

How to upgrade firmware for your Network Access Controller

Please ensure you have downloaded the latest version CTPlus installer software before you begin. You can download the software from the KGS Fire & Security website at www.aritech.com.au

For technical assistance please contact your local DAS branch or the Hills Technical Support team.

Overview

When CTPlus is connected to a Network Access Controller, you can use the Program Firmware form to sync and upgrade to the latest firmware available (released, pre-released and other versions). Please note beta versions are password protected.

Whilst it is possible to update the Network Access Controller firmware through the ChallengerPlus comms bus, it should be noted that the quickest and easiest method is by connecting directly to the panel, either by USB or Ethernet.

Upgrading across the ChallengerPlus comms bus may take significant time to complete.

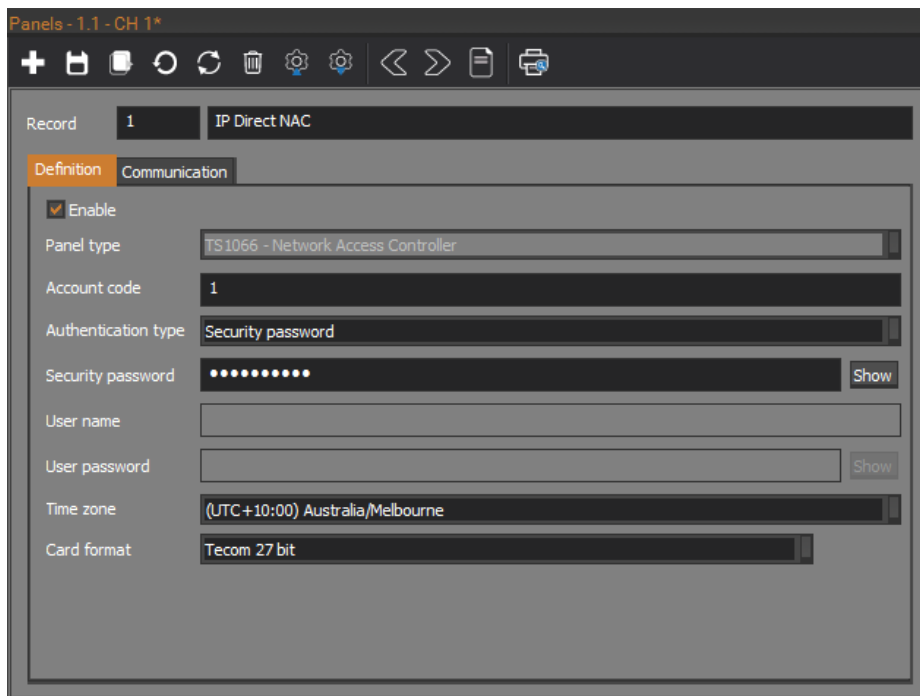
Firmware upgrade steps

1. In CTPlus, connect the Network Access Controller to CTPlus and activate the system by using connections (refer Network Access Controller Programming Manual, section “**Recommended programming sequence**”)

How to connect the NAC to CTPlus

1.1 Connect the NAC to the CTPlus computer using a USB cable (the first connection to a NAC can only be via USB connection as there is no RAS menu programming to assign Network Settings (IP Address, Subnet Mask...) via hardware.

