Chassis Vendor Perspective on the Standards Market
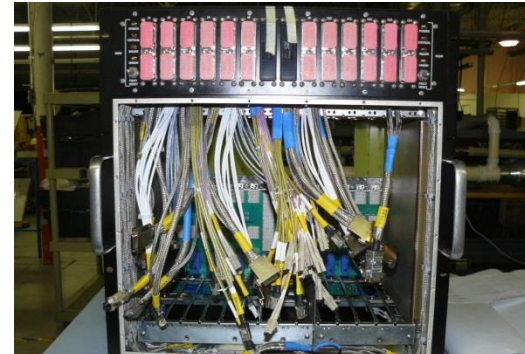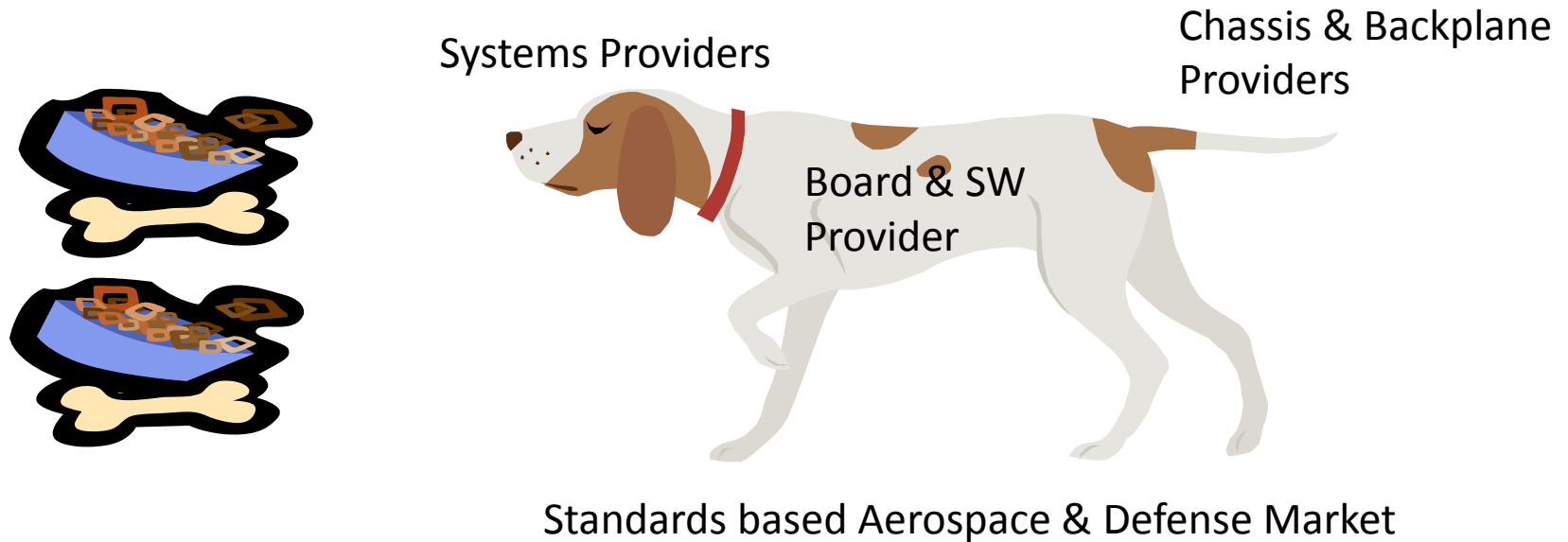
LCR Background

- 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

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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/0

- Deployment environment is benign thermally but shock and vibration is an issue especially in mobile applications

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Looking at ATCA vs Commerical

- 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

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Trends in ATCA Chassis

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

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VPX

- VME volumes are still running higher than VPX

- It is a very good standard but is in it's 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

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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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