North Atlantic Industries
Industries
Excellence in ALL we do

Accelerate Your Time to Mission

Embedded Sense & Response Applications
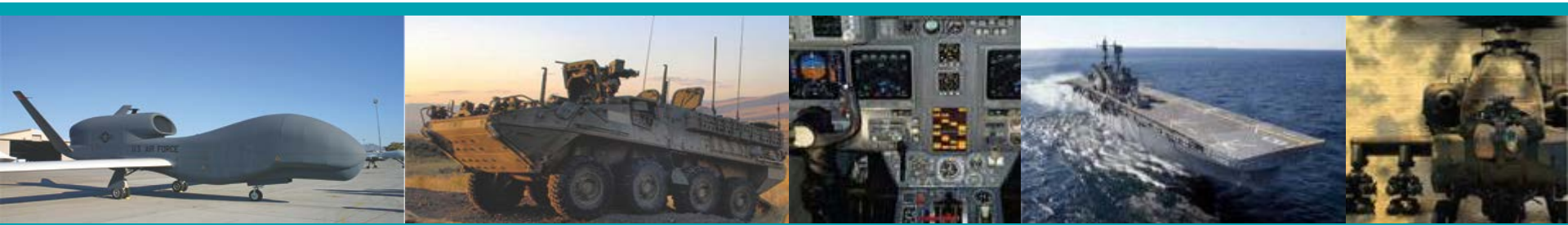
- **Smarter**
- **Faster**
- **Smaller**

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- **I/O Intensive**
- **More Processing Power**
- **SWaP Efficient**

Traditional Approach: Custom vs. COTS

CUSTOM

Higher R&D Costs

Lower Support Costs

Longer Refresh Cycles

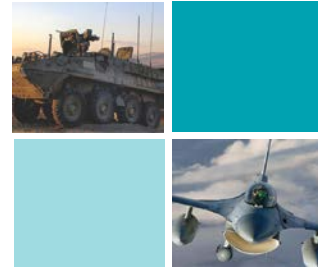Integrated Logistics Support

Tighter Program Management

COTS

Lower R&D Costs

Higher Support Costs

Shorter Refresh Cycles

Separate Logistics Support

Complex Program Management

Source: DODD 5000.1, NAVSEAINST 9083.1:" Commercial Off The Shelf (COTS) Policy"

Both approaches are characterized by compromise, tradeoffs and risk

NAI: The Best of Both Worlds

CUSTOM   COTS

NAI

Faster Time-to-Mission
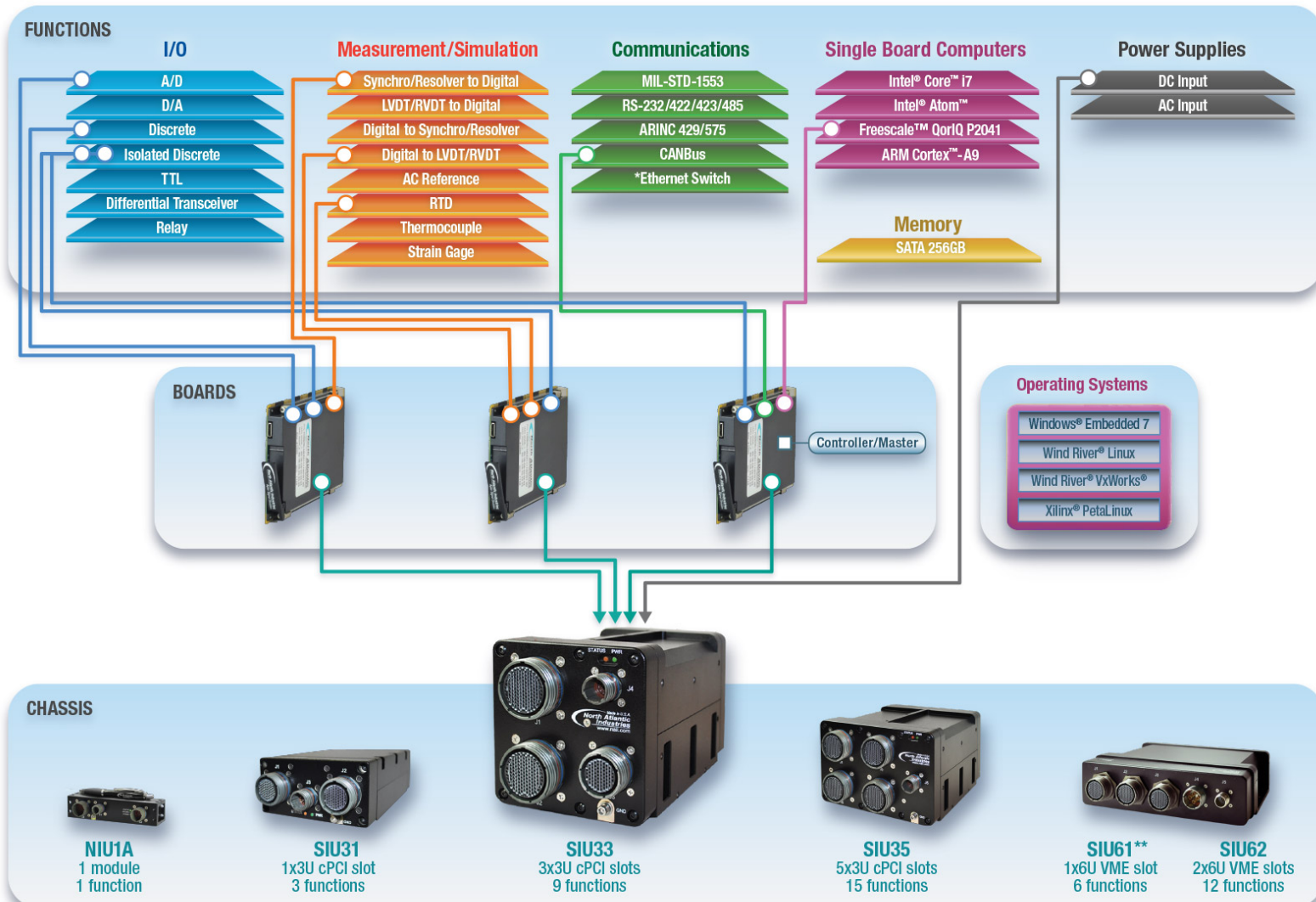
Lower Engineered Costs

