility when trying to establish initial connection
- When a database default is performed, also delete all buffered alarms

Issues Resolved:

- Fixed an issue when initialising database records that were not present
- Fixed an issue when calculating long retry timeouts

T4000 V4.3.2.4446

29/08/2019

Issues Resolved:

- Fixed an issue that would affect Router Mode

T4000 V4.3.1.4426

15/08/2019

Changed Functionality:

- Updated the firmware update process to retry if an issue is detected

T4000 V4.3.0.4397

New Functionality:

- Added a configuration option to upload/download so that the number of rings that is output to the panel can be configured
- Added the ability to output a custom ring cadence for upload/download instead of the default AU one
- Added support for the T4000 Ultralite Rev_B
- Added support for the T4000 Lite Rev_A
- Added to the ability to be able to trigger and untrigger SkyTunnel serial pass-through
- Added to the ability to be able to trigger and untrigger SkyTunnel serial upload/download sessions
- Added an additional option to control DTMF power ratio tuning to allow greater compatibility with panels
- Added a feature to shut down all comms paths if a T4000 has remained defaulted for an entire calendar month
- Added an option to be able to disable if a zone can automatically enable itself for reporting
- Added support to generate open/close events (in ContactID) for an input if it is set to REPORT_TYPE_OPEN_CLOSE
- Added support for "Spark NZ T4000s" to be able to connect to the new private Spark NZ network

Changed Functionality:

- Modified the storage implementation of the T4000s internal database
- Slightly modified the firmware update process to have an explicit preparation state that before a download occurs
- Modified the path test logic to trigger a temporary SkyTunnel connection when a path test is started
- Added additional zone information to the input status response
- Added additional information to the GSM status response
- When configured for Challenger serial communications, if there has been no communications then attempt to communicate with the panel using 4800 baud rate

Issues Resolved:

- Fixed an issue which caused processing of zones to be run at an incorrect interval
- Fixed an issue where too much memory could be allocated for the serial interfaces. This is only really relevant for T4000 Rev_C hardware
- Fixed an issue where if an input had a state triggered then an alarm event would be generated but the restore event would not. This occurs most commonly for the "test report" input and the "system reset" input
- Fixed an issue where attempting to control the T4000 to disconnect from SkyTunnel didn't work reliably
- Fixed an issue where a memory leak could occur when shutting down the GSM modem

T4000 V4.2.2.4201

06/05/2019

Changed Functionality:

- When performing a firmware update, don't allow really old firmware versions

T4000 V4.2.1.4142

08/04/2019

Issues Resolved:

- Fixed an issue where the T4000 would not start up correctly from a very low voltage

T4000 V4.2.0.4096

15/03/2019

New Functionality:

- Added support for the T4k Expander
- Added controlling of Challenger panel areas and relays via a serial connection
- Added the ability to perform serial communications at the same time as dialler capture communications
- Added support for the T4000 Ultralite Rev_A PCB hardware revision
- Added support for the T4000 Rev_H PCB hardware revision
- Added automatic enabling of built-in zones

Changed Functionality:

- When communicating to the MIP server via Ethernet, trigger the GPRS path if the Ethernet path is detected as becoming unstable or intermittent
- If the manufacturing data is detected as invalid during startup, panel communications will not be attempted
- Trigger a panel status to the server if the connected panel's information changes
- Updated some status responses to have additional information
- Changed some settings to use for the Spark NZ network connection

Issues Resolved:

- Fixed an issue where if the T4000 was reset due to a power failure, it could start running again before the power had become reliable again
- Fixed an issue when writing data to flash during a firmware update
- Fixed an issue when checking if the VIN supply voltage is valid
- Fixed an issue when processing input states where if an input went from one asserted state to another, the final state was reported incorrectly
- Fixed an issue where the Router task could delay forever
- Fixed an issue where a T4000 Lite would attempt to check the battery voltage (even though it cannot have battery connected)

T4000 V3.15.1.3830

09/01/2019

Changed Functionality:

- Modified the area state caching functionality to allow area number 0 (zero) be cached and retrieved

Issues Resolved:

- Corrected the VIN supply voltage calculation to include the voltage drop of the initial diode
- Fixed an issue when performing file transactions with the SkyTunnel server that prevented multiple T4000s from downloading at the same time
- Fixed some issues when performing firmware updates where the firmware update would randomly fail
- Fixed an issue where the wrong ContactID codes could update the area state cache

