What is SANergy, How does it work, What's it good for ?

Dimitri Chernyshov Marketing Manager - SANergy Team Storage Business Unit







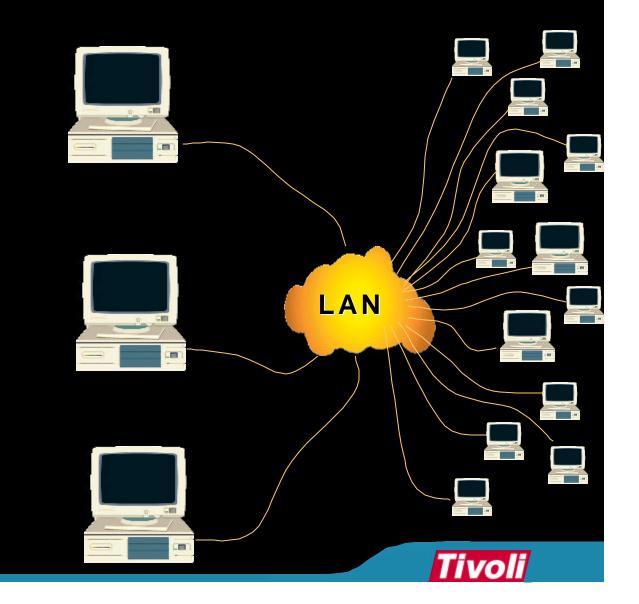
### Three Ways to use Storage Area Networks

- 1. Physically Consolidated Storage All your storage in one geographical location
- 2. Partitioned, LUN Masked RAID All computers using one RAID, many File Systems
- 3. Shared File System and (maybe) Shared Files
   All computers using same RAID + File System
   Share same Files between same Apps



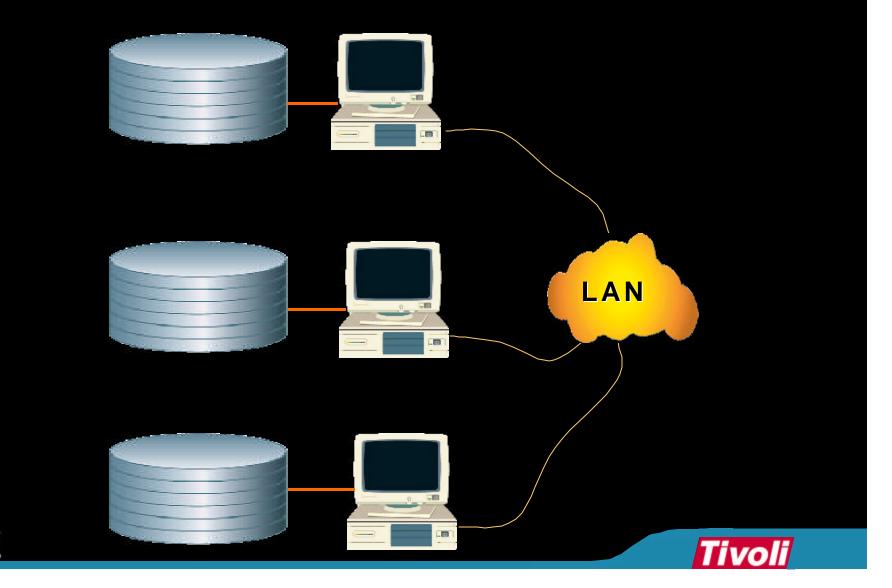


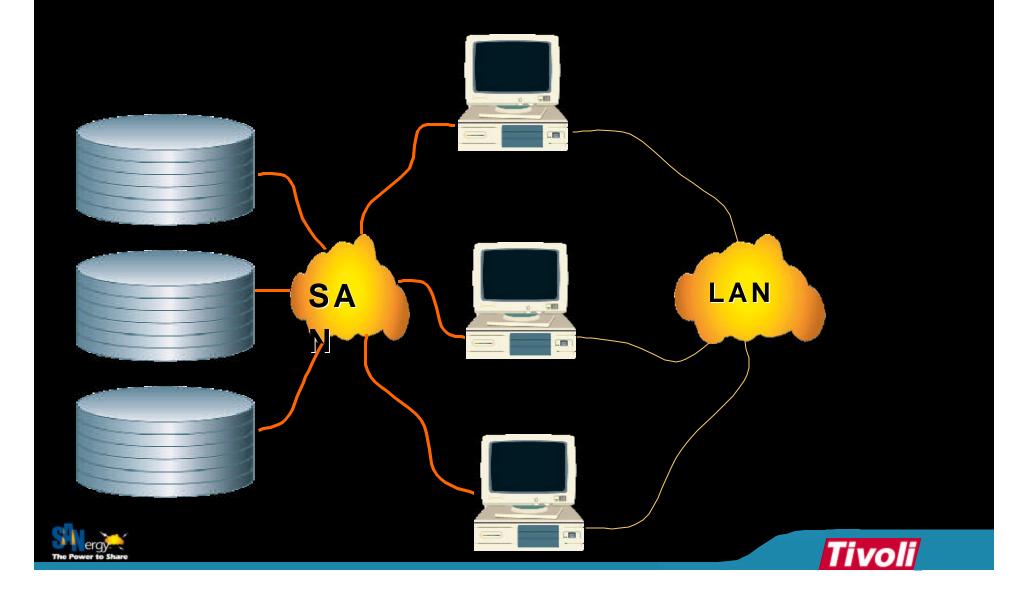
## What Business' have now (pre-SAN)

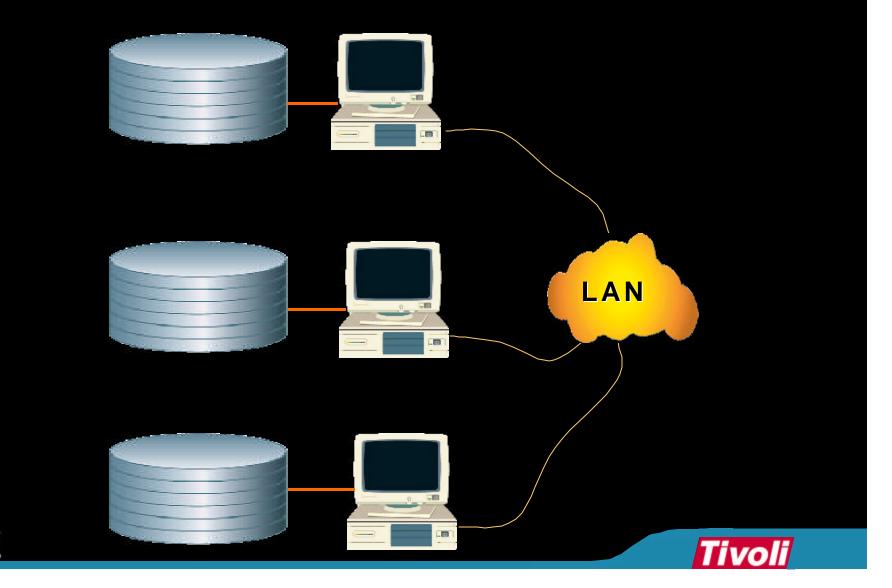


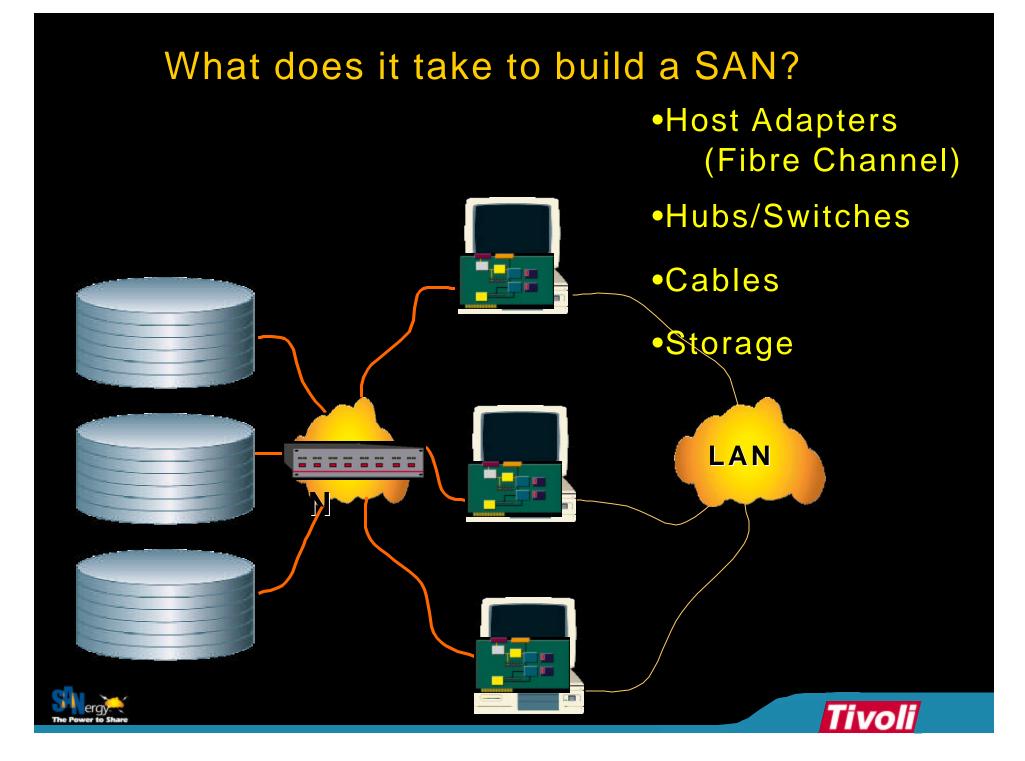


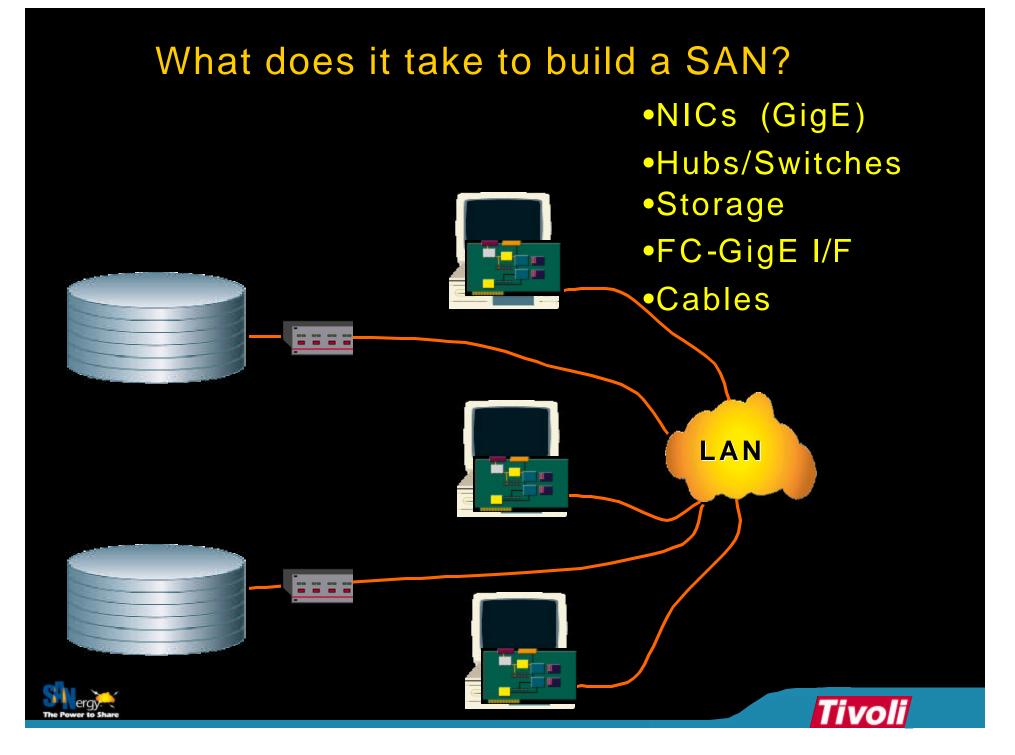
# What Business' have now (pre-SAN) Each Computer has it's own Storage Device Heterogeneous 0 **Computer Mix** NT •Low-Bandwidth **Data Sharing** Solaris LAN AIX Tivoli

