



HP Update

IDC HPC Forum

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Solving global problems requires greater...



Genetics



Digital
Content



Medical
research



Weather
modeling



Manufacturing/
Engineering

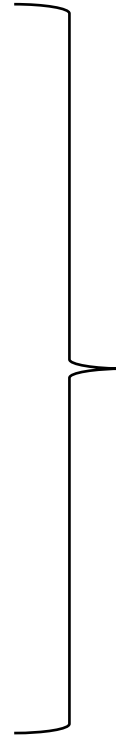


Geophysics



Finance

Government, Academia, Enterprises



Performance

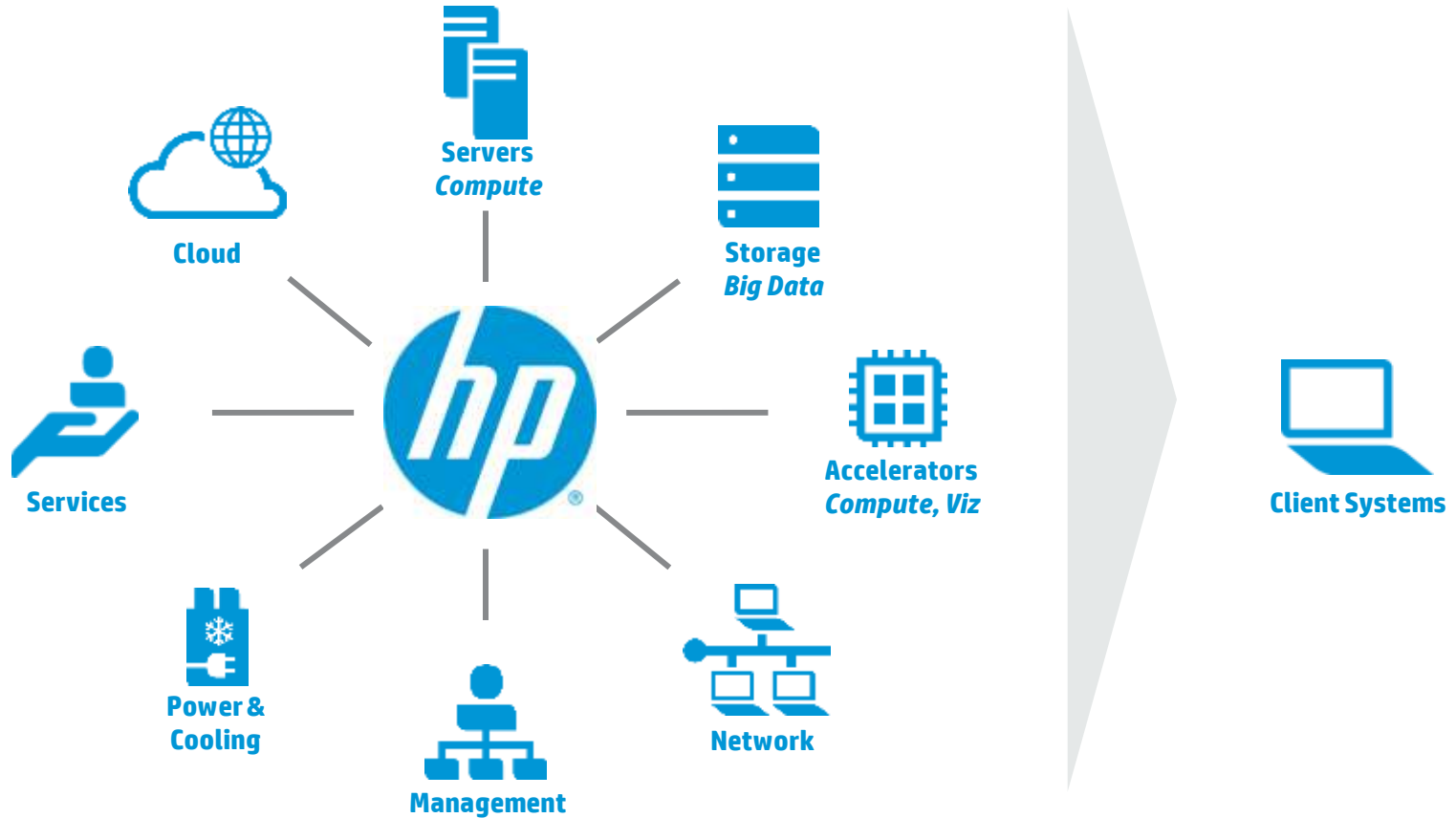


Efficiency



Accessibility

Delivering a complete HPC solution



Workload-optimized portfolio for better business outcomes

For core business applications



HP MicroServer



HP ProLiant ML



HP ProLiant DL

Intelligence to increase productivity



Common modular compute architecture

For mission-critical environments



HP ProLiant scale-up



"DragonHawk"



HP Integrity blades & Superdome



HP Integrity NonStop

Availability to function in real-time

For Big Data, HPC, and web scalability



HP ProLiant SL



HP Moonshot



HP Apollo

Density and efficiency to scale rapidly

For virtualized and cloud workloads



HP BladeSystem



HP OneView

Convergence to accelerate IT service delivery

Global support and services | Best-in-class partnerships | Converged solutions

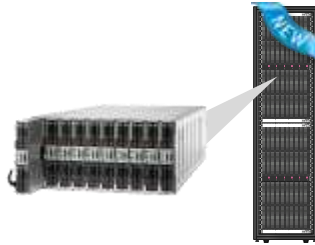


HP's winning portfolio for HPC

Innovations in modularity and workload optimization



Compute intensive:
SL6500



Rack scale:
Apollo 6000



Liquid cooling:
Apollo 8000



Scalable multi-node:
SL2500



Storage density:
SL4540

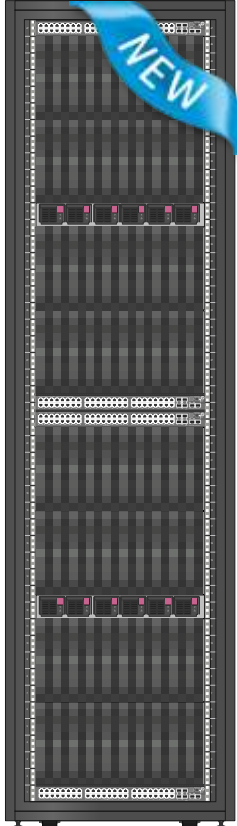


Modular data centers:
POD

Global support and services | Best-in-class partnerships | Converged solutions

Introducing the HP Apollo 6000 System

The best performance for your budget



