

A&D

Discover Precision

Kevin Mueller, A&D Technology



A&D Product Lines



- Scales
- Precision Balances



- Medical Scales
- Blood Pressure Monitors



- Powertrain Test Systems
- Lab Management Systems
- Battery Test Systems
- Emission Test Systems
- Simulation Tools
- Vehicle Dynamics

Weighing Sensors



- High precision weighing modules and balances to accurately verify filling weight of electrolyte
- Small footprint easily fits into automated filling systems

For more information contact
Jesús Zapién, Product Manager
Email: jzapien@andweighing.com
Mobile: +1.408.564.2322



eMobility Challenges



Complexity

Battery test systems, eMotor and hybrid test cells require multiple components to successfully run a test

Management

Large labs consist of hundreds of test systems that require facility and data management.

Expensive

Battery test systems and dyno test cells are expensive due to the complexity of the electronics and controls involved.

Streamline Control of Any Equipment



Flexible Lab Automation & Management Solutions:

Integrates all types of testing equipment made by any manufacturer into one convenient platform.

Universal BMS Connector:

A&D HIL Simulation Systems can connect to any Battery Management Systems that R&D labs or test houses encounter.



A&D's Battery Solutions

iTest / iTest.BTS

Testing Automation solution that reduces the system to a single interface and incorporates data acquisition.

LabWorX Suite

Collects and stores data from a collection of test systems into one managed lab.

HILS

Hardware-in-the-Loop shortens development cycles and reduces the cost of testing.



