

Älyttömän nopea - päätöksentekoon optimoidut laitealustat

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Requirements for analytics systems



Performance

- CPU, memory, virtualization, DB, ...



Scalability

- Up and down



Manageability

- "Daily operations", manage growth, ...



Reliability

- Availability, security



Cost efficiency

- TCO, resource utilization



Time to deploy

- Project





IBM Analytics Systems Portfolio

One size does not fit all!



Customized and dedicated server



Customized and virtualized server



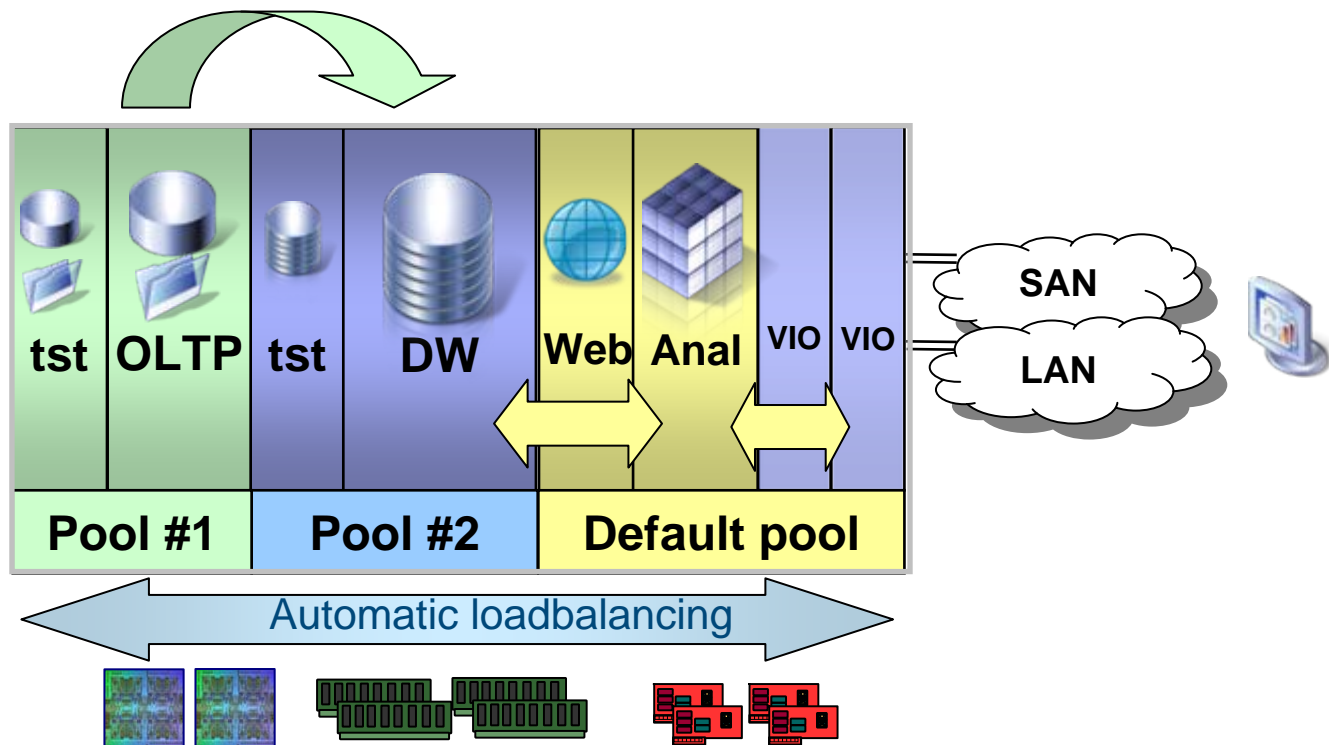
Pre-integrated set of nodes



Appliance



Using virtualization



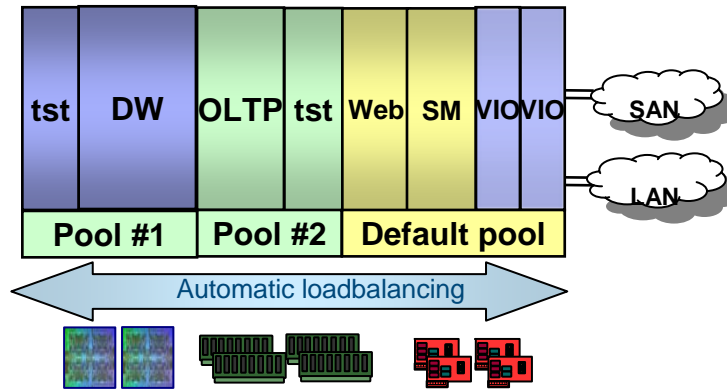
- Different workload characteristics (CPU, memory)
- Fast internal communication
- Fast loads
- I/O consolidation
- Software licenses