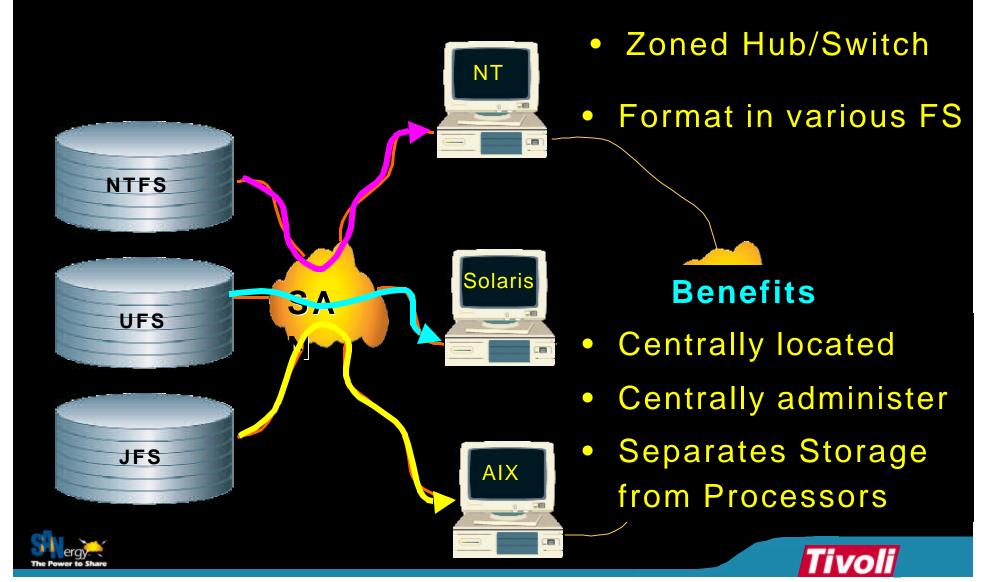




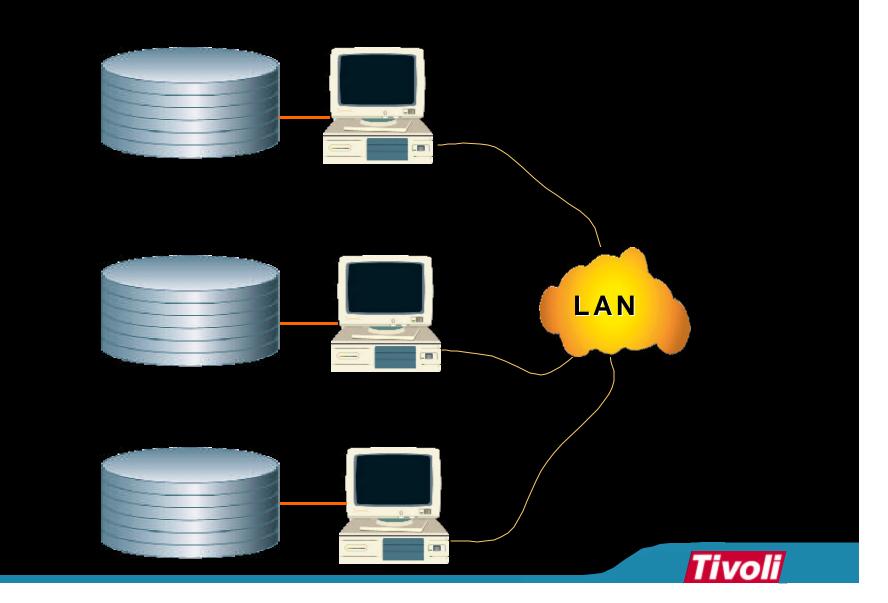






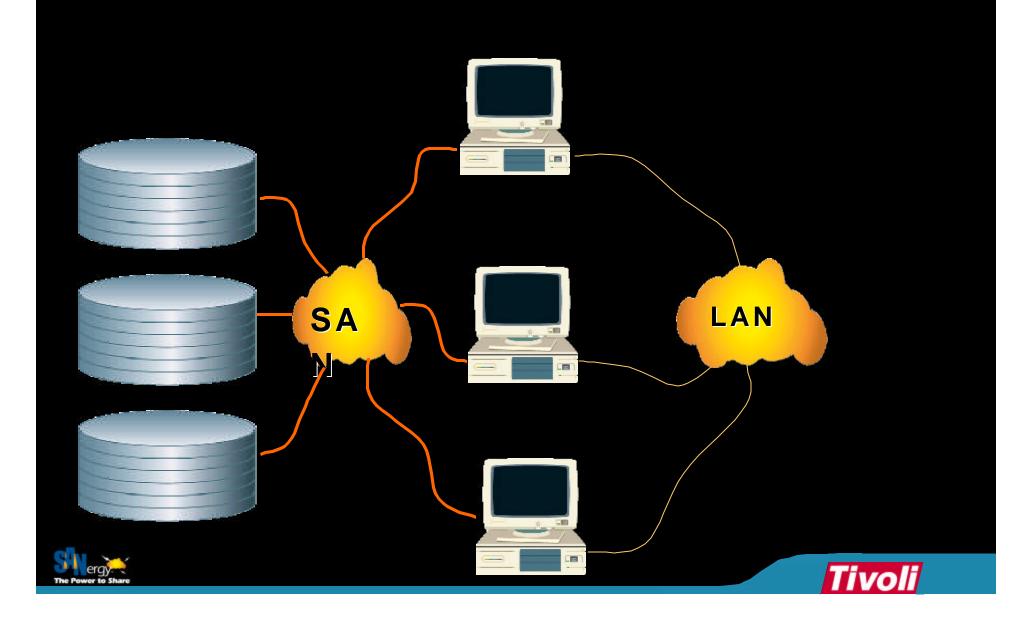


### **SAN Implementation #2**

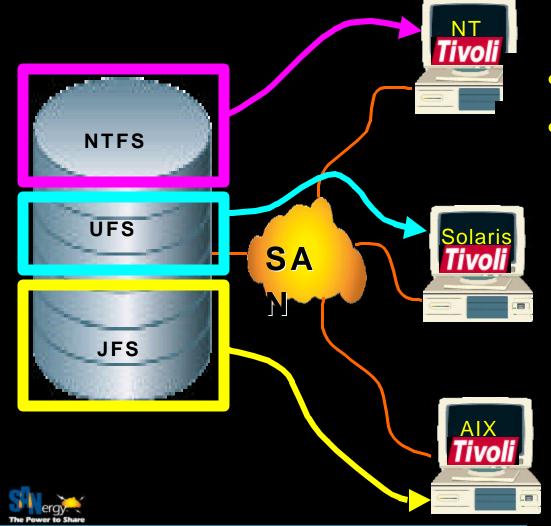




### **SAN Implementation #2**



## SAN Implementation #2 "Partitioned, LUN Masked RAID"



- Install LUN-Manager
- Divide storage
- Assign Pieces
- Format in various FS

- Centrally Located + Administered
- Increased Storage Reliability with RAID
- Amortized RAID expense

# SAN Implementation #2 "Partitioned, LUN Masked RAID" CONs Allocations not very flexible

Solaris

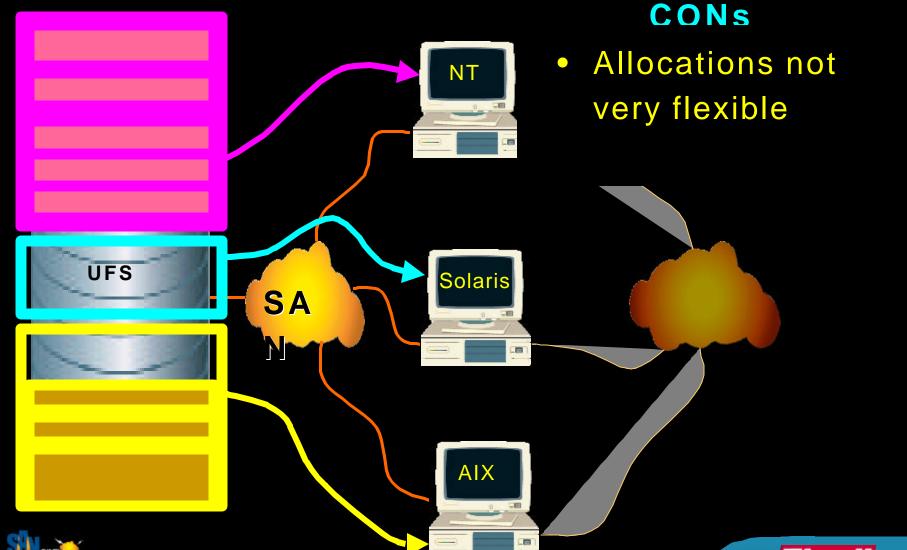
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Tivoli

UFS

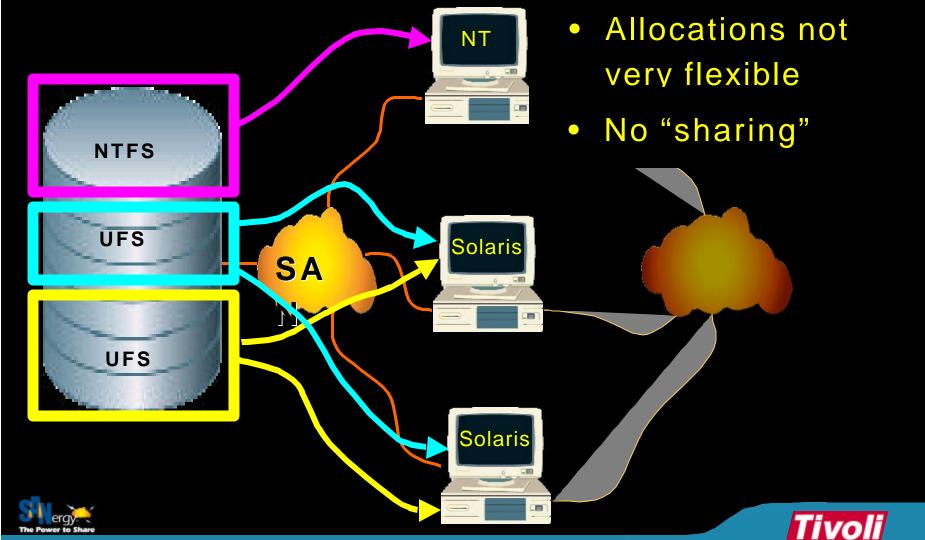
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# SAN Implementation #2 "Partitioned, LUN Masked RAID"

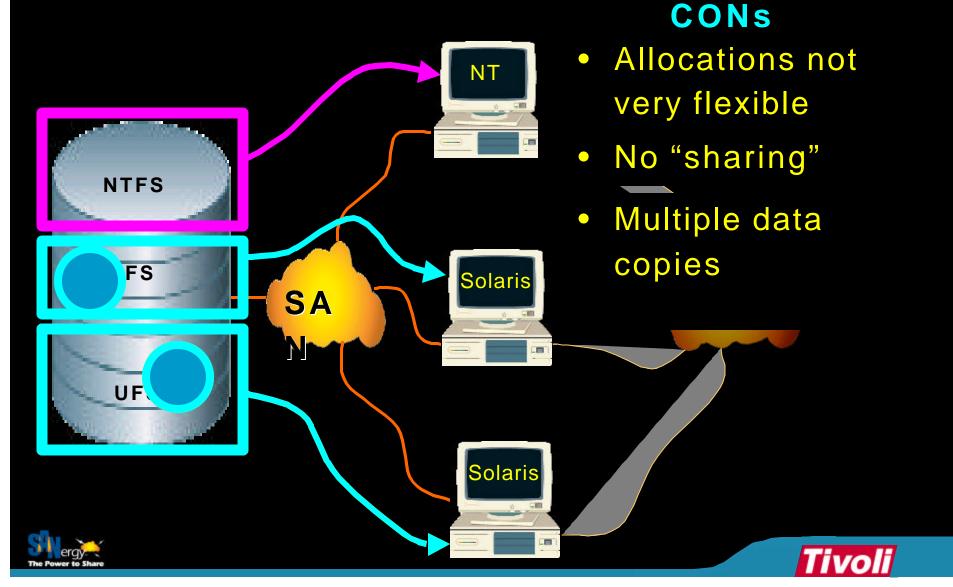




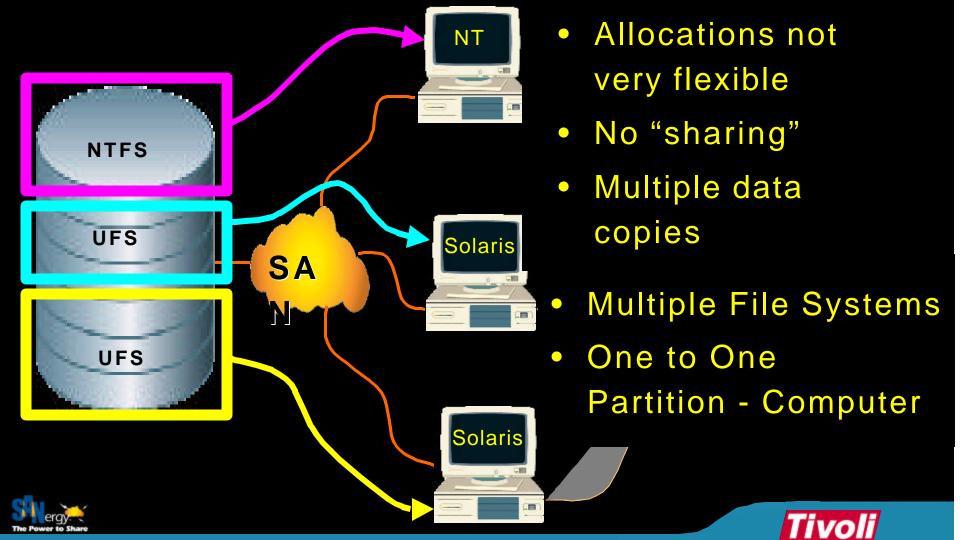
## SAN Implementation #2 "Partitioned, LUN Masked RAID" CONs

