



The logo for NIDays Engineer Next is centered on a blue gradient background. It features the text "NIDays" in white, enclosed within a white rectangular border. To the right of this, the words "ENGINEER" and "NEXT" are stacked vertically in a large, bold, white sans-serif font. A yellow graphic element, consisting of three parallel lines forming a stylized arrow or chevron shape, is positioned between the two words. The background is decorated with several diagonal stripes: a wide green stripe, an orange stripe, and a red stripe on the left side, and several blue stripes of varying shades on the right side.

NIDays **ENGINEER**
NEXT

Introducing NI ATE Core Configurations

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RF System Engineer, NI

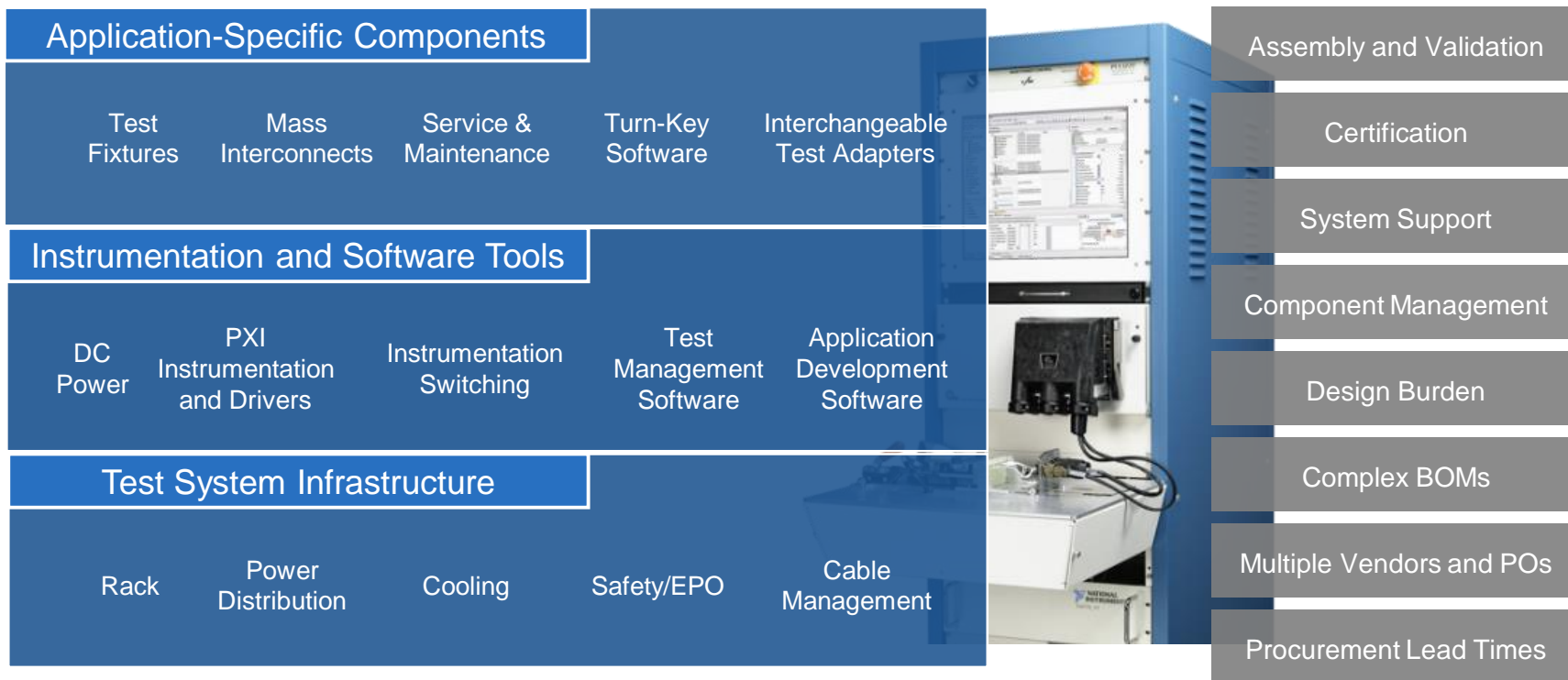
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Agenda

- ATE System Development: Then and Now
- Anatomy of an ATE Core Configuration
- Customizing Your ATE System
- System Completion and Deployment