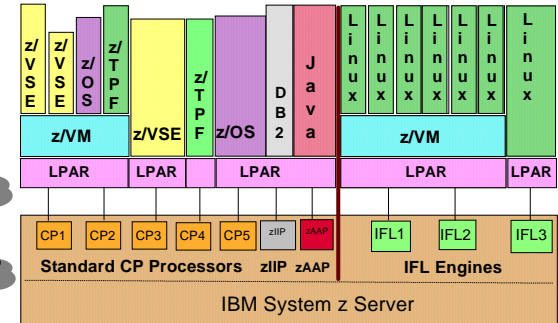
Different virtualization platforms

With different characteristics...

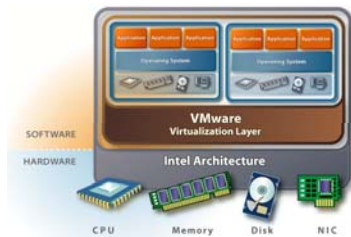
Performance / Scalability ↑



Hardware based PowerVM



Hardware based zVM



Software based x86 virtualization (VMware etc)

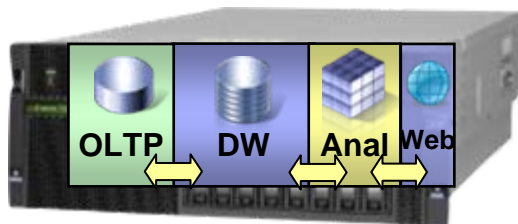


IBM Analytics Systems Portfolio