iTest BTS Battery Testing Automation



iTest.BTS Battery Test System

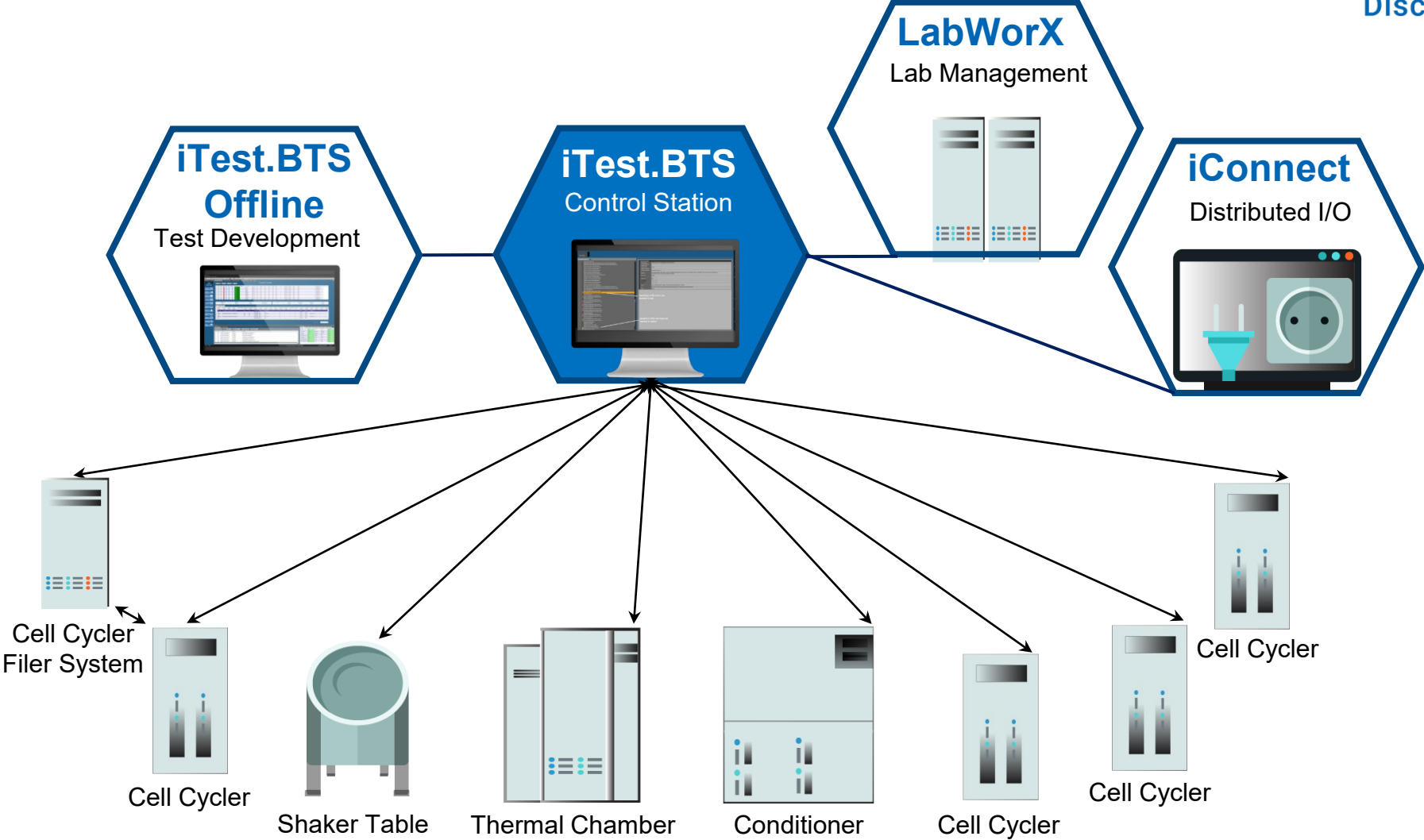


A test automation system specifically designed for battery cell and pack testing; typical battery test labs contains equipment from many different suppliers. BTS eliminates the need for multiple control systems by integrating all test devices into one automation system.