Longer Lifecycles

We believe there should be a more efficient approach to meeting the specs

NAI Custom-on-Standard Architecture™ (COSA™)

Brings you the best of both worlds : Custom solutions from standard COTS components

Configure Boards & Systems Easily for a Complete COTS Solution
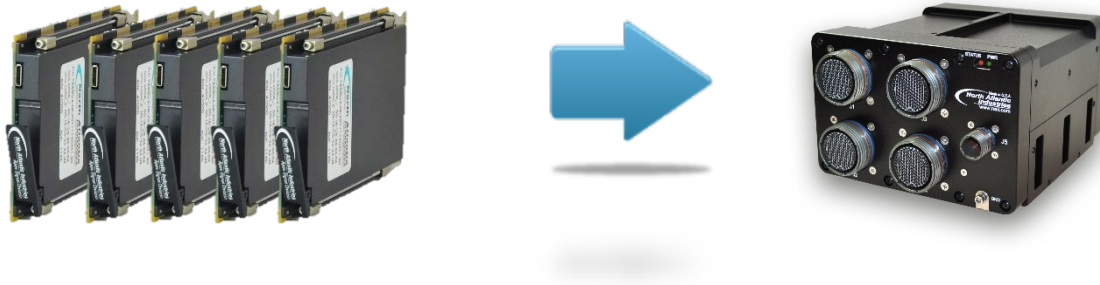
Pre-existing, fully tested functions can be combined in an unlimited number of ways.

FUNCTIONS

I/O
- A/D
- D/A
- Discrete
- Isolated Discrete
- TTL
- Differential Transceiver
- Relay

Measurement/Simulation
- Synchro/Resolver to Digital
- LVDT/RVDT to Digital
- Digital to Synchro/Resolver
- Digital to LVDT/RVDT
- AC Reference
- RTD
- Thermocouple
- Strain Gage

Communications
- MIL-STD-1553
- RS-232/422/423/485
- ARINC 429/575
- CANBus
- *Ethernet Switch

Single Board Computers
- Intel® Core™ i7
- Intel® Atom™
- Freescale™ QorIQ P2041
- ARM Cortex™-A9

Memory
- SATA 256GB

Power Supplies
- DC Input
- AC Input

BOARDS

Controller/Master

Operating Systems
- Windows® Embedded 7
- Wind River® Linux
- Wind River® VxWorks®
- Xilinx® PetaLinux

CHASSIS

NIU1A
1 module
1 function

SIU31
1x3U cPCI slot
3 functions

SIU33
3x3U cPCI slots
9 functions

SIU35
5x3U cPCI slots
15 functions

SIU61**
1x6U VME slot
6 functions

SIU62
2x6U VME slots
12 functions

Advantage: Configured to Customize

- Eliminate the need to design a custom data acquisition system for most Sense & Response applications accelerates your time to mission
  - Exceptionally, versatile, configurable hardware enables faster system adaptation
  - Plug-and-play interoperability reduces integration risks
  - Improve SWaP footprint
  - Lower acquisition costs

COSA: Smarter, Faster, Smaller

Advantage:
Architected for Versatility

- **A highly adaptive architecture that accelerates your time-to-mission with:**
  - Broadest range of applications
  - Programmable I/O modules
  - Extended lifecycle support
  - Field-proven reliability

COSA: Turnkey systems for data acquisition, distribution and processing

Advantage: One Source Efficiencies

- **From design to manufacturing and final testing, NAI is optimized to accelerate your time-to-mission**
  - State-of-the-art design, manufacturing and verification from one trusted source
  - Pre-integrated, field-proven components lower program risk
  - Reduced logistics and support costs
  - ISO 9001:2008 & AS9100:2009 certified

Meet demanding requirements faster, with less program risk.

One Architecture
Multiple Product Families

Multi-function I/O

SBCs

Power Supplies

Rugged Systems

T&M

A broad range of field proven products for Sense & Response Applications

Battlefield Proven Results

LCAC-SSC

Standalone Solution

THAAD

SWaP and
Reliability improvement

F-16 CFCC

Power & I/O Solution

Predator

10+ Years of Production

Abrams ECP1

AC/DC 400 Hz Reference

IDM OSA

6-month hardware delivery
/ complete system

Accelerated Time-to-Mission. Smarter Systems.