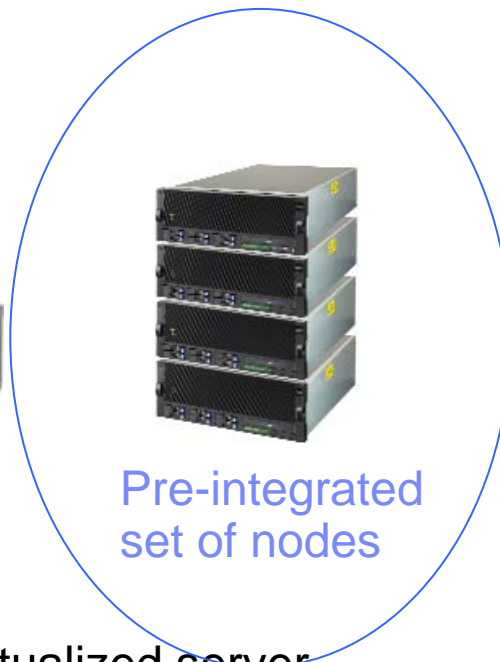
IBM Servers

Customized and dedicated server



PowerVM, zVM

Customized and virtualized server



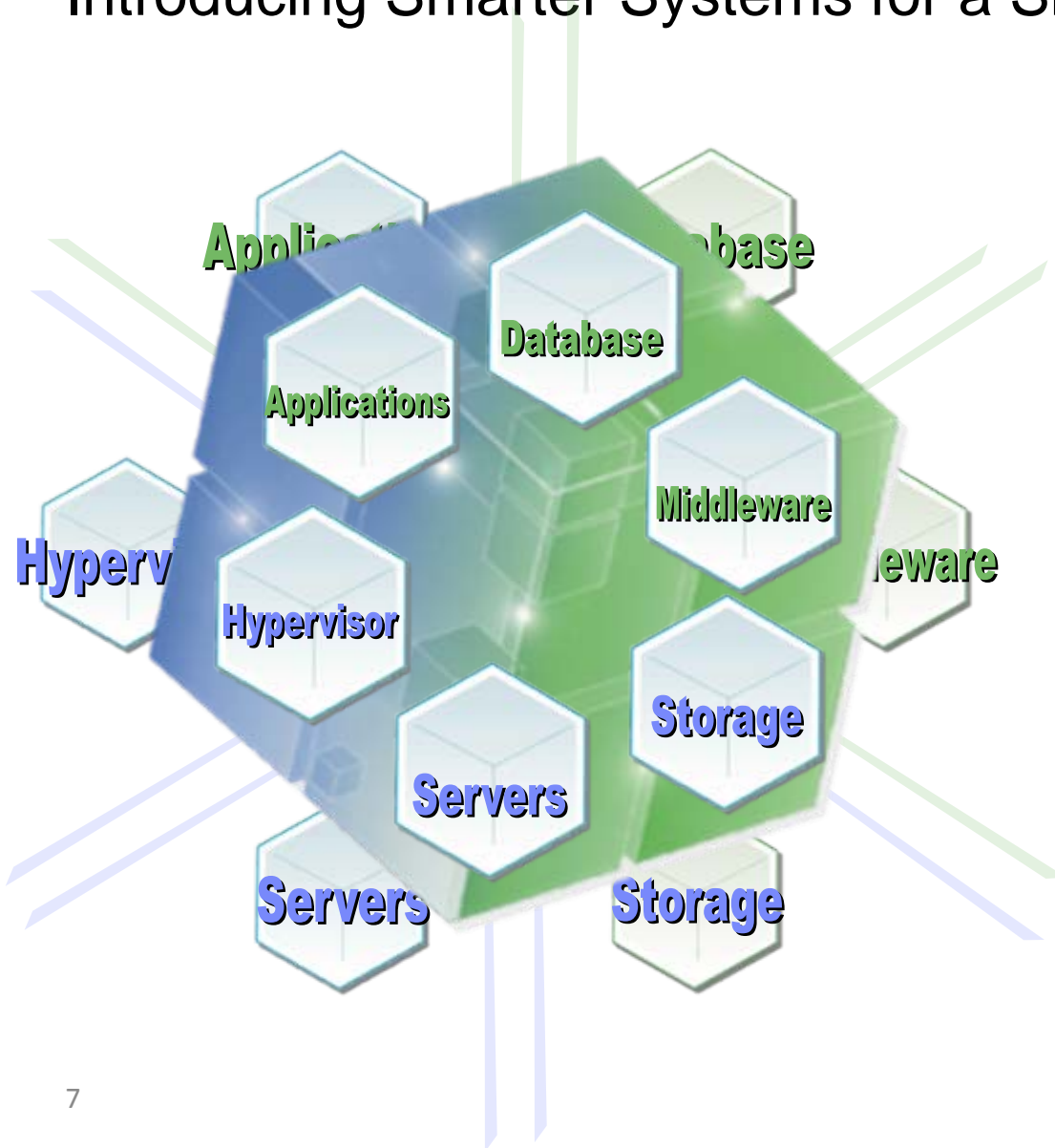
Pre-integrated set of nodes



Appliance



Introducing Smarter Systems for a Smarter Planet



Smarter systems are:

- *Integrated*
- *Workload optimized*
- *Proven*

Smarter systems deliver:

- *Faster time to value*
- *Better performance*
- *Lower cost*

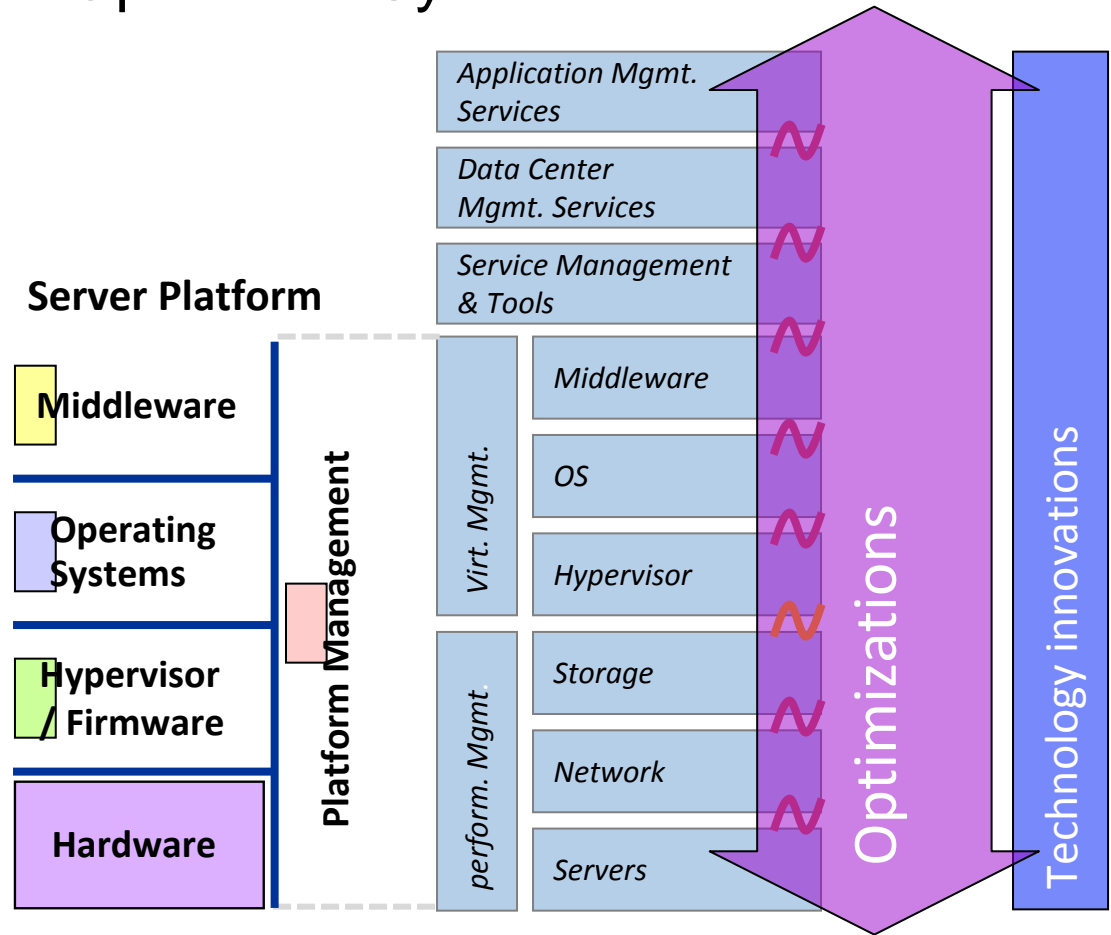


Advantages in Workload Optimized Systems

Vertical Integration

A Workload Optimized System:

- provides **value** for particular workload or set of workloads important to the client
- provides **unique** functionality or differentiated performance
- reduces **cost** of deployment and operation
- is accomplished through **co-design** of HW, SW and services



Workload optimization is about matching applications characteristics / service level requirements to the best execution engines!



IBM Smart Analytics System Family



9600

- **System z based technology**
- *Advanced query /workload management*
- *Database designed and optimized for System z*
- *Smart Disk controller, optimized to reduce data latency*



7700

- **Based on Power technology**
- *Scaling to petabytes of data*
- *New 7700 based on POWER7 Processor and includes solid state technologies!*



1050, 2050, 5600

- **System x based technology**
- *Designed for business analytics workloads*
- *Optional Solid State Device– reducing data latency*





IBM Smart Analytics System 7700

Power7 based technology, Power740 nodes with AIX

1-20 nodes basic configurations

16 cores and 128 GB memory per node

Solid State Disks included

Total disk space 28-575 TB

Different types of nodes:

- Foundation node
- Data nodes
- User nodes (opt)
- Failover nodes (opt)
- Management nodes (opt)
- Application nodes (opt)

Pre-configured, pre-installed, pre-tuned, ready to run

No tuning needed when upgraded

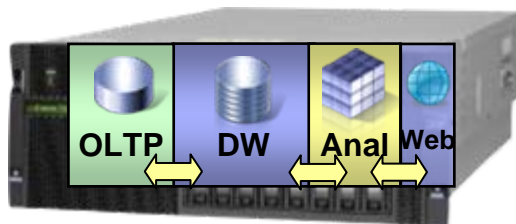
IBM InfoSphere Warehouse Enterprise Edition

Compression included





IBM Analytics Systems Portfolio



Netezza Appliance

IBM Smart Analytics System Pre-integrated



PowerVM, zVM
Customized and virtualized server

IBM Servers
Customized and dedicated server



Don't forget infrastructure!



Performance



Scalability



Manageability



Reliability



Cost efficiency



Time to deploy



Questions?