- Eliminates the need for operator retraining by controlling all test devices, both cyclers and chambers, with a common interface
- Parameterized testing provides the advantage of applying a single test program to any size cell or pack for all common testing requirements
- Easy integration with lab management systems provide centralized data management, and safe and efficient 24/7/365 unattended operation



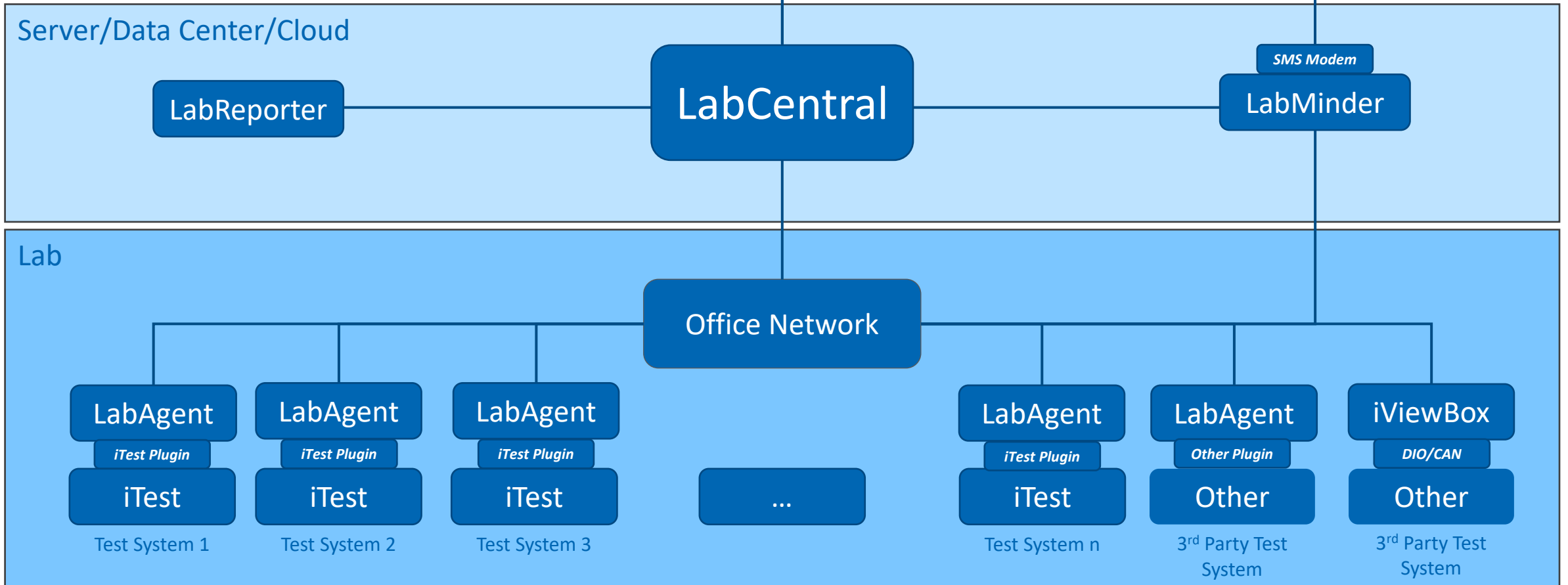
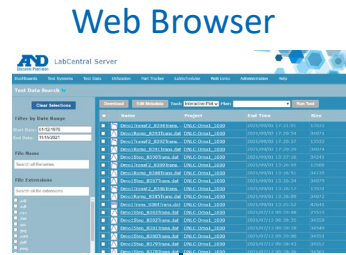
iTest.BTS Solution



