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## “Systurns” - Instant Recovery & Centralized Management Solution

End users may face different kinds of potential problems while using computer. If no provision is made in advance, various unexpected circumstances can make users panic. In this case, all they can do is re-install the operating system and application software and re-configure the system and network parameters. This whole process would be a nightmare for most users.

Besides, no matter whether for personal use (e.g. company or factory) or public use (e.g. computer lab, Internet café, library, language lab, computer training center or hotel), it takes plenty of time and labour to scan disk, kill virus, re-install and re-configure system, take software/hardware asset inventory, etc. if no proper information system is implemented. For public access computers, it requires more frequent routine maintenance and troubleshooting. It needs a protection mechanism for computer security in order to reduce the maintenance workload.

“Systurns” Instant Recovery & Centralized Management Solution provides a complete solution for common PC problems. It comes with a double-protection mechanism including both “system recovery” and “image backup/restore” functions and can efficiently overcome the problems occurring during operation.

“Systurns” allows users to create multiple “recovery points” based on their needs. Once the computer has a problem, what users need to do is easily push the Reset button to restart the system. Then the operating system, application programs, and data will instantly restore to the previous state right before the problem occurred. This can avoid re-installing system or rescuing data and reduce the workload, time and labour for PC maintenance and repair.

To ensure a secure system, “Systurns” also provides the “image backup/restore” protection measure. The administrator can use it to back up the present computer state as an “image file”. Whenever the computer has a hard disk failure or the system has a crash issue, there is still a last protection mechanism even if “system recovery” can’t work.

“Systurns” is not only capable to rescue the system from disaster but also has several practical networked management functions. It’s a system combining maintenance and management functions and enabling the IT administrator on Console PC to manage and maintain numerous Client PCs. Whenever the computer has a problem, it can rapidly fix it.

- ◆ **Common PC Problems**
- ◆ **Introducing “Systurns”**

## Common PC Problems

Most PC problems within the corporate are involved with faulty operation, virus infection, incorrect setting and etc. IT staffs would engage lots of their time with the maintenance works for such routine and low-technique problems. This could generate significant workloads for IT staffs.

It usually takes hours to repair a damaged system. After that, there is no guarantee that the system can be restored to the state right before damaged. Now a days since computer operating system is getting more complex and more and more application programs are installed, it takes much longer time to do installation and configuration. Whenever experiencing a problem such as accidental file deletion, virus attack, downgraded system performance, frequent system crash, etc., what users can do is re-install the operating system and all application programs. However, this brings heavy workload to the IT administrator.

“Systurns” Instant Recovery & Centralized Management Solution is system software designed and developed to rapidly overcome various PC problems and manage PCs in an easier way. With “Systurns” installed, whenever the system of Client PC is abnormal, users no longer have to panic. The administrator can instantly resolve the problem with ease. Furthermore, the various handy networked features provided by “Systurns” greatly reduce the maintenance and management workload for Client PC.

Below are some examples of common problems which computer users and IT technicians would face and deal with:

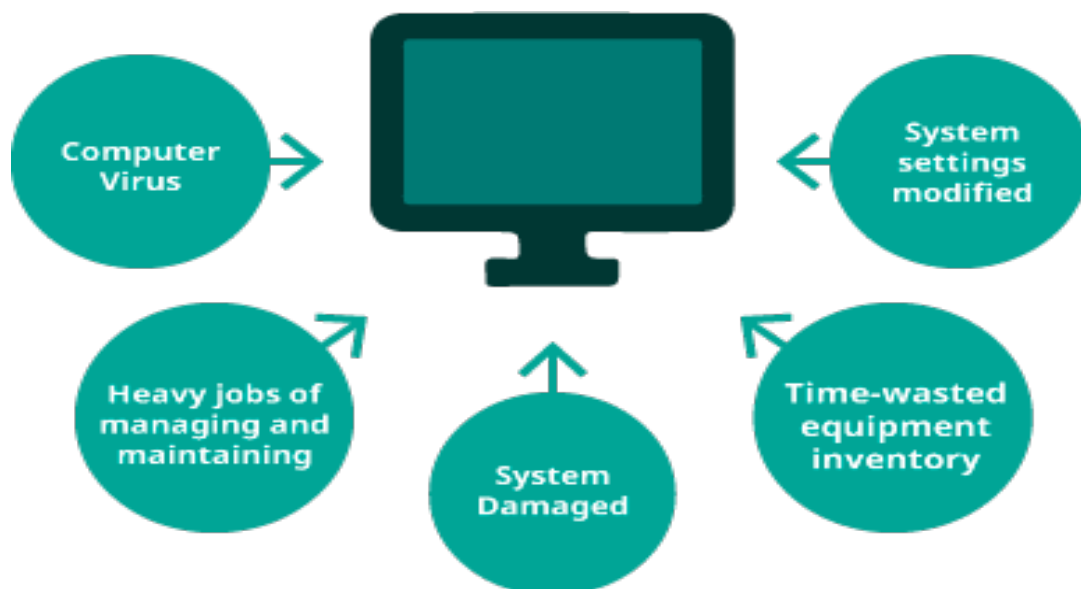
- ◇ **Various system malfunctions**
- ◇ **Heavy maintenance demands**

### ◆ Various System Malfunctions

Computer has become an essential tool for working, learning, and entertaining. It is used by people nowadays to browse website, search information, use application, send, and receive e-mail, contact friend and relative and play on-line game.

Frequent computer users may face the following system failures occasionally. These problems are annoying and difficult to deal with. They usually need IT expert's aid to fix. This whole process for problem solving takes time and disturbs users' work. Besides, it is not guaranteed to get complete data back.

- Improper operation causing computer crash, Windows system corruption, system instability, accidental file deletion, and data loss.
- System being crashed by intentional destruction or hacker attack.
- Partition been intentionally formatted or deleted.
- System efficiency being reduced; system can't be operated by normal procedure.
- System environment (e.g. system setting and network setting) being corrupted or eliminated and can't be recovered.
- System failed due to new virus infection even when shielded with anti-virus software.
- Unable to completely remove software after its installation failed.
- System failed to start up following data corruption caused by power interruption.
- Malware been installed; core application program been removed or modified.



## ◆ Heavy Maintenance Demands

IT devices have become essential tools for business operation. However, most small and medium enterprises do not pay enough attention on the maintenance for computer equipment. Outsourcing the maintenance works may lead to high cost or accidentally disclosure important information of the company. It is quite normal to hire a part-time staff to maintain company PCs. But this may cause serious loss of the company due to the lack of professional skills of the part-time staff. Calling for maintenance service when encountering a computer problem is usually too slow to save a critical situation.

Most PC problems within the corporate are involved with system or software instead of hardware. These problems would take significant time and manpower to fix. Various maintenances are demanded especially for public access computers at school, Internet Cafes, etc. while their users are not particular persons and wouldn't operate the PCs with enough caution.

- While dozens of new PCs are purchased, the administrator needs approach each one to install the specified software programs. When installing or removing an application, the administrator needs approach each PC and repeat the same process.
- How to restore the system in the shortest time while infected with virus?
- How to automatically recover the system from an unexpected crash caused by an improper operation or an accidental deletion of important data?
- For hundreds or thousands of PCs in an organization, the administrator needs approach each one to take inventory of software and hardware assets. This takes significant time.
- How to manage PCs while employees install illegal or pirated software?
- The administrator needs regularly do the following routine works: scanning disk for virus, anti-virus update, Windows update, patch update, reinstalling OS and application software and resetting computer parameter.
- Even though "system recovery" software is installed in public access computers (e.g. computer lab, Internet cafe and library), to deal with frequent Windows Update, virus update or game patch installation, the administrator has to frequently approach each PC to save the updated state of system. This is a complicated and time-consuming operation process.
- For all situations above, no matter whether it's for system/application installation, upgrade, maintenance, or problem solving, how does an IT administrator efficiently maintain all PCs in different remote locations?

