

# SIMPLY REVOLUTIONARY



**HCL's revolutionary 'Datacenter in a Box' is not only easy to deploy, maintain and upgrade but also is very cost effective & delivers exceptional value**

**HCL's 'Datacenter in a Box'...**  
*nothing gets simpler,*  
**when it comes to managing IT in your enterprise**

# SIMPLE INTEGRATED SOLUTION WITH SAN & SWITCH

**HCL Datacenter in a Box** includes SAN storage, computing, and networking to simplify the growing demands of your IT infrastructure. As an Integrated system, the **HCL Datacenter in a Box** Server has capabilities not found in the common rack server setup, included virtual drives that provide grow-as-you-go flexibility and Virtual Presence management for simplicity

The **HCL Datacenter in a Box** features:

- Up to six Server Computing Modules supporting latest Xeon Quad Core 5400 series CPU's
- Integrated Shared SAN storage
- Integrated Gigabit Ethernet Modules
- All hot-swappable components
- Virtual Presence remote management capability

Benefit	Enabler
Increased IT Uptime	Redundant systems increases network uptime with failovers between servers and backups
Easy application Migration	Shared storage and virtual drives provide for easy application and storage migration
Grow-As-You-Go Flexibility	With options for up to 6 server Compute Modules and up to 14 storage drives, purchase only as much as you need when you need it
Greater Asset Utilization	Diskless Server Compute Modules allow for maximum use of system assets
Unique Serviceability	Hot-swappable components don't require any cables or tools to service
Ease of Management	One integrated system with end-to-end management lets you manage the entire system from a Web-based GUI interface
Improved Data Protection	Centralized backup and virtual access allow for greater data protection

## Exceptional Value

Thinking of purchasing 2-3 servers for your business? The HCL Datacenter in a Box is designed to fit your budget, while making many high-end features accessible for your business.

## Reliable

- Prevent downtime in the IT infrastructure with redundant systems and fail-safes.
- Protect your data with integrated RAID and global hot spares that automatically rebuild.
- Keep business running with the ability to remotely reassign servers and drives through the remote management interface.

## Cost-Effective

- Integrated SAN and networking
- Expandable compute capabilities
- No rewiring
- Virtual Presence remote management

## Simple

- Hot-swappable components don't require any cables or tools to service.
- Managing the system is easier with the virtual presence graphical user interface providing complete end-to-end management.

**Integrated Shared SAS SAN with RAID 0, 1, 5, 6 and Support for 14 SAS HDDs**

**Redundant Gigabit Ethernet Switches**

**Intuitive & Simple to use Management Interface with Integrated Remote KVM over IP**



- Included
- Required
- Optional

**A Chassis:**

- ◆ 1-6 Server Compute Modules
- ◆ Storage Drive Bay
- ◆ 6U Chassis- Optional Pedestal Kit
- ◆ High Speed Backplane

**B Server Compute Module:**

- ◆ Up to 2 Multi-Core Intel® Xeon® 5400 processors up to 3GHz processors
- ◆ Contains 8 FB DIMM slots for up to 32GB
- ◆ Supports an optional Mezzanine expansion card