T4000 V3.15.0.3611

15/10/2018

Changed Functionality:

- Updated the database defaults for the IP address endpoints for SkyTunnel as it has moved location

Issues Resolved:

- Fixed an issue when configuring the automatic firmware update where neither SkyTunnel or the IP address endpoints were configured

T4000 V3.14.1.3522

28/08/2018

Changed Functionality:

- Changed the generation of the hourly router status from "on the hour" to be "on the minute of the hour as determined by the last 2 digits of the serial number"

T4000 V3.14.0.3492

20/08/2018

New Functionality:

- Added caching the last area state of up to 256 areas when receiving dialler capture open/close events
- Added an option for an input to be able to control an associated AUX
- Added a millisecond timer option to be used with timed on AUX control
- Added support for a new T4000 product type
- Added system inputs for "GSM Host Comms" and "Ethernet Host Comms"

Changed Functionality:

- Updated how a text string is appended to the end of a ContactID round to use the '@' symbol
- When panel comms via the GSM CT have stopped working but it has not been long enough to consider them as failed yet, re-initialise state so that comms can be re-established
- Added a work around when receiving an IRfast + Text alarm to ensure that the area name is NULL terminated
- Added triggering a MISC status when 10 retries have occurred
- Added detecting if the Router configuration has been modified and getting the software to reconfigure the T4000 if necessary

Issues Resolved:

- Made some improvements when downloading a firmware file from SkyTunnel
- Ensure that the buffer being used for an ARP response is the correct size
- Fixed an issue where the Router task could delay for too long

T4000 V3.13.0.3235

08/05/2018

New Functionality:

- Added control over how frequently the T4000 will connect to the SkyTunnel server

Changed Functionality:

- When a write programming is performed, don't generate panel comms failure events for dialler capture
- When a write programming is performed, don't generate panel comms failure events for an Inception panel

Bug Fix Functionality:

- Fixed an issue where the wrong space available was reported to SkyTunnel for pass-through data

T4000 V3.12.0.2997

21/02/2018

New Functionality:

- Added support to use a configurable Multipath broadcast interval depending on whether the path is considered to be connected or not
- Added support to clear the alarm sequence number and reset the T4000

Changed Functionality:

- Modified the review that is generated when the Router data limit has been reached for both SIM cards
- Increased the time before the "Panel Serial Comms" input is set to alarm from 15 seconds to 30 seconds
- When Multipath broadcasting is started, only trigger SkyTunnel comms if the Ethernet path was good and it is now broadcasting or if the path is GSM
- Added additional information to the Skytunnel status response
- Modified the SkyTunnel comms so that the "receiver online" state can be used to determine if alarms could be reported via SkyTunnel
- Changed from checking the state of the "host online" system input to now checking if the "path reporting is available"
- When an upload/download session is running, speed up the comms with the SkyTunnel server to maintain a good connection

Bug Fix Functionality:

- Fixed an issue where the wrong network operator was being used for the NZ T4000
- Corrected the database defaults for a NZ T4000 to have a second IP address for the SkyTunnel connection
- Fixed a bug where the wrong Multipath database index was queried when getting the broadcasting pace interval
- Fixed a bug when performing upload/download with the Hills R128 where the data being written could become inconsistent

T4000 V3.11.0.2893

16/11/2017

New Functionality:

- Added optionally getting the date, time and time zone from both the 3G (EHS6) and the 4G (ELS61) GSM modems when they register onto the GSM network
- Added a new product type to provide different functionality in New Zealand

Changed Functionality:

- Reduced the time it takes to establish initial communications with the MIP server

- Reduced the initialisation time of the GSM modem
- Increased the data throughput of the GSM modem to improve IP comms (E.g. Multipath comms, SkyTunnel comms, router mode etc.)

