

# Samsung PColP – Virtualisation solutions

convergenza e cloud ... al cloud computing solutions

**Simone Bettola**  
**Roma, 13 Luglio 2010**

**C: NVERGE**

GROWING UP  
TECNOLOGIE IN CRESCITA

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# Samsung Today

SAMSUNG

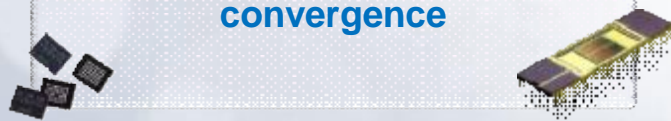
Among the **50 “World’s Most Admired Companies”**

**FORTUNE**  
magazine



**185 offices**  
in **65 country** and  
**187.775 employees** in the world  
**23 R&D centres**

Leader in **semiconductors**,  
**Telecom** and in the **digital convergence**



Selected for the **Dow Jones Sustainability Index**



**Olympics partner**  
since 1997



**At the second place as patents number owner in USA**  
in 2009 (IFI)



**19° among the 100 Best Global Brands**  
(Brand Equity – Interbrand)

**BusinessWeek**

Turnover 2009: **US\$ 116.8 BL**  
Net profit 2009: **US\$ 8.4 BL**

# Business Units

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## Visual Display



## Mobile Communications



## Telecom Systems



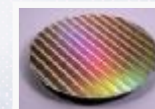
## IT Solutions



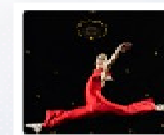
## Digital Appliance



## Semiconductor



## LCD

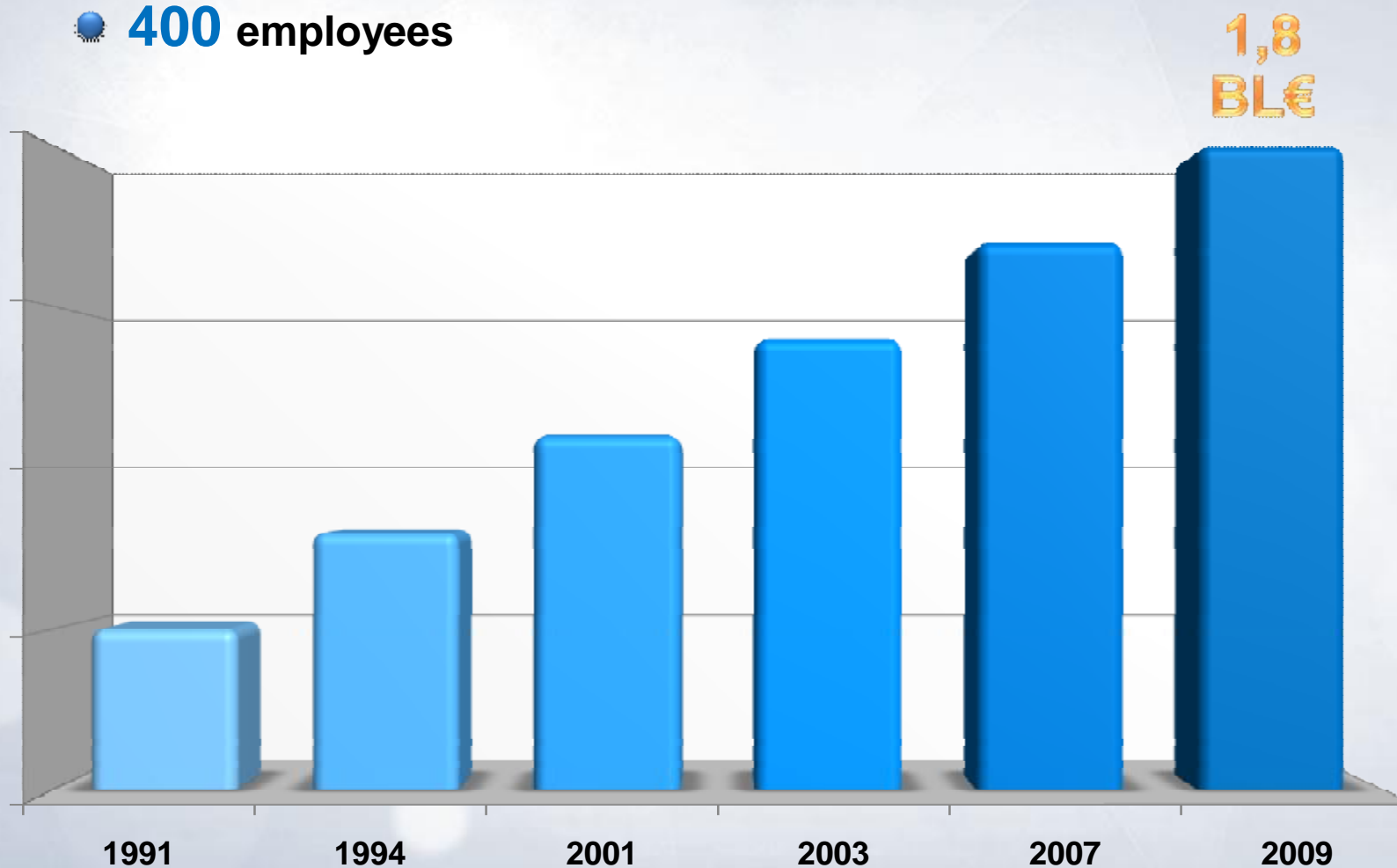


# Samsung Electronics Italia

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● Turnover: **1,8 BL€**

● **400** employees

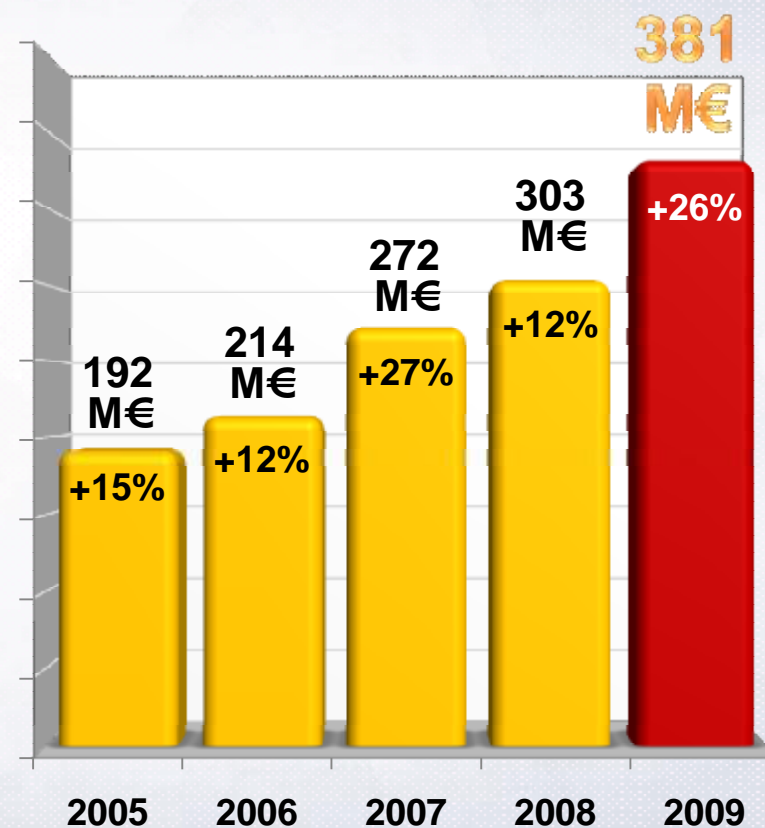




## M/S 2009

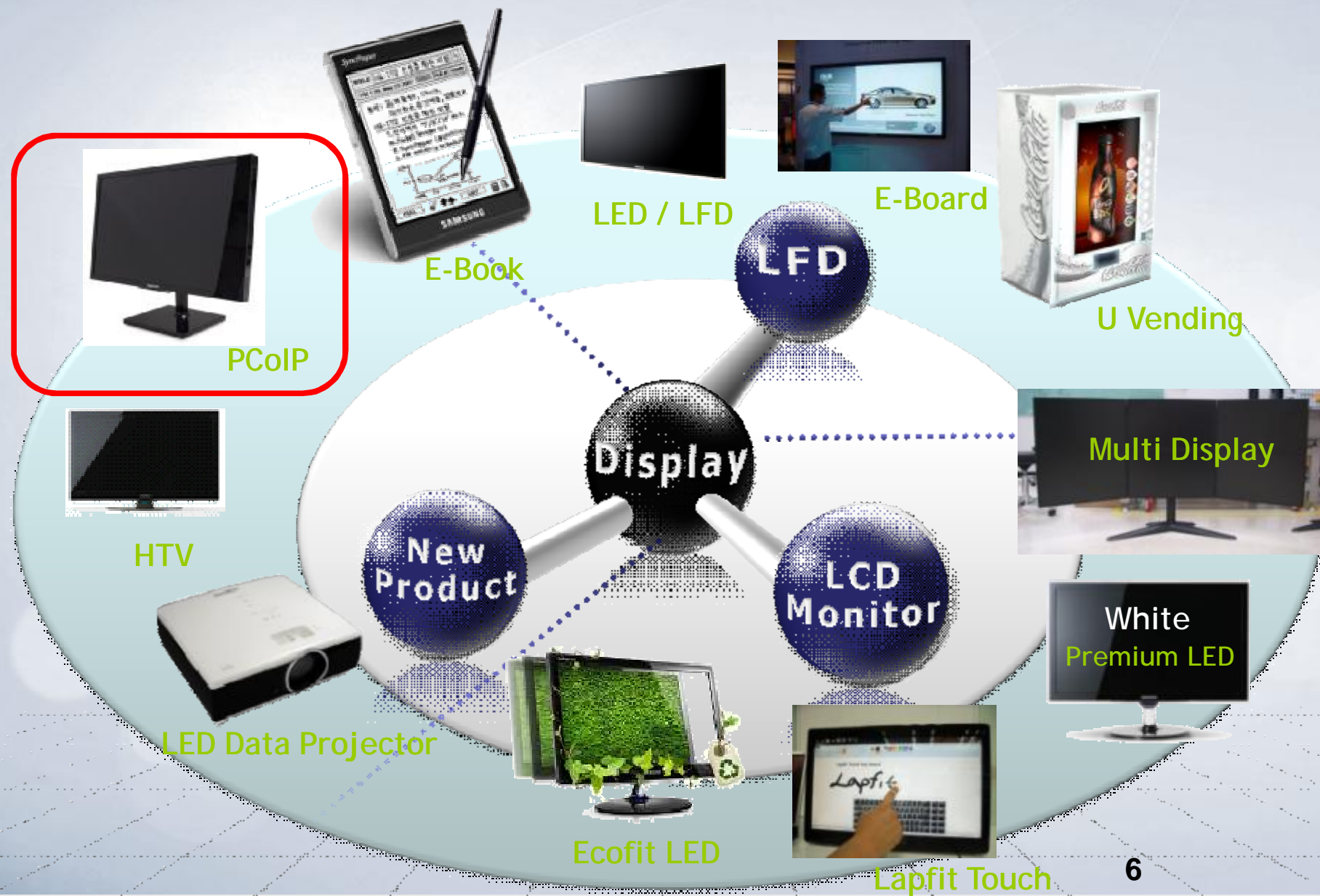
	M/S	Rank
Total Laser A4	39%	1
Multifunzione Laser a colori	57%	1
Multifunzione Laser b/n	44%	1
Stampanti Laser a colori	42%	1
Stampanti Laser b/n	34%	1
Monitor LCD	26%	1
Large Format Display	48%	1
Notebook	7%	5

## Turnover trend



# Visual Display – Product portfolio

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# Visual Display – Partnership vision

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**HW & SW**

**Integration  
Partner**

**Expertise**

**Project  
Design**





# NC190 / NC240 – PC over IP

SAMSUNG

## OS Independent Remote PC Control via PColP Technology



### Concept and Target Segment



#### Concept

- IP Based Network Display Monitor
- Data Protection via Remote Access



#### Target

- Security-sensitive Workstation Users
- Thin Client users (MS RDP support)