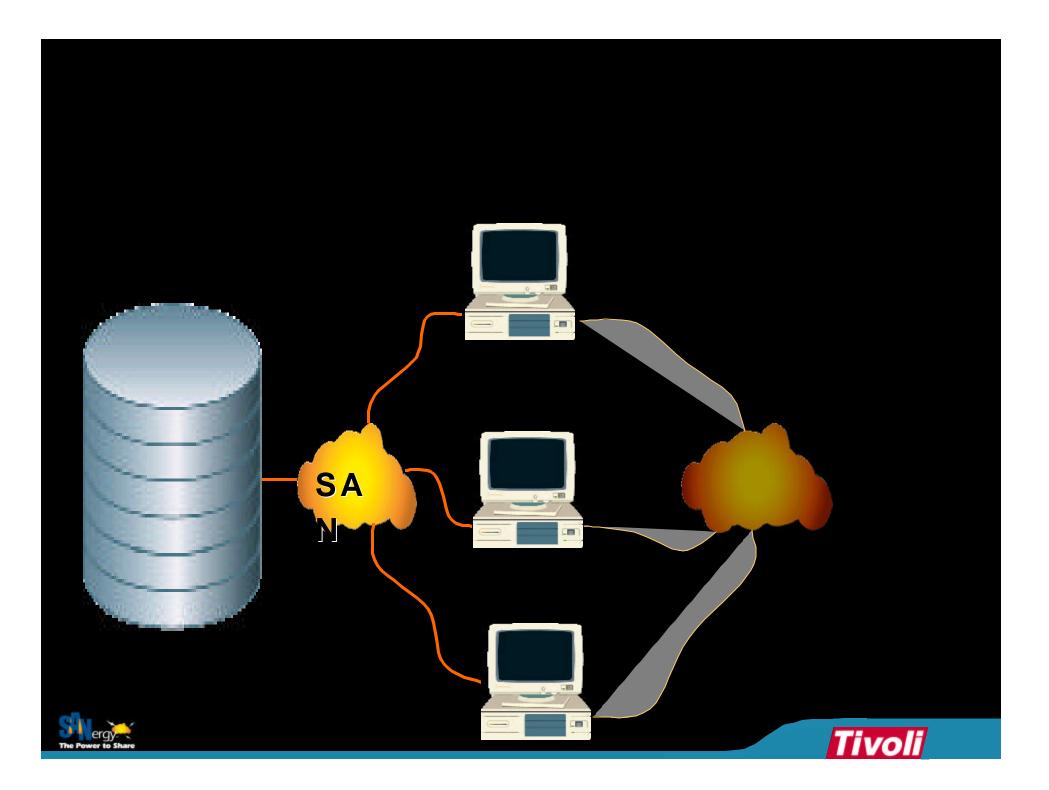


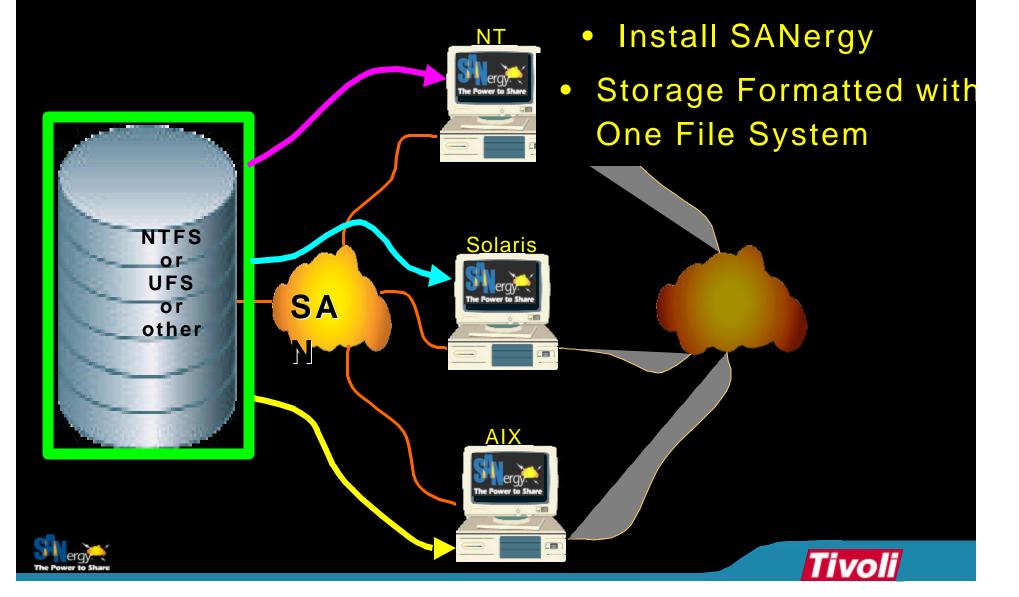
# SAN Implementation #2 "Partitioned, LUN Masked RAID"

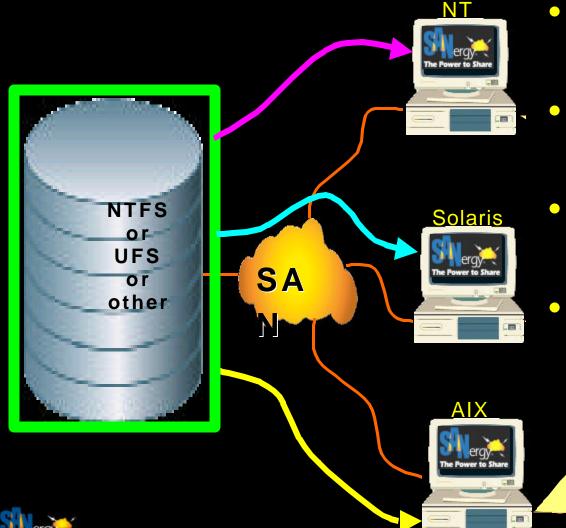


## SAN Implementation #2 "Partitioned, LUN Masked RAID" CONs



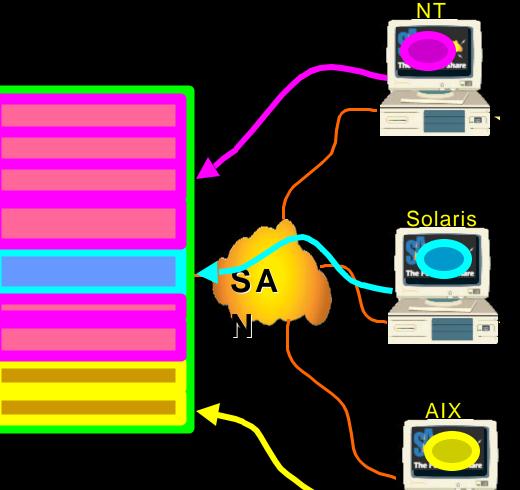






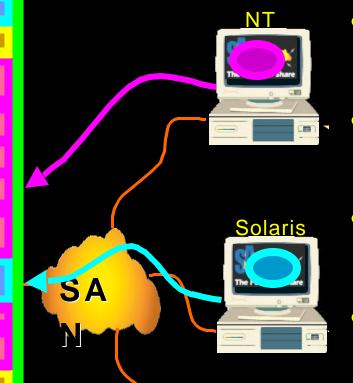
- Centrally Located + Administered
- Increased Reliability with RAID
- Amortized RAID expense
- Only One File
   System to Manage
- Flex Data Growth
  - less rebuilding





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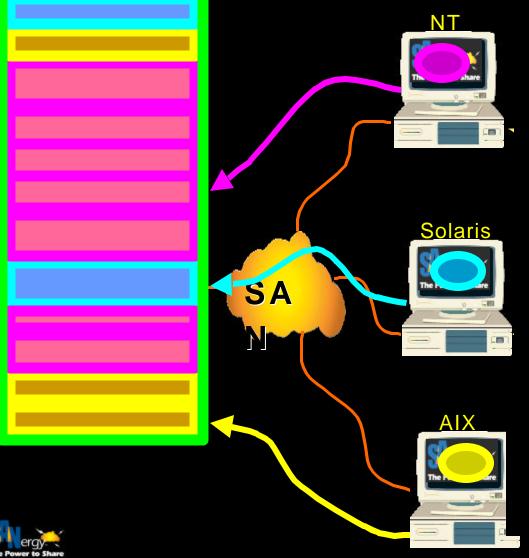




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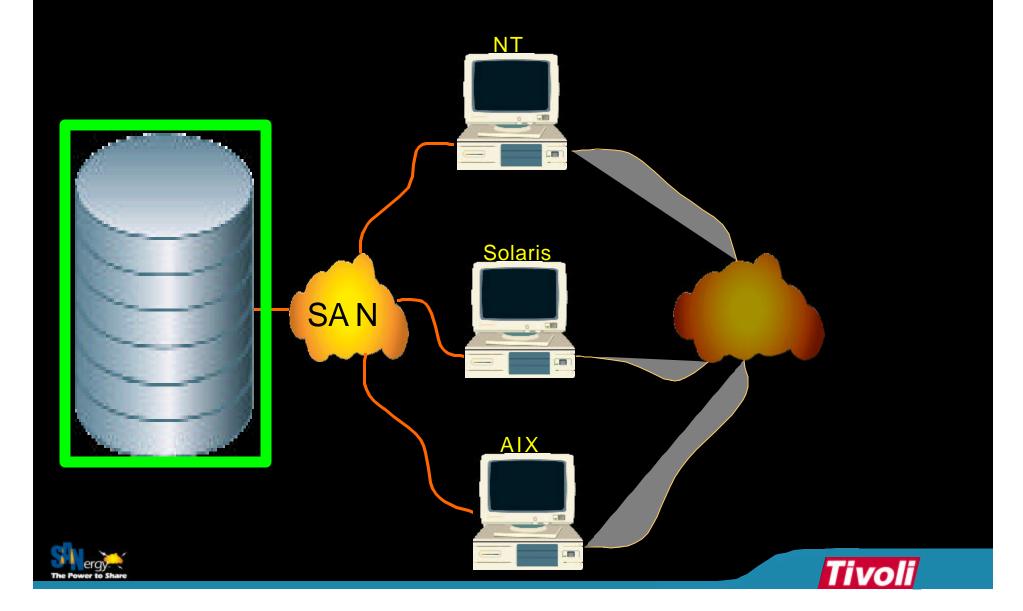


#### **Benefits**

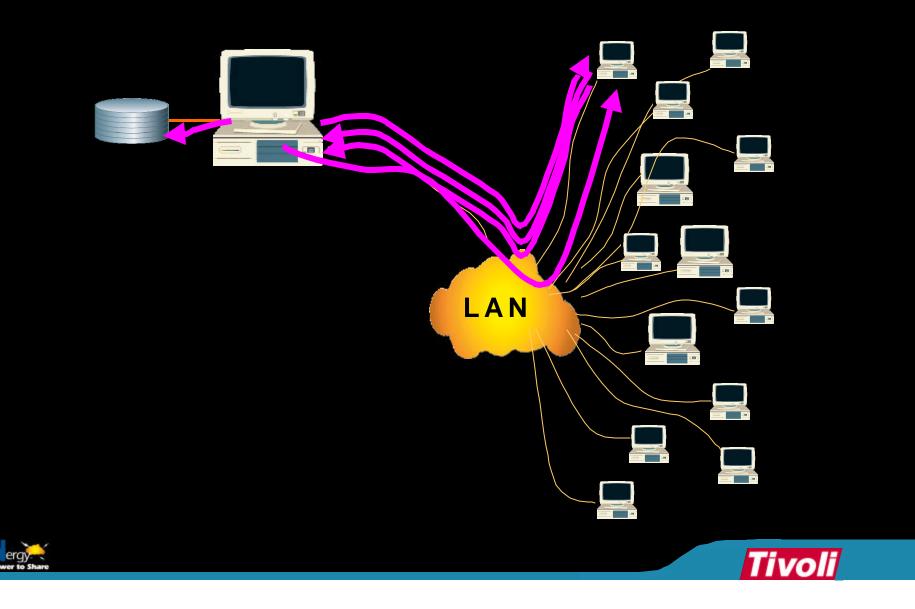
- Centrally Located + Administered
- Increased Reliability
   with RAID
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   less rebuilding
- One to Many Partition - Computer