Bug Fix Functionality:

- Fixed an issue when attempting to get the time from an NTP server where if it is unable to do so it will no longer flood review
- Fixed an issue where after Multipath comms had been detected as failed via GSM, a SIM card swap was not immediately triggered if there were no SkyTunnel comms via GSM
- Fixed a memory management issue when performing IP comms via GSM
- Fixed a bug where if the "disable interface detection" option was set then panel comms would not work via serial
- Fixed a bug where the GSM modem could fail to connect onto the GSM data network

T4000 V3.10.0.2811

10/10/2017

New Functionality:

- Added support to receive Ademco685 ContactID via one of the serial interfaces
- Added triggering a status to be sent when an AUX that was timed on is turned off when the timer has expired
- Fully implemented the SkyTunnel serial pass-through functionality
- Added a total data limit that can be used in conjunction with or instead of the individual SIM card data limits for use with router mode
- Added configuration for each SIM card of "max ack count" and "max running time" which can be used individually or together. If one of these are detected then a SIM swap is triggered immediately after a successful poll
- Added the ability to perform a firmware update via the SkyTunnel server
- Added the ability to stream review to the SkyTunnel server via log messages

Changed Functionality:

- Made some alterations to use memory more efficiently
- Changed the data counting for "Flexi Router" mode to not contribute toward the data usage count of the current SIM card
- Changed the functionality to reset the GSM modem when starting router mode is first enabled
- Updated the StatusRouter response to include the "Flexi Router" data count

Bug Fix Functionality:

- Fixed a bug with the serial pass-through functionality where the SkyTunnel task could be trying to receive whilst another task is sending to the SkyTunnel server
- Fixed a bug where if the first ContactID round that was received was valid but could not be saved (due to buffer full or required paths) then review would be continually generated

T4000 V3.9.0.2705

06/09/2017

New Functionality:

- Added support to use the parameter member of the System Control command

- Added triggering the SkyTunnel connection for a short time when pass through packets are sent and received
- Added triggering a SkyTunnel Identify Device Info packet when the panel becomes connected or disconnected
- Added support for additional baud rates in the GSM CT serial protocol
- Added some initial support for serial pass-through to the GSM CT serial protocol
- Added Primary and Alternate configuration to the database configuration so that the network for the GPRS connection can be specified
- Added checking if there is a better path available for the SkyTunnel connection by pinging an IP address and if so trigger the SkyTunnel to reconnect

Changed Functionality:

- Increased the maximum time that is allowed for the the GSM modem to be configured from 40 seconds to 60 seconds
- Minor modification to improve establishing comms with a Concept/Integriti via the GSM CT serial protocol
- Updated the Ethernet status that is sent to the SkyTunnel server
- Changed the SkyTunnel packet allocation from static buffers to dynamic allocation
- Modified the RSSI that is sent to the Multipath server, translating the signal strength into bar levels between 1 and 5
- Changed when the AUX state is saved to non-volatile storage so that it is saved with every AUX state change

Bug Fix Functionality:

- Fixed an issue in the GSM CT serial protocol when returning an error response the data was not initialised so the size was not correct
- Fixed an issue where if the router mode was enabled but was not in use, the Telstra SIM would not work correctly

T4000 V3.8.0.2621

07/07/2017

New Functionality:

- Added "Flexi Routing" for use with the router mode
- Added debouncing the detection of a failure when performing router mode
- Added support for a custom SkyTunnel encryption key

Changed Functionality:

- Added additional flags to the "Miscellaneous" status
- Allowed Ethernet communication to work when Flexi Routing is enabled
- Modified the database defaults
- Enhanced the review that is generated when the Ethernet cable is unplugged and when it becomes in use again

Bug Fix Functionality:

- Fixed a bug where if received data is being processed and the router task has been aborted, abort immediately

T4000 V3.7.1.2640

19/07/2017

Changed Functionality:

- Changed the "primary" and "alternate" network authentication credentials around so that now the primary will be the Telstra VPN and the alternate will be the Public Internet

Bug Fix Functionality:

- Fixed a bug where sometimes the T4000 could not register on the GSM network with SIM2

T4000 V3.7.0.2530

05/06/2017

New Functionality:

- Added "Non Volatile" to the status requests
- Added a check when triggering the GSM modem to shutdown, if there is host comms then clear the "alternate GSM authentication"
- When "remote control" commands are received, trigger SkyTunnel comms for a short period of time
- Added a check when performing a firmware update to not allow a firmware to be applied if it does not support the hardware revision

Changed Functionality:

- Enabled a GSM modem shutdown to be triggered during its configuration
- When the router mode is enabled, always use the Public Internet authentication credentials

