Chassis Vendor Perspective on the Standards Market
LCR Background

• Focused on the design and manufacture of Chassis, Backplanes and Systems.
• ~80% of our products are based on standard form factors (VITA & PICMG) including ATCA, cPCI, VPX, VME
• Over 50% of our products are customized to meet the customers' unique requirements
• Sell mainly to the Tier 1 Defense Contractors
Different Views of the Market

Systems Providers

Chassis & Backplane Providers

Board & SW Provider

Standards based Aerospace & Defense Market
ATCA Market

• ATCA has gain acceptance in the Aerospace & Defense market, and is being deployed in volume
• Most applications using ATCA are compute intensive with Ethernet as the I/O
• Deployment environment is benign thermally but shock and vibration is an issue especially in mobile applications
Looking at ATCA vs Commercial

- Almost all blades being used are merchant blades with a minimal amount of customization. Switching, x86, storage, some DSP and packet processing
- More programs looking at ATCA as an upgrade from commercial bladed or rack mount server architectures
Trends in ATCA Chassis

• Fully shock isolated rack with commercial chassis vs lighter duty rack & rugged chassis
VPX

- VME volumes are still running higher than VPX
- It is a very good standard but is in its infancy stage. ATCA took ~7 years for significant volume
- For customers doing the system integration, compute intensive applications where the first ones to move to VPX
Sequestration has impacted VPX adoption

• A significant number of Tier 1 Defense contractors have legacy VME hardware and software for signal processing.

• With current funding levels they are having challenges in moving to an all VPX environment

• Head fakes to VPX are common
  – I want to go to VPX
  – I need one or two slots of VME on the VPX backplane
  – I decided to stay with VME
Why do these standard have different adoption models

• ATCA
  – It was a completely different form factor, engineering understood it would be new development
  – Most deployments are x86 architecture so software could easily port

• VPX
  – Very similar to VME, so engineering under estimated the effort to move to VPX
  – Significant more signal processing, effort to port hardware and software to VPX is higher than expected
Questions?

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