SUPERMICRO
Company Overview

Dev Tyagi
May 2016
Evolution of Supermicro

1993-2003
Subsystem Innovation
• Motherboard & Building Blocks Expertise
• Period of Vertical Integration

2004-2013
Server/Storage Innovation
• Product Line Growth & System Optimisation
• Twin & GPU Architecture Breakthrough

2014-2016
Total Solution Innovation
• Software and Total Solution Optimisation
• Service & Global Expansion
Supermicro Overview

Established in 1993
NASDAQ: SMCI since 2007

Asia Science & Technology Park

- 2 Buildings – fully operational for over 1 year
- 2 Buildings – have been kicked off
- Focused on R&D and product quality

New San Jose Green Computing Park

- 36 acres property in the heart of Silicon Valley
- Total 2M sq. ft. project has been kicked off
- Addressing the growth in Americas market share

Revenue ~ $2 B
Growth >36%
Research >$100 M
SKUs 5000+
2009 – 2015 430% Growth

-50% Q1CY09 Q2CY09 Q3CY09 Q4CY09 Q1CY10 Q2CY10 Q3CY10 Q4CY10 Q1CY11 Q2CY11 Q3CY11 Q4CY11 Q1CY12 Q2CY12 Q3CY12 Q4CY12 Q1CY13 Q2CY13 Q3CY13 Q4CY13 Q1CY14 Q2CY14 Q3CY14 Q4CY14 Q1CY15 Q2CY15

-50% 0% 50% 100% 150% 200% 250% 300% 350% 400% 450%

HPQ (ES-TS) IBM(System and Tech) DELL (Server & Storage) SMCI

Lenovo Split

Privatized

36% Growth 2015

26% Growth 2014

Asia CM’s
Core Values

- Quality
- Performance
- First to Market
- Technology Leadership
- Power Efficiency
Broad Server Portfolio

SuperBlade & MicroBlade™

GPU/ Xeon Phi Optimised Solutions

Storage Solutions

HFT & Workstation

Ultra and DCO 1U/2U Rack Products

Switch Products

IPC and Embedded

© Supermicro UK Confidential & Proprietary
Complete Rack Solution – Success Deployment Examples

- **HPC**
  - Lawrence Livermore National Laboratory (LLNL)
    - > 10,000 nodes
    - Defense & Security program
  - CERN
    - > 10,000 nodes
    - Accelerator
      - Particle physics

- **IPDC**
  - SoftLayer
    - > 15,000 nodes, 7 locations WW
      - For colocation & hosting businesses
  - Yahoo! Japan
    - > 10,000 nodes
      - For web searching & hosting @ Japan

- **Hadoop**
  - Hulu
    - Hadoop Rack Solution for Video Streaming
  - EMC
    - > 10,000 nodes

**Cloud Service Provider**

- **Deliver with rack as a unit...**

**Additional Services**

- **Customer system design & verification / 1-week burning services**
- **Complete rack (turnkey) shipping to designated locations**
- **Dedicated PM and online portal for tracking the status, design configurations and RMA service**

- **Support channel partners in pre-sales & post-sales**
- **Provide 4-hrs & NBD onsite HW service WW**
New Market Opportunities 2016

Hyper-convergence

- Fully validated, quickest deployment times
- Combines compute, networking and storage resources into a single 2U, 4-node form factor
- Increases overall Performance per Watt, per Dollar, per Square Foot

IoT Solutions

- Low power Intel Avoton, Rangeley, Quark, Core and Xeon Processors, Xeon SoC
- Worldwide service with extended product life cycle support
- Optimised short-depth industrial rackmount platforms
- Software and GUI
The Supermicro Standard

- **Product Development** – Continuously developing the highest quality products for our customers to compete
  - Widest range of optimized server/storage products available
  - Best performance and price/performance ratio
  - Most optimized total solutions
  - First-to-Market

- **Enhanced Technical Service**
  - A large engineering group to work closer with our Customers
  - Enhanced global services/FAE support
  - Fast and efficient responses

- **Enhanced Logistics and Worldwide Operation** – Providing Countless TTM advantages
  - Ensures high-volume availability providing reduced lead-time
  - Lowered inventory overhead at your facilities
  - Streamlined fulfillment and support services
  - Increased Global SKU coverage
Defining Storage - The ISV Way

Software Defined Storage for Specific Use Cases
• Software Has changed the architecture of storage
• Driving up performance, driving outwards scalability

Software Defined Storage is driving down costs
Hyper-Converged Solutions

- Large Enterprise: >1PB, Internal IT Resources
- Small Enterprise: 300TB-1PB, Use External IT Resources
- Small Medium Business: <300TB, No IT
- SOHO: No IT
SDS - Why use **Hyper-Converged** solutions?

- A hyper-converged infrastructure consolidates the 3 layers of server compute, storage and network switches into a simple ‘cluster’ of x86 servers.
- The Hypervisor (ie vSphere) is built in, the storage intelligence is built in.
- This is to **simplify** IT, increase management efficiency, enable seamless scalability, improve agility and reduce costs.

![Data centre in a box!](Image)

Servers

Networking

Hybrid Array

SAN

NAS

All-Flash Array

Backup/DeDup Appliance

Storage caching

Single 2U, 4 node Appliance!

Collapses into

Data centre in a box!
Hyper-Converged Storage

Atlantis HyperScale

Supermicro’s RTG-HCH-AC HyperScale solutions integrate servers, storage and virtualisation into a single appliance that delivers orders of magnitude better storage performance at 50-90% lower cost.

This solution is built around real time de-duplication of data at the ingestion point and it is this that drives performance and storage utilisation rates up and costs down. A perfect fit for VDI and high transactional databases.
Hyper-converged Storage

VMware VSAN
Supermicro’s Virtual SAN (VSAN) Ready Nodes focus on deploying VMware® Virtual SAN™, a hypervisor converged solution, as quickly as possible. Virtual SAN provides you with the ability to provision and manage compute, network and storage resources from a single pane of management. A perfect solution for Enterprises, ROBO and SMBs to efficiently grow and manage virtualized infrastructure for maximum ROI.
NexentaStor
Supermicro’s range of NSM solutions is based on NexentaStor™, an Open Source-driven Software-Defined Storage (OpenSDS) platform that delivers unified file (NFS and SMB) and block (FC and iSCSI) storage services, scales from tens of terabytes to petabyte configurations, and includes all data management functionality by default. Software-Defined Storage with SMARTS: Security, Manageability, Availability, Reliability, (lower) TCO, and Scalability. **A great fit for unified, large capacity, high performance requirements.**
Red Hat® Ceph Storage

Red Hat® Ceph Storage is the fastest growing object storage solution in the Gartner Magic Quadrant. An open-source, massively scalable, software-defined, unified storage system. Built with Supermicro enterprise class hardware, this object based scale-out storage delivers unified object, block and file storage with high performance, high scalability and high availability. It is fully tested and certified by Redhat and an optimum accompaniment to an OpenStack® cloud architecture.
Apache™ Hadoop®
Apache™ Hadoop® is a framework that allows for the distribution of large data sets across clusters of computers. It is designed to scale up from single servers to thousands of machines, each offering local computation and storage as part of a single, cohesive entity. **Hadoop excels at high-volume batch processing, such as data mining / analytics.**
Summary

- Supermicro has the widest choice
- Software Defined is the Data Centre game changer
- Be first to market
- Choose your partners wisely – Hammer and Supermicro UK