



What do you want from your SSD?

Matching the SSD to the customer

Scott Shadley

Sr. Manager, Marketing
Micron Enterprise SSD

Santa Clara, CA
August 2011

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Enterprise SSD Uniqueness

- Not all SSDs are created equal
- Using the term “Enterprise” is not enough
- SSDs should meet customer targets
- What is really important inside the “box”
- Unique solutions require complete control





Review of the SSD supplier list

ACARD Technology

- Active Media Products
- A-DATA
- Addonics Technologies
- ADLINK Technology
- Advanced Media
- Afaya
- Altech Defense Systems
- Altec Computer Systeme
- AMP
- Ampex
- Angelbird
- Anobit
- Apacer
- APRO
- Asine
- Astute Networks
- ATP Electronics
- Attom
- Avere Systems
- Axxana
- Barun Electronics
- BITMICRO Networks
- Buffalo Technology
- Cactus Technologies
- CoreSolidStorage
- Corsair
- Curtis
- Curtis s-Wright
- Dane-Elec Memory
- DataDirect Networks
- Dataram
- DDRdrive
- Delkin Devices
- Density Dynamics
- Dolphin
- DTS
- Dynamic Solutions Intl
- EasyCo
- Emphase
- Eonsil

• Extreme Engineering

- Solutions
- FlashSoft
- Foremay
- Fujitsu
- Fuji Xerox
- Fusion-io
- GalaxyStor
- General Micro Systems
- GIGA-BYTE Technology
- Global Unichip
- Greenliant Systems
- G.Skill
- G-Technology
- GridIron Systems
- Hagihara Sys-Com
- Hitachi
- HP
- Huawei
- Hynix Semiconductor
- IBM
- Imation
- InnoDisk
- Intel
- iSafe
- IO Turbine
- Kaminario
- KingFast
- KingSpec
- Kingston Technology
- Kove
- Lauron Technologies
- Lexar Media
- Lite-On
- LSI
- Macrotron Systems
- MagicRAM
- Marvell
- MemoCom
- Memorigit
- Micron Technology

• Microsemi

- Micros Components
- Mushkin
- Myung
- Netlist
- Network Appliance
- NextIO
- Nimble Storage
- Nimbus Data Systems
- NVELO
- OCZ
- Oracle
- OWC
- Panasonic
- Pangaea Media
- Patriot Memory
- Phison Electronics
- Phoenix International
- PhotoFast
- Pillar Data Systems
- Plextor
- Pliant Technology
- PMC-Sierra
- PNY Technologies
- PQI
- Pretec Electronics
- Princeton Technology
- pureSilicon
- RAID
- Real Ram Disk
- Renice Technology
- RunCore
- Samsung
- SandForce
- SanDisk
- Sans Digital
- SeaChange International
- Seagate
- SEEK Systems
- SGI
- Sharkoon

• Shining Technology

- SiliconPower
- SiliconStorage Technology
- SMART Modular Technologies
- Solid Access Technologies
- Solidata International Technologies
- Solid Data Systems
- SolidFire
- Software
- StealthCom
- STEC
- Storspeed
- Strontium
- Sun Microsystems
- Superior Data Solutions
- Super Talent Technology
- Swissbit
- Taejin Infotech
- Targa Systems
- TDK
- Team Group
- Texas Memory Systems
- Third I/O
- Toshiba
- Transcend Information
- Trident Space & Defense
- Urigen
- Vanguard Rugged Storage
- Verbatim
- Viking Modular Solutions
- Virident Systems
- Violin Memory
- VION
- Virtium Technology
- WD Solid State Storage
- WhipTail Technologies
- White Electronic Designs
- Wintec
- VMETRO
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Are you one too??



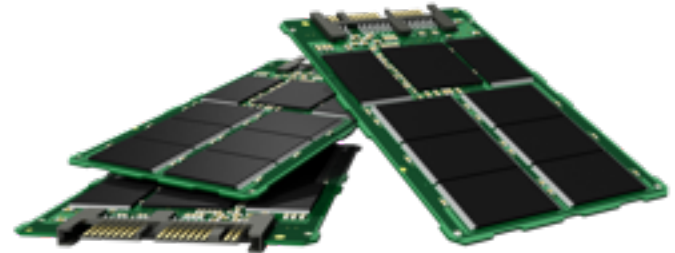
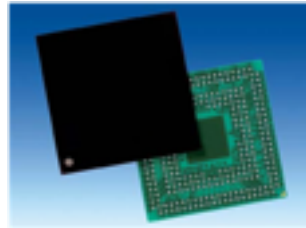
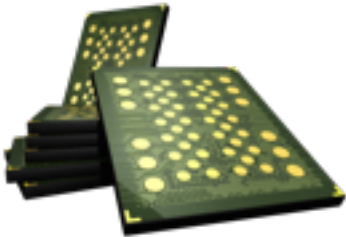


Not all SSDs are created equal



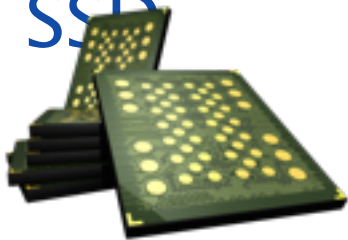
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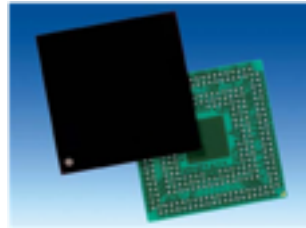
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NAND
SSD