Bug Fix Functionality:

- Fixed a bug where the wrong authentication credentials could be used for the GSM network
- Fixed a bug where the "lost alarm" system input could fail to be re-triggered
- Fixed a bug where the GSM modem could be have been reset by the Multipath task even though the GSM modem did not have network registration

T4000 V3.6.0.2415

19/04/2017

New Functionality:

- Added support for the Rev_G T4000 PCB revision
- Added the ability to for the GSM module to use a particular network access technology (E.g. 3G or 4G)
- Added the "serial interface" to the panel status
- Added a "toggle" option to be used when controlling an aux of the T4000
- Added saving the state of the AUX when a reset is being triggered (i.e. from the reset button, a command etc.) and restoring the state of the AUX during startup
- Added saving the GSM Network ID for each SIM card so that it can be used with the initial configuration commands

Changed Functionality:

- Enhanced the watchdog task functionality when a watchdog reset is going to occur
- Altered the ContactID checksum calculation to use an 'A' instead of a '0' for the checksum character

- Altered the ContactID data this is generated by the T4000 to use an 'A' instead of a '0'
- Altered how the "automatic serial port detection" logic is implemented so that the T4000 will not write to its own database
- Altered the Event Manager logic so that if a reset is going to occur, allow time for the GSM CT to notify the panel so that it could try a backup comms task
- When there are no panel comms yet, made the Panel LED flash normal when set to RS232 and flash fast when set to TTL
- Updated the GSM LED colour to match the MIP server colour
- Changed the order of the configuration commands that are sent to all GSM modules to further support the ELS61 (4G)
- Increased the "max alarm reporting time" from 2 minutes to 3 minutes when the T4000 is configured to communicate with the panel via serial OR 15 minutes when the T4000 is configured to communicate with the panel via dialler
- When a watchdog reset has been triggered make all of the LEDs to flash until the reset occurs

Bug Fix Functionality:

- Fixed a bug where the "GSM Reg" system input was not set to alarm when the GSM modem was reset
- Fixed a bug in the router functionality where the TCP checksum of the received packet was checked
- Fixed a bug when attempting to setup the connection to the Firmware Update server when the T4000 was being told explicitly what path to use
- Fixed a bug when generating strings in commands to be sent to the MIP server

T4000 V3.5.1.2310

15/02/2017

New Functionality:

- Added an additional IP address to the "Firmware Update" and the "Virtual UART" commands

T4000 V3.5.0.2294

14/02/2017

New Functionality:

- Added a "network" parameter to several database records and commands so that the T4000 can make better connection decisions
- Added determining the "network" when using the GSM path
- Added an additional check when seeing if the SkyTunnel connection is allowed, to see that there has been no host comms for at least 30 seconds (to allow time for MIP comms to be established)

Changed Functionality:

- Enhanced the watchdog task's checking of other tasks
- Added an additional check to ensure that a command is of a minimum length
- Modified the GSM IP status to include the current SIM card
- Modified the Router status to include the serial number of the T4000
- Modified the Multipath status to include the path state
- Modified the Host status to include the connected and disconnected durations

Bug Fix Functionality:

- Fixed a bug associated with injecting a custom command to be executed by the GSM modem

- Fixed a bug when triggering the GSM modem for direct MultipathIP communications
- Fixed a bug slowness which caused firmware updates to take longer to be performed

T4000 V3.4.1.2245

20/01/2017

Changed Functionality:

- When receiving ContactID allow hex DTMF characters in the received ContactID round data
- When receiving ContactID allow "98" in a received ContactID round
- When the detected panel model changes trigger a panel status to be generated and sent to the MIP server

Bug Fix Functionality:

- Fixed a bug when triggering the GSM path when the Ethernet path is currently working (E.g. when clicking "START GPRS" in the diagnostics dialog of the MIP Client)
- Fixed a bug where the "database defaulted" state was lost across a system reset
- Fixed a bug when performing the voltage checks where if the battery voltage was higher than the supply voltage, then the battery voltage would never be read again

T4000 V3.4.0.2228

19/01/2017

New Functionality:

- Added a minimum connection time of 30 seconds if a connection to the SkyTunnel server is established
- Added trying an alternate GSM network authentication if the current one is detected as not working
- Added DNS lookup support for the SkyTunnel connection
- Added a Host status command