1.2 In CTPlus, click the **Panels** button on the *Panel programming* ribbon tab to open the Panels form.

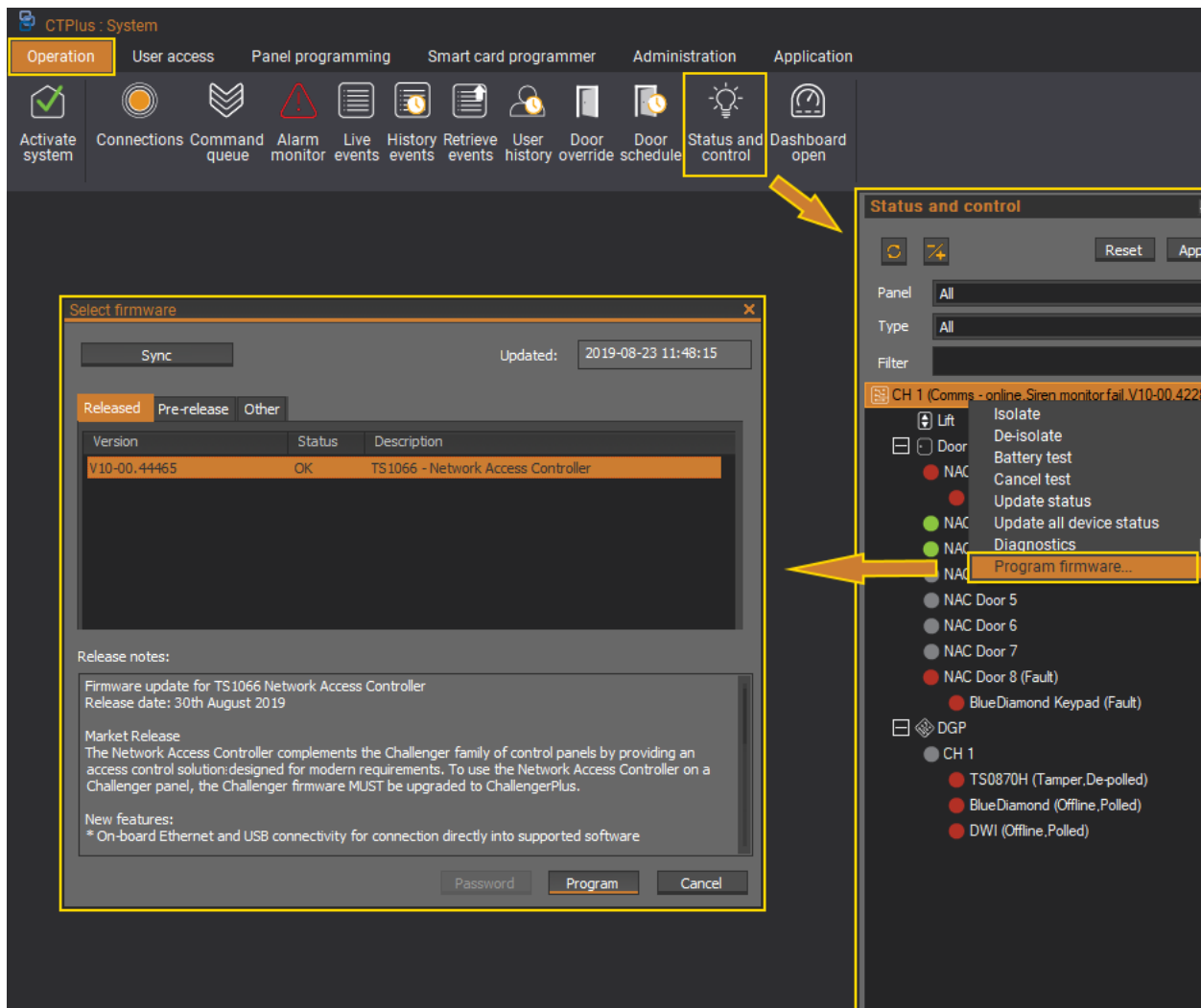


The screenshot shows the 'Panels - 1.1 - CH 1*' window in CTPlus. The 'Record' field is set to '1' and the description is 'IP Direct NAC'. The 'Definition' tab is selected, showing the 'Communication' section. The 'Enable' checkbox is checked. The 'Panel type' is set to 'TS1066 - Network Access Controller'. The 'Account code' is '1'. The 'Authentication type' is 'Security password'. The 'Security password' field is masked with dots and has a 'Show' button. The 'User name' and 'User password' fields are empty, with a 'Show' button for the password. The 'Time zone' is set to '(UTC+10:00) Australia/Melbourne'. The 'Card format' is set to 'Tecom 27 bit'.

- 1.3 On the Panels form, click the **New** button in the toolbar to add a new panel record.
- 1.4 Enter a description for the NAC connection in the **Record** description field.
- 1.5 On the *Definition* tab, enable the panel connection by ticking the **Enable** check box.
- 1.6 Set the **Panel type** to be *TS1066 - Network Access Controller*.
- 1.7 Set the **Time zone** and **Card format** fields as required.
- 1.8 Click the **Save** button in the toolbar to save the NAC panel record.