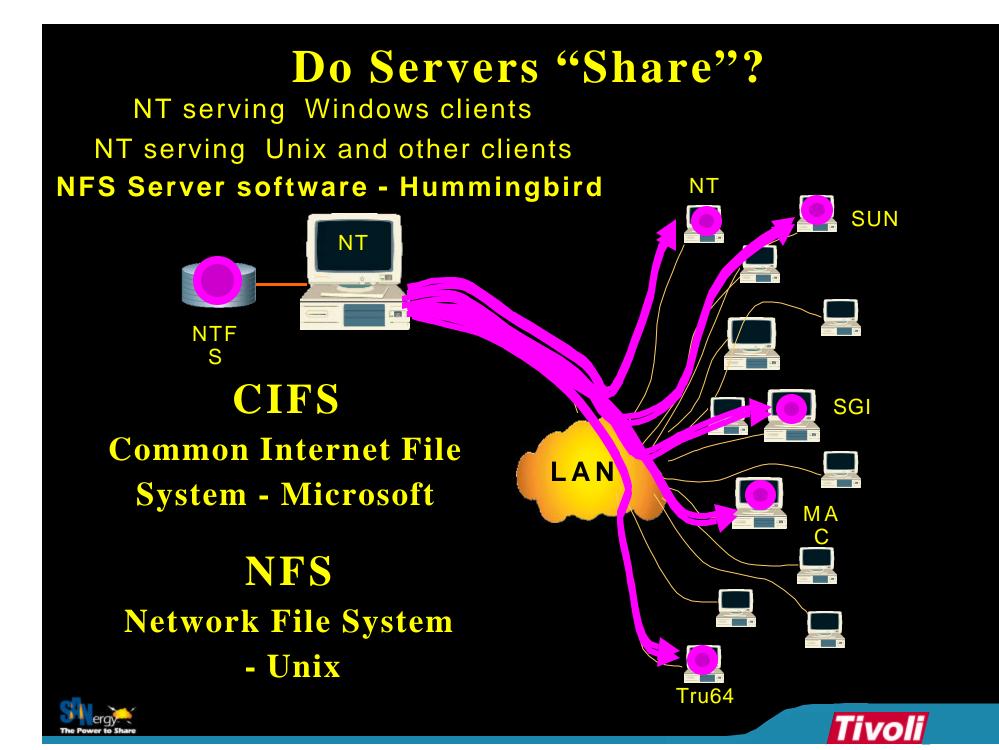
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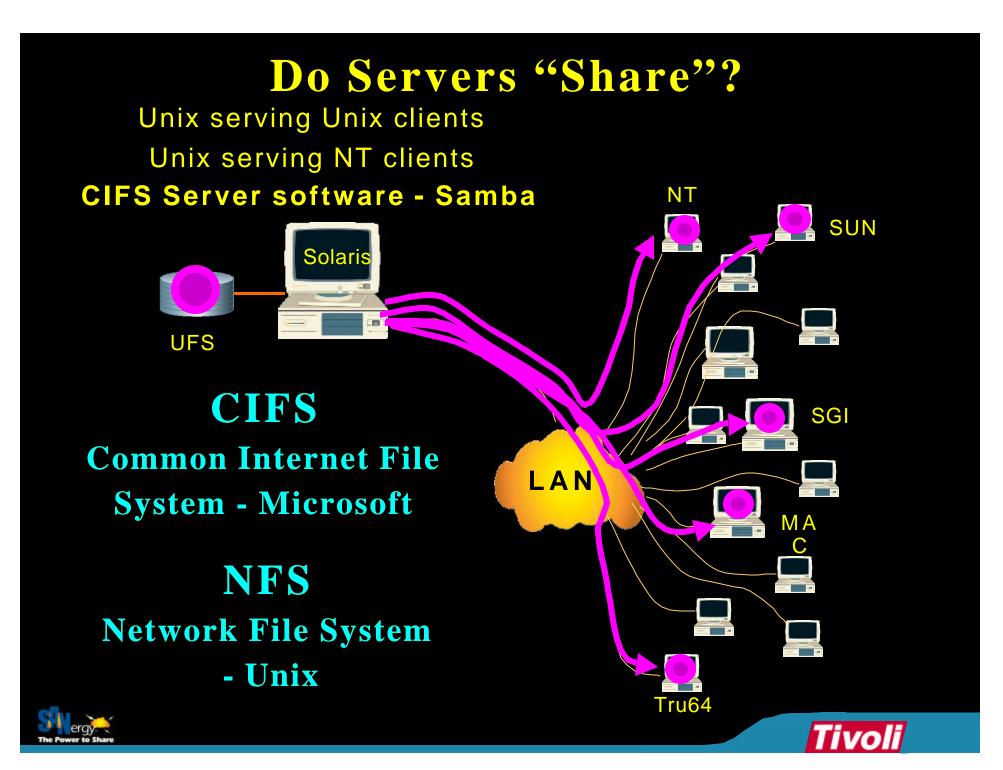
# **Can the SAN "Share Files"?**