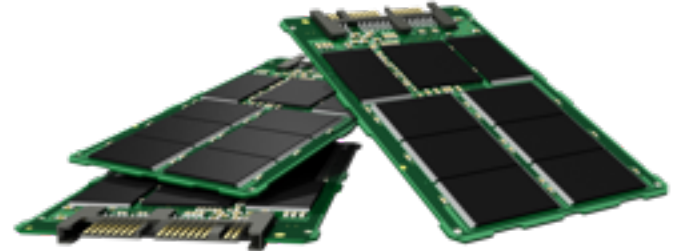


+

Controller \neq



Enterprise



Building blocks for Enterprise are unique

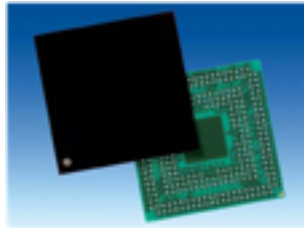


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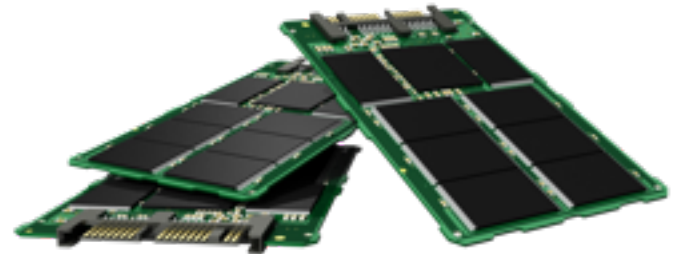
NAND
SSD



+ Controller \neq



Enterprise



Building blocks for Enterprise



Endurance, Reliability, Stability, Performance,
Price





Using the term “Enterprise”

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Using the term “Enterprise”



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August 2011





Using the term “Enterprise”

A lot of companies say the are





Using the term “Enterprise”

A lot of companies say the are
“Enterprise SSD”



Using the term “Enterprise”

A lot of companies say they are
“Enterprise SSD”
Most are missing the mark



To hit the target,
SSDs should conform to



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To hit the target,
SSDs should conform to
customer platforms,



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To hit the target,
SSDs should conform to
customer platforms,
not making platforms adjust to



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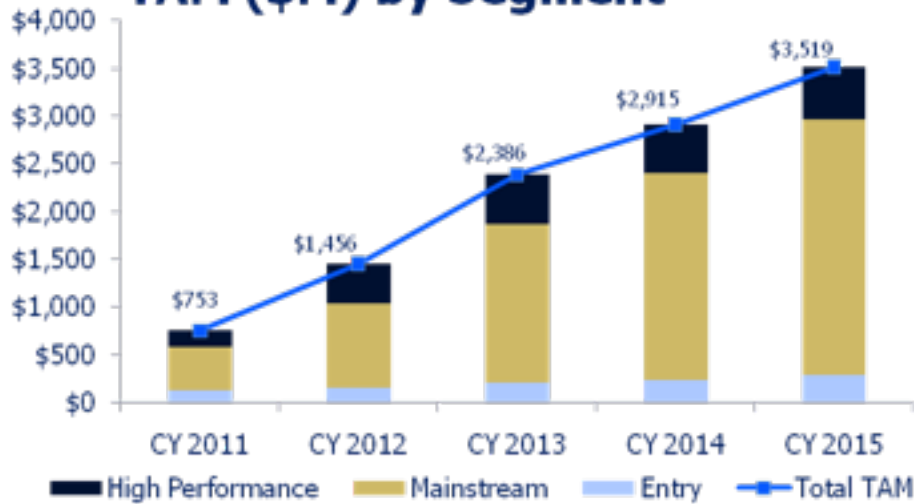
To hit the target,
SSDs should conform to
customer platforms,
not making platforms adjust to
SSD specs



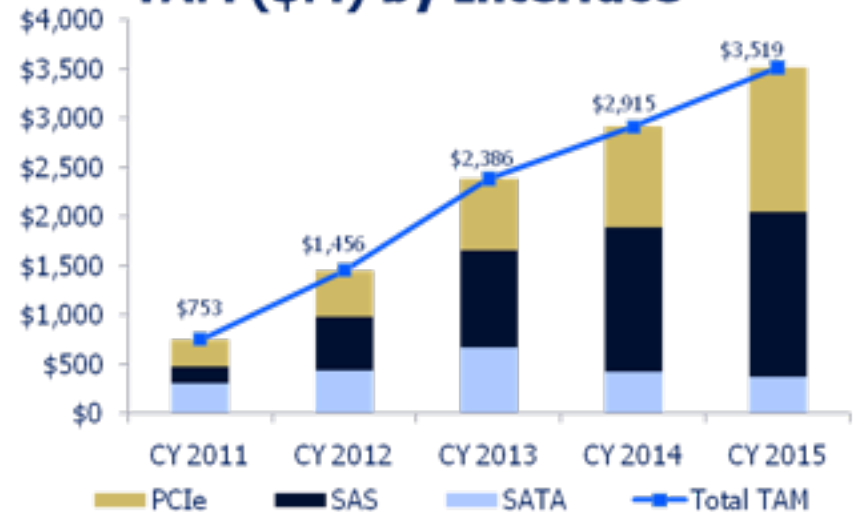
Enterprise SSD Market Review

There is significant divergence across both segment and interfaces moving into 2015

TAM (\$M) by Segment



TAM (\$M) by Interface



Examples of Enterprise needs





Examples of Enterprise needs

Suppliers need to provide the solutions that Enterprise customers need

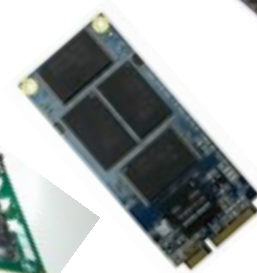


Examples of Enterprise needs

Suppliers need to provide the solutions that Enterprise customers need



Custom FW, Form Factors, Interfaces





SSDs – “See a need, Fill a need”



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Source: Jacob Linscott, VP IT

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SSDs – “See a need, Fill a need”



Focus on customer needs
not SSD concepts



Partnerships are key





SSDs – “See a need, Fill a need”

