NEC

A Better PC for the Enterprise
VIRTUAL PC CENTER

NEC's Virtual PC Center (VPCC) is a complete desktop virtualization solution that provides a secure computing platform for the enterprise with all the benefits of a centralized management model offered from a single vendor. The NEC solution is built on top of VMware's or Microsoft virtualization platform but is the only virtual desktop software solution fully integrated with its hardware servers and thin client devices. Combining the thin client approach with a robust desktop environment hosted on NEC's powerful servers running virtualization software, NEC offers the desktop virtualization solution with the greatest flexibility to expand your business opportunities.

A Revolutionary Virtual PC Solution

- Higher PC Data Security
- Better Business Continuity
- Lower Total Cost of Ownership
- Green PC Solution
- Integrated hardware & software management
- Storage

VPCC

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KEY FEATURES OF NEC'S REVOLUTIONARY VIRTUAL PC SOLUTION

- **Centralized management model**
- **Lower energy consumption per user**

- **Single source**
- **Optional integration with VoIP telephony systems**

NEC's VPCC solution includes

- **NEC thin clients**

- **Virtual PC servers**
  - Multiple server configurations
  - Recommended & pre-sized servers
  - SAN-ready options

- **Virtualization software**
  - NEC SigmaSystemCenter software & hardware management platform
  - NEC Client Management Option broker
  - VMware Virtual Infrastructure
  - Or Microsoft Hyper-V

- **Storage**
  - Real storage performance in a virtual environment
  - Dynamic provisioning for performance and capacity
  - Real-time scalability 7000 to 1
  - Phenomenal data integrity

The Data Center

The back-end of the VPCC solution includes NEC's general purpose rack and blade servers pre-configured with virtualization and management software.
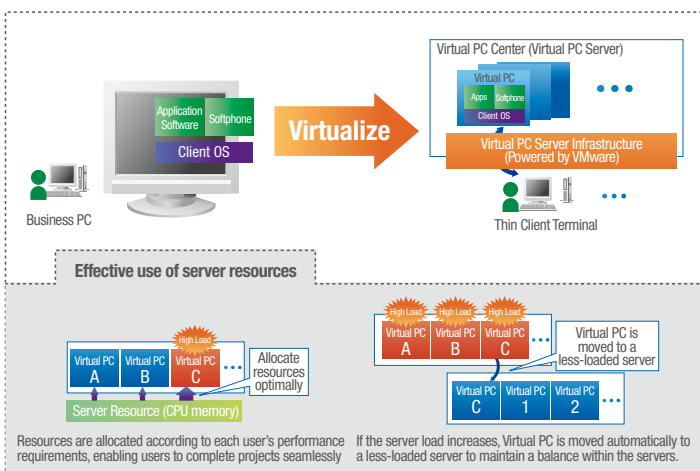
Virtual PC Servers

The Virtual PC Server is managed through a choice of management software and powered by the hypervisor platform. NEC sets up its servers to run virtual PCs with the Windows OS.

The NEC Management Platform

NEC is the only vendor offering a complete virtual desktop solution with integrated software and hardware management. NEC's SigmaSystemCenter and Client Management Option deliver extensive management functions including configuration, monitoring, dynamic resources allocations that are quick and easy to perform. Additionally, using its policy engine, routine activities can be automated such as backup, updates, and security checks, thereby ensuring the highest level of maintenance and support to deliver a positive user experience.

While delivering the full user-experience of traditional PCs, performance is enhanced through automated reallocation of resources to fully loaded virtual PCs. Virtual PC Center adds ease and flexibility to your work style.
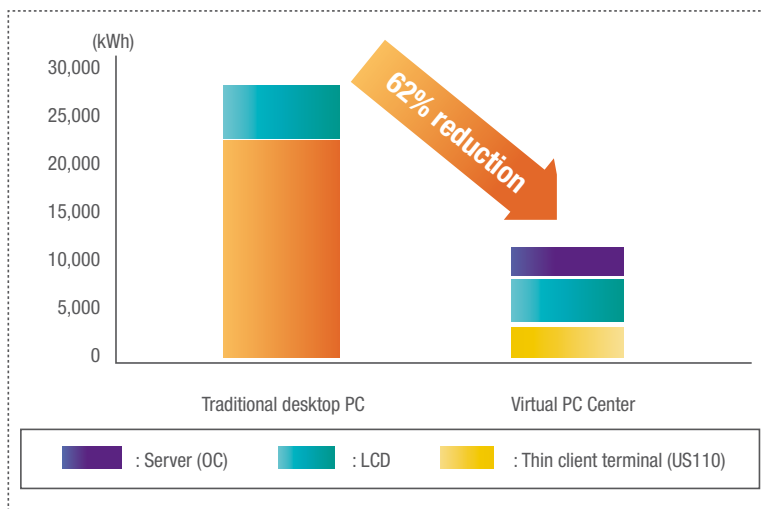
The Virtual PC Center thin client system dedicates a virtual PC to each user, complete with their current desktop applications and settings. Virtual PCs reside on servers while thin clients have no storage and simply provide the user-interface. This allows users to securely access their working environment from any available terminal whenever, wherever needed - whether while traveling on business or at home.