## How do LANs and Servers work?





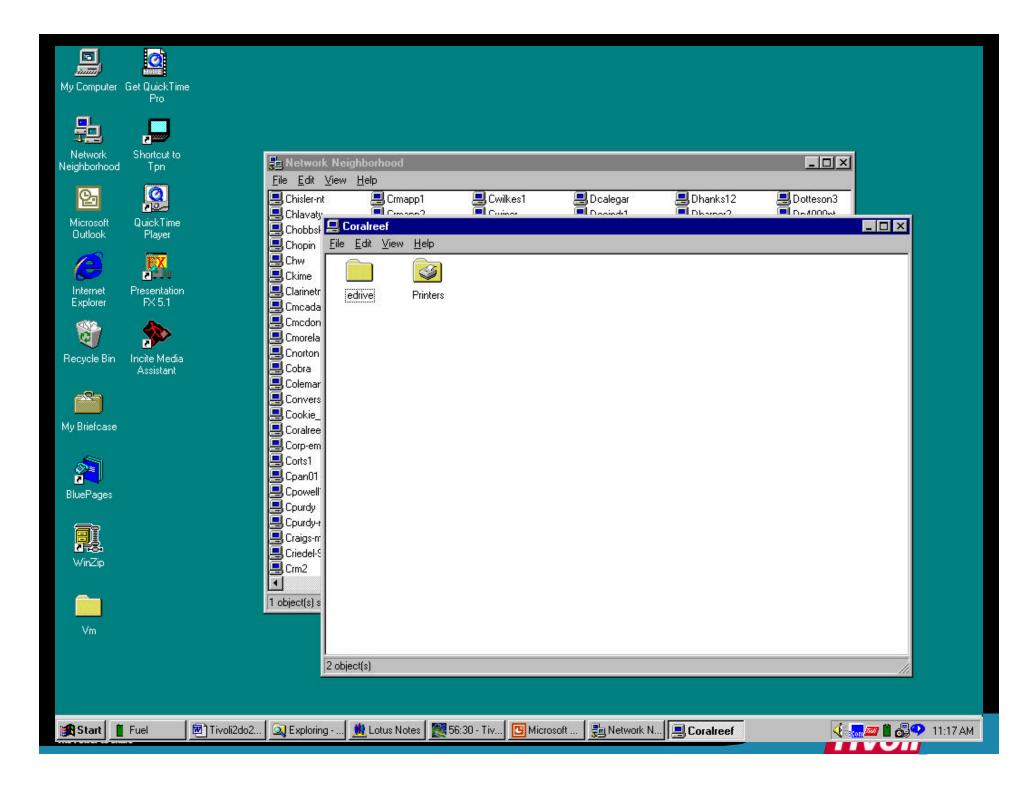


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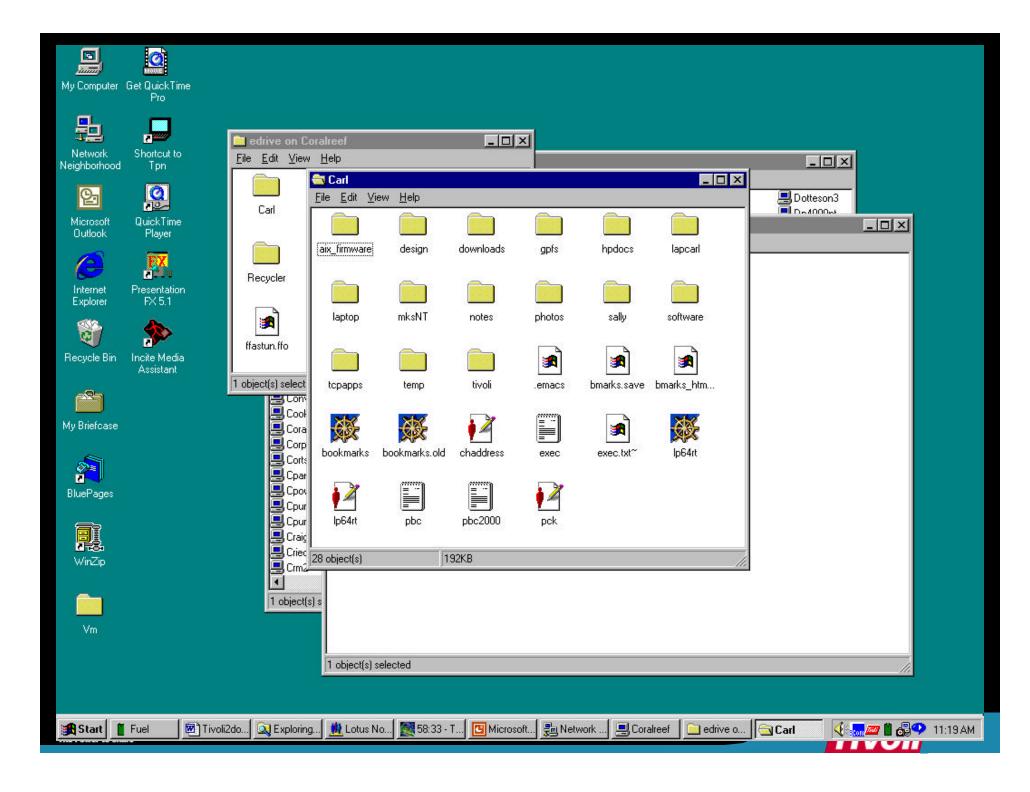
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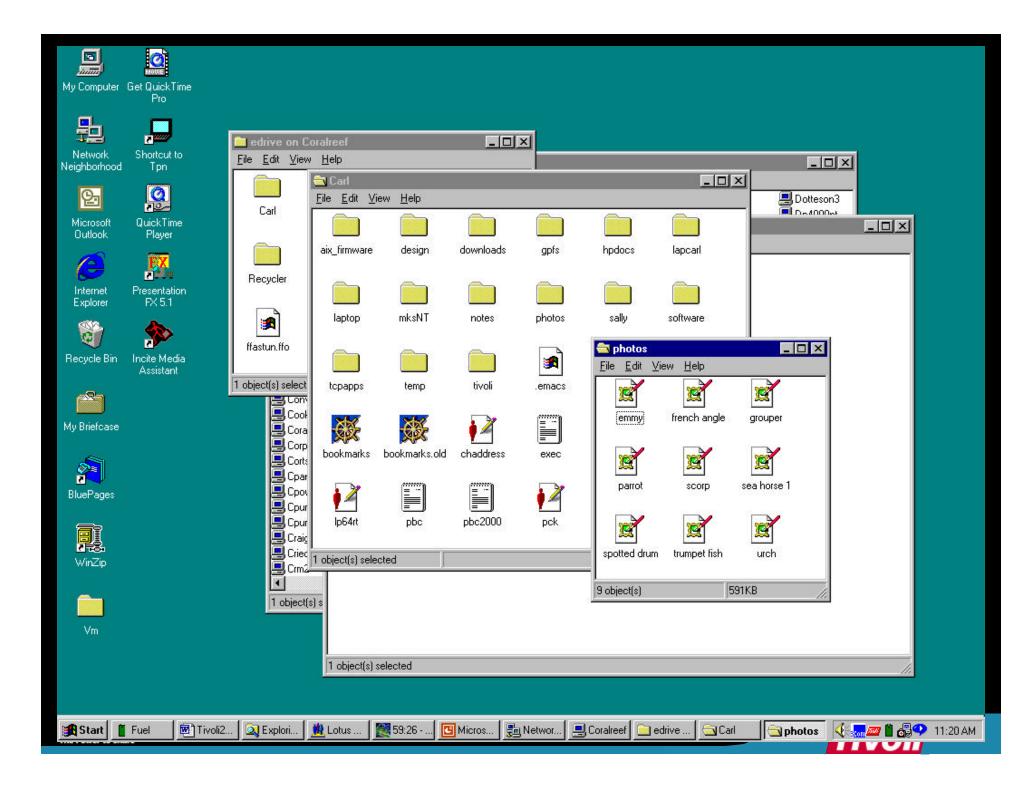
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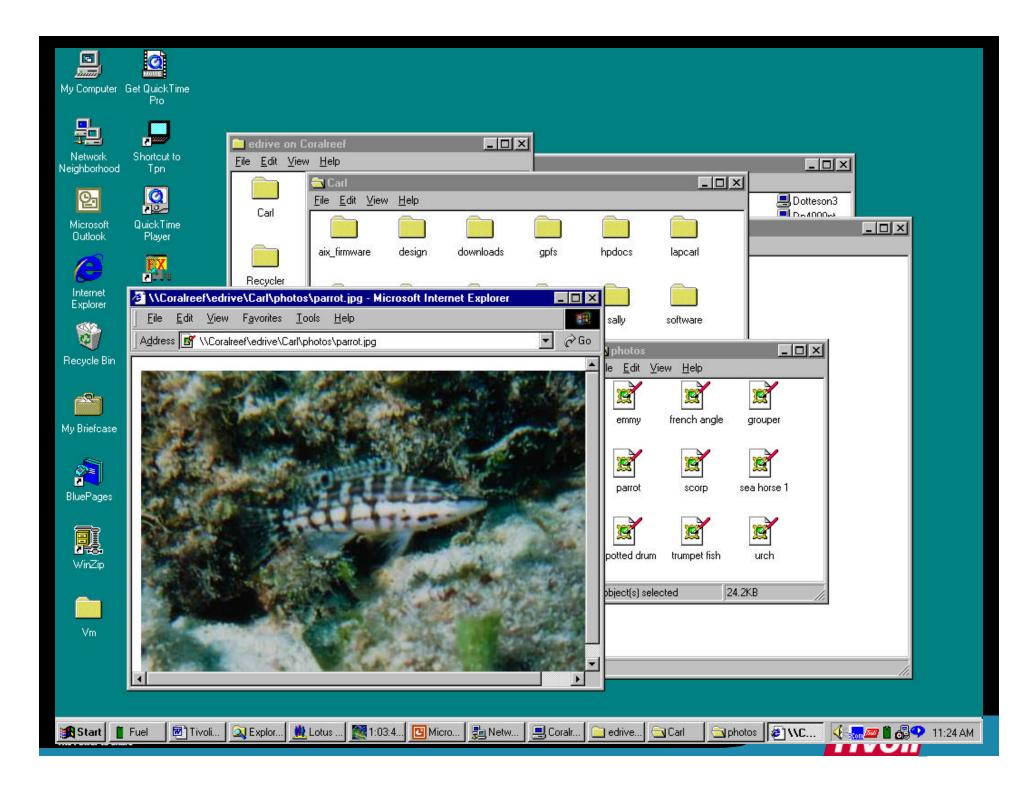
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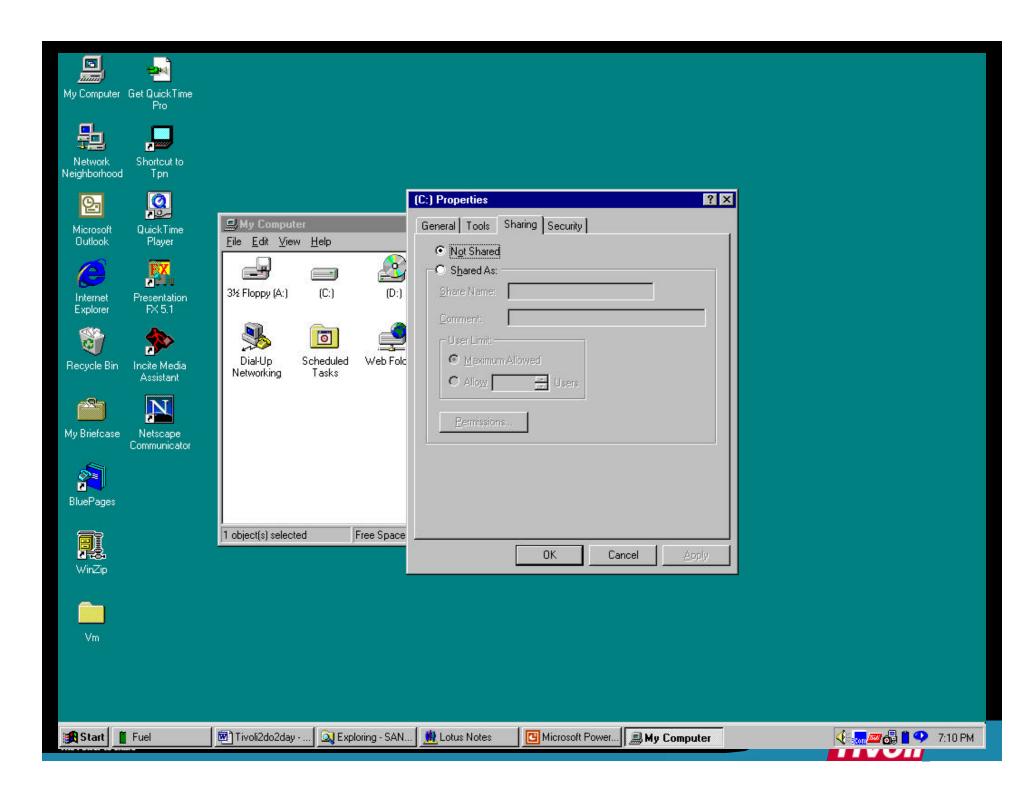
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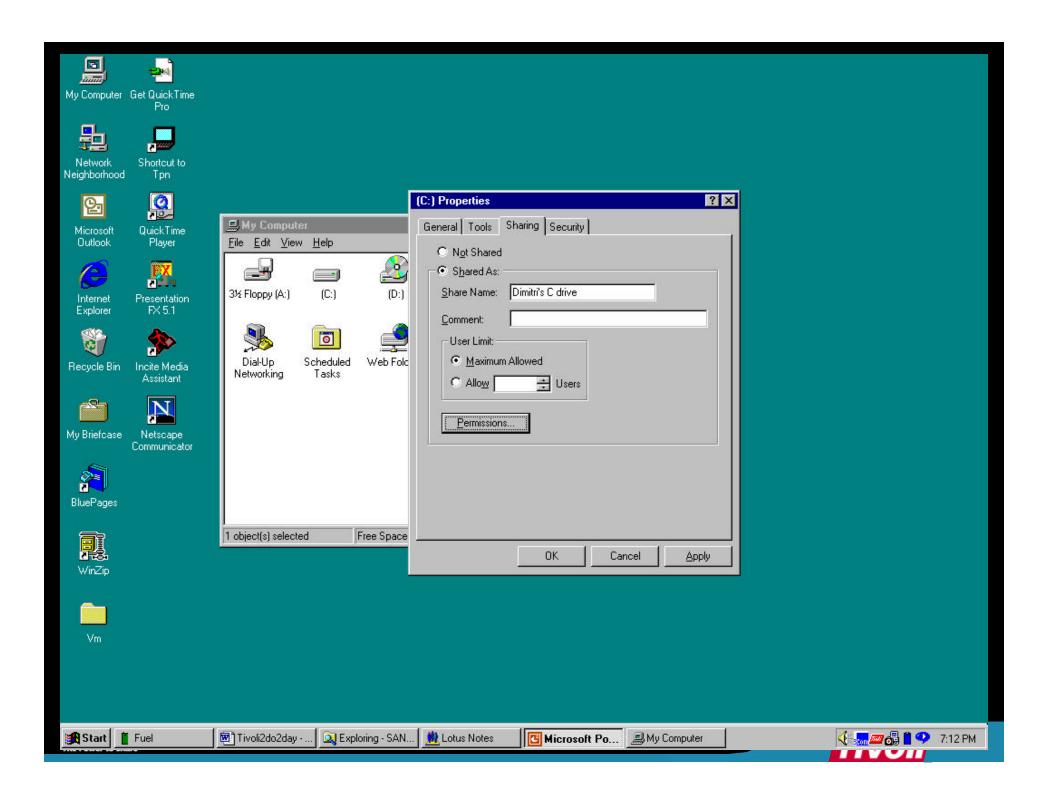
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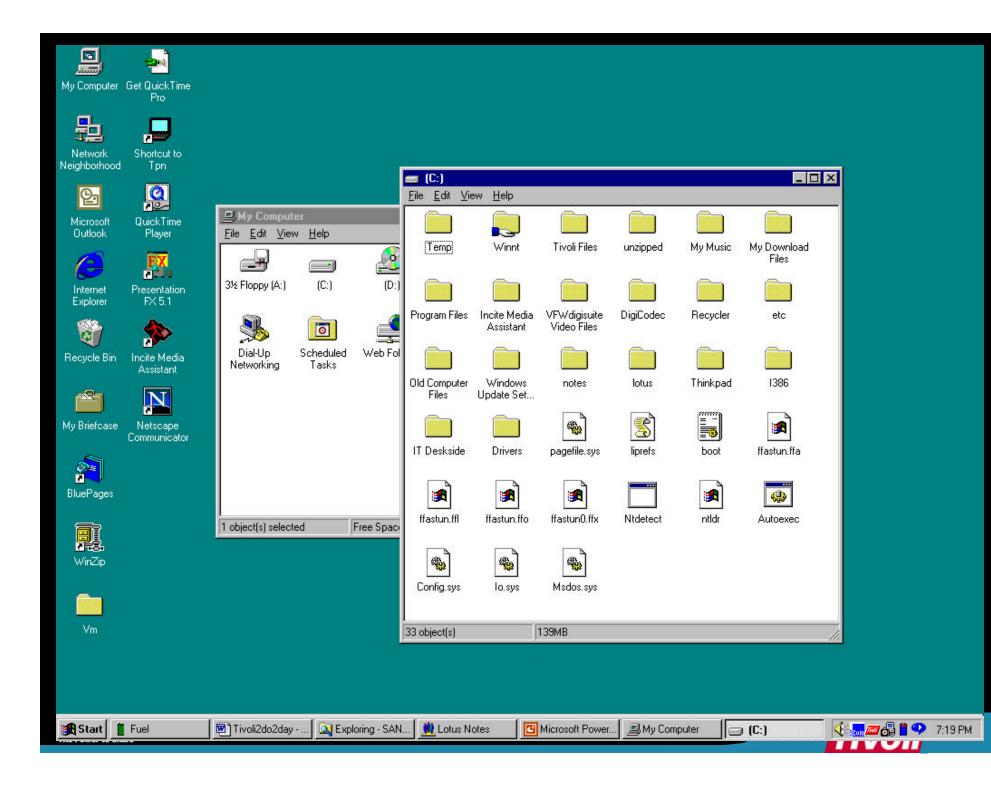
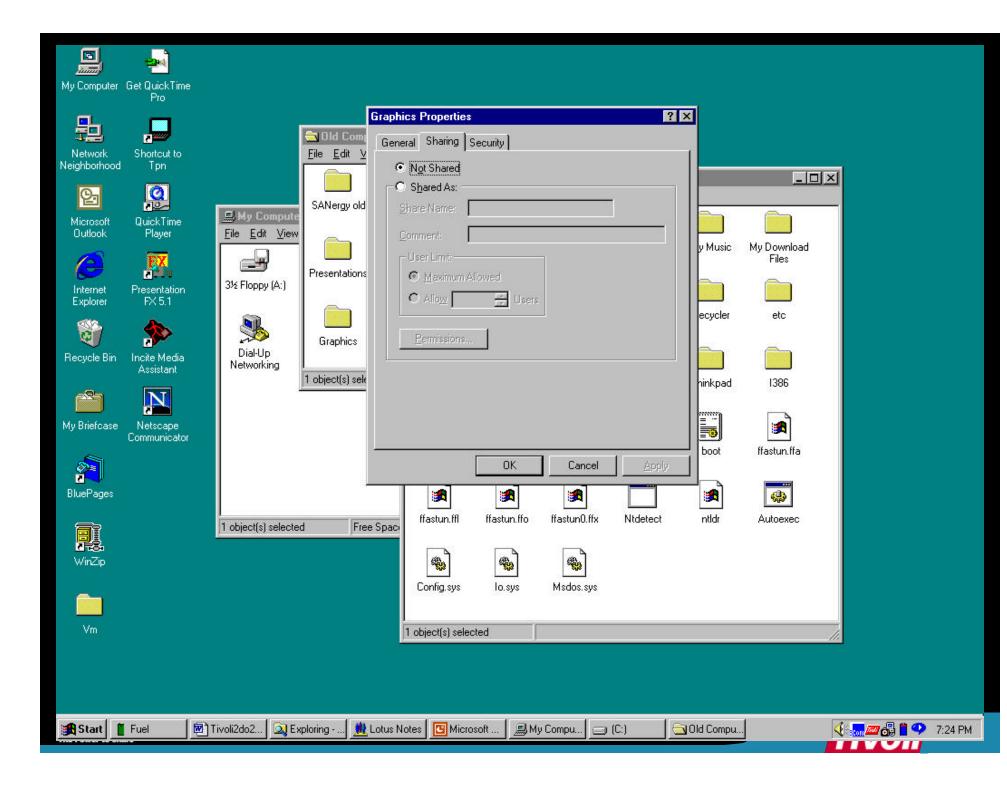