## Introducing “Systurns”

After implementing “Systurns” Instant Recovery & Centralized Management Solution, the administrator at Console PC can execute instant recovery / hard disk backup / NetCopy to all Client PCs through network. Thus, each PC can be completely protected by “system recovery” and “hard disk backup”!

- ◇ **Instant “System Recovery”**
- ◇ **Handy “Image Backup / Restore”**
- ◇ **Speedy “NetCopy”**
- ◇ **Convenient “Centralized Remote Management”**

### ◆ Instant “System Recovery”

With “Systurns Instant Recovery & Centralized Management Solution” installed, whenever the system has a problem such as Format, F disk, deleting partition or repartitioning hard disk, you only need to press the Reset button and the system will be instantly restored to the state before the problem occurred. In this case, you can avoid re-installing operating system and application programs as well as re-configuring the system. Thus plenty of time for problem solving can be saved.



- **Instant Recovery**

Hard drive is under complete protection. All hard drive activities are monitored from the fundamental of Windows operating system. Whenever any data is updated in the hard drive, the updated data is backed up in real time. Data can be restored even after the hard drive is formatted. In just a reboot, all computer data can be restored instantly.

- **Multi-Point Switch**

Support multi-point recovery function. The hard drive can be rapidly restored to the state of the recovery point specified by the administrator. The hard drive state can be freely switched Back and FORTH between different recovery points without destructing any data.

- **Flexible Protection**

Selecting particular partitions to be protected during installation enables flexible protection.

- **Monitor Hard Disk Space**

The available space of the hard disk is monitored all the time. When it falls down to a certain level, a warning will be prompted immediately to remind the user to update the “primary recovery point”.

- **Dynamic Hard Disk Space Management**

Hard disk space is managed dynamically and allocated in the most efficient way by Systurns. There is no need to reserve certain space for buffering during installation.

- **UPS Resume**

When a large volume of data is transferred in the hard disk during data saving, it may cause data loss due to the intentional interruption, power outage or irregular shutdown. With the “UPS Resume” feature, after system restarts, it will automatically pick up from where it left off and continue the unfinished work. No data will be lost.

- **Strong Protection Effect**

Even when Windows operating system crashes, “Systurns” can still perform “system recovery” function and instantly restore the hard disk to the state of the specified “recovery point”. The computer system is completely secured.

## ◆ Handy “Image Backup / Restore”

“Systurns” Instant Recovery & Centralized Management Solution allows the administrator to set multiple “recovery points” for instant recovery purpose while a problem occurs. It can also back up certain partitions or the entire hard disk of a specified Client PC into an “image file” for future hard disk restoration purpose. Therefore, “Systurns” provides double protection mechanisms.

“Systurns” completely integrates “system recovery” and “image backup/restore” functions. “System recovery” function can be included in the image file while performing image backup/restore. Thus, there is no need to repeatedly remove and re-install “system recovery” software. Maintenance tasks for all computers can be easily done from Console PC so that the maintenance cost and time can be greatly reduced!

**Notes:** Many public access computers are protected by “system recovery software”. Many administrators also use “image backup/restore software” such as Symantec Ghost at the same time to protect the system. However, most “system recovery software” and “image backup/restore software” in the marketplace are not integrated together and can’t be performed simultaneously.

When IT administrators pursue routine computer maintenance such as Windows Update, anti-virus update, install game patch or add/remove application, they usually also create an “image file” as backup for future restore purpose. Whenever the computer has a problem and “system recovery” doesn’t work well, they will use the “image file” to restore the system.

To execute image backup/restore, the administrator must remove “system recovery” software in advance. After image backup/restore is finished, the administrator has to re-install “system recovery” software again in order to protect the system. Thus, when implementing two sets of system rescue programs together to avoid computer disasters, it usually requires removing and re-installing “system recovery” software. Even though the purpose of protecting computers can still be achieved, some repeating operations are bothersome

- **Backup & Restore**

The administrator on Console can back up certain partitions or the entire hard disk of a particular Client as an independent “image file”. The image file can be saved on a specific local or external hard disk for future hard disk data restoration purpose.

- **Image File**

Image files for backup support file splitting, encryption and compression.

