



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

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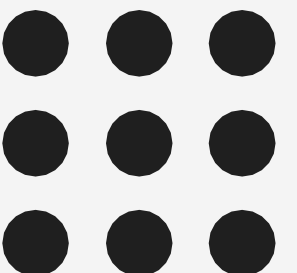
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

COURSE NAME: 19AD503- CLOUD COMPUTING TOOLS AND TECHNIQUES

III YEAR / V SEMESTER

Unit 5- Introduction to VMWare Simulator

Topic 2-Advantages of VMWare Virtualization

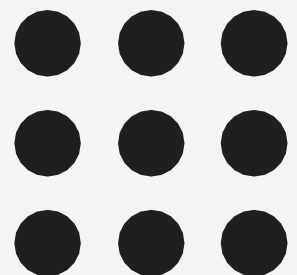




VMware virtualization offers several advantages that can greatly enhance IT infrastructure and operations.

Resource Efficiency

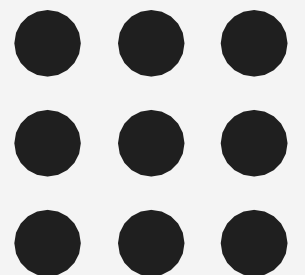
- . **Higher Utilization:** Multiple virtual machines can run on a single physical server, maximizing hardware usage.
- . **Cost Savings:** Reduces the need for physical servers, leading to lower hardware and energy costs.





Scalability

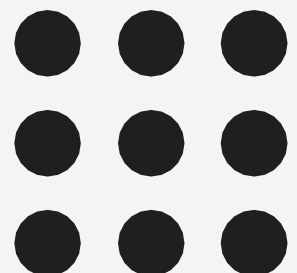
- . **Easy Expansion:** New VMs can be quickly created and deployed without the need for additional physical hardware.
- . **Flexible Resource Allocation:** Resources can be allocated dynamically based on demand.





Simplified Management

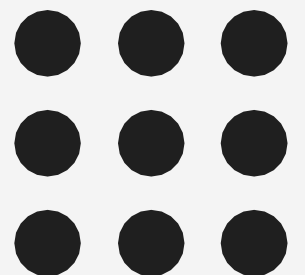
- . **Centralized Control:** Tools like vCenter Server allow for centralized management of multiple VMs and hosts.
- . **Automation Features:** Streamlines management tasks, such as VM provisioning and monitoring.





Disaster Recovery

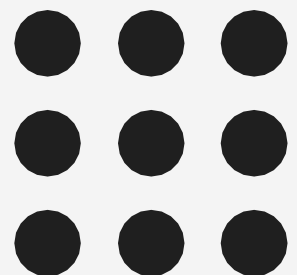
- . **Snapshots:** VMs can be easily backed up and restored using snapshots.
- . **Replication:** VMware supports replication of VMs for disaster recovery scenarios.





Testing and Development

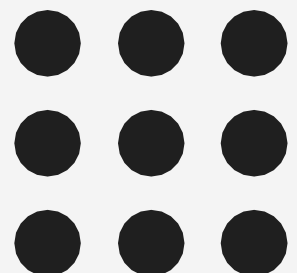
- . **Isolation:** VMs can be isolated for testing new applications or updates without impacting production systems.
- . **Quick Deployment:** Fast creation of test environments allows for more efficient development cycles.





Improved Security

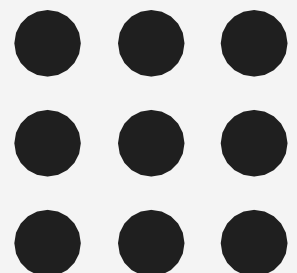
- . **Isolation of Applications:** VMs provide a layer of isolation, which can help contain security threats.
- . **Granular Control:** Security policies can be applied at the VM level.





Legacy Application Support

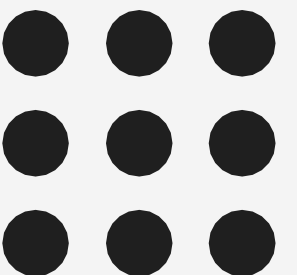
- . **Running Older Systems:** Virtualization allows legacy applications to run on modern hardware without compatibility issues.





Load Balancing

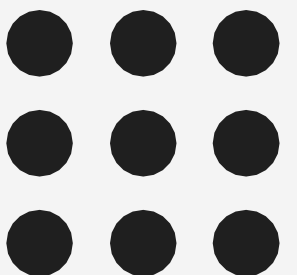
- . **Resource Distribution:** VMs can be distributed across multiple hosts to balance workloads and enhance performance.





Reduced Downtime

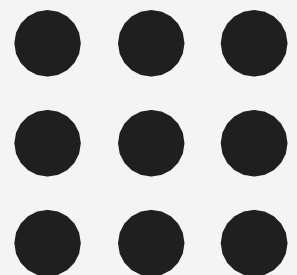
- . **Live Migration:** VMware allows VMs to be moved between hosts with minimal downtime, ensuring continuous availability.





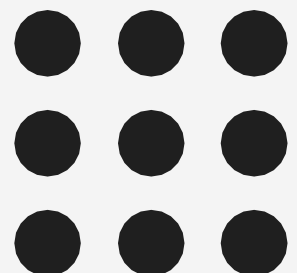
Cost-effective Testing Environments

- . **Multiple OSes:** Easily run different operating systems on a single machine for development and testing.





These advantages make VMware virtualization a powerful solution for businesses looking to enhance efficiency, reduce costs, and improve flexibility in their IT environments. If you have specific scenarios in mind, feel free to ask!





Thank You...