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## **Conclusion:**

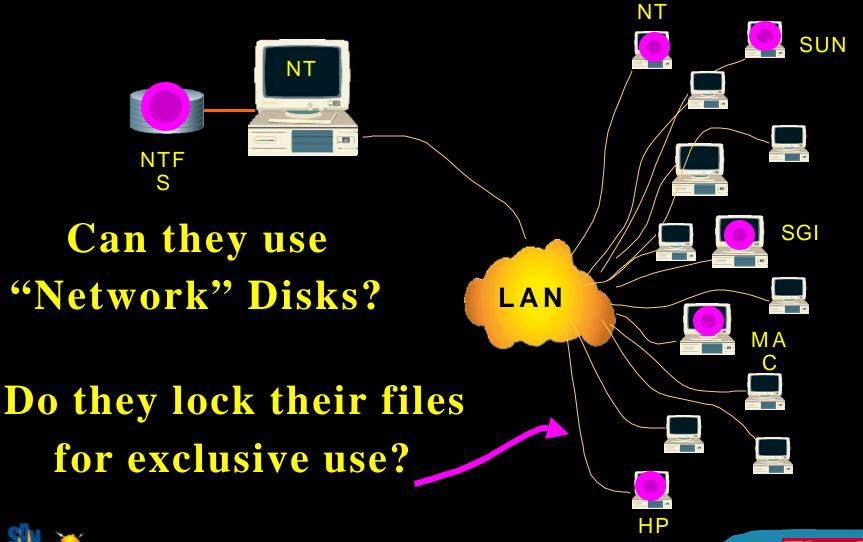
#### **Networks (LANs) Share Files**

## "Share Files" defined... Multiple computers can use the same files at the same time



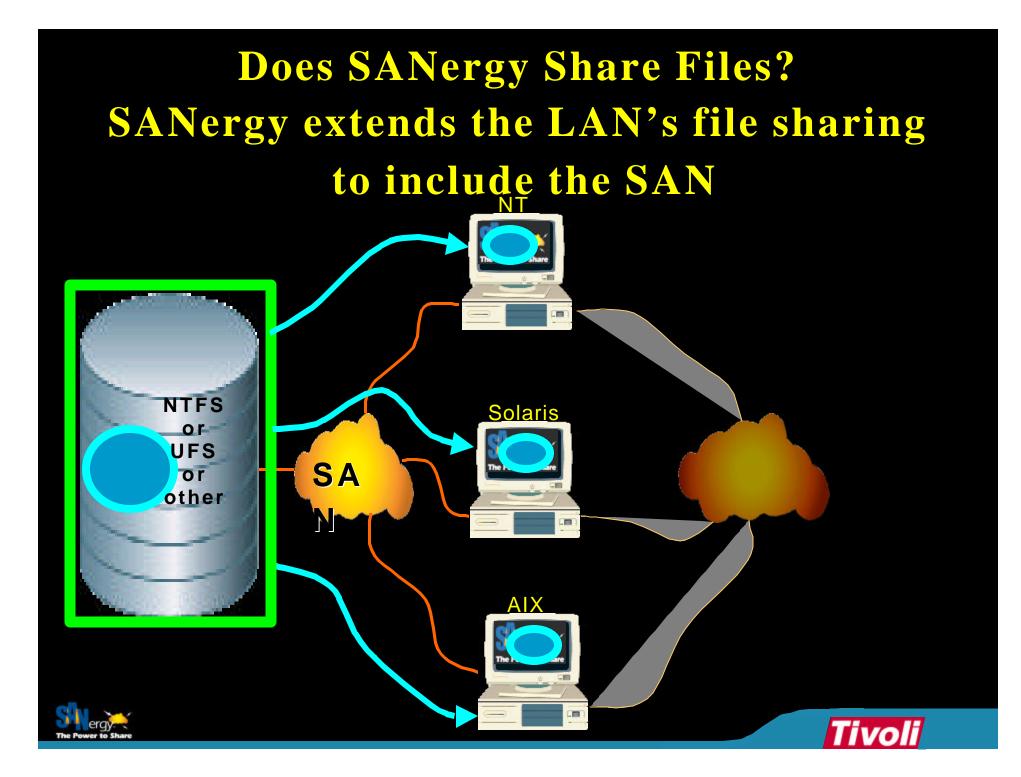


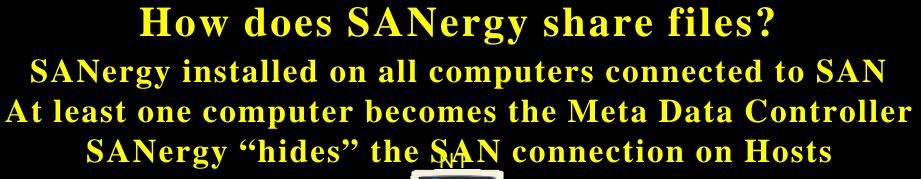
### **Do Applications "Share Files"?**

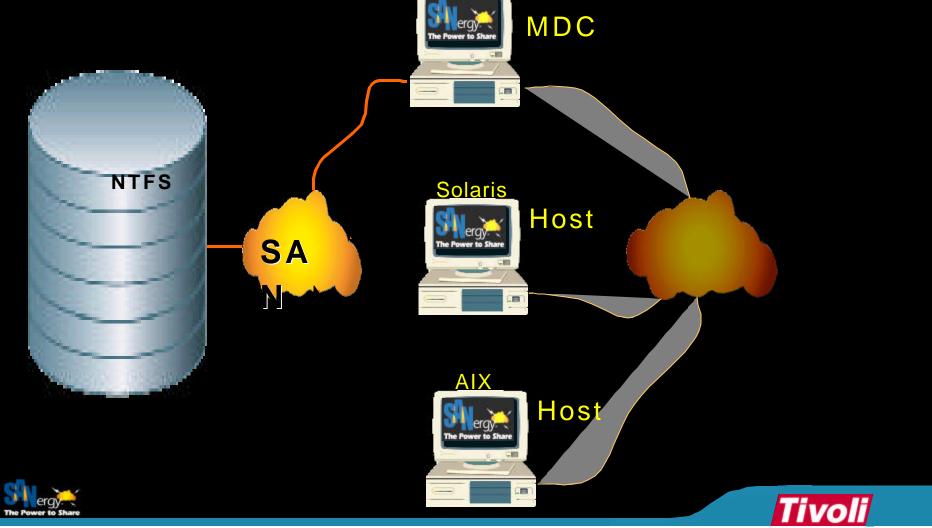


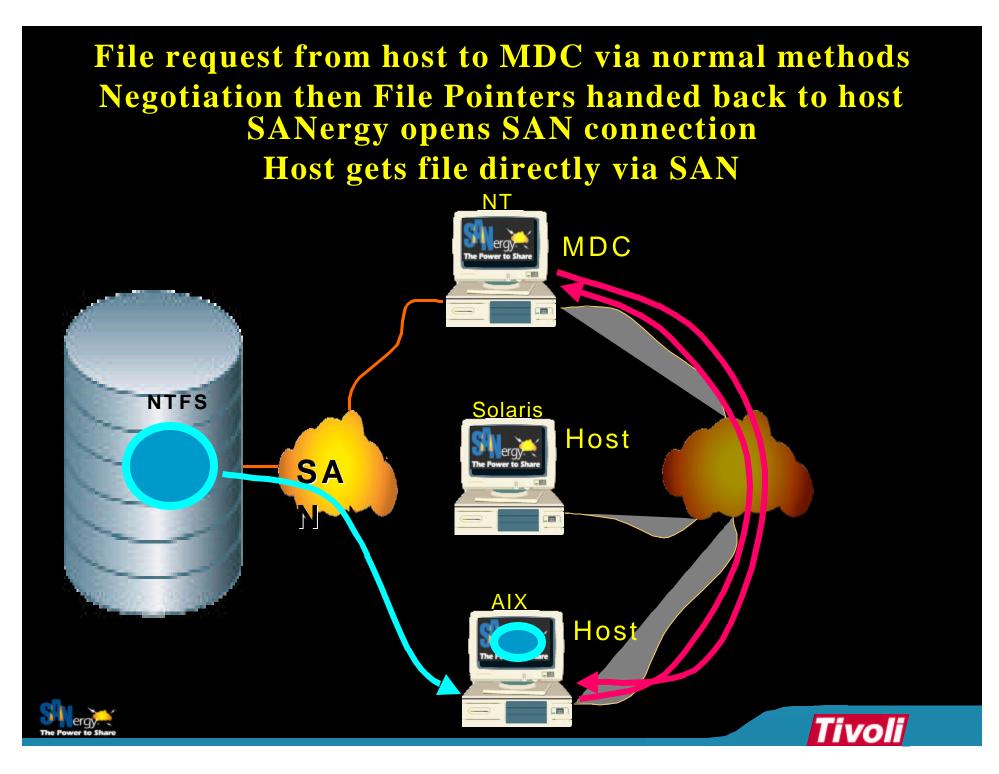






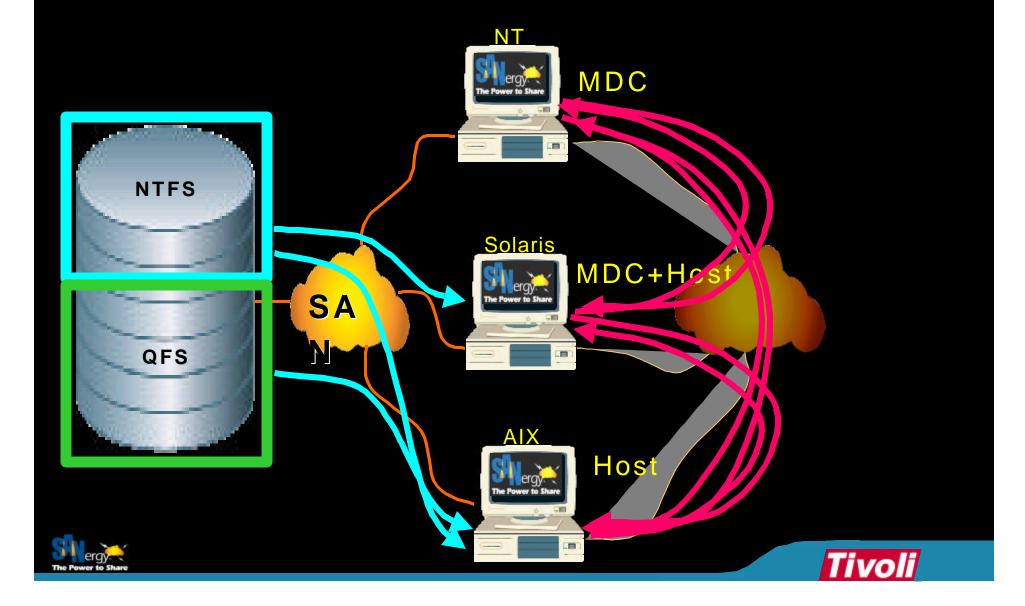






#### More Typical SAN with SANergy

Multiple MDCs, Multiple Hosts, Multiple File Systems



- greatly simplifies SAN-storage administration
- extends industry-standard networking to utilize the SAN
- broadens increased-data-availability protectio to include any application
- can reduce the total amount of storage required in a SAN

