

## Benefits of Software Upgradability of a Hardware Platform

Keith Sommers  
Sr. Director of Operations Support  
BigBand Networks



# BigBand Networks Market Segment

- Digital Video Networking
  - Wide range of solutions including digital TV, HD TV, advanced advertising, VOD, and interactive TV.
  - Many Service Providers (Customers) competing for end users
    - Cable Television
    - Traditional Telcos
    - Satellite
    - IP Based “Over the Top” providers (Netflix, for example)



# BigBand Networks Products

- Digital Video Networking
  - Innovative solutions designed to move, manage, and monetize entertainment quality video
  - Future-proof, software-enabled, carrier-grade platforms
  - Five 9s availability requirement
  - Support for industry standards and accepted protocols (non-proprietary)
  - Fast return on investment and lower total cost of ownership



# BigBand Networks Value Proposition

**How do we deliver on the vision?**

**Hardware Platform  
Software Upgradability**



# Hardware Platform vs “Pizza Box” (Customer Perspective)

- Hardware Platform
  - Modular – add capacity as needed – (CapEx friendly)
  - Modular – enable/introduce new I/O to support changing market needs - (CapEx friendly)
  - Reliability – High availability built into platform – (OpEx friendly)
  - Add new applications through software upgrades - (CapEx friendly)
- Pizza Box
  - Capacity fixed at time of purchase/shipment
  - Limited upgradability of I/O
  - Typically low cost approach, reliability low priority
  - Applications typically limited based on hardware shipped



# Hardware Platform vs “Pizza Box” (Vendor Perspective)

- Hardware Platform
  - Modular – add capacity as needed – Sell into existing footprint/open platform slots
  - Modular – enable/introduce new I/O to support changing market needs – Platform/interface to backplane standard, simplify hardware development – Low development cost, shorten time to market
  - Reliability – High availability built into platform – Develop once on platform level
  - Add new applications through software upgrades – High margin business
- Pizza Box
  - Capacity fixed at time of purchase/shipment - Constant battle against other “pizza box” solutions on price = Low margin
  - Limited upgradability of I/O – Typically need to develop new hardware from ground up to respond to changing market needs
  - Typically low cost approach, reliability low priority – Single point of failure, low customer satisfaction
  - Applications typically limited based on hardware shipped – New applications can require new hardware/new product = High cost development cycle



# Hardware Platform and Software Upgrades

- Software upgrades for new features
  - Adds longer product life and higher return on investment in hardware platform for customer
  - Reduces OpEx cost for customer by allowing new features to be added to existing hardware platform, reducing deployment costs
  - Shorter time to market for new features for vendor
  - Higher return on development investment for “Software Only” feature upgrades for vendor



# Hardware Platform and Software Upgrades

- Software upgrades for new features – Managing through Entitlements
  - Single release for all customers
  - Only license purchased features
  - More cost effective development as separate Maintenance and Feature upgrades are no longer required for support contracts as new features are “turned on” via licensing only when purchased
  - Enable self-support for customers to manage entitlements through online portal





# Summary

- Hardware platforms are more cost effective for both customer and vendor (win/win)
- Hardware platforms provide easy up-selling opportunities once deployed
- “Pay as you grow” CapEx friendly models leverage existing hardware platform infrastructure to easily scale and grow business
- Lower development costs on new hardware I/O, new feature introduction
- Managing features through entitlements further improves revenue opportunities and reduces cost of development and deployment



# Questions?

