Netans Series

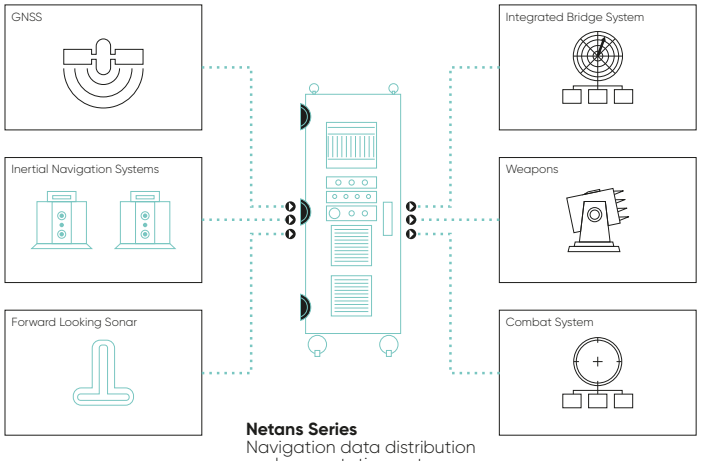
Modular Navigation Data Distribution Systems

Netans Navigation Data Distribution System (NDDS) acquires controls and processes all navigation sensors data and distributes the consolidated navigation information to the external systems with low latency. Netans acts as a consistent common reference system which will ensure that all parts of the system run with the same navigation data.

A modular and cost-effective solution for new build and retrofit

Based on Exail's unique know-how of navigations system, Netans has been carefully designed to meet the diverse requirements of Navies and Coast Guards. If our NDDSs are MOTS systems, thanks to modular software, they could adapt to all vessel configurations and they are able to interface with all complex systems as a large range of CMS, missiles, guns, navigation bridge, etc.

Netans is a ship's nerve center within an integrated navigation system



Netans Series
Navigation data distribution and computation systems

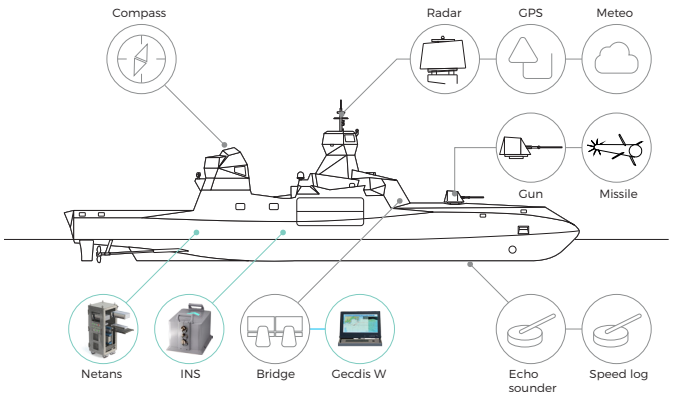
Netans, a smart NDDS to monitor and provide safety data in cyber secured environments

For each data, the DDU will qualify it in three steps:

- **Validity:** check the data is conformed to specified criteria
- **Integrity:** comparison between data
- **Plausibility:** coherency with data type

To protect navigation system against cyber attack, our NDDS:

- Detects and alerts on anomaly on sensor data
- Detects and alerts on anomaly on network stream
- Uses last standards in cyber recommendations



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contact@exail.com | www.exail.com
EMEA +33 1 30 08 88 88 | Americas +1 888 600 7573 | APAC +65 6747 4912

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TECHNICAL SPECIFICATIONS

Scalability to suit platform.
Possibility to customize systems with:

- Four different size of enclosures (from Netans N1 to Netans N7)
- Six models of module
- One taylored configuration file

Characteristics




	Netans N1	Netans N3	Netans N5	Netans N7
Ethernet	●	●	●	●
I/O modules	2 modules	6 modules	11 modules	22 modules
Cabling	Cable Glands	Connectors	Cable glands	Cable glands
Front screen	External	External	External	Optional
Time clock	External	External	Optional	Optional
UPS	External	External	Optional	Included
Dimensions (H x W x D) in mm	164 x 239 x 336	250 x 400 x 400	700 x 600 x 600	1400 x 600 x 600
Power Supply (default)	24 VDC	24 VDC	115VAC 240VAC	115VAC 240VAC
Cybersecurity	Regular	Regular	Advanced	Advanced
Weight	Configuration dependent between 5.5kg to 120kg			
Export-free	●			
Conning display option	●	●	●	●

I/O Modules

RS 422	4 inputs / 4 outputs 8 outputs
SYNCHRO OUT	2 outputs (400 Hz/90V)
SYNCHRO IN	1 input (400 Hz/90V)
HDLC/SDLC	2 inputs or outputs
NTDS-A	1 input or output

Performance

INPUT/OUTPUT	
Input/output rate	0.5Hz to 200Hz
Time stamping accuracy	100µs
Failsafe mode	0ms with direct hardware connection using a configurable relay matrix

Operating/Environment/Mechanical

Operating/storage temperature	0°C to +45°C / -10°C to 50°C
Ingress Protection	IP54
EMC	IEC-60945/MIL STD 461*
Shock and vibration proof	MIL STD 167-1*
Standard compliance	IEC 61162-1,-2, -450, -460 ; IEC 61924-2 Integrated navigation system (INS) ; IEC 62288 ; IEC 60945
MED/IMO	THD certified

* MIL STD not applicable for Netans N1

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