**C Storage Hard Disk Drive (required):**

- ◆ Up to 14 2.5" SAS drives

**D Hard Disk Drive Carriers (included):**

A Chassis: Rear

**E Hot-Swappable I/O Fan Module (included)**

**F Hot-Swappable Main Fan Module (included)**

**G Hot-Swappable Power Supply Module (2 included, 2 optional )**

- ◆ 3+1 redundancy

**H Storage Control Module (1 included)**

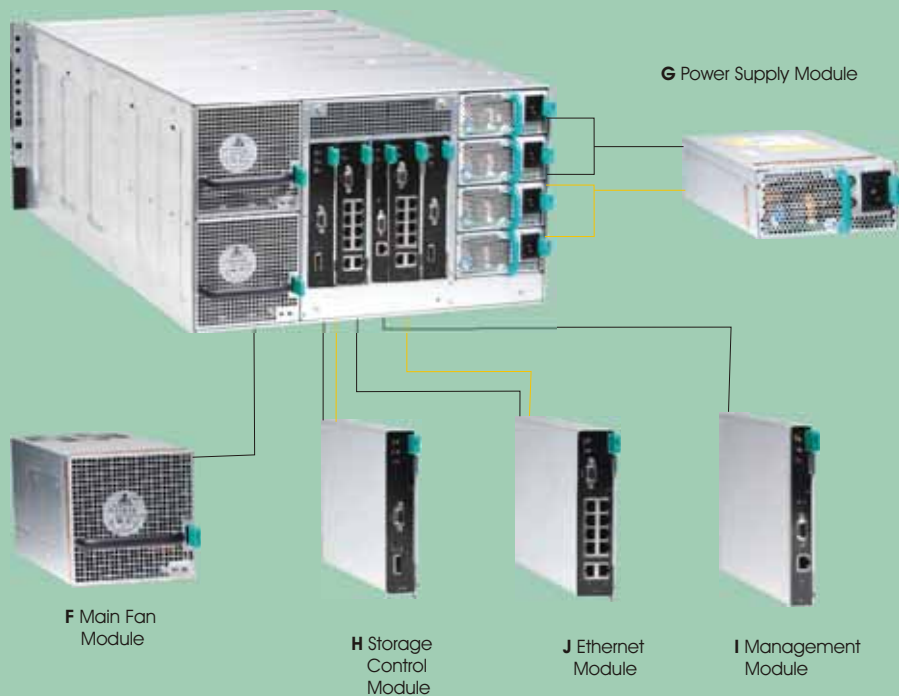
- ◆ Supports RAID levels 0,1,1E,5,6,10,50,60 and 14 SAS HDD's

**I Management Module ( included)**

**J Ethernet Switch Module ( 1 included, 1 optional )**

- ◆ Up to 2 Ethernet Switch Modules
- ◆ Each Modules features **High Speed 10 GbE** full-duplex ports

- Included
- Required
- Optional



# SIMPLE TO INSTALL OPERATE & MANAGE

1. **Simple Integrated View** : Server, Storage, Switch, ... all at one place

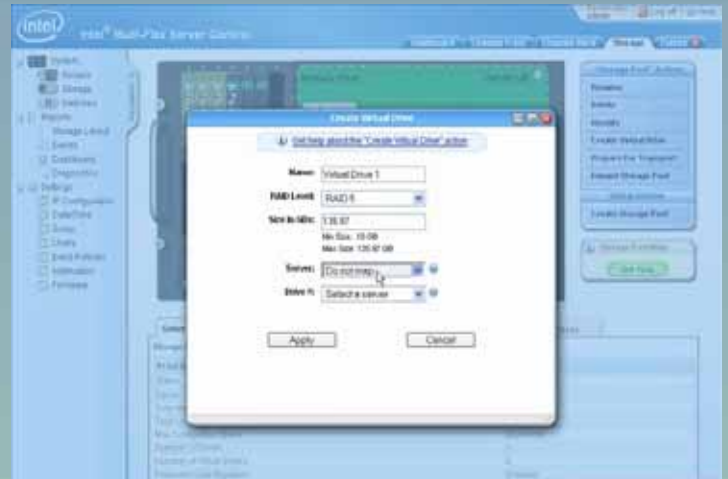


2. **Just point and click** : Actual Server and Storage Picture which enables operation, installation and management

3. Just select the Hard Disk and key-in RAID levels: > **Storage Pool is ready**

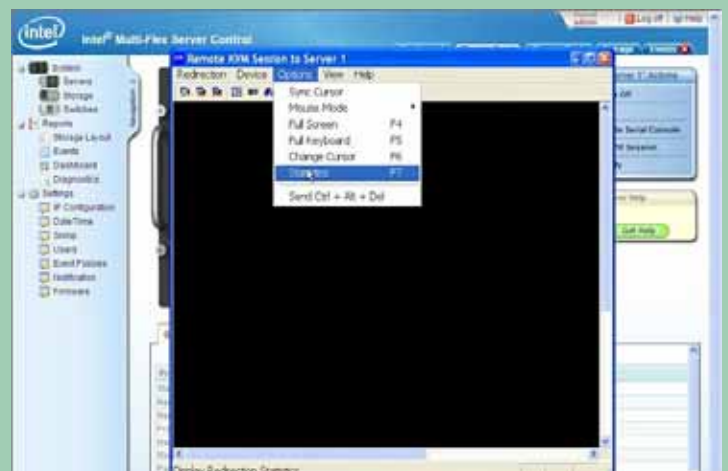


4. Just select the server you want to allocate:  
 > **Storage space allocation is done**



5. Just Select the Switch Module and allocate:  
 the Servers: > **Networking is done**

6. **Manage with ease** : Use remote KVM session to talk to Individual Servers as they were physically plugged in