- **Cost Cutting**

To efficiently manage public access computers, many administrators use not only “system recovery software” but also “image backup/restore software” to sharpen the protection. “Systurns” has fully integrated “system recovery” and “image backup/restore” functions. This can cut down software costs.

- **Simplified Procedure**

“Image backup/restore” can be directly performed without removing “system recovery” software in advance. This means the “system recovery” function of “Systurns” is compatible with “image backup/restore” function.

- **Require No Boot disk**

When performing “Backup Manager” function from Console PC, no boot disk or other device is required to boot up Client PCs.

- **One-To-Many “Image Restore”**

An image can be simultaneously transferred from Console PC to maximum 253 Client PCs.

- **Multiple Protocols Supported**

Three communication protocols are provided to execute “image restore”: P2P, Multicast and Broadcast. The administrator may select one according to the on-site network equipment and environment.

- **Flexible Operations**

Image backup and restore for Client PC can be executed from either Console PC or local Client PC.

- **Automatic Setting**

After an image is restored to multiple Clients, the settings such as IP address, subnet mask, gateway address, computer name and DNS will be automatically changed as pre-set by the administrator. There is no need to go to each Client to start up the image restoration program or change the settings.

- **Back Up to Different Computer**

Back up the operating system, application programs and data of the computer into an “image file” which is saved in a different hard disk or storage device and can be used to create a bootable disk.

- **Recovery Disc**

Make a recovery disk with the “image file”