ATE System Development: Then and Now

ATE Systems Require More Than Instrumentation



NI ATE Core Configurations

Standardized Starting Point for ATE Systems

Mechanical Infrastructure

19" Rack, Removable Doors, 3 Sets of Mounting Rails

Power Infrastructure

Power Entry Panel, Power Distribution, Integrated Fans

Safety Infrastructure

Emergency Power Off, Temperature Monitors



Anatomy of an ATE Core Configuration

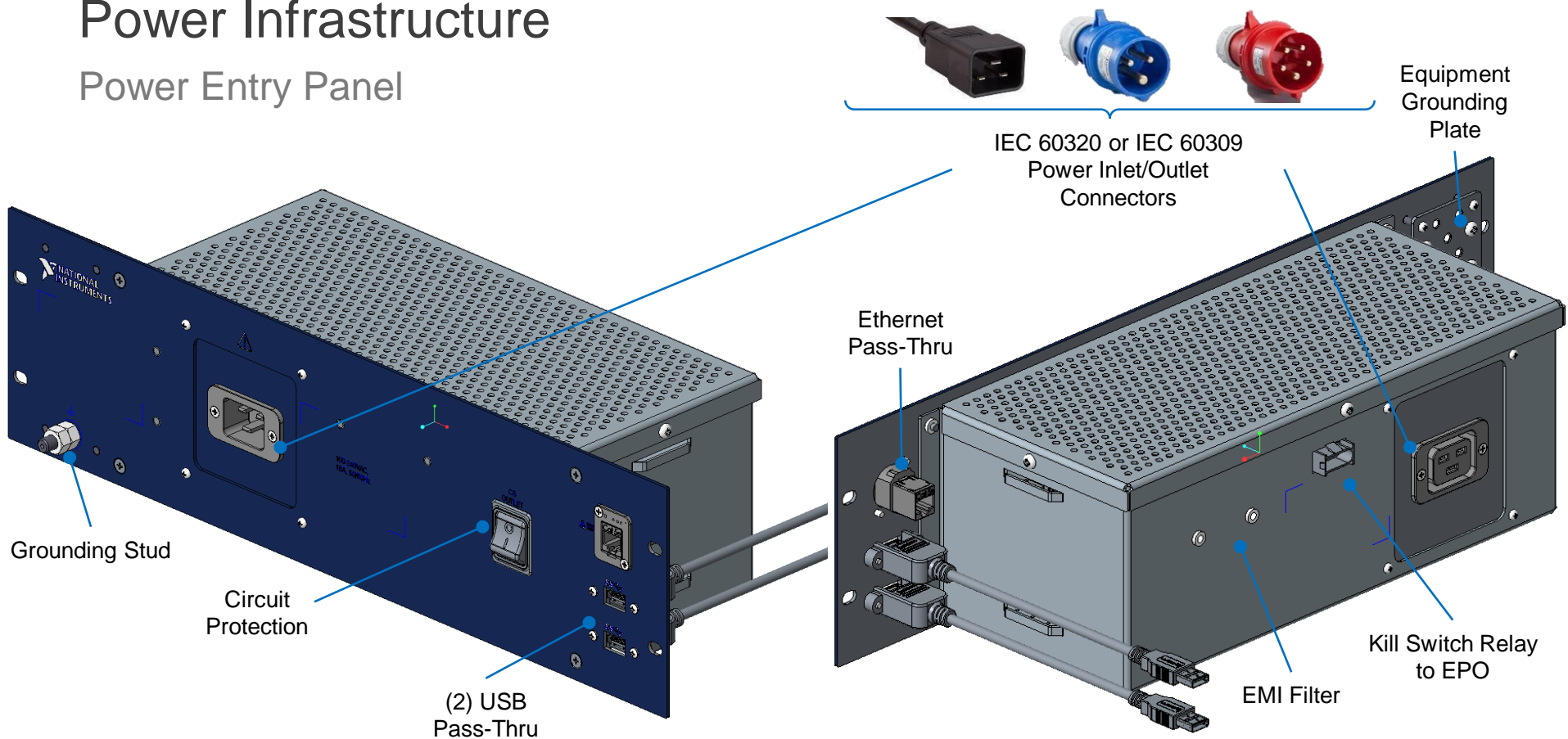
Mechanical Infrastructure

- Rear Locking Door
- Removable Side Walls
- Top Fan Kit
- Three Sets of Mounting Rails
- Cable Management Tracks
- Brushed Cable Inlet
- Filtered Air Inlet Panel
- Full-Rotation Industrial Casters