LabWorX Lab Automation & Monitoring



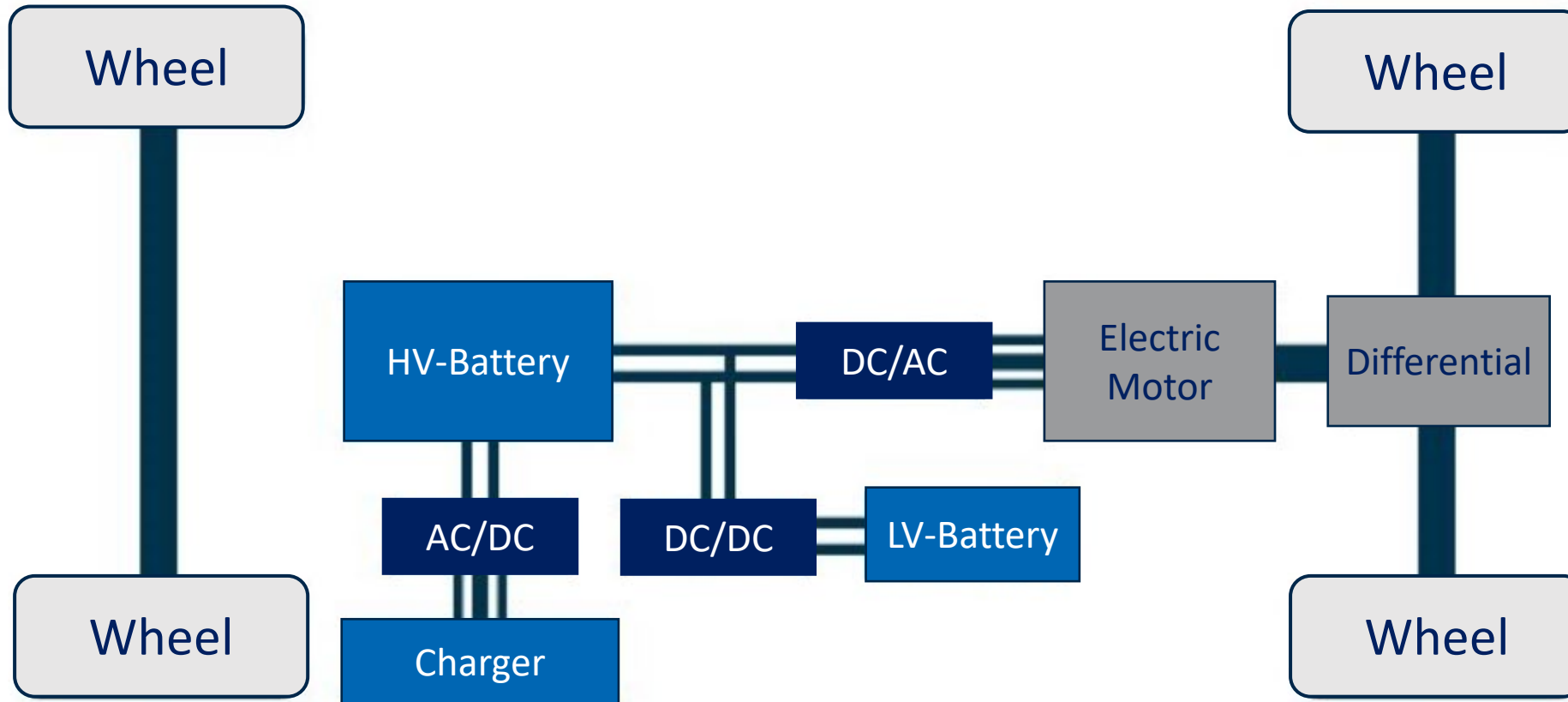
LabWorX



HIL Simulation eMobility Solutions



Electrification Area

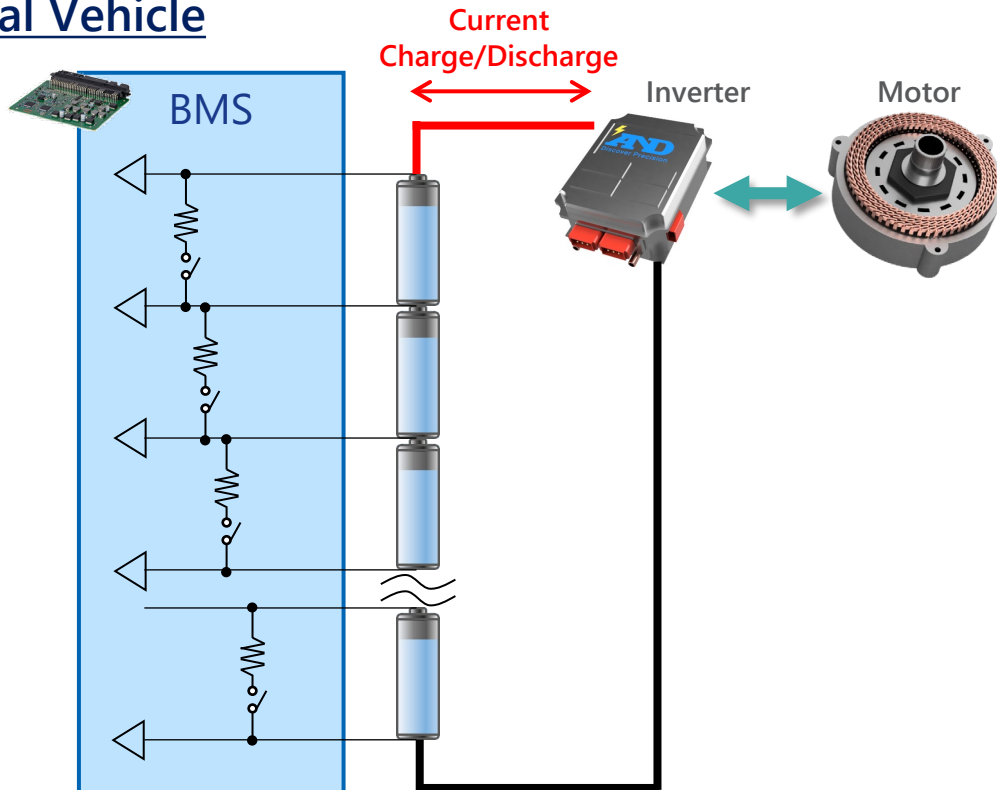