How to upgrade NAC firmware

- Once you have connected the NAC panel to CT Plus, go to Operation -> Connections, right click on your panel, and select 'Retrieve all programming'. Once complete, move on to the next step.
- Go to Operation-> Status and Control, right click on the Network Access Controller (that needs the firmware upgrade) and click on Program Firmware.
- Press the Sync button, this will sync all the released, pre-release and beta versions from the cloud and store them in CTPlus.
- Select the firmware file (e.g. V10-00.44465) and click Program.
- The firmware will only be sent to the device if it is currently online.



The screenshot shows the CTPlus System interface with the 'Status and control' tab selected. A 'Select firmware' dialog box is open, displaying a table of available firmware versions. The 'Released' tab is active, showing a table with columns 'Version', 'Status', and 'Description'. The version 'V10-00.44465' is highlighted, with a status of 'OK' and description 'TS1066 - Network Access Controller'. Below the table, there are 'Release notes' and 'New features' sections. The 'Program' button is highlighted in the dialog box. In the background, the 'Status and control' panel shows a list of devices, including 'CH 1 (Comms - online, Siren monitor fail V10-00.422)', with a context menu open showing the 'Program firmware...' option highlighted.

Select firmware dialog box:

Sync Updated: 2019-08-23 11:48:15

Released Pre-release Other

Version	Status	Description
V10-00.44465	OK	TS1066 - Network Access Controller

Release notes:

Firmware update for TS1066 Network Access Controller
Release date: 30th August 2019

Market Release
The Network Access Controller complements the Challenger family of control panels by providing an access control solution designed for modern requirements. To use the Network Access Controller on a Challenger panel, the Challenger firmware MUST be upgraded to ChallengerPlus.

New features:
* On-board Ethernet and USB connectivity for connection directly into supported software

Program

Status and control panel:

Panel: All
Type: All
Filter:

CH 1 (Comms - online, Siren monitor fail V10-00.422)

- Isolate
- De-isolate
- Battery test
- Cancel test
- Update status
- Update all device status
- Diagnostics
- Program firmware...

Upgrading the Network Access Controller

1. Click on the 'Program' button to send the firmware to the device and start the upgrade.

Live events (paused)

Resume Retrieve events

Event no	Local date / time	Device date / time	Event description
415	05/08/2019 17:21:48		Panel 1 CH 1 Panel - firmware upgrade initiate: Upgrade from V10-06.19251 to V10-07.43983
416	05/08/2019 17:21:49		CH 1 Panel - send firmware - progress 1%
417	05/08/2019 17:21:50		CH 1 Panel - send firmware - progress 2%
418	05/08/2019 17:21:51		CH 1 Panel - send firmware - progress 3%
419	05/08/2019 17:21:51		CH 1 Panel - send firmware - progress 4%
420	05/08/2019 17:21:52		CH 1 Panel - send firmware - progress 5%
421	05/08/2019 17:21:53		CH 1 Panel - send firmware - progress 6%
422	05/08/2019 17:21:54		CH 1 Panel - send firmware - progress 7%
423	05/08/2019 17:21:54		CH 1 Panel - send firmware - progress 8%
424	05/08/2019 17:21:55		CH 1 Panel - send firmware - progress 9%
425	05/08/2019 17:21:56		CH 1 Panel - send firmware - progress 10%
426	05/08/2019 17:21:57		CH 1 Panel - send firmware - progress 11%
427	05/08/2019 17:21:57		CH 1 Panel - send firmware - progress 12%
428	05/08/2019 17:21:58		CH 1 Panel - send firmware - progress 13%
429	05/08/2019 17:21:59		CH 1 Panel - send firmware - progress 14%
430	05/08/2019 17:22:00		CH 1 Panel - send firmware - progress 15%
431	05/08/2019 17:22:01		CH 1 Panel - send firmware - progress 16%
432	05/08/2019 17:22:01		CH 1 Panel - send firmware - progress 17%
433	05/08/2019 17:22:02		CH 1 Panel - send firmware - progress 18%
434	05/08/2019 17:22:03		CH 1 Panel - send firmware - progress 19%
435	05/08/2019 17:22:04		CH 1 Panel - send firmware - progress 20%
436	05/08/2019 17:22:04		CH 1 Panel - send firmware - progress 21%

2. Ensure that you do not disconnect your device during the upgrade process. CTPlus will automatically disconnect and reconnect to the panel as part of the process. Once the firmware upgrade is complete, it will show as the screen below.