Power Infrastructure

Power Entry Panel



Power Infrastructure

Power Distribution Units

- Power distribution units allocate AC and DC power to instrumentation and rack components
- Co-developed with Marway to meet the needs of ATE systems
- Available for for both single-phase and three-phase power systems
- Features include power sequencing, remote inhibit, and EPO connections

RMX-10050 Single-Phase PDU



RMX-10051 Three-Phase PDU



Safety Infrastructure

Emergency Power-Off and Thermal Shutdown

On/Off Switch

Enables/disables AC and DC power from PDU

Thermal Shutdown Switch

Kills facility power to system at user-defined temperature

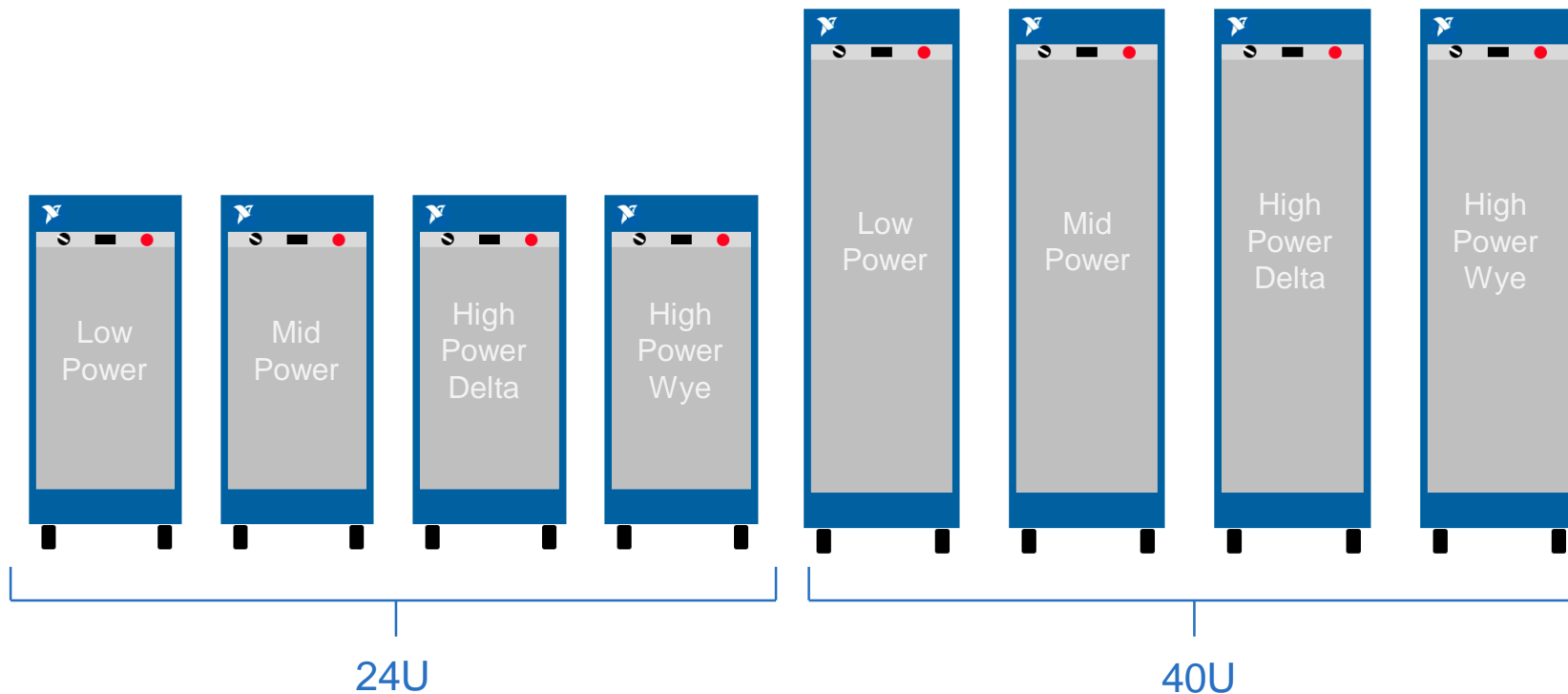
Emergency Power-Off

Kills facility power to the system when pressed