Battery Electric Vehicle Powertrain

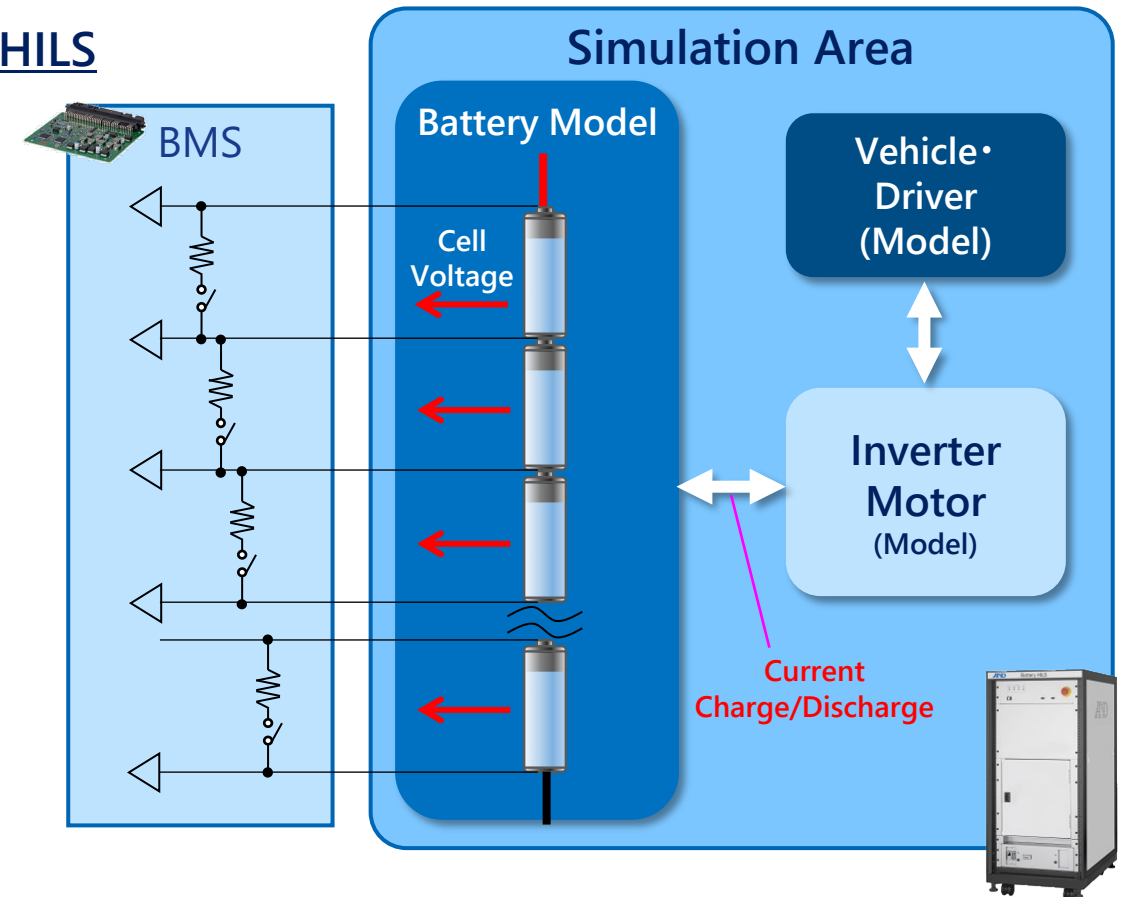
Battery HILS

Simulate Batteries for Developing and Validating a BMS (Battery Management System)