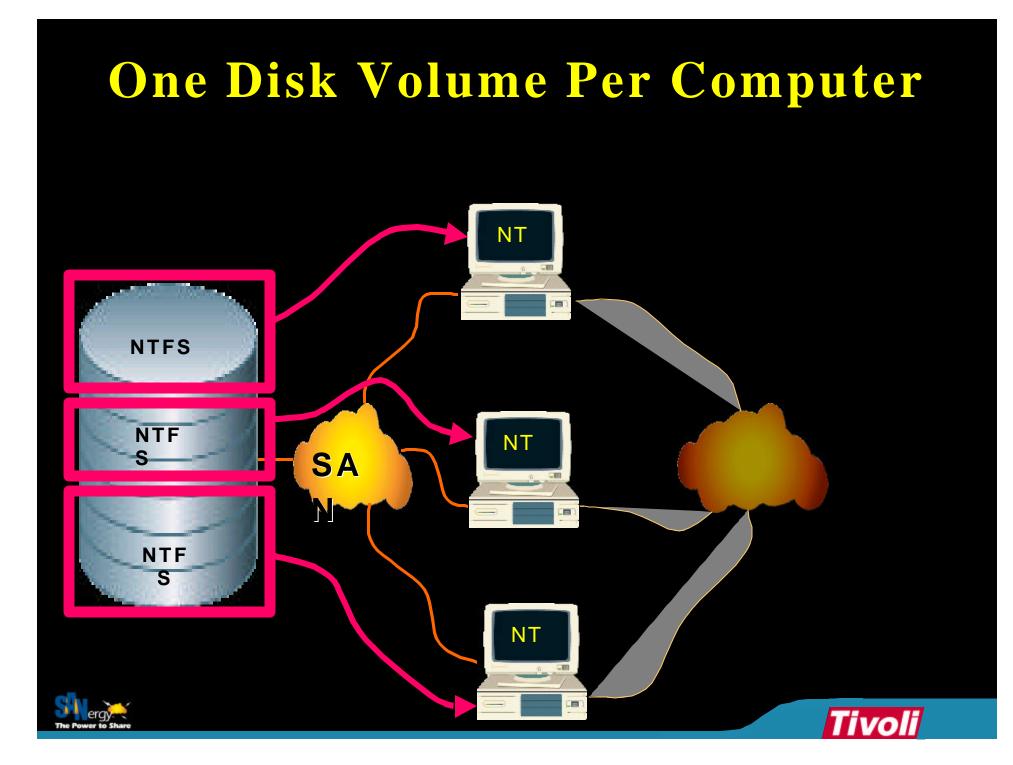




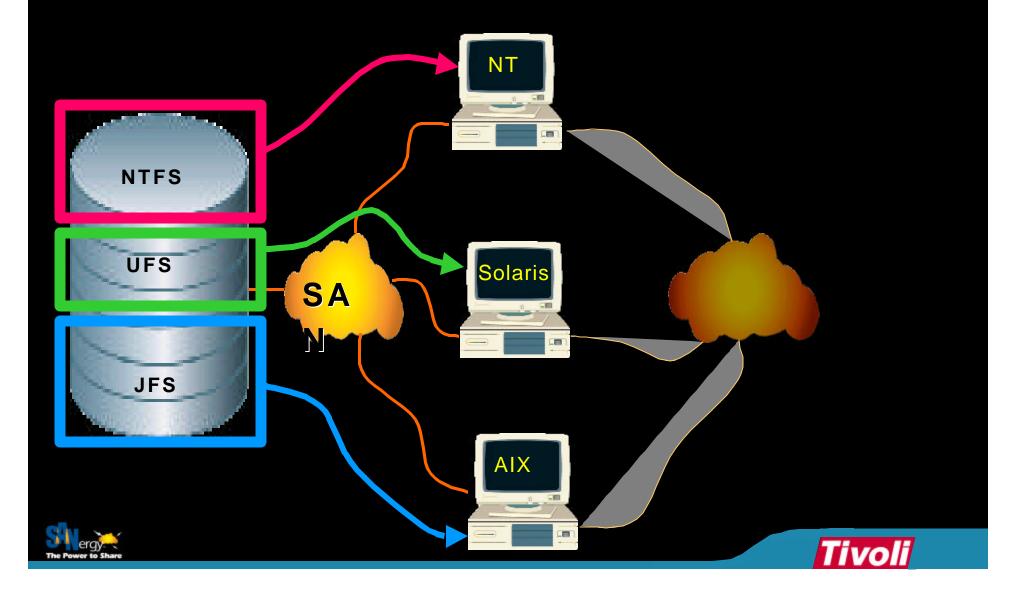
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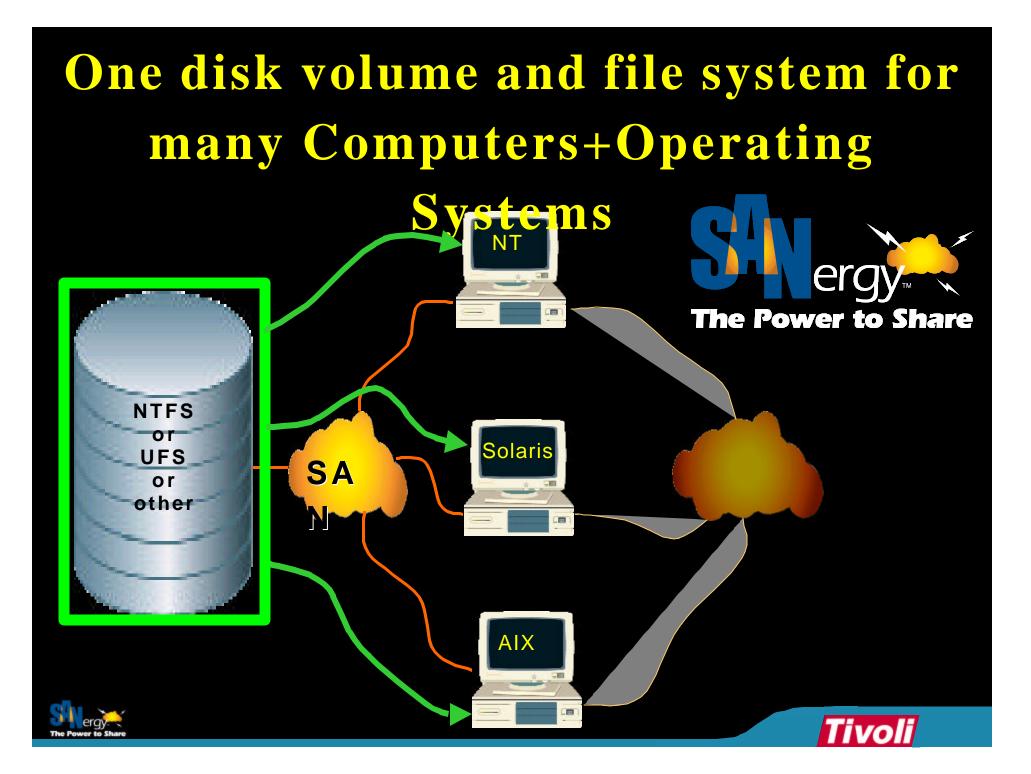