Focus on customer needs
not SSD concepts



Partnerships are key

SSD Design focus should be on what is
needed

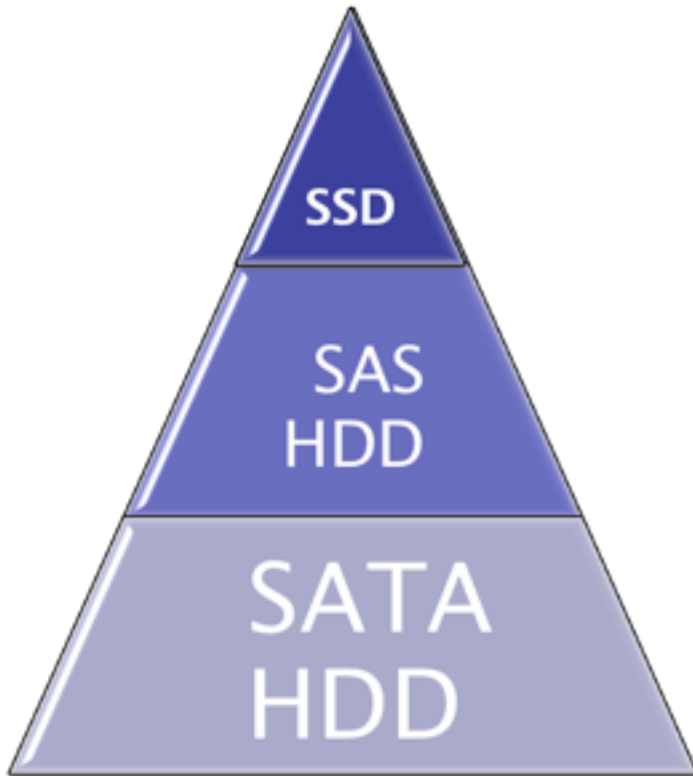


SOFTLAYER®

“We chose the MICRON SSDs because they not only answer the call for higher capacity, they also bring with them incredible new performance features.”



SSDs – Tiers due Exist

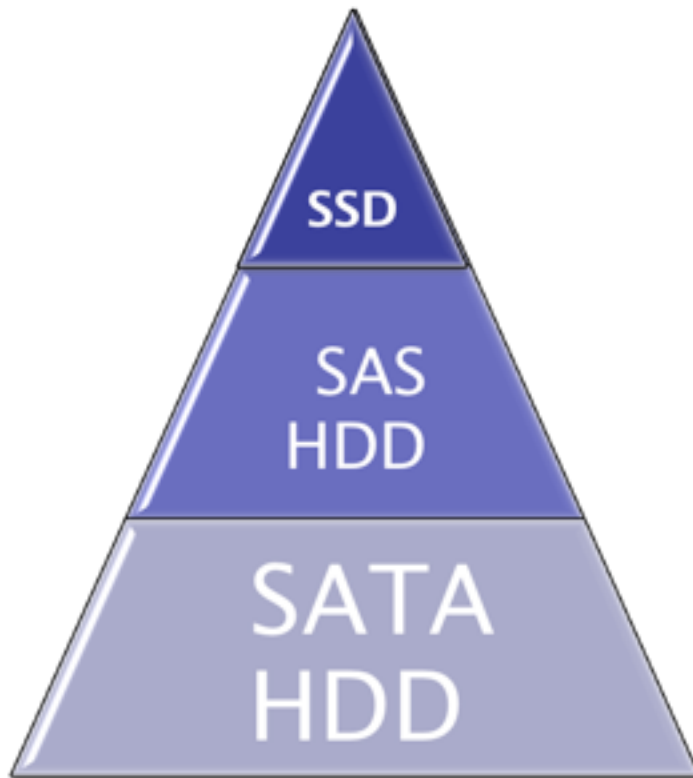


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SSDs – Tiers due Exist

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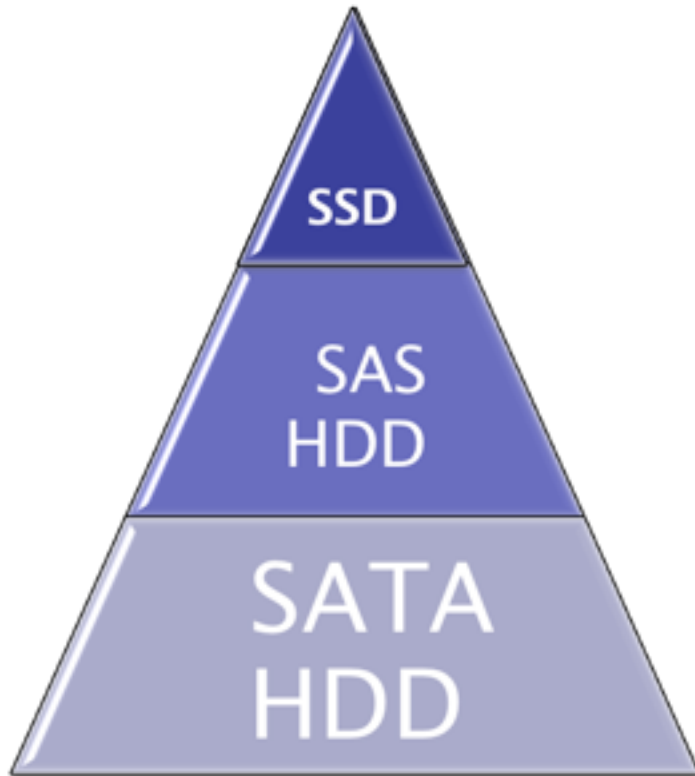


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SSDs – Tiers due Exist

Much like the HDD market has segmented,
The Enterprise SSD market is moving too!