Connections

Description filter: 0

State	Connection	Command queue	Description	Acco...	Endpoint	Status	Firmware
Enabled	Online	0	CH 1	1(1)	USB	Siren monitor fail	V10-00.42289(NAC-Direct)

3. Once this is complete, your system is fully upgraded and ready to go.

Upgrading the Network Access Controller using the Firmware loader

In the event that you are unable to use above mentioned procedure you may attempt to use the Firmware loader utility within CTPlus. This will allow you to push firmware into the panel. This is only recommended as a last resort, or as advised by Technical Support.

PLEASE NOTE THE FOLLOWING

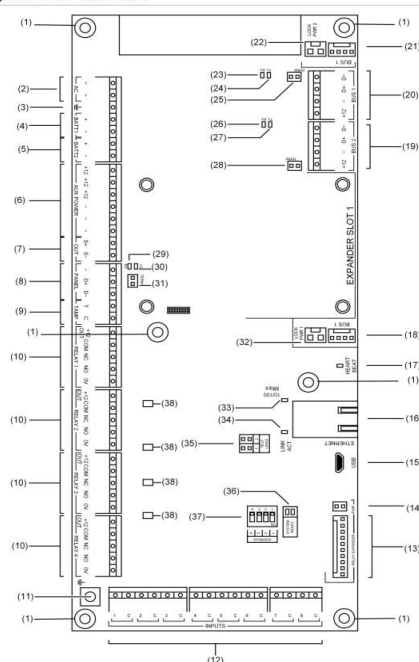
This process can only be done whilst the Network Access Controller is in firmware recovery mode, please ensure you follow the steps below precisely.

Doing this will result in the Network Access Controller being reset to factory defaults.

In the event that the panel didn't default to factory defaults, follow the steps below to default the NAC:

1. Remove power to the Network Access Controller and wait for all LEDs to turn off.
2. Fit test link 1 (see Figure below, item 34) and repower the system. The Heart Beat LED (see figure below, item 16) illuminates for about 20 seconds, flashes quickly for about 20 seconds to indicate reset mode, and then flashes slowly to indicate normal mode.