### Highlights



#### Far Range Connectivity

- Full USB Support
- Support Remote Desktop Protocol



#### Optimum Graphic Performance

- FHD Resolution(1080p)
- Distortion Free Transmission via PColP Chipset



#### Excellent Manageability

- Full Security (No Data Leakage)
- Regardless of Server's OS(OS Independent)



# NC190 / NC240 – PC over IP

SAMSUNG

- The LCD monitor **optimized for PC-over-IP environment**
- Simple and easy access, full USB device supported, high security, and optimized cost

## 01: Easy Access (Ubiquitous Access)



- Anywhere you are, with PCoIP monitors, all you need is an IP address

## 02: Real Time Graphic



- Hardware encoding and decoding facilitates faster transmission

## 03: Full USB Device Support



- Support for all USB devices
- Support for all HD devices
- Provided with 4 USB ports

## 04: High security / OS-independent control



- Provides excellent security through the use of PCoIP hostcard
- OS Independent network display

## 05: High Performance With Reasonable price



- Support 3D Graphic & FHD
- Lower cost compared to previous workstations

## 06: Professional Design



- Solid & Reliable
- Slimmer Neck Stand
- Lower Crater & Bezel

# NC190 / NC240 – PC over IP

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## Product Concept

*Monitors with visual quality maintained while expanding security*



## High Security

- All information stored on central server, no risk of information leaks

## Remote Access

- Remote access and display without a PC
- Access from anywhere with an IP address

## Low TOC & Manageability

- Only the server must be maintained, savings in anti-virus software and upgrades
- No change on clients when they modify server

# NC190 / NC240 – Technology

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## ■ The Concept of PC over IP



\* IP automatically found and connected upon cable link

## PLUS<sup>+</sup> INFORMATION

NC190/NC240-compatible  
Blade Server



FUJITSU



PRIMERGY

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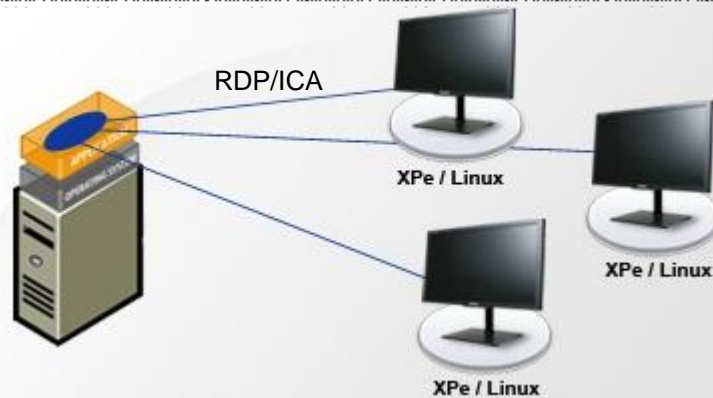


# NC190 / NC240 – Technology

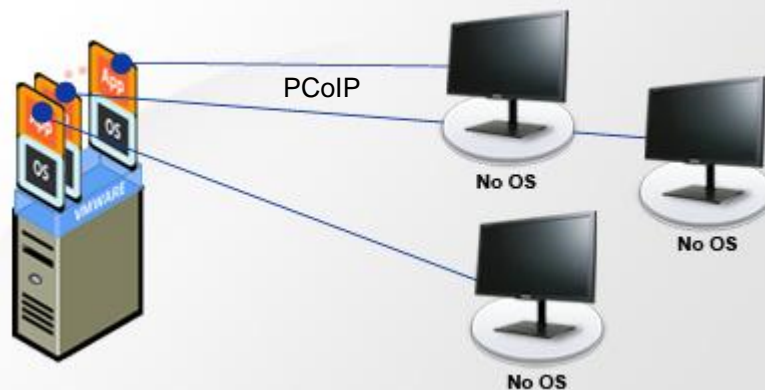
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## ■ The Concept of PC over IP