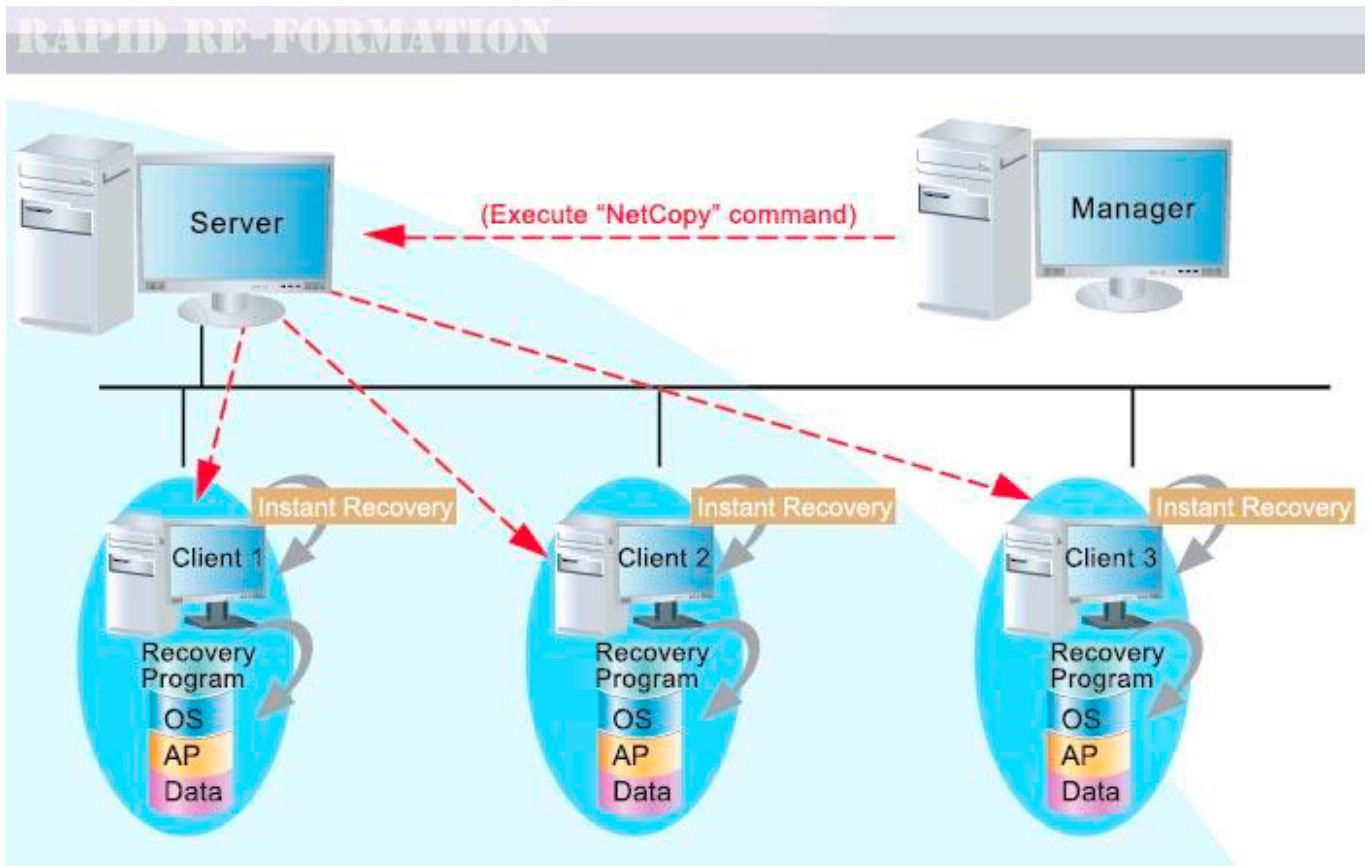
◆ **Speedy “NetCopy”**

“NetCopy” function copies the complete hard disk data of Server PC to the selected Client PCs in the network. The implementation of the operating system and all application programs can be done shortly. “NetCopy” makes the system establishment and data maintenance much easier.

NetCopy provides a new feature “incremental copy” which allows the administrator to copy only the incremental data of Server PC to the specified or all Client PCs. There is no need to copy all data in the entire hard disk. This can greatly enhance the copy efficiency.

[Type1]:	<p><b>Sender Operation Mode</b>                  (1) Network configuration On Sender PC, pre-set network configurations (IP, subnet mask, gateway, computer name and DNS) for Receiver PCs.                  (2) Execute NetCopy Copy data from Sender PC to all Receiver PCs.</p>
[Type 2]:	<p><b>[Type 2]: Console Operation Mode</b>                  Select a computer as Server PC. Then execute “NetCopy” on Console to copy the data from Server to all Client PCs.</p>





☆ **Start NetCopy without A Boot Disk**

NetCopy is performed directly from Server PC and doesn't need a boot disk or other device to boot up Client PCs.

☆ **Efficient HD Copy through Network**

Copy partial partitions, all partitions, or the entire hard disk (sector by sector) of Server PC to numerous Client PCs simultaneously.

- Three types of NetCopy: partition to partition, disk to disk and sector by sector.
- Transmission rate can reach 6Mbps or more.

☆ **Network Driver Support**

Using NDIS driver to perform NetCopy greatly increases the compatibility with network cards. NDIS driver makes NetCopy easy-to-use and unaffected by the limitation of network environment.

☆ **Support Copying from Small HD to Large HD**

☆ **One-To-Many “NetCopy”**

NetCopy supports synchronized hard disk copying for up to 253 Clients under the same subnet.

☆ **Automatic Settings**

To perform one-to-many NetCopy, the administrator doesn't have to go to each Client to start up NetCopy program.

For the environments with multiple identical computers, the parameters (e.g. IP address, subnet mask, gateway, computer name and DNS) of network configuration for each Client.

PC can be pre-set before performing NetCopy. Then the whole hard disk contents of Server PC will be completely and quickly copied to one or multiple Client PCs. The network configuration of each Client PC will be automatically changed as pre-set. The administrator doesn't need to approach each Client and reset its network configuration.