Real Vehicle

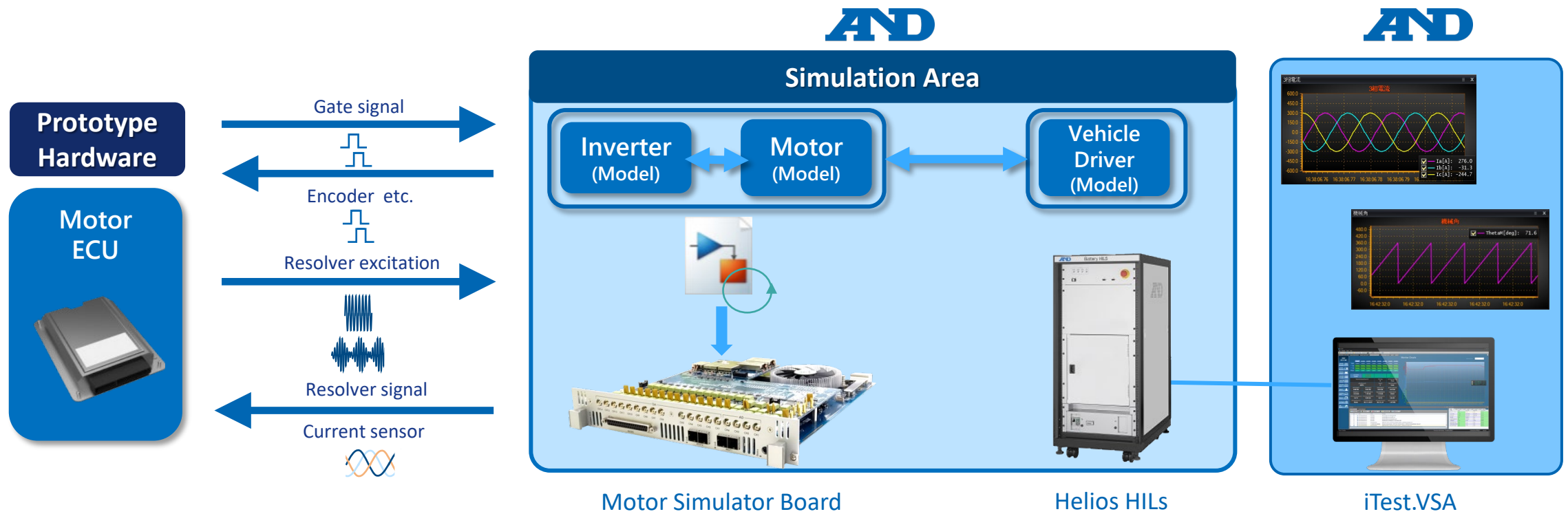


HILS



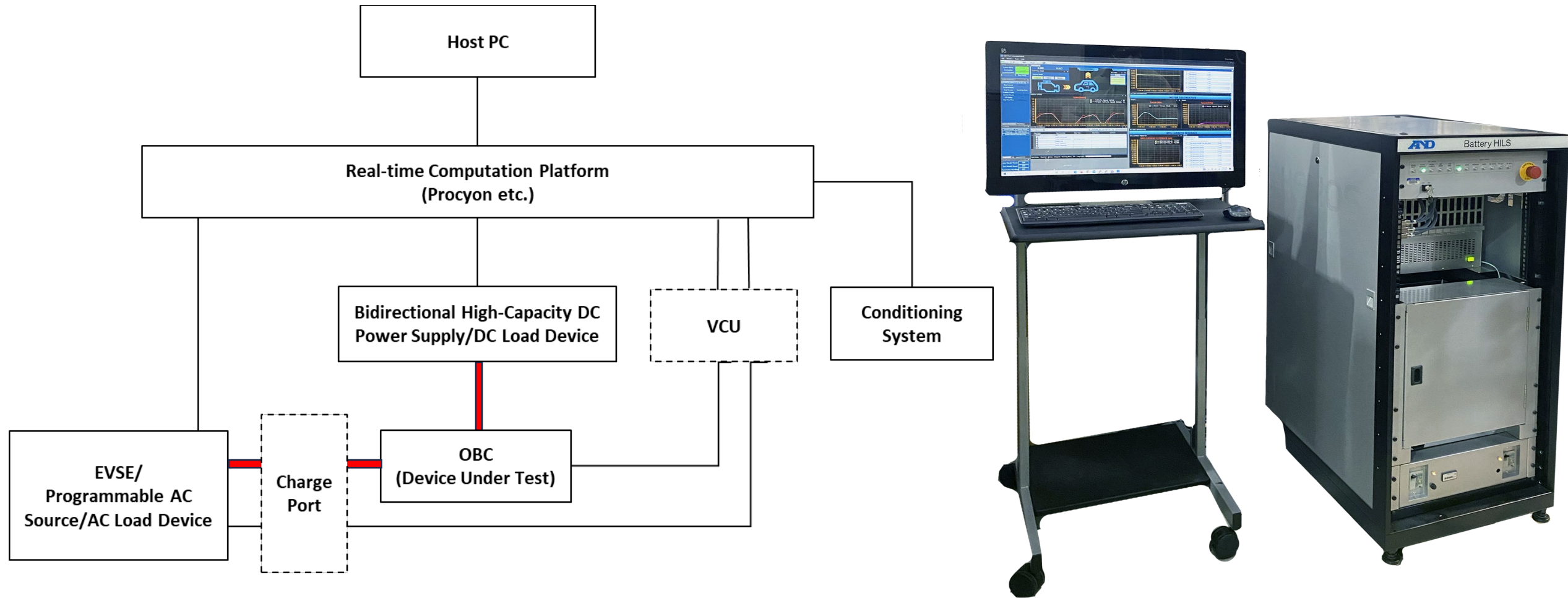
Motor HILS

Simulate Motors for Developing and Validating a Motor ECU



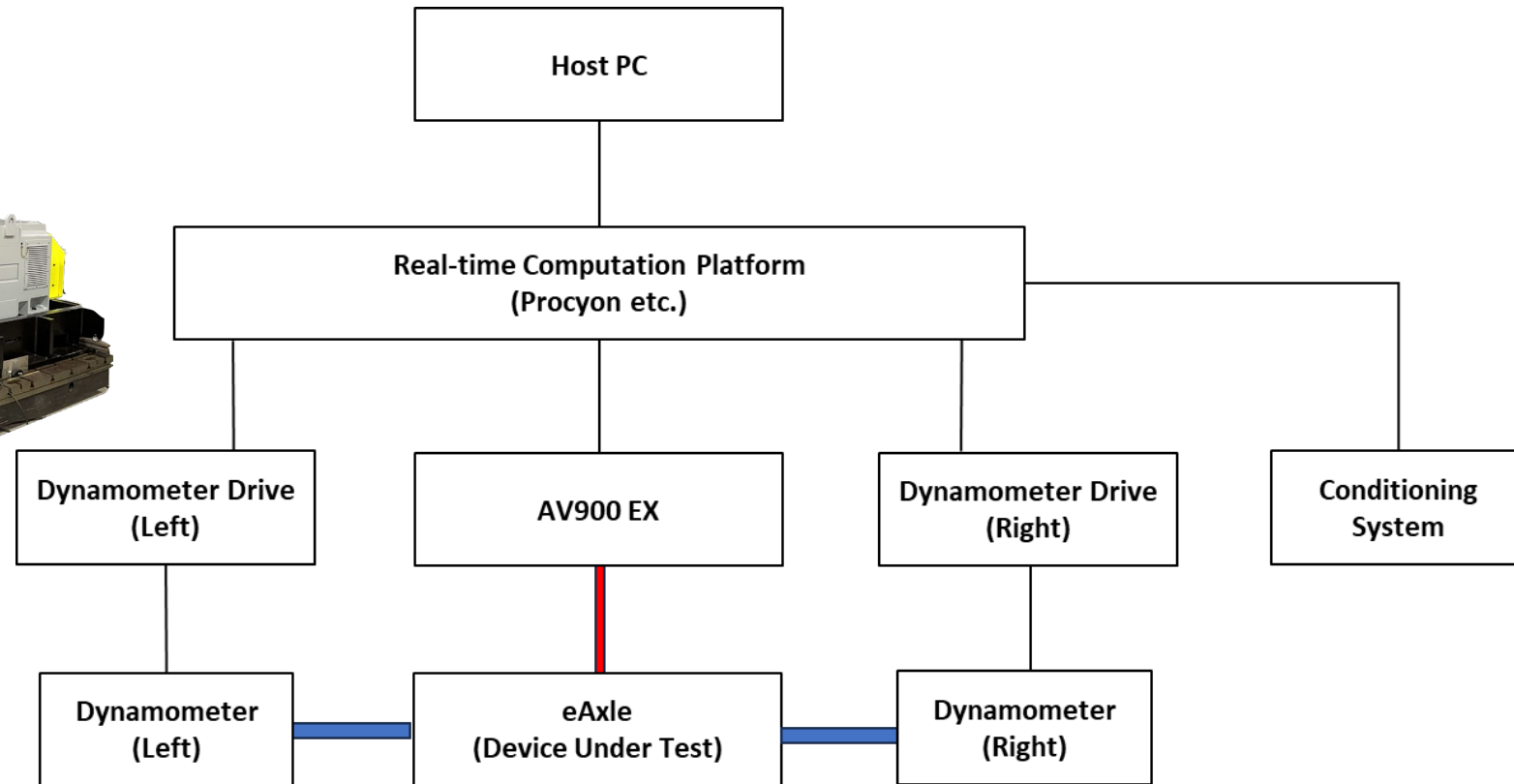
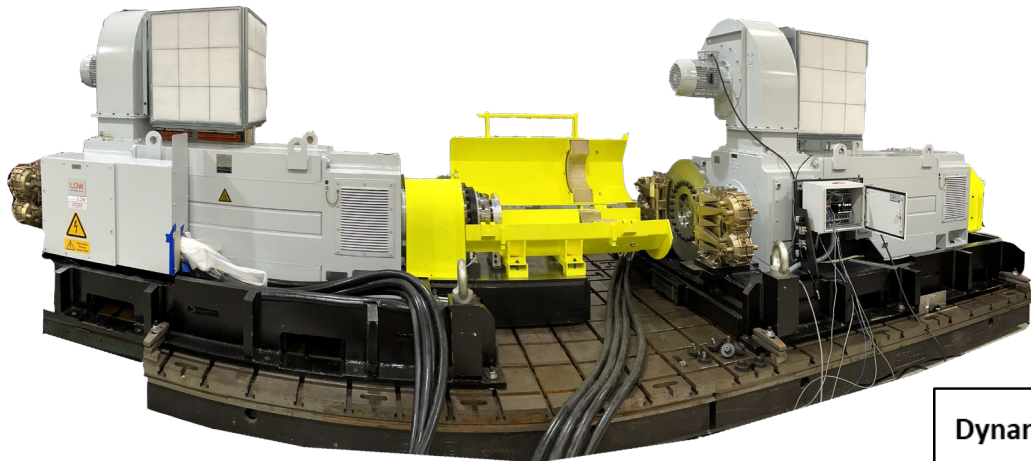
Electrification Area --- OBC Testing

HiL Testing Scenario Example



Electrification Area --- eAxle Testing

eAxle HiL Testing Scenario Example



eMobility Installations: 300+ Worldwide





Thank You

Questions?

Contact Kevin Mueller

kmueller@aanddtech.com

734-545-6395