Figure 2: TS1066B board details

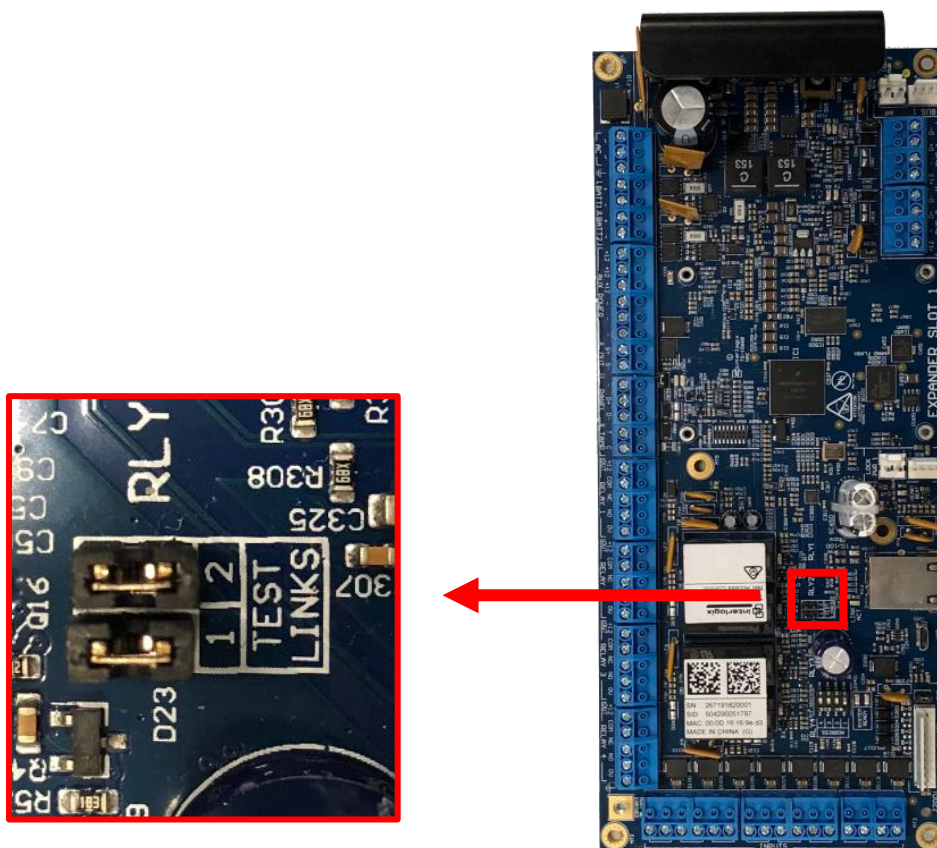


Note: The Network Access Controller can only be defaulted in the 20-second interval when the Heart Beat LED is flashing quickly (in reset mode). The Network Access Controller returns to normal mode automatically to help protect against accidental reset.

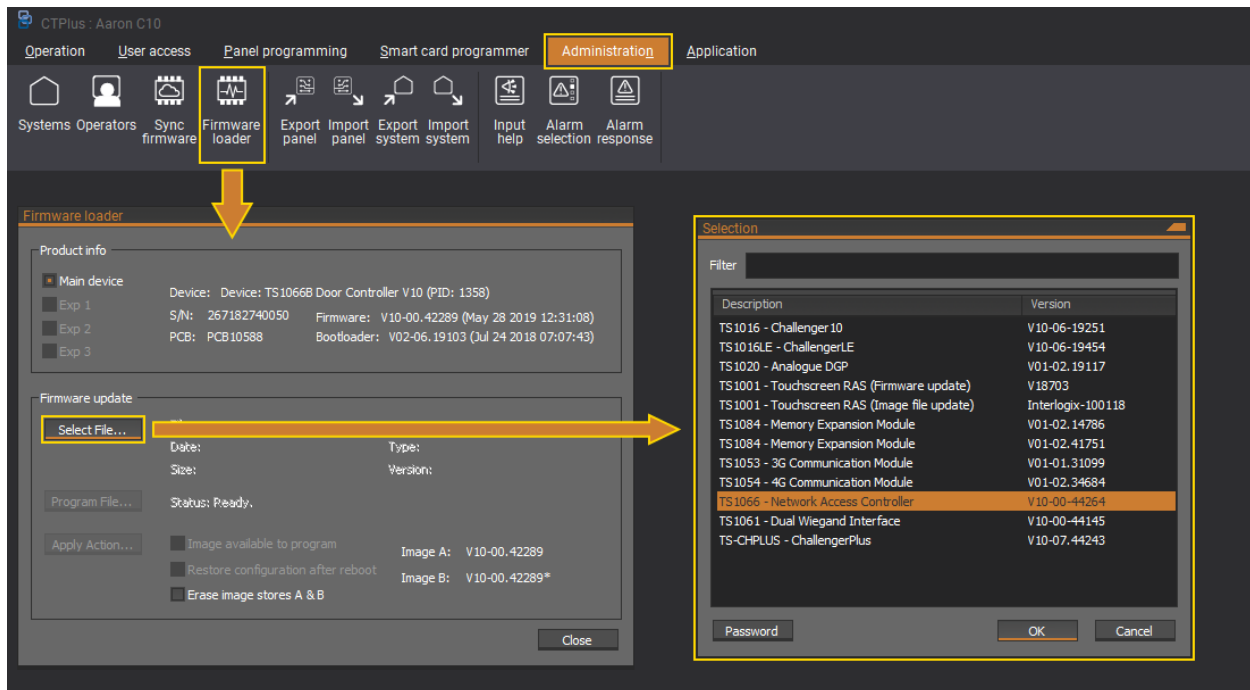
3. Remove test link 1 when the Heart Beat LED is flashing quickly to default the Network Access Controller.

Upgrading using the Firmware loader

1. Power down the Network Access Controller and fit links TEST 1 and TEST 2, then power the panel up.



2. Connect the Network Access Controller to the computer running CTPlus via USB cable.
3. Go to Administration -> Firmware loader.
4. Click on the Select File... button and select the firmware (e.g. V10-00.44264) from the Selection dialog box.
5. Click Program File... to send the firmware to the Network Access Controller (this will upgrade the Network Access Controller and factory default the panel).



- Once the firmware has been programmed, close the Firmware loader, remove TEST 1 and TEST 2 links, then reboot the panel.