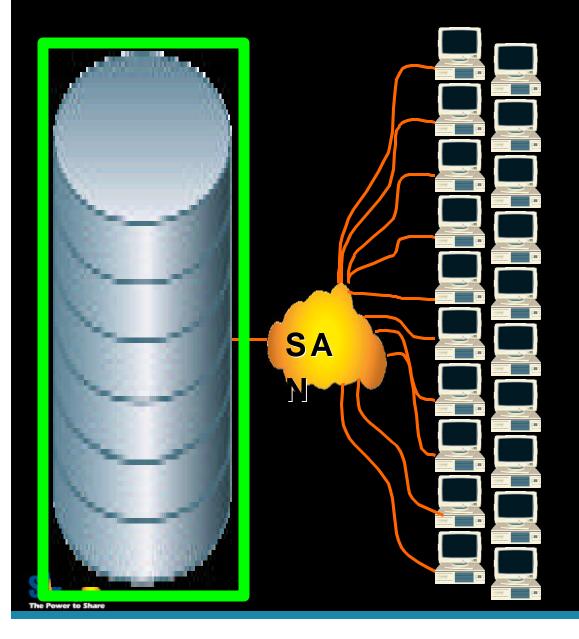




## Different File System per Operating System

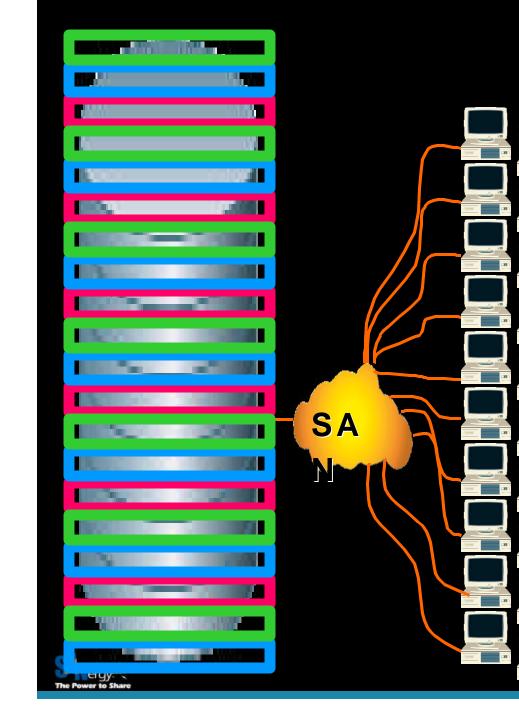






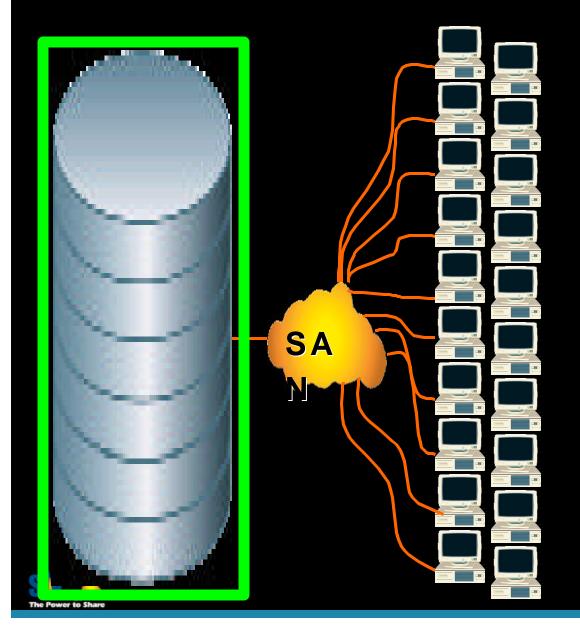






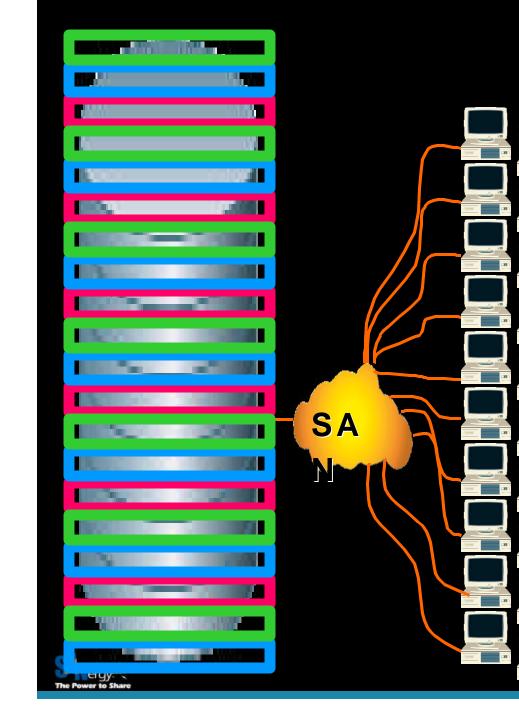
## Without Shergy The Power to Share





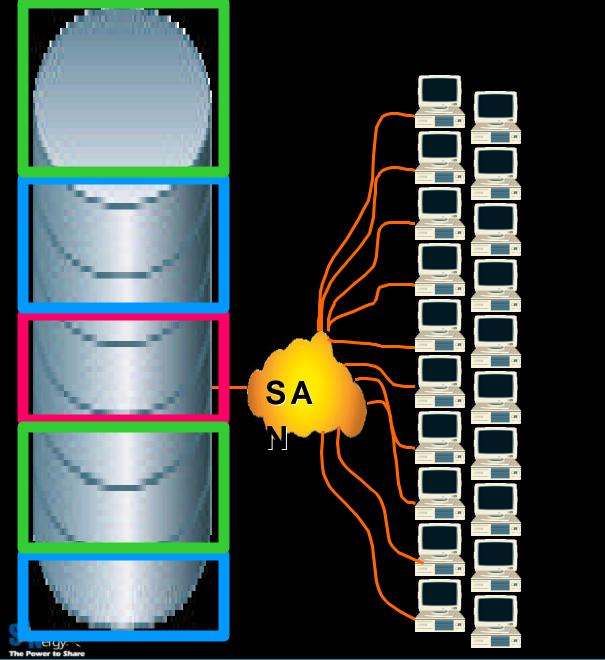






## Without Shergy The Power to Share







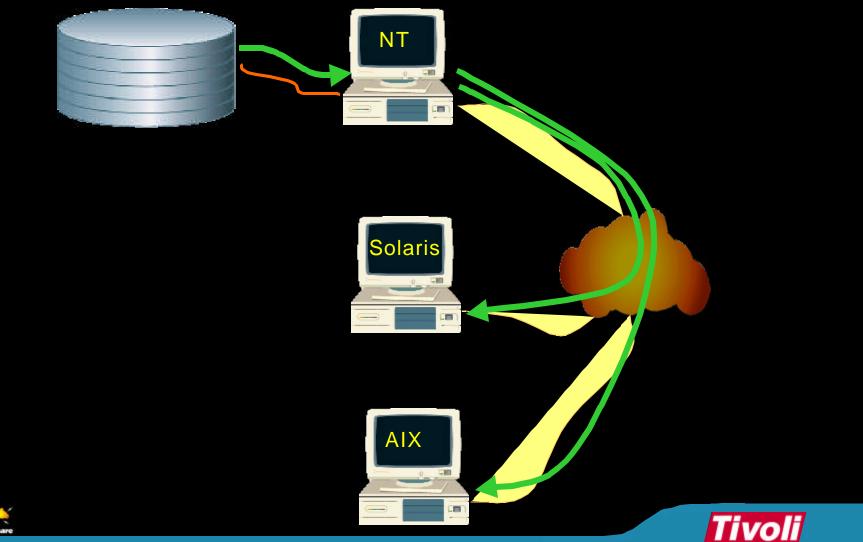


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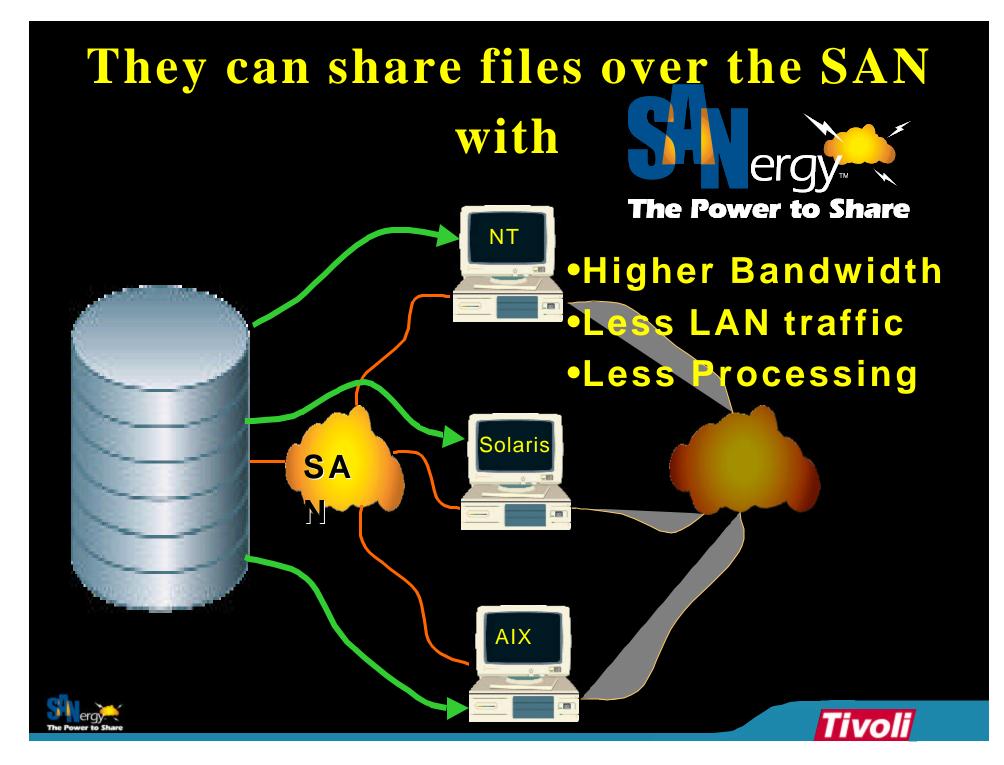




## If computers can "share" files over the LAN . . .







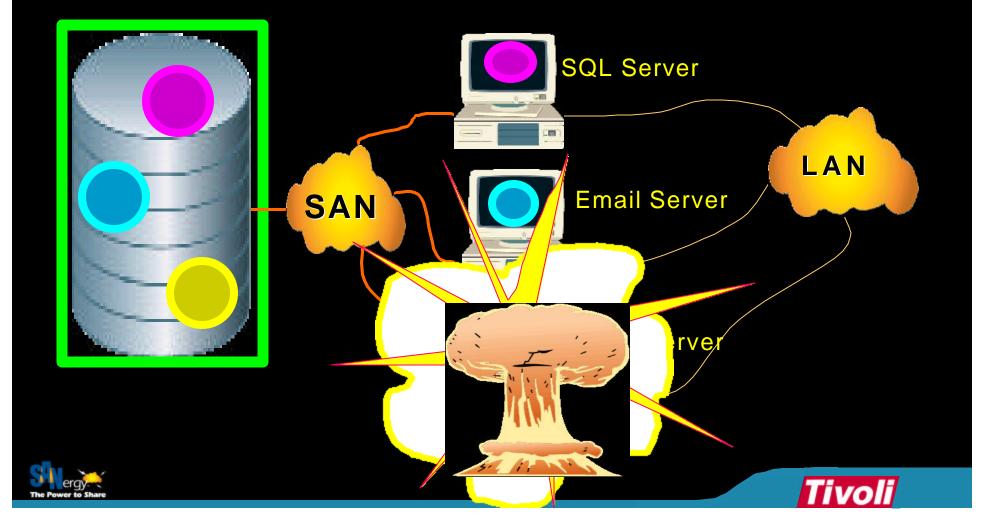
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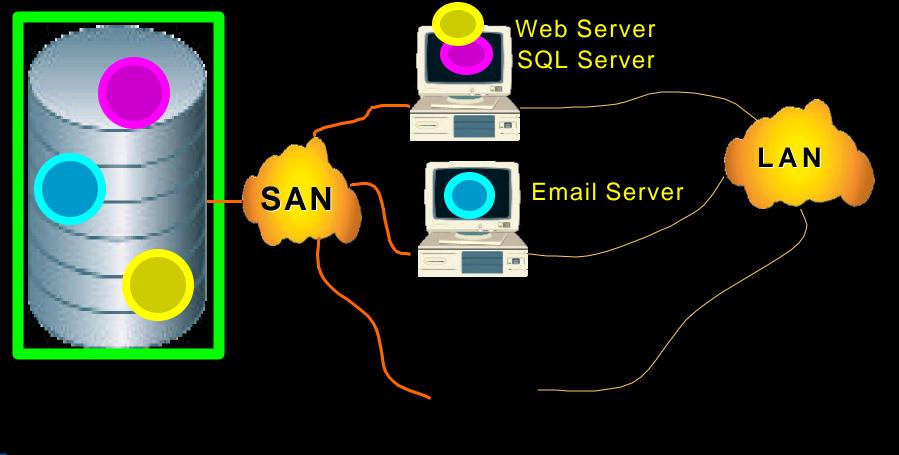
## Higher Data Uptime

#### Oops!



#### **Higher Data Uptime**

# All computers can see the same filesAny other computer can run any other App



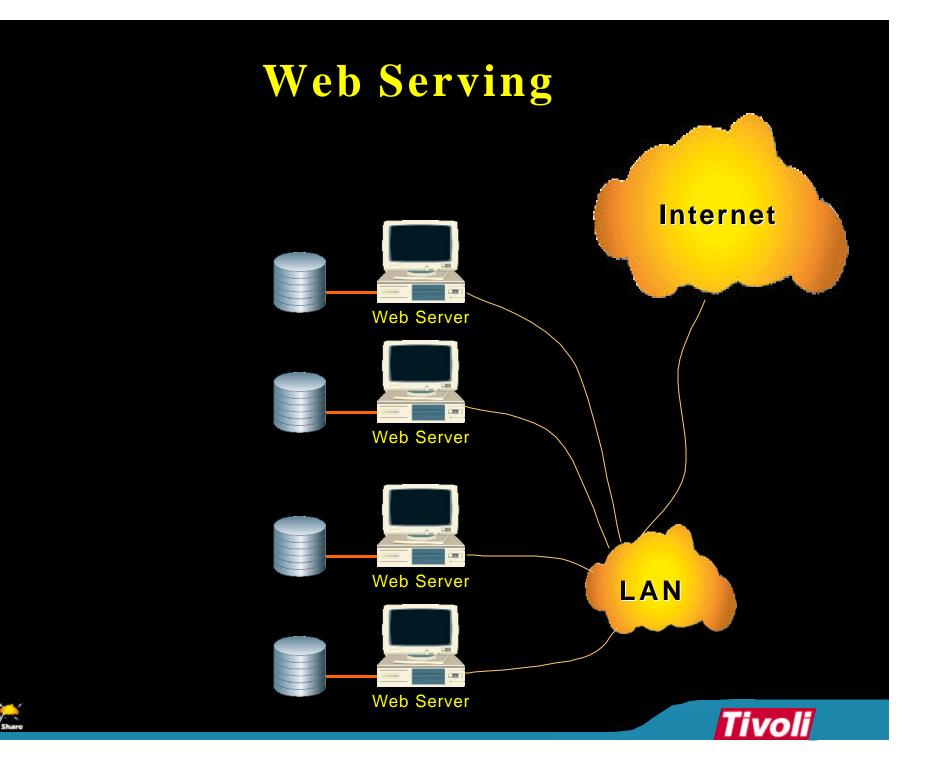


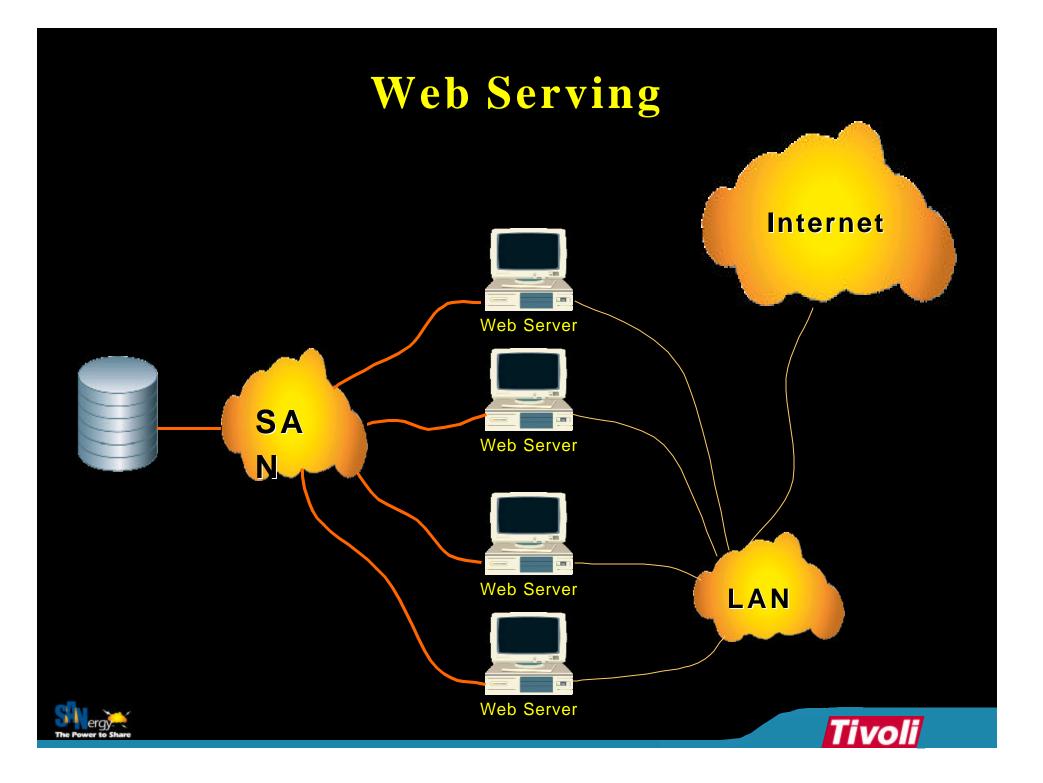


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# ergy **The Power to Share**

- Shipping since November 98
- 5,000+ licenses sold IRIX

- Win NT4
- Win 2000
- Solaris
- MacOS
- **AIX**
- Tru64
- Red Hat Linux
- DG/UX







## **Services Endly The Power to Share**





## **Added Features of SANergy 2.2**

- Linux Host + Meta Data Controller (MDC)
- DG/UX Host
- All MDCs now support all hosts
- Improved MacOS support
- Zoom on Linux and Solaris SANs