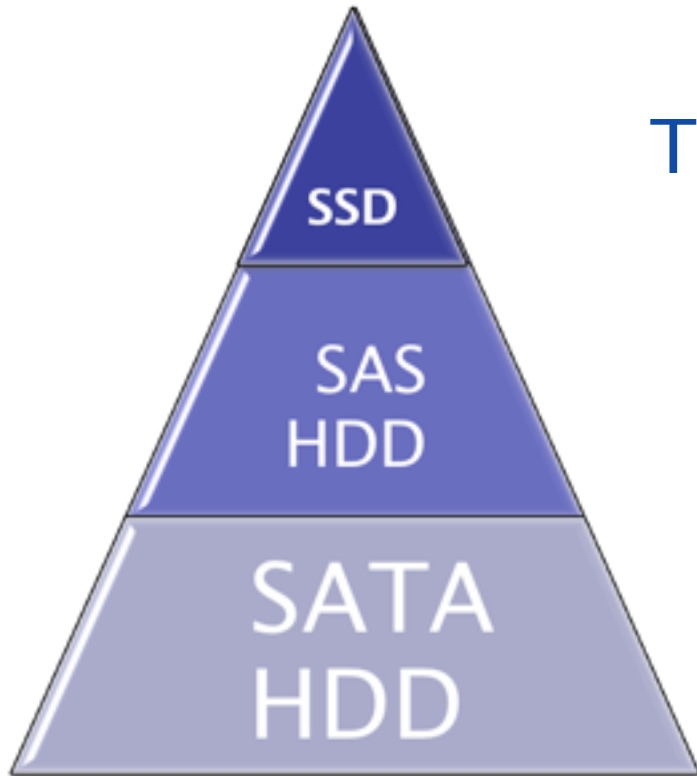


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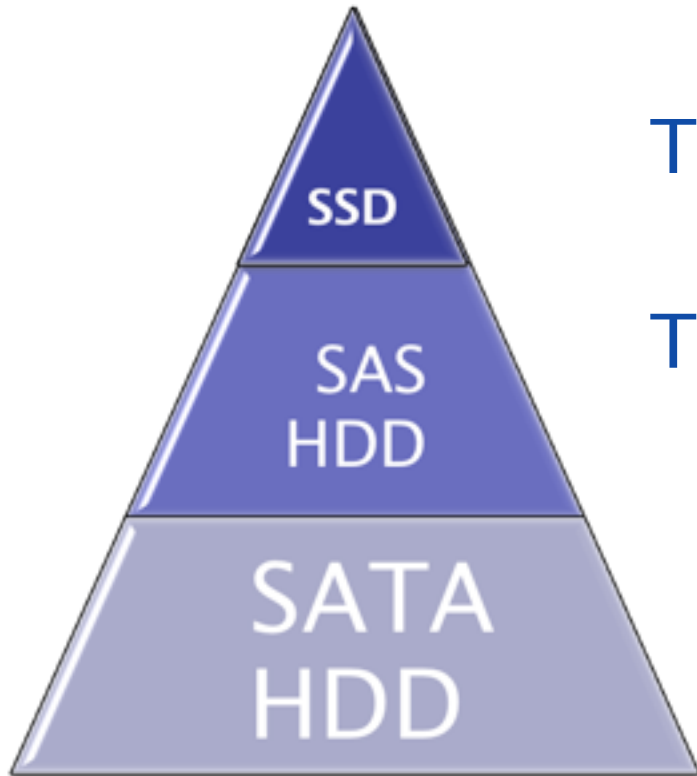


Tier 0



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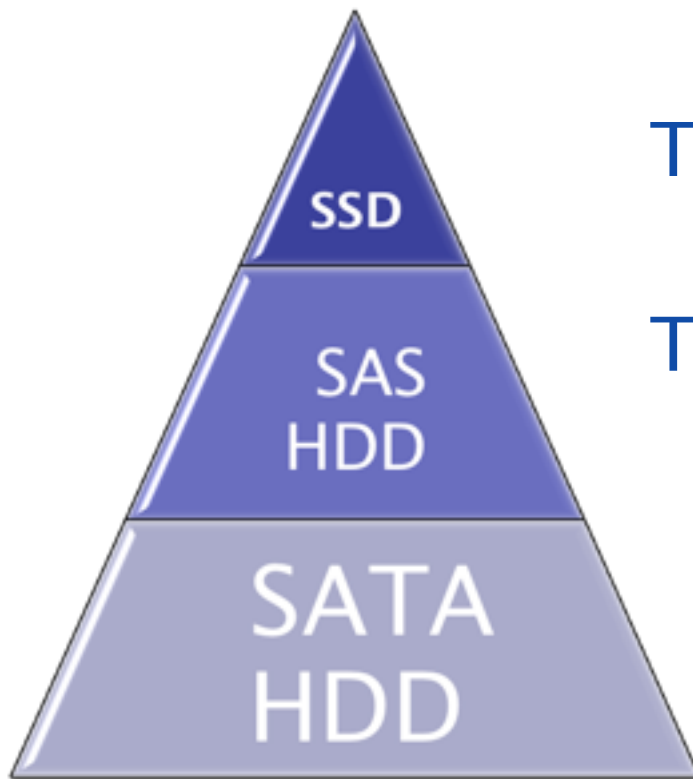
Tier 0

