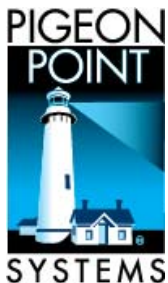


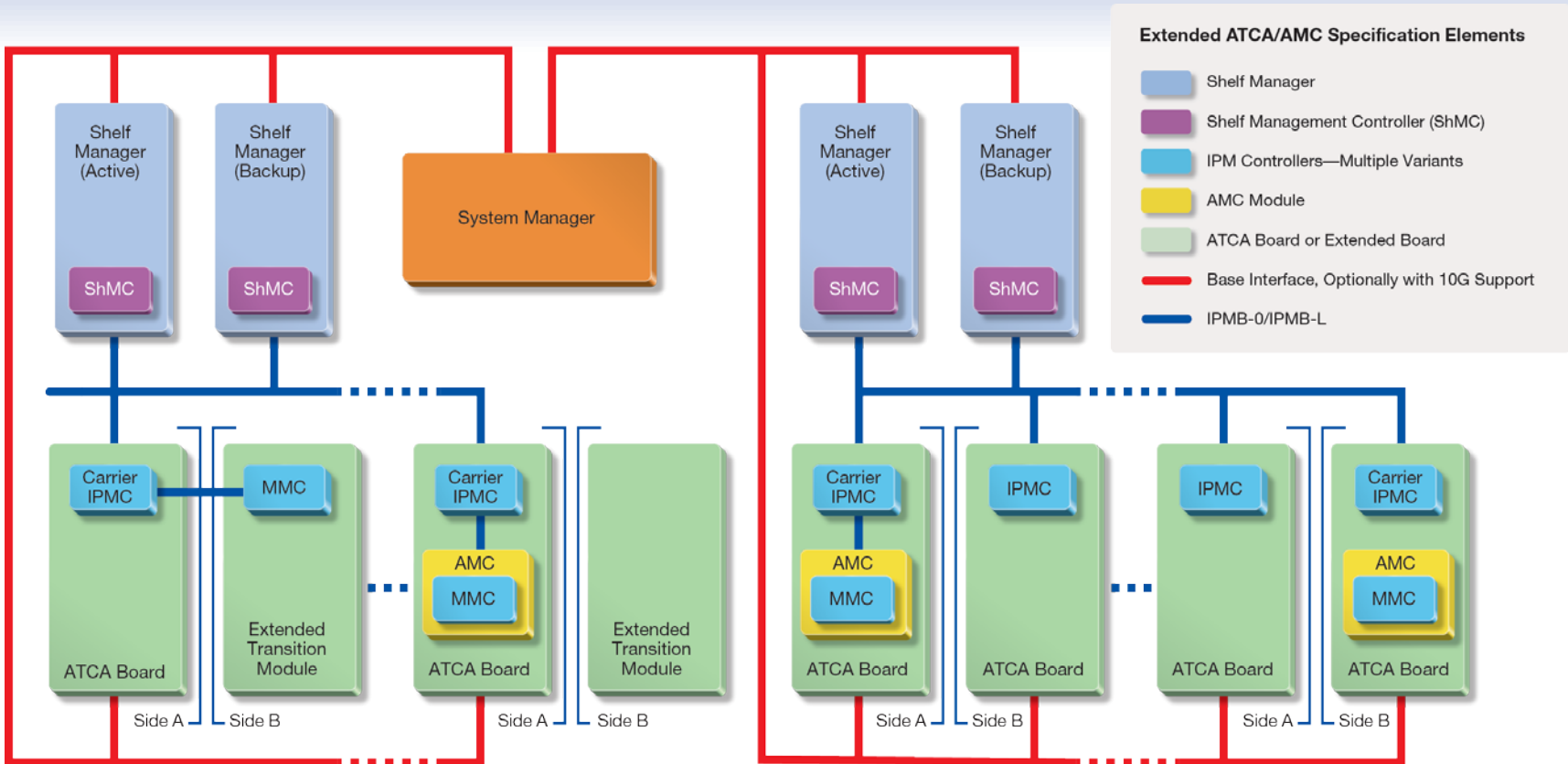
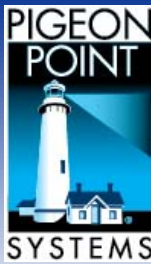
Hardware Platform Management Needs for ATCA Extensions

Mark Overgaard
Pigeon Point Systems



World-Class Management Components
FOCUSED. DEPENDABLE. PROVEN.

