

Detailed 21CN Advice



All of CSL DualCom's products are 21st Century Network or 21CN compatible. BT's tolerance criteria states that all products must handle delays of up to 300ms. This delay is the maximum expected and all DualComs have the ability to auto-extend to 600ms. If the maximum value is exceeded by the 21CN network, DualCom will still be well inside any new parameters - even if they double!

**Don't take
chances, roll out
your signalling
with DualCom
GPRS**



Other important information :

- The new 21CN network will allow 'normal telephones' such as commonplace home DECT wireless phones to operate. The required 48 volts DC and dialtone will still exist in the new 21CN environment, albeit it's core infrastructure will be IP based fibre optic. New-builds on greenfield sites will almost certainly go straight to fibre optic. Quite simply it would cost too much to replace all the copper in the UK's 'last mile' - a term given to the length of cable running from the telephone exchange or roadside 'green box' to the premises. BT have already confirmed this copper cable for 10 megabit (or higher) capabilities - an adequate standard for broadcast-standard transmission services such as on-demand television.

The BSIA contacted CSL DualCom to ask the what happens when our respective devices sense a PSTN failure. Our response is below:

- All DualComs use the radio as the primary path. This will not be affected for alarm calls or for polling as applicable.
- All DualComs are factory set for 30 seconds PSTN (48v DC and/or dial tone) failure detection. This means that there must be a continuous fault condition (very low or no DC voltage) for the whole of this period before the DualCom will initiate a report to the ARC. The maximum period that may be selected for PSTN DC failure detection is 99 seconds. Remote configuration (via download) of this period is possible, to a maximum of 99 seconds.
- Note that remote configuration can enable/disable the line fault detection. It may be possible for relevant DualComs to be remotely reprogrammed to disable the line fault detection before the 21CN change is effected, then remotely reprogrammed to re-enable this after the 21CN change.
- Consequently, any time delay outside DualCom's normal parameters of 30 seconds will be signalled as a PSTN failure followed by a PSTN restore when the line is reconnected. This is not a police despatch but will solicit a keyholder response (a process the ARCs use on just about any non-critical alarm to pass on liability from them to the end-user and/or Installer). There will be many thousands of 'bothered' keyholders. Let's hope that the blame for this is parked with BT and not the Installer/Manufacturer. CSL have a new feature available in all DualCom GPRS units. Gemini Callback™. Please see <http://www.csldual.com/news/> for more information.

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Registered in England No. 3155883



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- We would expect the ARCs to require that BT underwrite and be responsible for any liability that may arise. BT will need to work closely with each ARC to ensure that any PSTN failures are treated accordingly. ARCs will know the location by postcode of every single signalling device and perhaps their procedures could change depending on the accuracy in synchronisation between BT and ARCs. ie. If an ARC receives hundreds of line faults from a location known to be a 21CN upgrade hotspot then changes in keyholder notification could be conceded for that period, especially in un-set mode and at the very least on Dual Signalling devices as there would still be protection and a means to transmit subsequent Alarm events.
- Some older ARC receivers may not operate within the 300ms window
- It's a myth that changing your customers' system to IP signalling will elevate any network disruptions. In most cases IP or broadband is routed to the premises through the same wiring (ie. Copper cable). If your telephone exchange is being upgraded to 21CN then you will experience the same outages on IP signalling as you would from the telephone network. In fact there are no service level agreements currently for broadband so you may find your PSTN line more reliable.
- BT's latest Terms and Conditions (July 07) don't recommend emergency calls to be made over Voice over IP networks – "3. We cannot guarantee that you will be able to make 999 or 112 emergency calls. If you use the service to make these emergency calls, the location information received by the emergency services will be limited to the installation address of the service. Emergency calls may fail if there is a power failure or broadband connection failure. If possible, you should make alternative arrangements and keep a main phone line available."
- Installers and Insurers should ensure that their T&Cs advise of any changes to the telecom environments are discussed BEFORE implementation. Failure to do so may affect the Intruder system's (I&HAS) operation.
- The Installer will have the opportunity to revert back to the Legacy network for a maximum period of 3 months if the equipment experiences difficulties. Of course the Installer may not know that the equipment has failed if the equipment is an un-pollled device (ie. Digital Communicator or social alarm). Another positive argument for Dual Signalling!
- **ALL DualCom GPRS products will have a 21CN-MODE™ – The product stays in this mode for 14 days then auto resets to normal polling – in this mode Gemini polls the Radio path at 15 minute intervals (or higher) when suspected disturbances on the PSTN path are predicted because of 21CN exchange upgrade activity.**

For more information please visit the following sites:

<http://www.btplc.com/21CN/Whatis21CN/index.htm>

- an explanation of 21CN

http://www.bsia.co.uk/LY8WLW49550_action;displayitem_itemid;M18NIJ66350_backlinktype;

- BSIA comment regarding 21CN

<http://www.switchedonuk.org/a/pdf/business/switchedontestdbexternal03sept07.pdf>

- a list of 21CN compatible equipment

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