Tier 1



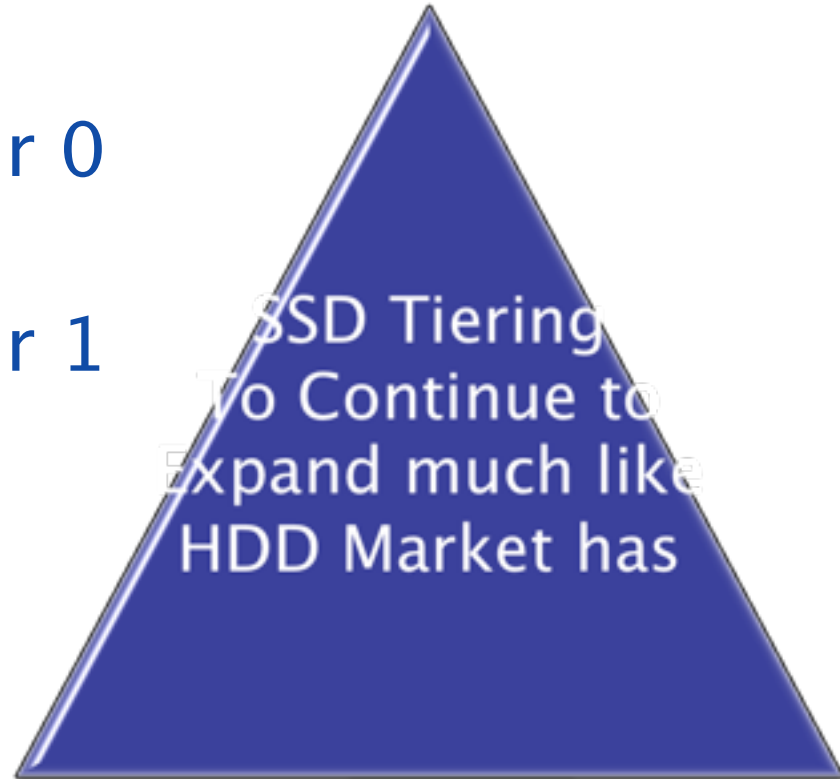
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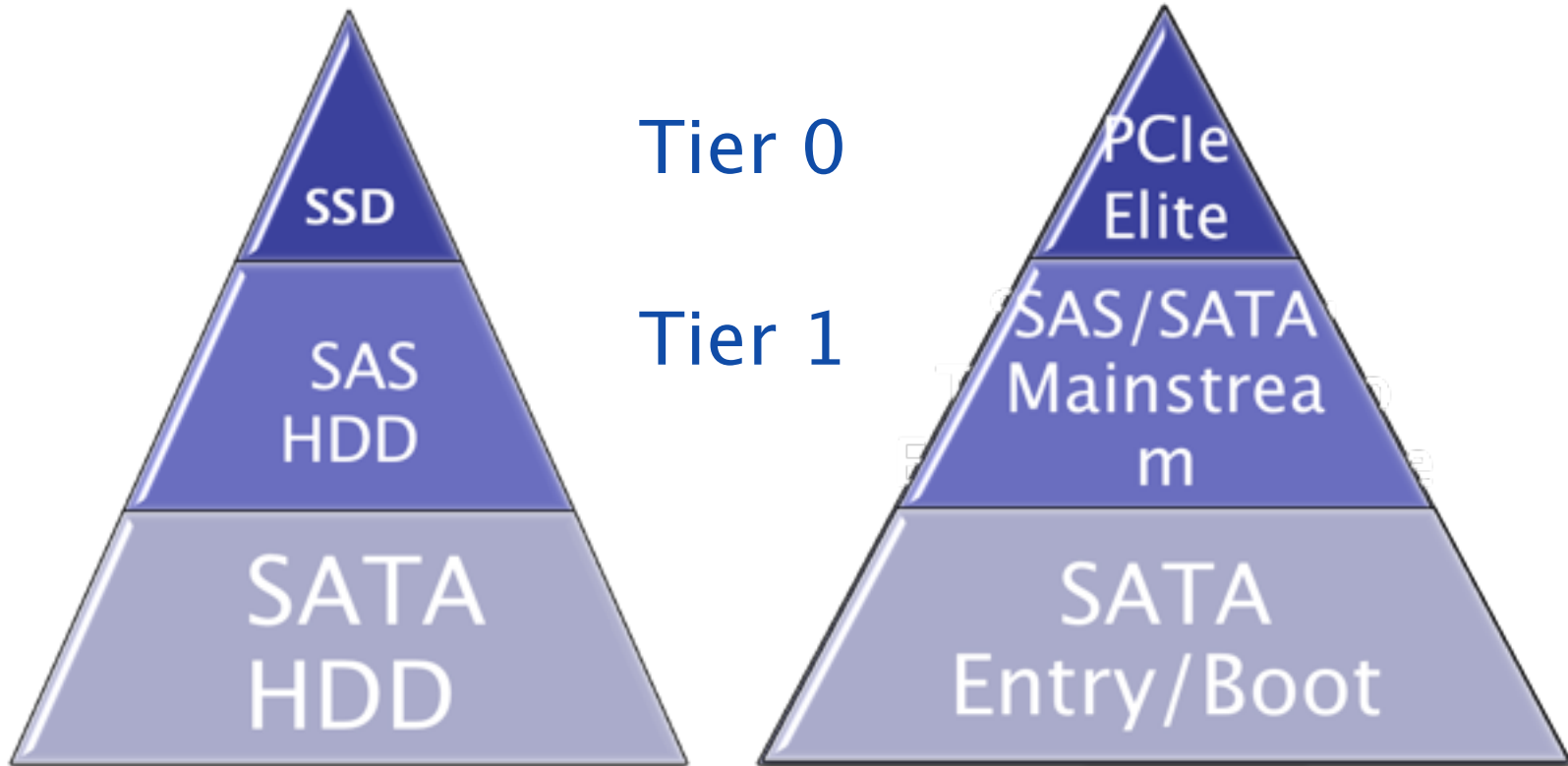
Tier 0