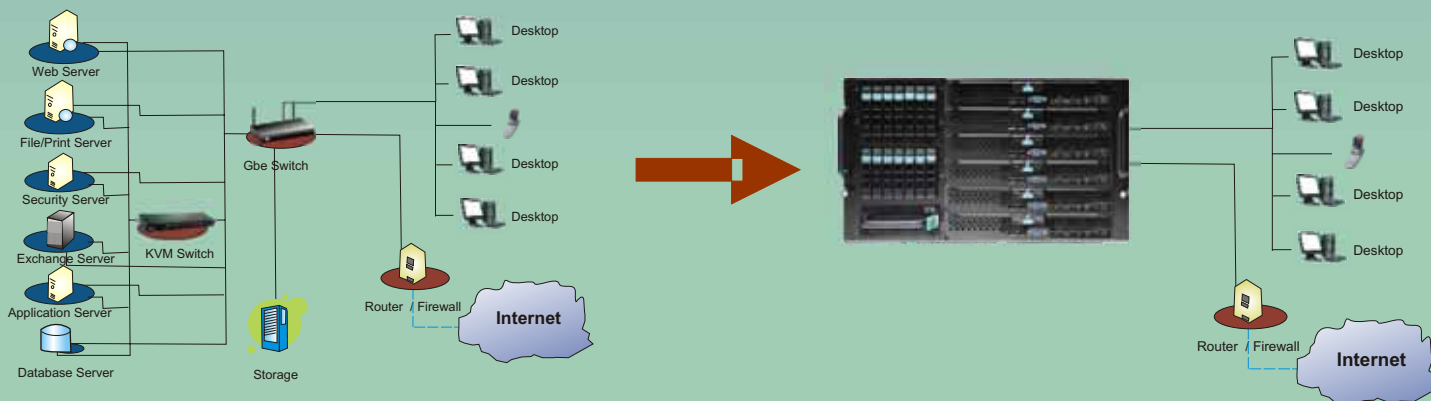


# SIMPLIFYING REAL LIFE IT CHALLENGES

**Challenge** We have four servers running e-mail, web, accounting, and database applications. Lately, we've been short on storage space. The accounting server has just the right amount of storage, but the mail server is short, and the web server has significantly more than it needs. When we purchased the servers, our options were limited by the number of disks that the servers could hold as well as the minimum number required to create RAID 5 disk sets.

**Scenario** Four rack-based 2U servers that are three years old, each with four SCSI disk RAID 5 sets. The mail server needs more space, but we have already reached internal capacity. The web server load has increased significantly and requires a more robust server.

**Solution** Upgrade to the **HCL Datacenter in a Box** with four Server Compute Modules—one for each of these applications—and a stand-by server. The **HCL Datacenter in a Box** can provide level 5 RAID access for five servers with as few as three drives. Increasing storage space is as easy as adding drives and expanding the storage pool through the simple web management interface. As new compute technology becomes available, upgrading a server will be a matter of sliding out the old server and inserting the new one. With server fail over capabilities, major downtime due to server failures will be a thing of the past.



**Challenge** We have six archaic servers running operating systems that are not supported on newer platforms. These servers are the heart of our business, and we have no alternative to move to or upgrade at this time. Our concern is that the servers, now seven years old, are beginning to have problems, and replacement parts have become increasingly difficult to find.

**Scenario** Six older x86 platform servers running Microsoft\* Windows\* NT 4.0 and two running Red Hat\* Linux\* 7. RAID 5 on Windows servers and RAID 1 on Linux\* servers. Applications are dependent upon older operating systems and will not run on current operating systems. Drivers for older operating systems do not exist for the current hardware.

