

Comparison Chart - TaitNet MPT1327 vs. Trident NTS (Passport Protocol)

Notes are on Sheet 2 of this document

	<u>TaitNet 5100</u>	<u>Trident NTS</u>
System		
Access time (multi node)	1.5 seconds	n/a
Access time (multi site)	1.5 seconds	~400 mS
Access time (single site)	427 mS	280 mS
Numbering scheme	MPT1343	Passport (Expanded LTR), LTR, CTCSS, DCS
Signalling method	FFSK	Low-speed data or analog tone
Signalling protocol	MPT1327	LTR or Passport (expanded LTR)
Signalling speed	1200 baud	300 baud for LTR and Passport
Signalling type	Digital	Analog
Trunking type	Message	Transmission
Network		
Number of nodes	up to 32	n/a
Number of sites	960	127
Sites per switch	30	see note 1
Total number of channels	23,040	see note 2
Network configuration (star or delta)	both	both
Data / dispatch gateways		see note 3
MAP27	yes	no
e.mail	yes	unknown
proprietary	yes	see note 3
other	yes	yes (see note 3)
Number of subscriber idents p/network	1,036,800	see note 4
Number of group idents p/network	268,928	see note 4
Network management	yes	yes
Dial-in support / management	yes	yes
Call records	yes	yes
Audio Switch		
Intersite links		
2-wire	no	no
4-wire	yes	no
64 kilobit	no	no
E1	yes	no
T1	yes	yes
Fractional E1	no	no
Fractional T1	no	yes
Telephone circuits		

2-wire	yes	yes
4-wire	yes	yes
Digital	no	no
Number of ports per switch	250	Application Card-dependent
Number of audio switches per network	1 per node / site	n/a
Sites		
Number of channels per site	24	24 (Passport protocol)
Also manufactures site RF equipment	yes	no
Other		
Also manufactures subscriber equipment	yes	no
Call Features		
Automatic call-back	yes	subscriber-dependent (see note 5)
Broadcast call	yes	see note 6
Busy indication	yes	yes
Call diversion	yes	no
Call duration indication / notify	yes	no
Call queuing	yes	see note 5
Conference calls	yes	no
Confidence tones	yes	yes
Data calls	yes	yes
Dispatcher calls (console)	yes	yes
Emergency calls	yes	subscriber-dependent
Multi-site group calls	yes	yes
Include calls	no	no
Inter-fleet calls	yes	no
Inter-prefix calls	yes	no
Inter-site communications backup / redundancy	yes	yes
Full Off-Air Call Setup (FOACSU)	yes	no
Open channel call	no	no
Operator services (3-digit)	yes	no
PABX calls	yes	yes
Priority calls	yes	no
PSTN calls	yes	yes
Roaming	yes	yes
Speech calls	yes	yes
Single-segment transmission (SST)	yes	subscriber / 3rd-party dependent
Multiple-segment transmission (MST)	yes	subscriber / 3rd-party dependent
Non-prescribed data (NPD)	yes	subscriber / 3rd-party dependent
Status messaging	yes	subscriber / 3rd-party dependent
System wide call	Single-site only	no

Special Features		
Access levels	4	
Availability checking	yes	yes
Batch validation	yes	no
Busy queue / call back	yes	see note 5
Call activity length control	yes	yes
Call record collection	yes	yes
Call diagnostics	yes	yes
Call time options (PABX / PSTN)	yes	yes
Channel partitioning	yes	yes
Conventional channel interface	yes	yes
CPS-X numbering	yes	no
Distributed intelligence	yes	yes
Duplex calls	PSTN / PABX	yes
Dynamic regrouping	yes	no
Emergency call pre-emption	yes	no
Emergency call redirect	no	no
Emergency call timer	yes	no
ESN checking	yes	yes
Inactivity time-out disabling for emergency calls	yes	no
Dispatch console interface	yes	yes (Orbacom)
Line testing	no	no
Multiple control channels	yes	n/a
Network management	yes	yes
Network monitoring	yes	yes
Pooled channels	yes	no
Real-time activity / alarm monitoring	yes	yes
Remote diagnostics	yes	yes
Repeated GTC	yes	n/a
Shared traffic channels	yes	yes
Status store and forward	no	no
Subscriber unit billing	yes	yes (3rd party)
Support for analog links	yes	no
Support for digital links	yes	yes
Time-shared control channel	yes	n/a
Temporary traffic mode (VOC)	yes	n/a
Voice encryption	yes	subscriber-dependent
Voicemail	no	no
Vote now	yes	n/a

Note 1	Depends on network configuration. A single Master Card can support up to 4 NTS chassis and 64 Application Cards per site. These Master Card / Application Card combinations can be partitioned to have multiple co-located systems or 'sites'.

Note 2	Assuming 127 Passport-only sites, each capable of 24 channels, the number of Passport channels in a network can be up to 3048.
Note 3	Data / Dispatch console gateways. For the NTS there is an Application Card called a Console Interface Card which is designed to interface an Orbacom console to the NTS switch. Additionally, any console may be connected to the system remotely by interfacing control stations assigned on specific talkgroups to the console.
Note 4	Number of subscriber or group idents per network. A single Passport network will support up to 60,000 IDs'. However, these are partitioned by the system administrator into MIN (individual) or GID (group) IDs'. This is at the discretion of the system administrator, but the typical Passport network has the partition set with the Group ID's starting at ID 40,000. Thus, a network with 39,999 Individual IDs' and 20,000 Group IDs' is created.
Note 5	In the NTS system (and LTR for that matter), automatic call back does not exist as a system function. However, some subscriber units have a feature that can be best described as 'automatic call back' in the event of a busy system. On a call attempt on a busy system, these units will automatically retry the call periodically and when a channel becomes available the user is alerted.

Note 6	<p>Broadcast calls. In an NTS (or LTR) system this is not a system-dependent feature. It is subscriber-dependent. There are a few ways to accomplish this depending on whether the system is NTS / Passport or LTR. In an LTR subscriber unit there are programmable decode IDs commonly known as "Block decode IDs". These can be used as a sort of Priority Lookback ID and any call on this ID will be heard by the subscriber. However, it should be noted that for this feature to be used as a pseudo 'Broadcast Call' feature, all units on the system must use the same home channel. This is not always a good practice. For NTS / Passport systems this depends on whether the system is single-site or networked. In single-site systems, one of the secondary talkgroup IDs may be programmed to the same Group ID in all units on the system to allow for 'Broadcast Calls'. However, in multi-site networks this will not work. The only way to accomplish this in an NTS network is to program all subscribers with the same primary Group ID.</p>
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