The Eight ATE Core Configurations

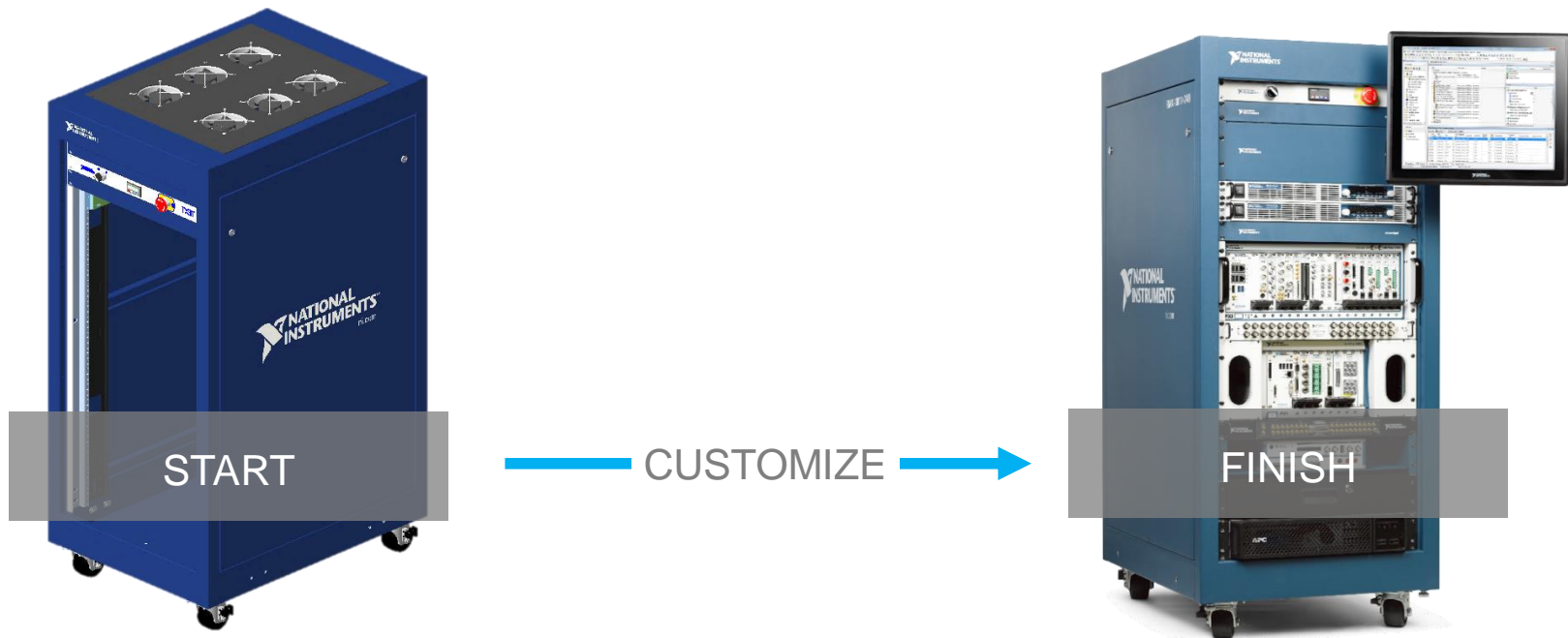
2 Height Options, 4 Power Profiles



Customizing Your ATE System

Standardized Core, Customized System

Outfit an ATE Core Configuration with Instrumentation and Accessories



Customize with Instrumentation, Accessories, and Software

INSTRUMENTATION



PXI



Switch Load and Signal Conditioning



CompactRIO

APPLICATION HARDWARE



RAID Arrays



Programmable Power Supplies

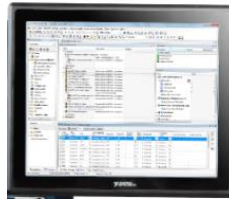


Rackmount Controllers

SYSTEM ACCESSORIES



MKD Units



Displays/HMIs



UPS

Flexible Display Options



1U Flip-Up Drawer

MKD-1117

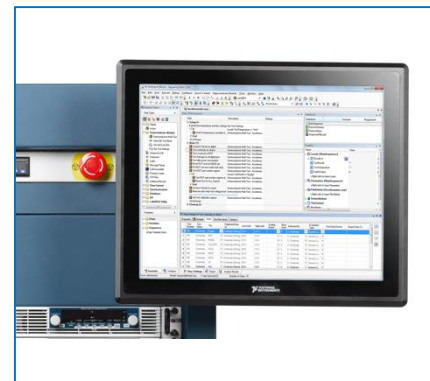
- 17" 1280 x 1024 LCD
- 105-key English keyboard and touchpad
- VGA, USB, PS/2 conn.