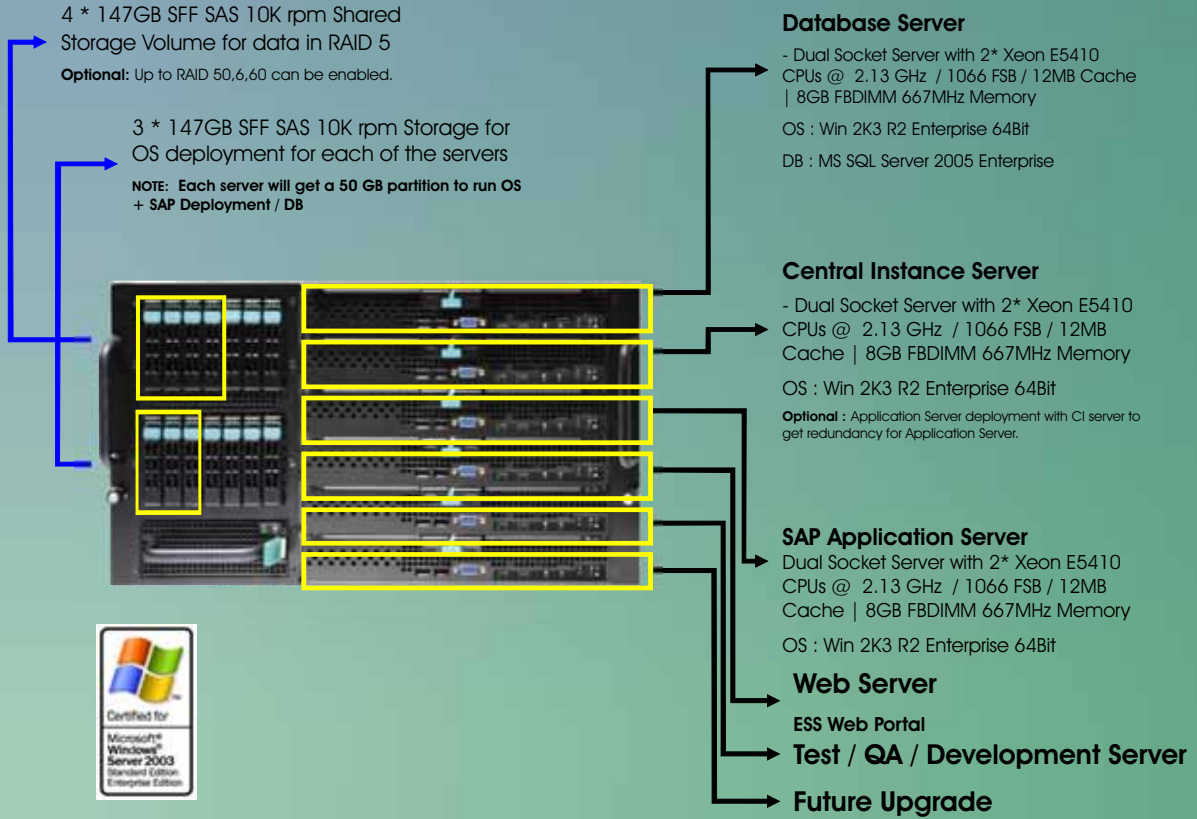
**Solution** Prepare older operating systems for virtualization. Install the **HCL Datacenter in a Box** with three Server Compute Modules and at least five drives. Create a drive pool with three drives. Create two virtual drives with RAID 5 in the newly created drive pool, assigning one to server 1 and the other to server 2.

Next, create an additional drive pool with two drives. Create a RAID 1 virtual drive in pool 2 and assign it to server 3. Use a physical-to-virtual migration utility to move the older physical servers to the **HCL Datacenter in a Box** virtual host. Place three Microsoft Windows NT 4.0 virtual servers on server 1 and three on server 2. Place the two Red Hat Linux 7 virtual servers on server 3.

Finally, donate your old servers to a worthy cause, and rest easy knowing that your applications are running smoothly and your data is secure.