Leading performance per \$ per watt*

- up to **4x** more performance/\$/watt
- up to **60%** less floor space

Rack scale efficiency

- **160 x 1P or 80 x 2p servers per rack** with 10 hot-pluggable dual-server trays per 5U chassis
- Maximize rack-level energy efficiency

Tailor to the workload for lower TCO

- Mix compute, accelerator, storage and networking to **fit workload needs**

Perf/\$/W based on Synopsys VCS data March 2013, measured HP data vs. Dell PowerEdge M620 blade published power calculator and Dell/HP ILP, March 2014.

HP internal estimate vs Dell PowerEdge Blade M620 in an 80-node compare. Dell PowerEdge M620 blade configuration takes 2.5 racks vs HP Apollo 6000 System configuration which takes 1 = 60% less space



The New HP Apollo 8000 System

Advancing the science of supercomputing



Leading teraflops per rack for accelerated results

- **4X** teraflops/sq. ft. than air-cooled systems
- **> 250 teraflops/rack**

Efficient liquid cooling without the risk

- **40% more FLOPS/watt** and **28% less** energy than air-cooled systems
- **Dry-disconnect** servers, intelligent Cooling Distribution Unit (iCDU) monitoring and isolation

Redefining data center energy recycling

- Save up to **3,800 tons** of CO₂/year (790 cars)
- **Recycle water** to heat facility

Reinventing HPC today to accelerate the world of tomorrow



**Accelerating
performance**
to speed up answers

4x teraflops
per square foot

**Maximizing
efficiency**
for sustainability and savings

4x density per rack
per dollar

**Unleashing
HPC**
to enterprises of any size

Years to days
for new innovations

HP Apollo family
Optimizing rack-scale computing for HPC



Thank you