### Prior Server Environment



### Virtual PC's upon Server



### Benefits to PCoIP

- ✓ Higher Graphic Performance
  - Picture frame vs. Video packet
- ✓ OS independent
  - Terminal OS vs. No OS
- ✓ Multi-OS technology
  - 1 server OS vs. Multi server OS
- ✓ Lower Terminal Price
- ✓ Lower TCO
  - No change on clients when modify server



# The PCoIP Experience

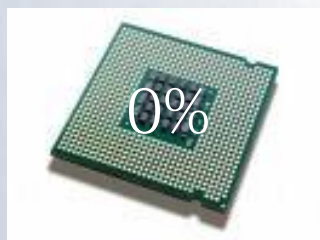
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True Workstation and PC experience.....remotely over IP



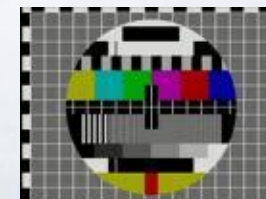
Zero Desktop Management With  
Hardware Based 'Zero Clients'

Low Power 'Zero Client'



Zero Host CPU load & Zero Host Driver  
With Hardware PCoIP

Adaptive Bandwidth Intelligence



Data Security

# Target Customer

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## High security from remote access



Bank



Technology oriented companies



Government Agency

## Remote access with high visual quality



CAD/CAM



Graphic Design



Engineering Design



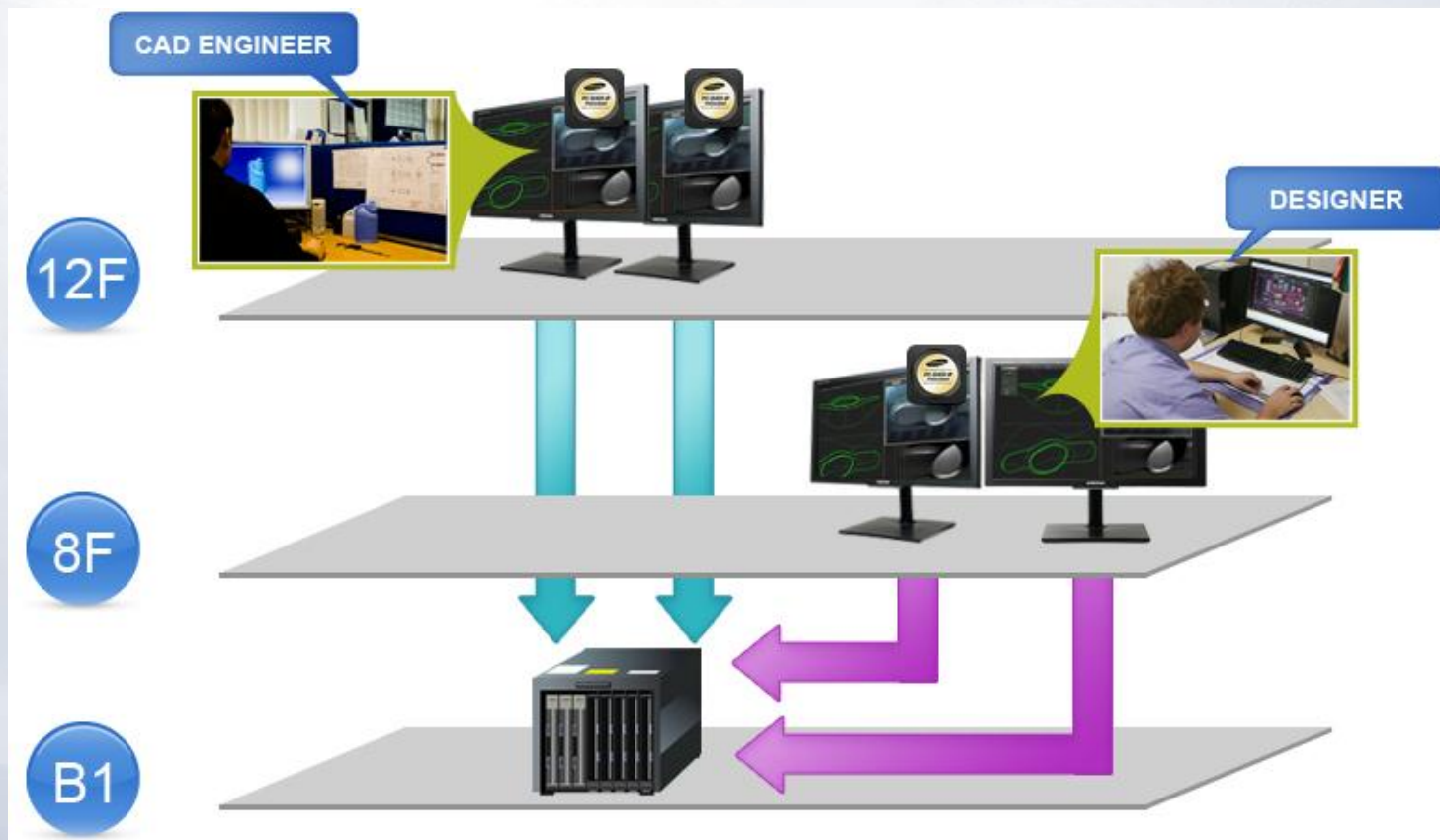
Web Design



3D Animation

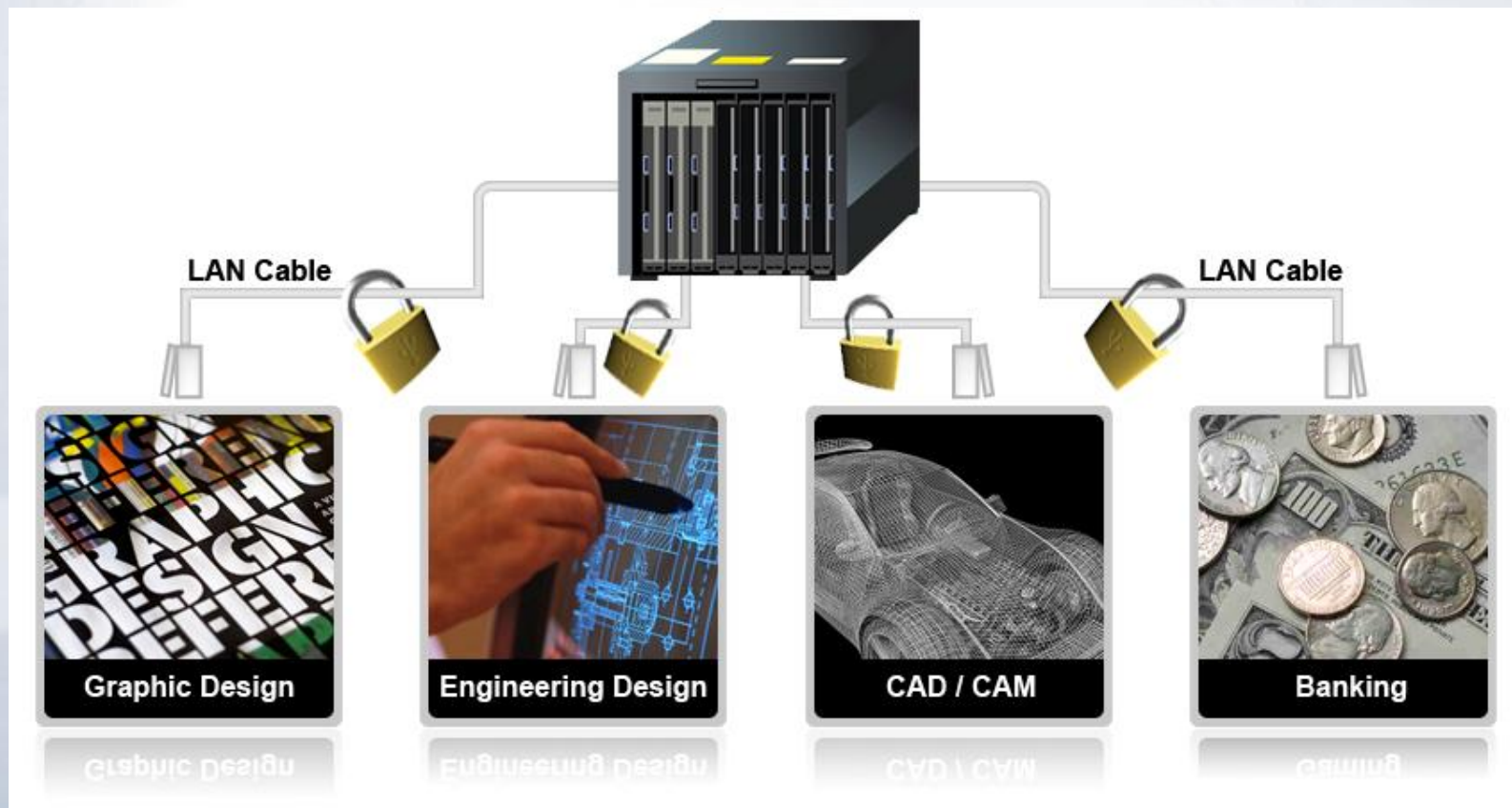
## Easy Access

- PCoIP : Hardware compression provides superior graphic quality
- CAD/CAM, Graphic Design, Engineering, Engineering Design



## Real Time Graphic

- Hardware encoding and decoding facilitates faster compressed transmission
- Wide bandwidth suitable for video applications
- Image loss is minimized





## ■ Full USB Device Support

- Peripheral devices to enables implementation of full hardware performance of CPU
- Personal gadgets for entertainment



Blade Workstation



PCoIP Monitor

“Just Plugging”