Changed Functionality:

- Changed the GSM network authentication parameters
- Changed how initial communications with the MIP server are established
- Altered the database default for the public SkyTunnel server to try IP addresses in a different order

Bug Fix Functionality:

- Fixed a bug where when performing IRfast+Text dialler capture, the received client code was not overwritten with the T4000's client code
- When checking if the database configuration has changed to determine if the panel communications should be reset, also check the reporting format
- Fixed an issue when printing a received ContactID round to review, convert it from DTMF digits to chars first

T4000 V3.3.1.2257

23/01/2017

Bug Fix Functionality:

- Fixed a bug where when performing IRfast+Text dialler capture, the received client code was not overwritten with the T4000's client code

T4000 V3.3.0.2170

12/12/2016

New Functionality:

- Added using a default APN for the GSM data network connection when then network ID is unknown
- Added setting the panel model to the most appropriate model that can be determined when performing alarm panel communications
- Added swapping to use the "other" GSM SIM card every time the T4000 is reset
- Added a GSM IP status command

Changed Functionality:

- Altered the database default to include an additional IP address for the SAPOL SkyTunnel server
- Altered the database default to include an additional IP address for the public SkyTunnel server
- Altered the GSM SIM card swapping logic to handle an abnormal network fault

Bug Fix Functionality:

- When performing IRfast dialler capture, check if the client code should be overwritten
- Fixed an error when connecting to the SkyTunnel server
- Made some minor updates to review

T4000 V3.2.1.2124

24/11/2016

Bug Fix Functionality:

- Fixed a bug when calculating the "Day of the Week" for panel reporting

T4000 V3.2.0.2113

21/11/2016

New Functionality:

- Added a router functionality where a device that is connected to the T4000 via the Ethernet interface will have its data routed to the GSM interface
- Added a DHCP server (to be used in conjunction with the router functionality)
- Added support for the ELS61 (4G) GSM module (requires new hardware)
- Added a firmware update schedule so that the T4000 can be configured to automatically perform a firmware update once per week
- Added support for ContactID "98" identifier
- Added a 1 second power up delay to prevent the database from defaulting due to unreliable power
- Added saving and restoring all buffered events
- Added flashing the power LED once every 5 seconds if the power is good
- Implemented the new SkyTunnel connection methodology
- Added support for the SkyTunnel "change server" command
- Added the ability to disconnect the current SkyTunnel connection via a command

Changed Functionality:

- Increased the GSM baud rate to increase throughput
- Enhanced the GSM modem driver logic
- Modified the firmware update logic to not perform the firmware update if the firmware version is the same as is already running
- Modified the SkyTunnel database change detection logic to holdoff disconnecting the SkyTunnel connection for 5 minutes
- Modified the Misc Status response to include the current time
- Modified some review that is generated throughout the T4000
- Trigger a Panel status every time the T4000 successfully establishes connection with the alarm panel (either via serial or dialler)

Bug Fix Functionality:

- Fixed a bug when performing a battery test
- Fixed a bug when calculating the "Day of the Week"
- Fixed a bug where the "UTC offset minutes" was not applied to the local time generation
- Fixed a bug when getting the time from an NTP server where binding to the UDP port was skipped

T4000 V3.1.1.1960

25/07/2016

New Functionality:

- Added support for new hardware components

Changed Functionality:

- When performing GSM CT serial comms, if an SMS alarm is received then do not send it to the MultipathIP server

Bug Fix Functionality:

- Fixed an issue with the control of the Power LED
- Fixed an issue when sending alarms and commands at the same time where the command could be lost

T4000 V3.1.0.1926

06/07/2016

New Functionality:

- Added configuration to customise the allowed DTMF power levels when receiving DTMF digits (E.g. used when performing ContactID dialler capture)

Changed Functionality:

- Added some additional review when performing ContactID dialler capture to more clearly describe any detected faults

Bug Fix Functionality:

- Fixed a minor issue with the data that is sent to the Multipath server when sending polls
- Fixed an issue where the flash write timeout was being exceeded on some devices causing a database default

T4000 V3.0.0.1906

21/06/2016

New Functionality:

- Major re-architecture of how the GSM modem establishes connection with the network and sends/receives data to substantially improve throughput speeds making all GSM IP communications faster (E.g. faster upload/download)
- Added the ability for the T4000 to process multiple messages simultaneously (E.g. if the T4000 sends a poll and the MIP server sends a command at the same time)
- Added the supply and battery voltages to the "misc" status response
- Added the ability to save the state of all of the system inputs across a system reset and then restoring the state of the system inputs (if they were saved)
- Added support for the SkyTunnel path to be able to send commands that are generated by the T4000 to the server

Changed Functionality:

- Modified the Multipath task to not fail a path if sending of a datagram fails (i.e. let polling or alarm transmission determine if the path has become failed)
- Made some memory usage optimisations to the GSM modem interface
- When the T4000 is automatically swapping from RS232 to TTL (and vice versa) for serial communications, increase the time to try an interface from 10 to 15 seconds
- When configured for serial communications and the T4000 is automatically switching between TTL and RS232, only commit the database if the interface that is detected as working differs from the database configuration

Bug Fix Functionality:

- Fixed some issues when performing communication with the GSM modem
- Fixed an issue where the upload/download process could be triggered multiple times
- Fixed an issue where when the T4000 is waiting for a tone from the panel, also check if the upload/download process has been triggered as a reason to abort
- Fixed an issue when checking the input supply voltage to see if the "AC fail" system input should be set into alarm, check if the supply voltage is below the battery voltage and is also below 14V (previously the 14V test was not included)

T4000 V2.1.5.1874

18/05/2016

Changed Functionality:

- Modified the SkyTunnel server connection to disconnect if the database configuration has changed
- Modified review around connecting the panel between the T4000 and the PSTN line to more clearly describe what is occurring
- When the "Panel PABX Connected" or "Panel Serial Comms" inputs are NOT enabled to report, the T4000 will now tell the MIP server that the disabled input(s) are sealed. If an input is enabled to report, the T4000 will tell the MIP server the true state for it

Bug Fix Functionality:

- Fixed an issue where if the NTP server could not be contacted a memory leak would occur
- Fixed an issue when printing the download progress review when performing a firmware update

T4000 V2.1.4.1852

02/05/2016

New Functionality:

- Added the ability to be able to provide detailed panel information to the MIP server (i.e. from an Inception)
- Added saving the time and restoring it at startup

Changed Functionality:

- Modified the supply voltage test to control the "low ac" system input instead of the "low battery" system input
- Modified the "IRfast Text" generation to match what the panel would have generated (i.e. the "Concept IRfast Text" generated by the T4000 will now be indistinguishable from the "IRfast Text" generated by a Concept panel)

Bug Fix Functionality:

- Increased the robustness of alarm response handling
- Corrected an issue with the alarm reporting protocol to the Multipath/SkyTunnel server

T4000 V2.1.2.1818

24/03/2016

Bug Fix Functionality:

- Fixed a bug with the PABX tip/ring line polarity

T4000 V2.1.1.1797

10/03/2016

Changed Functionality:

- Ensure that the database does not report that there are unsaved changes when the T4000 first starts up
- Debounce the GSM RSSI value (signal strength value) so that a single erroneous value is ignored
- Modified how review is saved so that it multiple review strings can't overlap and look jumbled
- Modified how database changes are saved
- When checking for a change to the Ethernet IP configuration, only consider a change to have occurred if the current configuration is static IP or if the settings change from static to DHCP (or visa versa)

Bug Fix Functionality:

- Fixed a bug where there was a memory leak when stopping DHCP (this most commonly occurred when an Ethernet cable was plugged in but there was no DHCP server)
- Fixed a bug where when performing simultaneous upload/download & GSM CT serial comms, if the GSM CT serial comms lost connection with the panel then it would not be re-established until the

upload/download session was finished

- Fixed a bug with battery testing

T4000 V2.1.0.1768

22/02/2016

New Functionality:

- Added support to communicate with the Inception controller via the Inner Range serial protocol (GSM CT)
- Added an option to control the PABX line polarity to the alarm panel

Changed Functionality:

- Updated when the "lost alarms" system input is set to be triggered as soon as any reporting failure occurs
- Move some of the logic used for selecting the path to connect to the SkyTunnel server via
- Ensure that the poll timestamp is saved when a path is reset to help re-establish MultipathIP comms quicker
- Alterations to the dialler modem emulation to increase efficiency
- Added additional review when performing a firmware update to indicate the download progress

