Inventory Management - Task

Ques 1- WHAT IS PXE ?

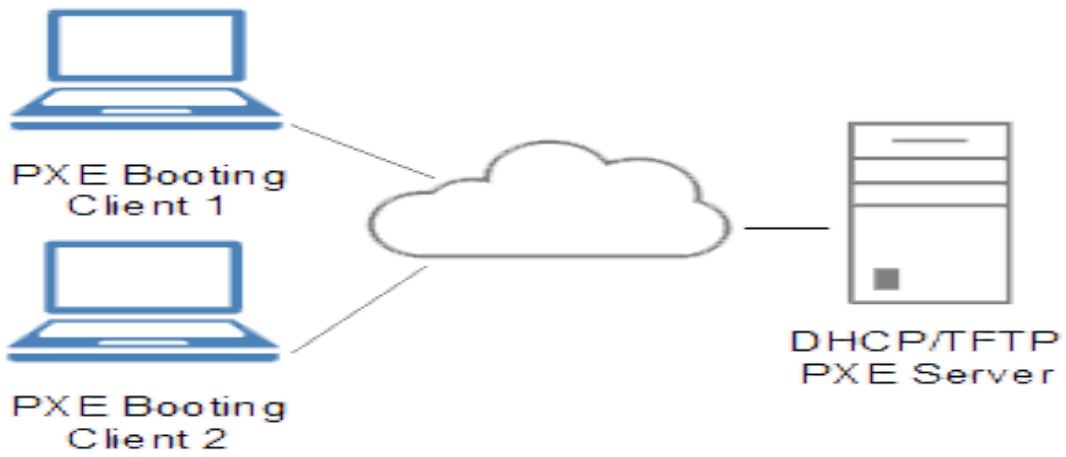
ANS: PXE which is basically termed as Preboot Execution Environment is set of standards which basically enables a computer to load an operating system oer network connection. It can be used to quickly install an OS. IT replaces the use of a CD or USB drive to install an OS. A single OS image can be installed on many computers simultaneously.

How PXE basically work ?

PXE requires some things for the client and the server to successfully boot the system. The client support in Unified Extensible Firware Interface(UEFI) or network Interface card (NIC) Firmware . The PXE should have a configures DHCP and TFTP server. The DHCP server advertise the PXE boot server IP address. The Client then contacts with the boot server and download and boot the NBP using TFTP.

PXE Boot Process Working :

1. Client BIOS initiates PXE boot.
2. Client broadcasts a DHCP and PXE request.
3. DHCP server then responds with the response and client set an IP address, which in turn replies with the Ip address of the TFTP server and NBP file name.
4. At last , It downloads and boots the NBP.



Ques 2: What are Virtual Machines , What is the value add that they provide , at least mention 3 use cases?

Ans 2: A Virtual Machine is a virtual environment that works like a computer within a computer . It runs on a partition of its host computer with its own CPU power , memory , operating system , operating system and other resources. This is basically managed by the software known as a hypervisor. The hypervisor is responsible for managing and providing resources- like memory and storage - from the host to guests.

Benefits of Virtual Machines:

1. Resource Utilization and improved ROI
2. Scalable
3. Portability
4. Flexibility
5. Security

Virtual Machines allow a business to run an operating system that behaves like a completely separate computer in an app window on a desktop.

Virtual Machine Use Case:

1. Disaster recovery : Virtual Machines make regular copies of their operations history . There is little risk for data loss in case of an unexpected hardware failure. Also Since there's negligible hardware overhead in your virtual environment , the server will pose lower risk of system failure.

2. Cloud Computing : Virtual Machines have been the fundamental unit of compute in cloud , enabling dozens of different types of applications and workloads to run and scale successfully.

3. Support DevOps : Virtual Machines are a great way to support enterprise developers , who can configure VM with the settings for development and testing processes. VM's can be used for tasks such as static software tests, automated development workflow. This helps in the DevOps toolchain.

4. Investigate malware: VMs are useful for malware researchers that frequently need machines on which to test malicious programs.

5. Browse Securely : Using a Virtual Machine for browsing enables you to visit sites without worrying about infection.

6. Server Consolidation : Consolidating servers and virtualization platforms onto a high performance , reliable and open VM platform can provide workload management , server management , less licensing cost and deliver technology choice.

7. Technical Workstations : Virtualizing the workstation environment can help in delivering a high quality user experience and improve security and control.

8. Run incompatible software : Running a desktop-focused hypervisor - such as Fusion or Parallels enables to run windows in a Vm , giving access to that version of the software.

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