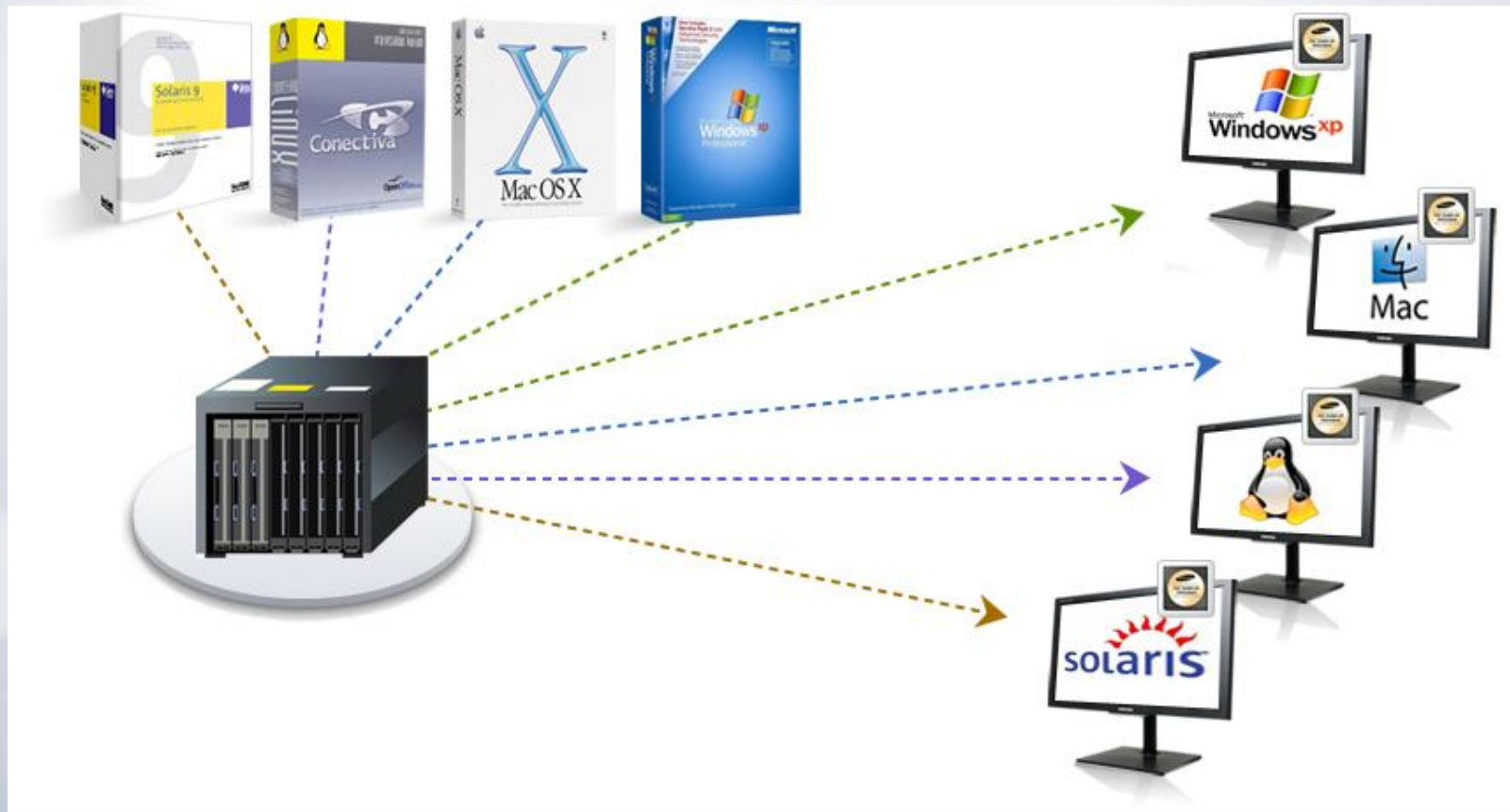
## ■ High Security

- Complete security at central server
- Security maintained without software installation by clients
- USB and program access and installation managed at central server



## ■ Independent OS Control

- Client does not need OS
- OS installed at central data center, various OS types available



## ■ Low TCO & Manageability

- Only central server requires management, reducing maintenance costs
- IT Staff does not need to visit each client computer
- Client PC does not require OS installation

## Low Cost





## ■ Compact Design

- Simple and easy to use
- Pivot, Height adjustable stand, Optional speaker



## Remote Desktop Comparison PC over IP



Remote desktop protocol



Standard PC



PC over IP

O/S Independent	NO	NO	YES
3D graphics and Media Rich Content	NO	YES	YES
Bandwidth Saving Lossy Encoder	YES	NO	YES
Lossless Image Transfer	YES	NO	YES
USB Device Support	NO	YES	YES
Audio Support	YES	NO	YES
USB Device Authorization	NO	NO	YES
Desktop Device Drivers	YES	NO	YES

Key : YES YES NO NO