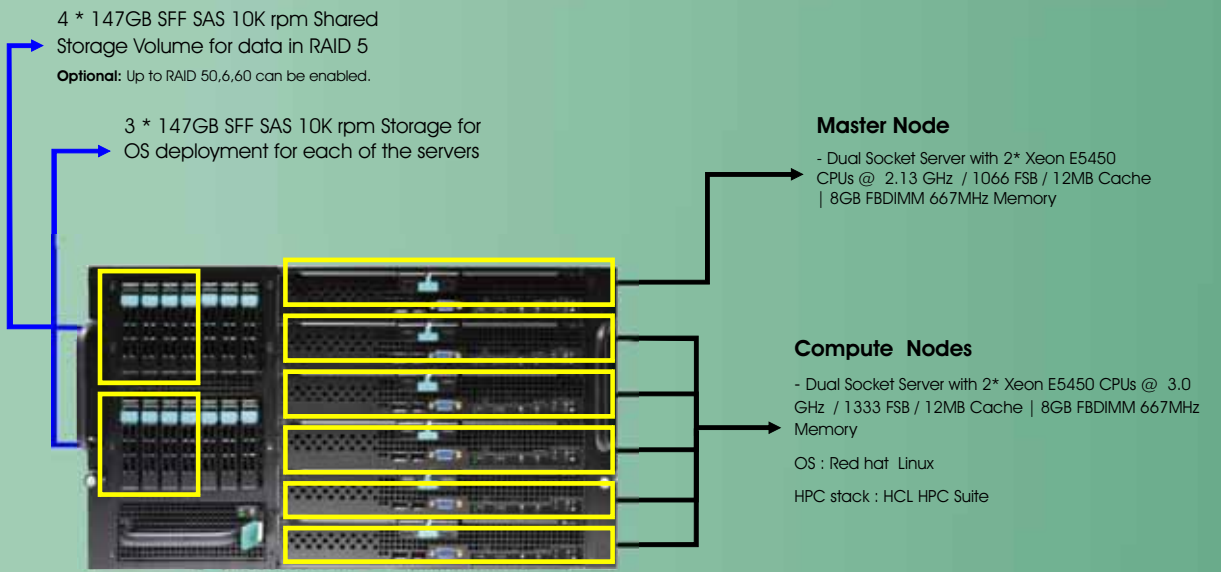


## SAP LANDSCAPE



[\* The above landscape is indicative deployment scenario. Actual deployment may be different.]

## HPC DEPLOYMENT SCENARIO



**LINPACK PEAK PERFORMANCE OF 576 G Flops**

**Gigabit Ethernet connectivity for Master and compute Nodes for :**

- Inter-process MPI traffic
- Cluster management Traffic
- User traffic

# HCL Infosystems Sales Offices

HCL Sales Offices	STD code	Telephone No.	Fax
Ahmedabad	79	26421176, 26443102, 26443108	26441927
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Lucknow	522	2325238, 2328158, 2325214	2325205
Madurai	452	2586070/2586311	
Mumbai	22	22620169/70/71, 22626984, 24947690, 24923165, 24964360, 28571462/1069/0435 ,22642603, 26420571	22622090, 22625674 2,857,145,824,939,660
Nagpur	712	2232408, 2233407, 2239586	2233407
Noida	120	2520977, 2522700, 2549871-75, 2526519	
Patna	612	2270050, 2270051, 2278019	2271754
Pune	20	26123406, 26130843, 26130849	26121357
Raipur	771	5089964, 5037163	5089959,2522354, 2522324
Ranchi	651	2242216/17/18	2242218
Rudrapur	5944	250030	245671
Thiruvananthapuram	471	2729844, 2727458	2729844
Trichy	431	2463011, 2464629	
Vijaywada	866	3295227	
Vishakapatnam	891	2522488, 2522499	2522488

**For More Information:-**  
**Visit us at <http://www.hclinfosystems.in>**  
**Email us at [infiniti@hcl.in](mailto:infiniti@hcl.in)**  
**SMS HCL DCIB to 56161**

**HCL Infosystems Ltd., E-4, 5 & 6, Sector 11, Noida 201 301, U.P.**

