nxDAS HE

Unleash Your Data:
Hybrid Electric DAS

Discover our Data Acquisition System fit for
hybrid electric propulsion testing

MDS
GAS TURBINE ENGINE SOLUTIONS

Fit for **hybrid electric**

Easy Integration
Simple to setup to any system.
Configure and customize to your needs.

Comprehensive
Meets the latest demands for high-speed, deterministic data.

Reliable & Accurate
Backed by our track record in building and optimizing DAS solutions.

The **forefront** of data acquisition

As the industry continues to evolve and embrace the remarkable advancements of hybrid electric propulsion systems, staying at the forefront requires a reliable and accurate data acquisition solution. That's where nxDAS HE comes in. Our comprehensive, easy-to-use system empowers engineers and technicians to effortlessly capture high-speed, deterministic data and manage the test driving innovation in engine manufacturing to new heights.

Our **expertise** is unmatched

With a strong track record of designing and constructing state-of-the-art test facilities for over three decades, MDS has a deep understanding and appreciation for the role that test data plays in driving progress and innovation. Drawing on our extensive experience, nxDAS HE represents the cutting-edge evolution of our renowned legacy DAS solutions, which have been embraced by industry leaders such as GE, MTU, Rolls-Royce, Siemens, P&W, among others.

Complete copper bird system integration, **with versatility!**

- ✓ Battery Simulation
- ✓ Dynamometer Control
- ✓ Altitude Simulation
- ✓ Fuel Cell Test or Simulation
- ✓ Turbo Generator Integration
- ✓ Battery Storage
- ✓ Simulation for Hardware in the Loop (HIL)
- ✓ High-Speed Power Analysis
- ✓ Torsional Analysis
- ✓ Multiple Propulsion DUT Motors and Devices
- ✓ Multiple Fieldbus Protocols
- ✓ Automated Testing

1 MHz+ Power Analysis

HE testing places new demands on measurement data rates. Systems used in turbine test are no longer suitable. nxDAS HE leverages high-performance power and analysis calculations technology in real time across multiple channels, allowing for data synchronization across measurements, including:

- High voltage
- High current
- Power and efficiency calculations
- Real-time analysis on multiple channels at once
- High-speed torque meter measurement for torsional analysis
- Real-Time calculations with other measurement types
- Data shared at up to 1000 Hz to other systems and HIL simulation
- User-friendly test configuration import with duplication checking

Intuitive & Easy to Use

Designed with operators in mind; its user interface mimics that of traditional Windows application, and its testing modules are easy to operate.

- Effortless configuration
- Easy setup that is quick to deploy
- Scalable architecture
- Adding new instruments and devices under test is easy, flexible, and economical
- Software Development Kit available for any required component customization

Easily manage and modify different channel configurations:

- Breakpoint tables
- Calculations
- Alarms
- Displays
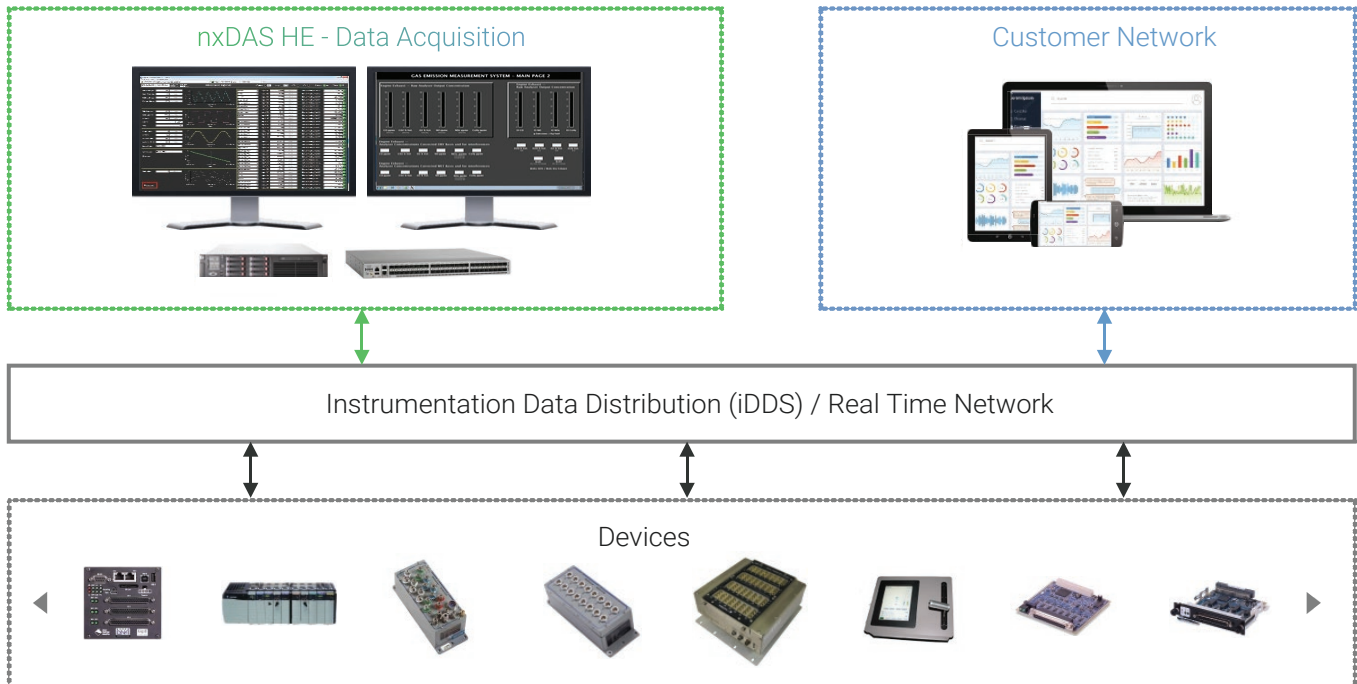
Easily Configurable

Experience hassle-free integration and ensure optimal performance.

- Future-proof your operation by eliminating most obsolescence issues.
- No need for custom driver development for iDDS instruments, saving youtime and money.
- Keep your systems running smoothly with intuitive device health reporting.

Modular & Flexible

Unlock the full potential of our software solution. Choose the best solutions without being handcuffed to any vendor or platform.

- Seamless integration of best-of-breed 3rd party tools,
- Much smaller core server, enabling hardware choices that meet your requirements.
- Flexible and cost-efficient computing power allows you to scale up or down as needed.

nxDAS HE - Data Acquisition

Customer Network

Instrumentation Data Distribution (iDDS) / Real Time Network

Devices

GAS TURBINE
ENGINE
SOLUTIONS

MDS – Head Office Canada
MDS Aero Support Corporation
200-1220 Old Innes Road, Ottawa, Ontario, Canada K1B 3V3

Tel.: +1 613-744-7257
Fax: +1 613-744-8016

MDSAERO.COM