## ■ Specification

		NC190	NC240
Panel	Size	19"	23.6"
	Brightness (Typical)	250cd/m <sup>2</sup>	300cd/m <sup>2</sup>
	Contrast Ratio (Typical)	1,000:1	1,000:1
	Resolution	1280x1024	1920x1080
	Response time (Typical)	5ms	5ms
	Special Feature	[System] - PCoIP Processor : Tera1100 - Memory : XDR 64MB - <b>Operating System : None</b> - HD Audio : ALC883 - <b>Ethernet : Gigabit Switching Hub</b>  [Connectivity] - VGA in(for PC monitor), DVI out(for Dual Video) - 10/100/1000 RJ45 Ethernet - Headphone out port - Microphone in port - Line in port - <b>USB1.1X4 (2XRear, 2XSide)</b>	[System] - PCoIP Processor : Tera1100 - Memory : XDR 128MB - <b>Operating System : None</b> - HD Audio : ALC883 - <b>Ethernet : Gigabit Switching Hub</b>  [Connectivity] - VGA in(for PC monitor), DVI out(for Dual Video) - 10/100/1000 RJ45 Ethernet - Internal Speaker(1WX2)-optional - Headphone out port - Microphone in port - Line in port - <b>USB1.1X4 (2XRear, 2XSide)</b>
Power (Typical)		<b>60W</b> (DPMS < 2W)	<b>85W</b> (DPMS < 2W)
Connector		15-pin D-Sub	15-pin D-Sub

**Grazie**

THANK YOU