Tier 1

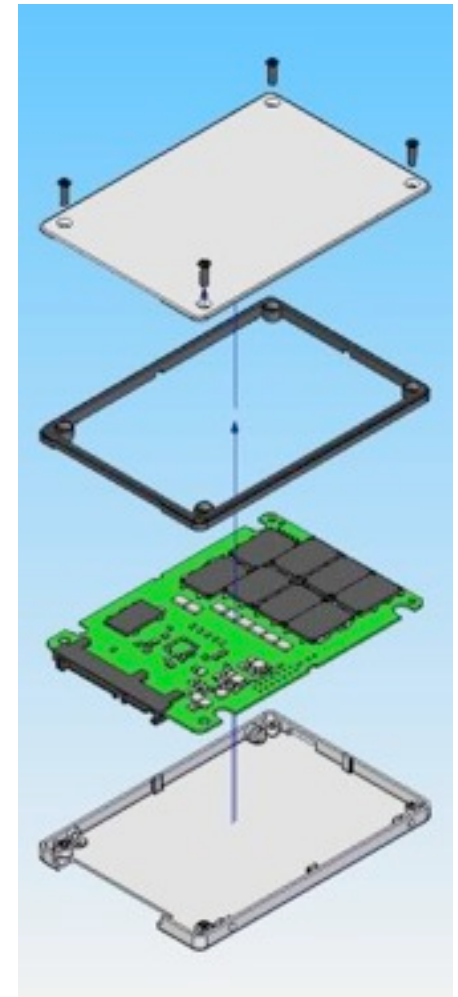


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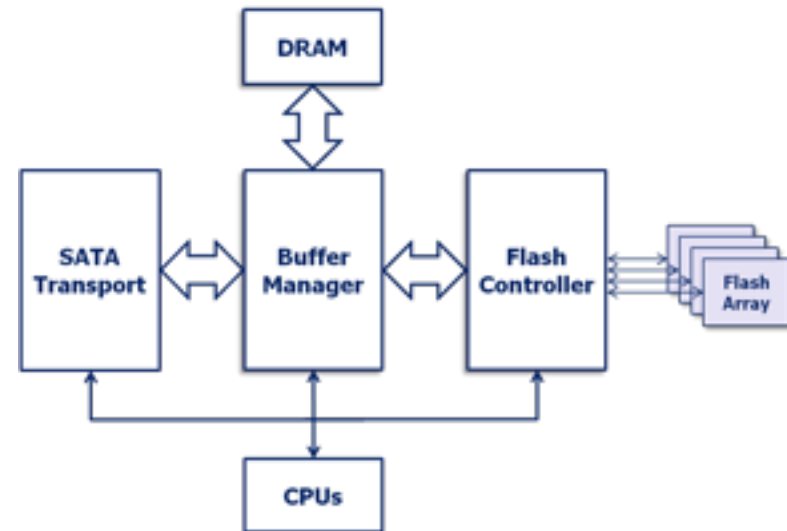


A peak inside the “black box”



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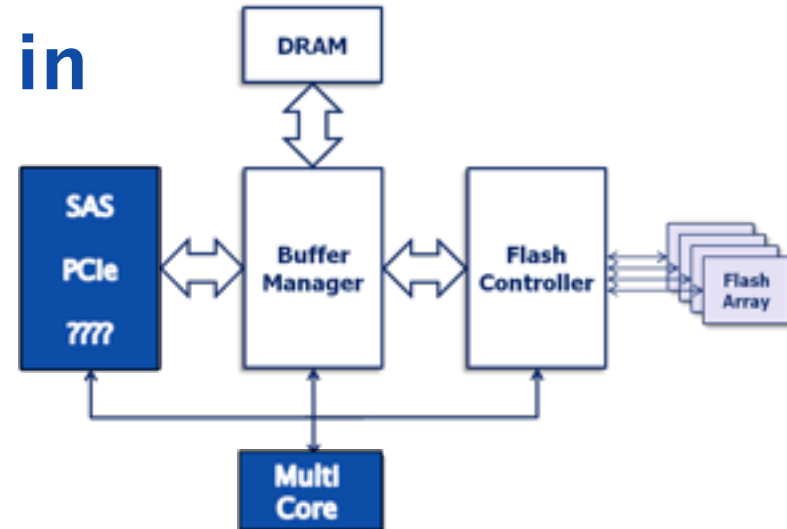
Hardware design is only one key



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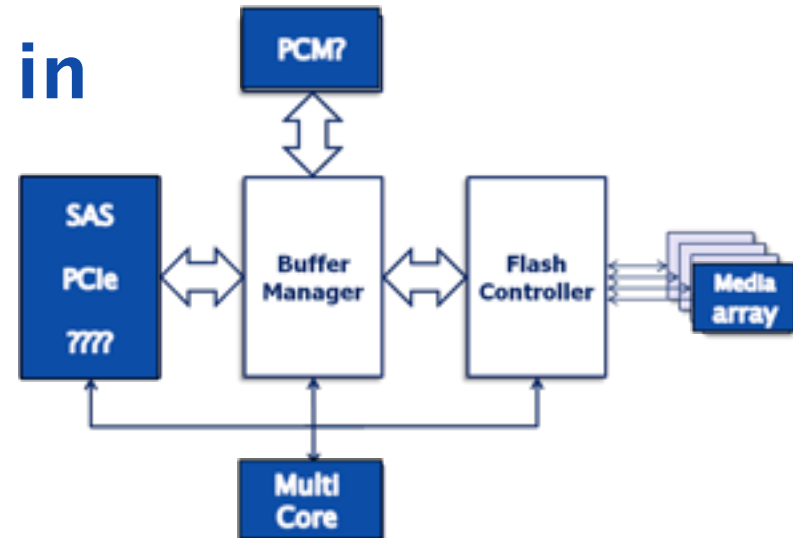
Focus on new technologies in



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Hardware design is only one key

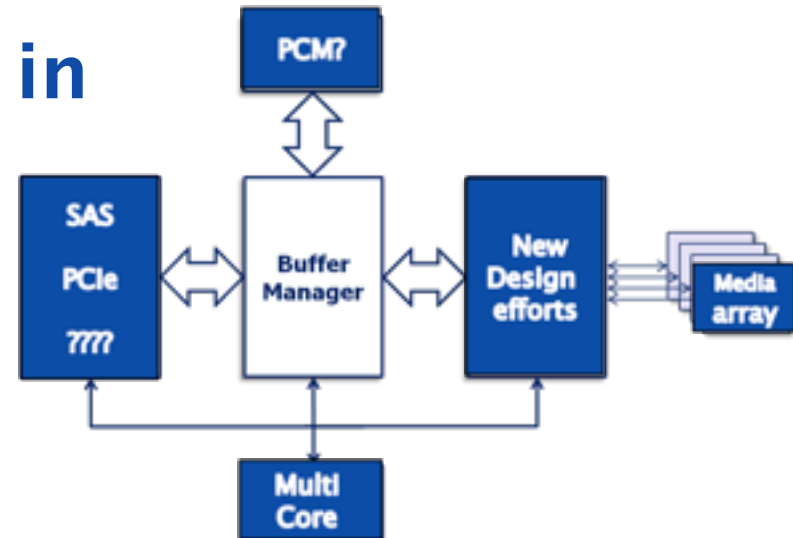
Focus on new technologies in
Controller development