Bug Fix Functionality:

- Fixed an issue when doing ContactID dialler capture where the round count was incremented when an error occurred (only affects review)
- Fixed an issue with the Inner Range serial protocol (GSM CT) where the Network ID was being sent incorrectly to the connected panel

T4000 V2.0.2.1750

19/01/2016

Changed Functionality:

- Enhanced support for Rev_F PCB when performing panel communications via the dialler

T4000 V2.0.1.1734

18/12/2015

Changed Functionality:

- Invert the line polarity of the Tip/Ring to potentially avoid distorted DTMF digits being received from the panel

Bug Fix Functionality:

- Fixed a bug where the INPUT_MIP_PROBLEMS and INPUT_SKY_PROBLEMS system inputs were not being controlled correctly
- Fixed a bug where the INPUT_PROG_CHG system input had its state inverted
- Fixed a bug when the GSM CT interface protocol is automatically trying the serial interfaces, a modem upload/download session would be stopped
- Fixed a bug when the GSM CT interface protocol was not trying to use the other serial interface if the current one is in use

T4000 V2.0.0.1708

01/12/2015

New Functionality:

- Separated the upload/download functionality so that it can run as its own task. This allows an upload/download session to run concurrently with normal panel monitoring and alarm capturing functionality
- When outputting tones to the panel (E.g. dial tone), debounce the detection of the panel going on-hook so that we don't abort immediately
- Added review to indicate when the serial connection becomes established and is lost

Changed Functionality:

- Modified the Multipath UDP comms with the MIP server
- During startup initialisation, set the panel relay to link the panel to the PSTN
- Modified database default to remove the "RequiredPath" being set
- Minor alteration to the logic when saving the dialled telephone number to the database to not save the dialled number if it is the same as the number that is already saved in the database
- Modified some review from the firmware update process to make it clearer when an error has occurred
- When performing a battery test, don't debounce the battery voltage for when it goes below the deep discharge voltage (10.4V)
- Added protection against bad Ethernet static IP address settings (E.g. 0.0.0.0)

Bug Fix Functionality:

- Fixed a VUART bug when the connection had been setup as GSM via UDP where the GPRS session was not triggered to start
- Fixed a bug where the buffer size was too small for Integriti upload/download via TTL
- Fixed the "None" text when building an IRfast text string
- Fixed a bug when sending a status to the MIP server about the Ethernet NIC not working where the status was never sent
- Fixed a bug with panel detection where the logic was not appropriate across all supported T4000 hardware revisions
- Fixed a bug when processing a GSM modem command

T4000 V1.3.0.1620

13/10/2015

New Functionality:

- Added the ability to control the tone volume control for tones that are generated to the panel (E.g. the Ademco handshake)

Changed Functionality:

- Modified the Ademco handshake to be more accurate
- Modified control of the VUART so that it can be repeatedly started
- Modified how the path selection logic when attempting to connect to the SkyTunnel server

Bug Fix Functionality:

- Fixed a bug when saving the telephone number that has been dialled by the panel to the database which caused the "Programming mismatch" icon to appear in the MultipathIP software
- Fixed bugs when suspending a path due to long periods between polls to the MultipathIP server
- Fixed a bug where the NVRAM was cleared when a database default was performed

T4000 V1.2.0.1597

23/09/2015

New Functionality:

- Added support for T4000 Lite
- Added support for REV_E PCB
- Added controlling the Ethernet LED (only works on the Rev_E PCB or later)
- Added support to conditionally control the battery charger and detecting PSTN ringing depending on the hardware model
- Added the ability to set the panel's system time when performing IRfast dialler capture
- Added some additional review to help identify what is happening with a GSM CT interface connection
- Added the ability to automatically swap between the RS232 and TTL serial interfaces when trying to establish a GSM CT interface connection
- Added sending the system status to the T4000 review server on initial connection
- Added logic to conditionally check for the presence/absence of the panel according to the PANEL_NO_HOST_xxx setting
- Added support for Integrity controller upload/download serial data
- Added an option for upload/download to enable carrier to stay on during half duplex

Changed Functionality:

- Increased the data throughput when performing an upload/download session via a GSM SIM card
- Updated logic when performing battery presence detection. Updated logic performing battery test logic
- Enhanced the robustness of closing TCP and UDP connections via the GSM SIM cards
- Changed the logic after disconnecting from the SkyTunnel server to not cause the GSM modem to reset and swap SIM cards
- Changed the time to wait for data from the panel when performing upload/download to increase throughput
- Modified the system inputs that are set to alarm or sealed during initialisation (INPUT_PANEL_CONN & INPUT_PANEL_ONLINE)
- Minor alteration to the review that is generated when an input state change is detected
- When checking to see if the connection to the panel is allowed, take into account the fact that the T4000 Lite cannot be disconnected
- Modified battery testing to only start a battery test if the main supply voltage is above 14.5V
- Removed setting the "Panel Connection" (910) and "Panel Online" (923) inputs into alarm during startup
- Enhanced functionality when performing checks for communications with a server host

Bug Fix Functionality:

- Fixed a bug in the GSM CT interface protocol where the maximum allowed SMS size was too small
- Fixed bug in Battery Test Schedule and Test Report Schedule where they were using UTC time instead of local time

T4000 V1.1.2.1510

17/08/2015

New Functionality:

- Added support for a new GSM modem firmware
- Added a check to ensure that communications with a server host has occurred in the last 10 minutes

Changed Functionality:

- Modified the display format of the review time

T4000 V1.1.1.1496

07/08/2015

Changed Functionality:

- When trying to trigger an upload/download session, improved the error return if the session failed to start
- When trying to trigger a firmware update, improved the error return if the firmware update process failed to start
- Ensure that a path test cannot be triggered if an upload/download session is running
- When checking for a panel connection via dialler, restart the timer after:
 - the panel has become on-hook again after receiving events
 - an upload/download session has ended

Bug Fix Functionality:

- Fixed a bug in the GSM CT interface protocol where the time was not set which resulted in Concept panels being set to the wrong time
- Fixed a bug when configuring the serial interface for upload/download for RS232 or TTL

T4000 V1.1.0.1444

03/07/2015

New Functionality:

- Added new support for modem emulation interfacing for upload/download. Supported modulations are now:
 - V21
 - Bell 103
 - Bell 103 (half duplex)
 - V22
 - V22bis
- Added support for IRfast dialler capture
- Added a status notification to the MultipathIP server when a firmware update is about to occur
- Added turning the panel interface off when the mode is changed from dialler capture to serial
- Added a short delay to the GSM modem before swapping SIM cards
- Added functionality so that specific customers can have custom database defaults
- Added functionality to flash the PANEL LED when ContactID DTMF tones are being received

Changed Functionality:

- Changed the status of a running path test to show the progressive status of the tested paths
- Changed the "alarms lost" status in the GSM CT interface protocol
- During an upload/download session, don't attempt to perform the panel presence checking
- During alarm capture via dialler, don't attempt to perform the panel presence checking
- Added a short delay when stopping an upload/download session so that the notification to the software does not get lost
- Enhanced the detection of a defaulted database to span across a reset

Bug Fix Functionality:

- Fixed an oversight where 600 baud was not defined
- Fixed a bug where too much GSM review was being saved when the GSM modem was being reset due to no registration
- Fixed a bug where the Event Manager could cause a watchdog reset if no events had been sent in a while
- Fixed a bug where the Firmware Update process could cause a watchdog reset if it was downloading the new firmware file too fast
- Fixed a bug when receiving IRfast + Text and the event was an isolate where the text was generated as "None"
- Fixed a bug when receiving ContactID via dialler capture and a round error was detected, no retries were attempted
- Fixed a bug in the aux state status where if the aux had been timed on, after it turned off the status still displayed as timed on

T4000 V1.0.0.1308

15/04/2015

Initial Release Features:

- Quick enrolment process
- Supported reporting formats:
 - ContactID
 - IRfast (including Text)
 - Integriti IRfast (including Text)
- ContactID dialler capture
- High-level serial communication with Concept/Integriti controller
- PSTN call pass through
- Remote firmware update
- Simple LED status lamps
- Upload/download via the dialler interface
- Upload/download via the serial interface
- Remote review
- Ethernet and dual SIM GPRS reporting paths