



Network Connection Concession Certificate

The following equipment (hereafter referred to as the "Equipment") has been reviewed by the Airwave Network Reference System for connection to the Airwave network.

	Manufacturer/Customer:	Versions:	Review Date:	Certificate Issue Date:
Supplier and Equipment Information	<p>3TC Software The Coach House Desford Hall, Leicester Lane Desford, Leicestershire LE9 9JJ</p>	<p>3TC GD92 Gateway Software Version: 18.10</p> <p>ModasGateway.exe 3.0.2.17 MultiCadiService.exe 3.0.1.1 MiniMobs.exe 3.0.2.7 EmerCong.exe 3.0.2.12 History Tool.exe 3.0.2.7 Radio.exe 3.0.1.3 Network.exe 3.0.1.4</p> <p>Certified and Tested with TETRA Terminal Version: Motorola MTM/P800 V5.9.1/ V5.13.1</p> <p>and MODAS Firelink MDT Hardware Versions 1.0/1.2/2.0</p> <p>Other Information/Approvals The system has been tested and approved using PID 237. The application has been authorised to use Packet Data Priority Level 0 (normal default).</p>	09 June 2015	09 June 2015

The Equipment was reviewed for connection to the Airwave Network Reference System configured as follows:

Airwave Network Software version: -	D7.1.2, Centracom Q303
Airwave/Customer Test Specification Title and Issue: -	<p>Airwave Data Application Conformance Test Specification V4</p> <p>Generic Application and ICCS Connection Test plan for Centracom based solutions Issue 13</p>

The concession review conducted on the Equipment suggests that it will not adversely impact the Airwave Network (as configured in accordance with the above specifications) when connected and used. The review was limited to Conformance tests in accordance with the latest applicable specification and hence no specific functionality or performance of the product was considered unless specified below or in the test results.

Key Observation/Comments:

1. The initial Conformance testing was conducted on 31/01/14 on version 18.0. This concession is for release on a single Scottish Gateway(Inverness) and does NOT replace the original certificate but is a limited time release(1 Month) due to operational requirements prior to full conformance testing. The concession has been based on data contained in the following release notes :- Modas Release 18 – Issue 18 , dated 08/06/15.
2. No further conformance testing has been carried out and this Concession Certificate has been issued purely on the assessment of Tony Gibbs(Fire TDA) and the submitted documents and declaration by 3TC Software Ltd.

Key changes in the release –

1. Time delays built into MDT relogin request sending FirelinkGwComms: RadioAgent - ReloginWait. Default 200ms.
2. Fix to Gateway closedown to avoid potential crashes during service exit.
3. Fix packet data stall problem. Issue occurs when UDP MTA is closed and reopened.
4. Fix to incoming status processing for roaming call signs so that a superfluous additional status update is NOT sent out to the MDT.
5. Correction to cluster aware TCP socket cut-over. Affects Gateway, MiniMobs, TestMonitor.
6. RTS translation to Interrupt_Request filtered to only apply to call signs whose home agency is managed by this Gateway.
7. Support a configured override for peripherals triggered by an mtUpdate mobilising message arriving on a CadPipe interface.
8. Make new roaming solution compatible with dual Gateway resilience solutions.
9. TCP MTAs corrected for traffic loss on buffer overflow issue. Triggered whenever total "current" traffic exceeded 32K.
10. Make PSTN MTA management compatible with dual Gateway resilience solutions.
11. Fix for packet data registration. Reverted to pre-18.4 encoding to restore compatibility between old and new versions of the MTA.

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12. Improved logging - server MTA connection process and roaming address translations.
13. Logging enhancements for TCP MTA connections to better indicate how the other end has been identified.
14. FirelinkGwComms.GatewayAgent.StatusQueueTimeout parameter added to support Systel's need for a longer timeout (10 seconds) than the default used for ProCAD (5 seconds).
15. The old GprsMta has been discontinued. All mobile IP comms should use the UdpMta or UdpRasMta as appropriate.
16. New roaming capability.
17. Support for clustering environments extended to all secondary functions and MODAS utilities.
18. Support for alternate decoding of GD92 comms address to change the potential allocations of dynamic range between FRS, node and port numbers.
19. Object pipes modified for better failure detection and recovery.
20. In TETRA systems where aliasing logins are not being used the Gateway will treat an MDT login as a login for the radio (set the radio callsign). This DOES NOT substitute for an aliasing log in as other systems (such as ICCS) will not be updated.
21. Correct handling of situation where an MDT tries to log in with a call sign that has been changed. Now resolves correctly and DOES NOT require an MDT update.
22. Support for clustering environments.
23. Automated support for MDT_AVL message in differing formats from different documentation versions including dialect based selection of defaults.
24. Changes to support 'invalid GPS' NOT sending duff lat/lon AVL to Fortek and processing of Tas Avl (be consistent with documentation error).
25. Gateway agent "AllowGpsAvl" default false to block GPS type avl (ie unconverted Lat/Lon).
26. Improved protection against being sent invalid call signs.
27. Router, enforcement of priority and size rules on "already connected" MTA selection. Required to support Multitone multi-bearer test strategies.
28. Some increased logging for TCP MTA.
29. Fix to login agent to explicitly reject invalid call signs in log in requests, shows correct error now on MDT.

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30. Gateway now records its own login state to signify whether it is live or not. Used by CONF to manage appropriate behaviour. CONF no longer resolves configuration if the local gateway is live as some configuration data is operationally volatile and hence must not be touched.
31. Correction to Pipe interface sequence numbering algorithms. Fault caused potential sequence numbering errors for sequence numbers about 65.
32. Correction to config.exe config resolution process for gateway config so that transferred configuration was local config only instead of partially including roaming data.
33. Support for phased synchronisation of status with CADFirelinkGwComms: GatewayAgent - StatusSynchInterval. Default 200ms.

Disclaimer:

1. This conformance certificate does not indicate any security approval with respects to the operation of this hardware / software on the Airwave network.

It is the responsibility of the supplier and their customer (whether Airwave Solutions Ltd or 3rd party customer) to ensure the Airwave Accreditor's security requirements have been met before this hardware / software is deployed on the Airwave operational network. If this solution is deployed within the customer's security domain then the customers Accreditor / senior officer responsible for security must give their approval in line with the Airwave Service Code of Connection.

2. The issuing of this Connection Certificate is for information purposes only and Airwave makes no warranty representation (express or implied) or guarantee whatsoever as to the fitness for purpose of the Equipment or its ability to operate correctly when connected to the Airwave Network or any other network or equipment. Your use of the Equipment, connection of the Equipment to the Airwave Network and reliance on the contents of this Connection Certificate (for whatever purpose) is at your sole risk. To the fullest extent permitted by law, Airwave shall not be liable for any loss or damage (whether due to negligence or otherwise) arising in relation to the Equipment, its connection to the Airwave Network or any other network and/or your reliance on the content of this Connection Certificate.



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