A peak inside the “black box”

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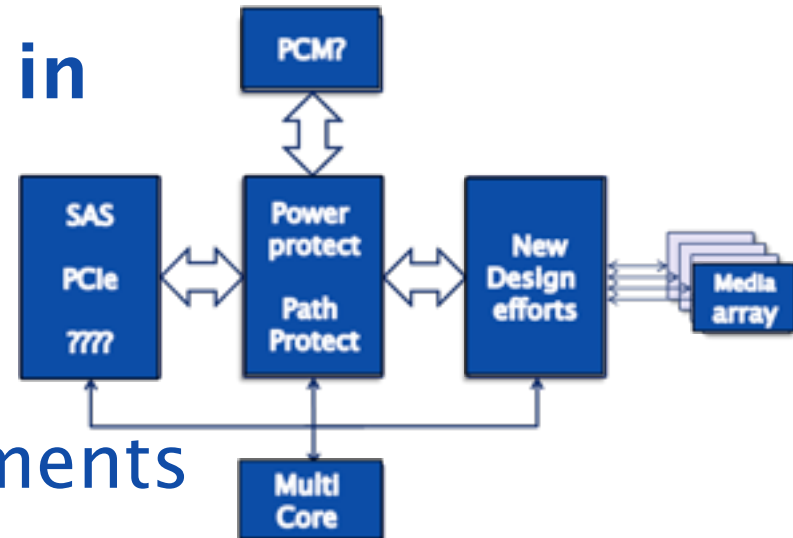
Focus on new technologies in
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FW design for new media



A peak inside the “black box”

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Focus on new technologies in
Controller development
FW design for new media
Moving beyond “ECC”
New Features and Requirements





Making Vertical work for Enterprise

How much do you know about the SSD you buy?

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Making Vertical work for Enterprise