Flush-Mounted Touch Screen

TSM-1017

- 17" touch screen LCD
- 1280 x 1024 resolution
- Flush 10U footprint



Side-Mounted Screen

TSM-1017 or 22" Monitor

- 3U plate with mounting arm
- Options for 17" touch screen or 22" standard monitor

Accelerated Configuration

- The NI PXI Advisor expedites the configuration of ATE systems
- Add optional accessories such as uninterruptible power supplies, displays, filler panels, and spare components
- Position and orient your instrumentation and hardware accessories
- Add ballasts for a balanced system
- Get a system report providing the weight, size, power, and thermal details of your configuration

Currently NI internal – public release in development



The screenshot displays the NI PXI Advisor configuration interface. At the top, a navigation bar includes tabs for 'Controller', 'Modules', 'Chassis', 'ATE Core Configuration' (selected), 'Software', 'Services', and 'Summary'. Below this, a sub-header shows '1. ATE Core Configuration' and '2. Customize Rack Layout' (selected). A message states: 'You can change the selections based on your requirements. Click 'Next' to proceed.' Navigation buttons for 'Back' and 'Next' are present.

The main configuration area is titled 'ATE Rack Accessories and Options'. It is divided into several sections, each with a 'Price Per Unit' column:

- Chassis Placement:** Includes 'Rack Location' (12U), 'Mounting Direction' (Front Rail), and 'Alignment' (Flush).
- HMI Display:** Includes 'HMI Display Type' (22" Flat Panel Monitor (3U, Adjustable Mounting Arm)) and 'Rack Location' (21U). The price per unit is \$ 465.
- Mains Voltage:** Includes 'Mains Voltage Option' (100-120V, 50/60Hz).
- Rack Accessories:** A list of slots from RU24 to RU8. RU24, RU23, RU22, RU21, RU20, RU19, RU18, RU17, RU16, RU15, RU14, RU13, RU12, RU11, RU10, RU9, and RU8 are all set to 'Empty Slot'. RU22, RU21, RU20, RU19, RU18, RU17, RU16, RU15, RU14, RU13, RU12, RU11, RU10, RU9, and RU8 are all set to 'Empty Slot'. RU24 is set to 'EPO Panel and ENET Switch'. RU23 is set to 'High Power Distribution Unit'. RU13 is set to 'Keypoint for airflow'. RU12 is set to '1U Vented Shelf'. RU11 is set to '1U Fan Kit'. RU10 is set to 'Filler Panel'. RU9 is set to '1U Keyboard Drawer'. RU8 is set to '2U Locking Drawer'. RU7 is set to 'Equipment Support "L" Brackets'.

Hardware Services

- Rack/ Accessories
- Rack Fan Kit
- Cables

Redundancy

Spares

Customer managed spares

NI Managed Spares

Partner with NI on a tiered sparing model at a location of your choice

Option in **Premium Plus Service Program**

Advanced Replacement

Express shipment of a replacement product within one business day of the request

Included in the **Premium Service Program** for HW

Standard Repair

10 days for repair plus standard return shipping*

Included in the **Standard Service Program** for HW

minutes

hours

1 day

3-5 days

2-3 weeks

System Completion and Deployment

Streamlined Deployment

- Minimized lead times through standardization
- Free, expedited global shipping
- Reusable shipping crates for multiple shipments
- Serviceability with certified subassemblies and field-replaceable components



NI Alliance Partner Network

1000+ Alliance Partners

NI Offices
NI Alliance Partners

Source: ni.com/findapartner





REAL-TIME TEST



“Through NI’s ATE Core Configurations, we were able to accelerate the design, procurement, and deployment phases of our project to arrive at a full solution much more quickly. The time and budget saved by starting with a standardized core infrastructure allowed us to focus on the design aspects unique to our application without reinventing the wheel.”

—Roy Walker, Business Unit Manager, Bloomy, Inc.
ni.com/innovations



NI ATE Core Configurations



Faster Development

Standardized starting point for test system design



Simplified Procurement

Simplified BOM and vendor management



Flexible Configuration

Customized instrumentation and hardware



Streamlined Deployment

Expedited delivery and global certification



Learn more at
ni.com/ate-core-configurations

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