Overall Needs Resulting from Extension Concepts

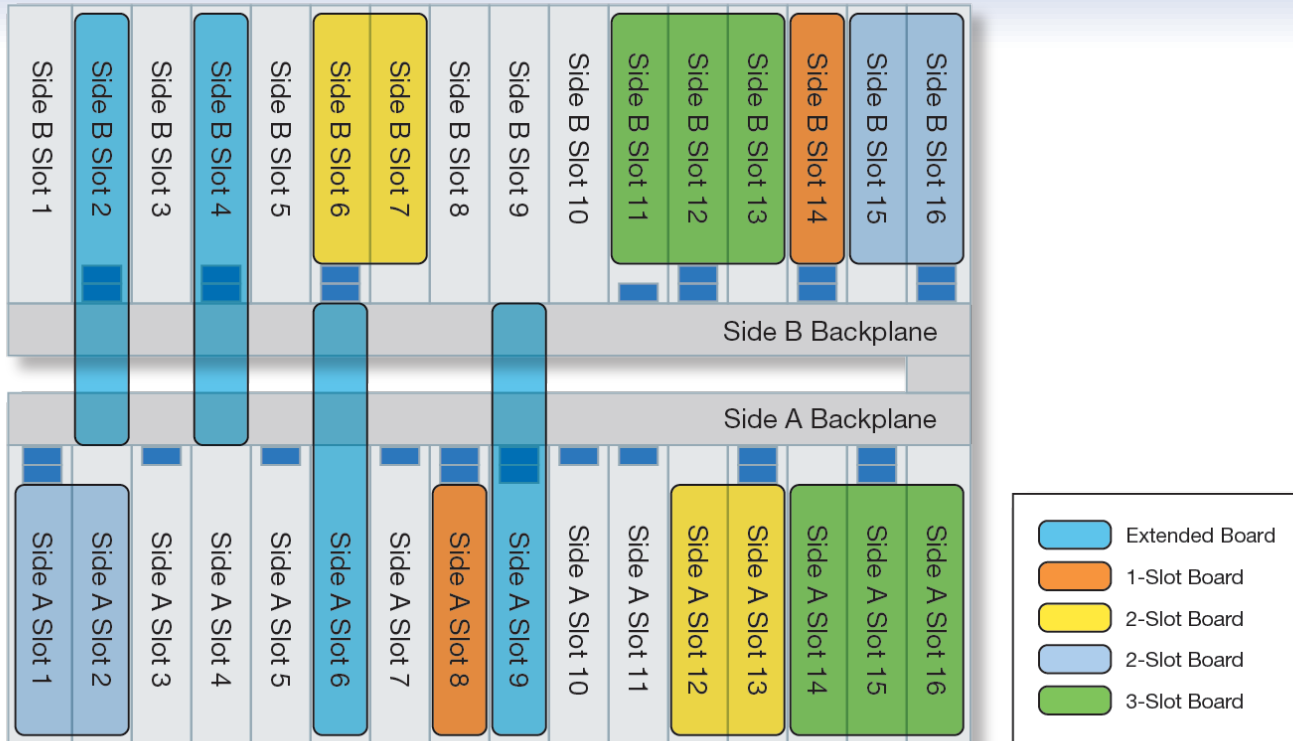


Example: Up to 16 ATCA Board + Extended Transition Module Pairs

Example: Up to 32 ATCA Boards Occupying Both Side A and Side B Slots

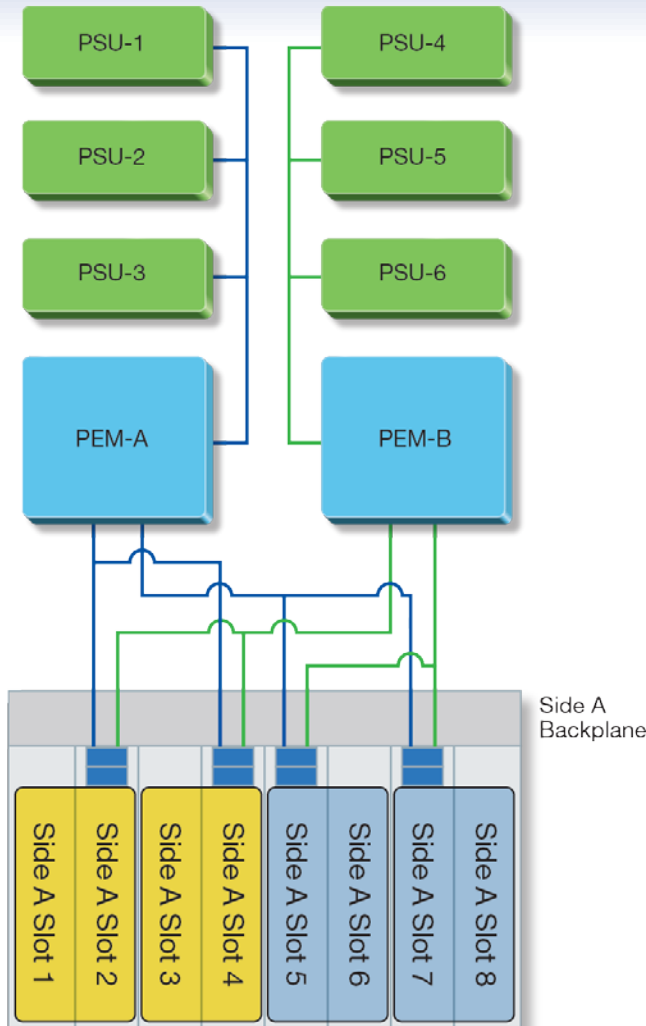
- Support for more...IPMB nodes, AMCs on multi-slot carriers, heterogeneous configurations

Overall Needs Resulting from Extensions Concepts (2)



- Architecting management framework to cover both existing and new shelf elements, including mixtures
- Handling more sophisticated power (e.g. AC) and fabric (e.g. separate fabrics per subrack) paradigms

Power Architecture Needs



- Integrated support for AC
- AC supplies can go “before” PEMs
- New tables can map supplies to feeds
- New tables can complement existing feed-to-FRU maps
- Attributes in example
 - 6x 30 A @ 48V supplies
 - 2x 100 A in, 2x 50 A out PEMs
 - 4x 800 W, 16.66 A blades
- Could leverage PMBus-enabled AC supplies
 - IPMI base for PMBus could facilitate integration

Power-related Instrumentation Needs



- Facilitating greater management visibility/control for power-related aspects of shelves
- For shelves with narrower operating voltage ranges:
 - Sensors for incoming voltages on boards, other FRUs
 - Voltage sensor event when voltage goes outside operating range
- Additional useful sensors
 - Measurements of FRU power (last sample) and energy (integration of samples over time) consumption for boards and other intelligent FRUs
 - Measurements of power consumption through each input feed to PEMs/PSUs
 - States of breakers and overcurrent protection devices in a shelf