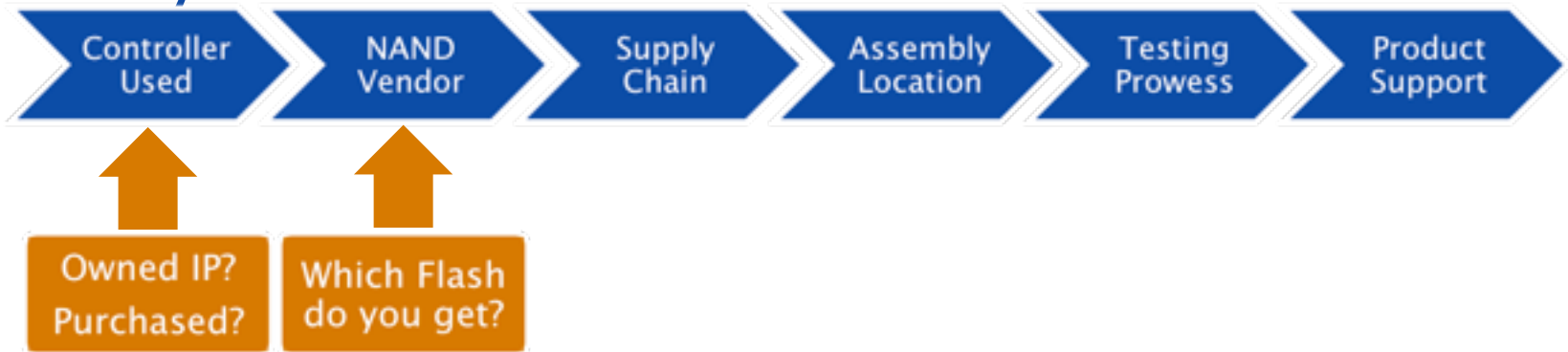
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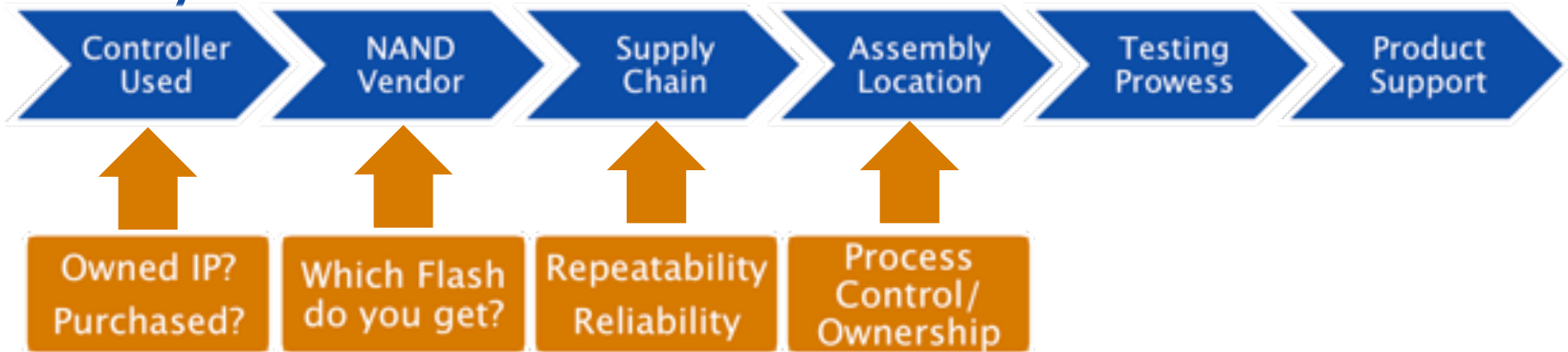
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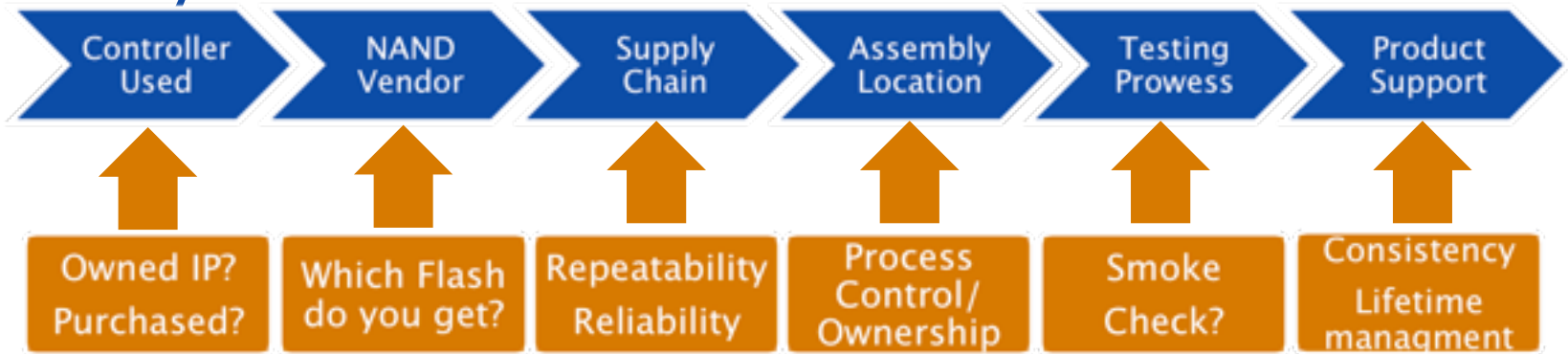
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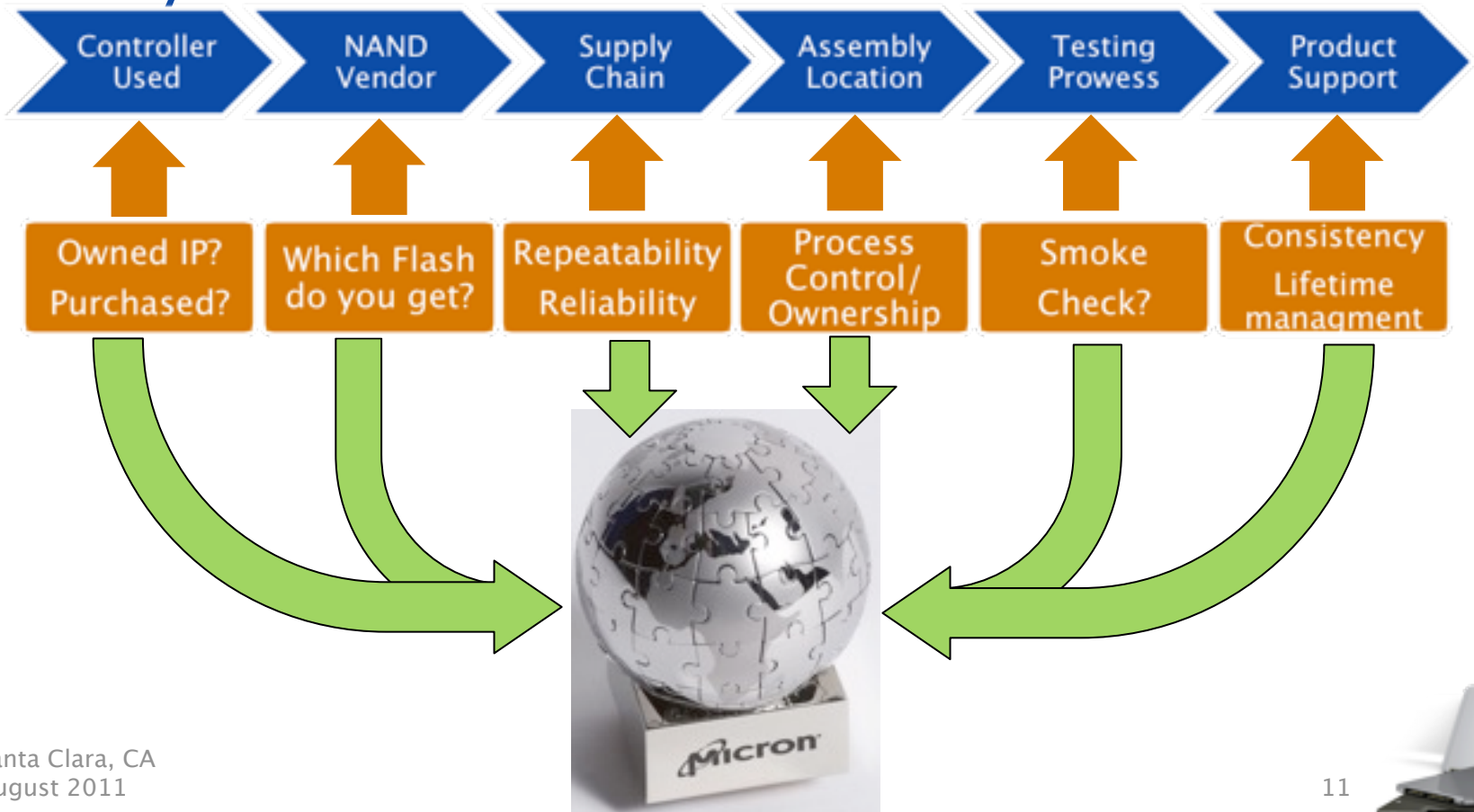
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Making Vertical work for Enterprise

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Summary

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- Using the term “Enterprise” is not enough
- SSDs should meet customer targets
- What is really important inside the “box”
- Unique solutions require complete control





What do you want from your SSD?

Questions?

Thank you
for your time



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Scott Shadley

- Sr. Manager, Marketing, NAND Solutions Group (NSG), Enterprise SSD Products, Micron Technology, Inc.
 - Facilitates Marketing efforts for Micron Enterprise SSD adoption and creation of new products to meet the growing market need
 - 5 year history in Enterprise SSD Development and 15 years in Semiconductor Design and Development
 - Earned a BS degree in Electrical Engineering – Device Physics from Boise State University
 - Earned a MBA in Marketing from University of Phoenix
- Revisit the Micron FMS presentations at www.micron.com/fms

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