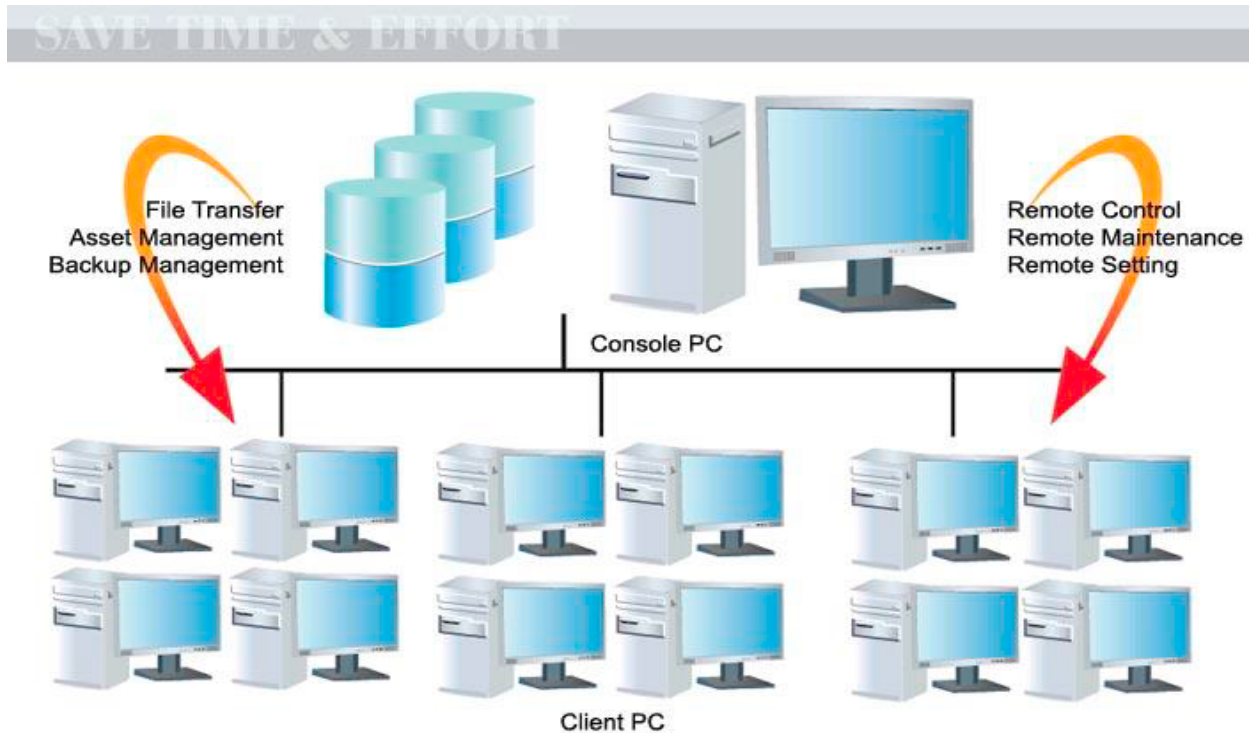
After the parameters of network configuration for each Client PC are set, NetCopy allows users to save and export the settings for future use.

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◆ **Convenient “Centralized Remote Management”**

“Systurns” supports two different network environments including LAN and WAN. Installation of Systurns Console enables the administrator to do “remote control”, “remote maintenance”, “remote setting” “file transfer” “file transfer”, “asset management” and “backup management” to one, partial or all Clients through LAN or WAN. Numerous Clients are centrally managed and maintained.

“Systurns” is designed to cover the applications for both PC management and repair maintenance. The IT administrator located at Console PC can do routine management works to all Client PCs by various networked functions of “Systurns” through network. Whenever a client has a problem, the system can be instantly recovered by “system recovery” feature or restored by “image backup/restore” feature.



## ☆ Centralized Management

The administrator at Console PC can perform Remote Maintenance, Remote Control, Remote Setting, File Transfer, Asset Management to Client PCs through network. Functions such as recovery, save recovery point, asset inventory, software & hardware asset report, check Client properties, NetCopy, image backup, image restore, PowerSave management can be executed from the central Console PC through network. When performing “remote function”, the administrator can select one, multiple or all Client PCs.

## ☆ Centralized Maintenance

“SysTurns” completely integrates “networked system recovery” and “networked hard disk backup” functions. Maintenance tasks for all computers can be easily done by the administrator from Console PC.

## ☆ Group Management

For different Client properties, the administrator can create several Client groups in order to maintain and manage different systems. Clients can be divided into up to 30 groups for 1~30 Consoles to manage. Different groups do not interfere with each other.