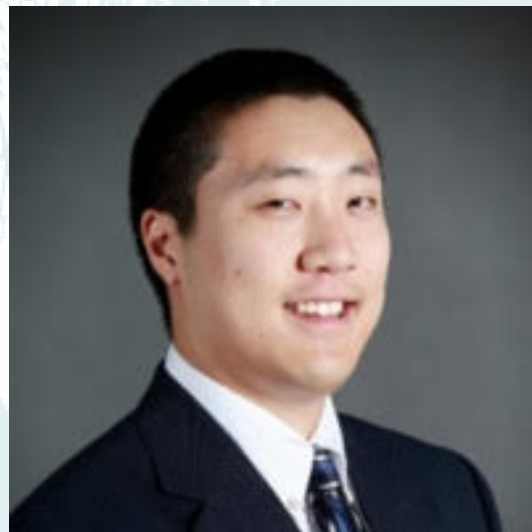


Data Tagging at Ford



Timothy Scott

BMS Controls Engineer,
Ford Land



KEY TO SYMBOLS



TYPICAL FORD FACILITY

PROTOCOLS

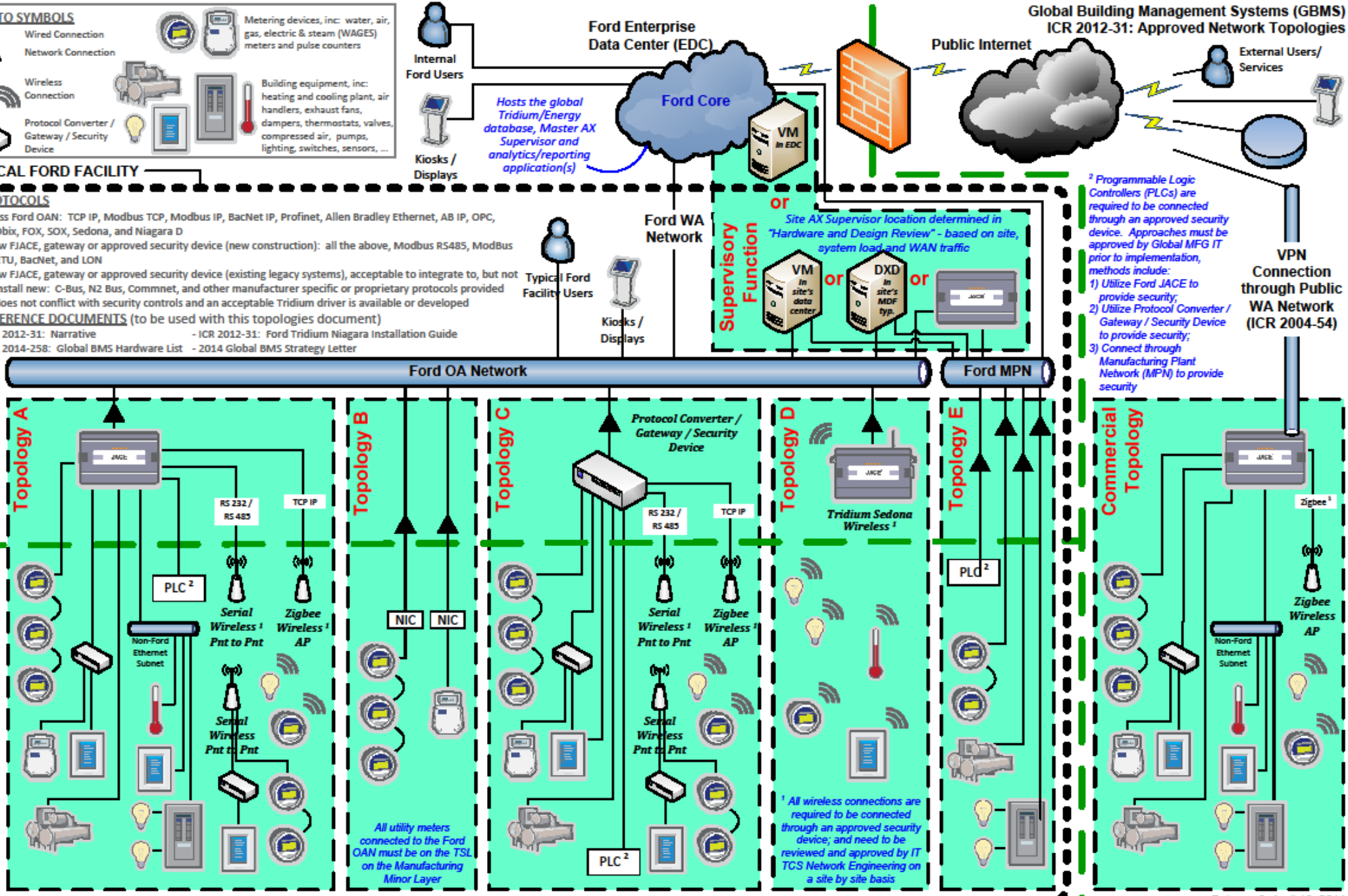
Across Ford OAN: TCP IP, Modbus TCP, Modbus IP, BacNet IP, Profinet, Allen Bradley Ethernet, AB IP, OPC, Obix, FOX, SOX, Sedona, and Niagara D
 Below FIACE, gateway or approved security device (new construction): all the above, Modbus RS485, Modbus RTU, BacNet, and LON
 Below FIACE, gateway or approved security device (existing legacy systems), acceptable to integrate to, but not install new: C-Bus, N2 Bus, Commnet, and other manufacturer specific or proprietary protocols provided does not conflict with security controls and an acceptable Tridium driver is available or developed

REFERENCE DOCUMENTS (to be used with this topologies document)

- ICR 2012-31: Narrative
- ICR 2012-31: Ford Tridium Niagara Installation Guide
- ICR 2014-258: Global BMS Hardware List
- 2014 Global BMS Strategy Letter

Within IT Support

No Direct Internet Accessibility



² Programmable Logic Controllers (PLCs) are required to be connected through an approved security device. Approaches must be approved by Global MFG IT prior to implementation, methods include:
 1) Utilize Ford JACE to provide security;
 2) Utilize Protocol Converter / Gateway / Security Device to provide security;
 3) Connect through Manufacturing Plant Network (MPN) to provide security

¹ All wireless connections are required to be connected through an approved security device; and need to be reviewed and approved by IT TCS Network Engineering on a site by site basis