KEY BENEFITS OF NEC'S REVOLUTIONARY VIRTUAL PC SOLUTION

█ Energy savings up to 62% over traditional PCs

VPCC automatically reduces the number of virtual PC servers operating during times of reduced workload, such as overnight or on holidays, by autonomously detecting server operating status and consolidating loads to run on as few servers as possible. Servers that are no longer being used are shut down to reduce energy consumption. When the volume of operating virtual PCs increases, such as the beginning of office hours, the servers are automatically restarted as needed and virtual PCs are reallocated. These features result in the optimal number of servers running at any time of the day, achieving system-wide energy savings of up to 62% in annual energy consumption over traditional PCs.

Chart (kWh): Traditional desktop PC vs Virtual PC Center showing 62% reduction.
Legend — ■ : Server (OC)   ■ : LCD   ■ : Thin client terminal (US110)

█ Lower Total Cost of Ownership

VPCC provides added features that cannot be achieved using a traditional PC desktop, including significantly lower end-user support costs, fewer warranty repairs, and energy savings.
Organizations can expect a reduction in the total cost of ownership for VPCC, as compared to continuing to use traditional PC desktops.

█ Improved Corporate Data Security

With virtual PCs through thin clients, all of the users' information and applications are stored in the data center. No data is ever stored at the user's thin client. Many tools and solutions are available to provide software detection systems to catch hackers and their potential thefts, but they cannot fully protect PC data if a person hand-carries a PC or laptop away. With VPCC, if a desktop or mobile thin client is stolen, no personal or corporate confidential information can be stolen.

Higher PC Data Security

By saving all PC data and applications in the data center, information is better protected against virus attacks or theft.

High Business Continuity

VPCC provides high availability on servers managed and monitored by IT, using NEC's SigmaSystemCenter.

Single Source

VPCC is delivered by a single source, NEC. All equipment, software, service, and support come from a single vendor, streamlining the problem-solving process.

Lower TCO

An all-in-one platform solution providing all the capabilities of VMware or Microsoft, plus NEC's complete integrated software & hardware management. VPCC is a better PC for the enterprise as it provides greater data security while ensuring high quality of service at a better price.

◁▷ **VPCC**

intel **Xeon** inside™
Powerful.
Intelligent.

VIRTUAL PC CENTER TOPOLOGY

Desktop, Thin Clients and Mobile Terminals

Virtual PC Servers

VPCC Management Server

NEC Storage Array
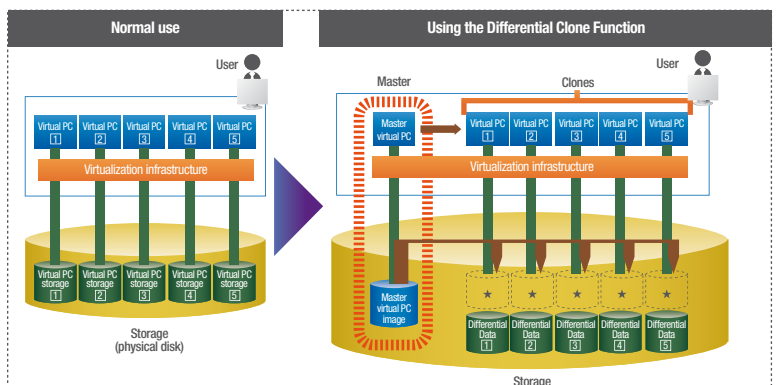*(Optional)*

VPCC

▌ Economy & simplification

Reduce storage space and simplify administration of virtual PCs.

The Differential Clone Function (optional) links clones to master virtual PCs to enable rapid creation of multiple virtual PCs from a single master image.

• Virtual PCs are managed by master image and differential data to reduce storage space requirements.
• Additional virtual PCs can be created quickly by simply modifying the differential data.
• Patches and applications applied to master images are precisely reflected to linked virtual PCs.
• Multiple versions of master virtual PCs are supported to enable efficient and flexible management.

Normal use	Using the Differential Clone Function

User — Virtual PC [1] [2] [3] [4] [5] — Virtualization infrastructure — Virtual PC storage [1] [2] [3] [4] [5] — Storage (physical disk)

Master — Clones — User — Master virtual PC — Virtual PC [1] [2] [3] [4] [5] — Virtualization infrastructure — Master virtual PC image — Differential Data [1] [2] [3] [4] [5] — Storage

Empowered by Innovation

NEC