



Cloud Computing

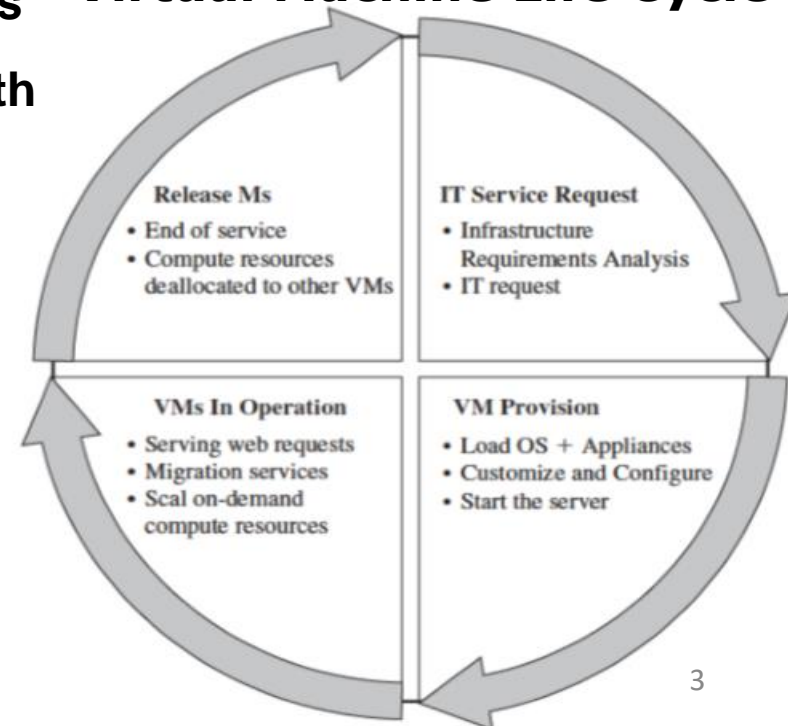
SEWP ZG527

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Virtual Machine Provisioning and Manageability Life Cycle

- The cycle starts by a request delivered to the IT department, stating the requirement for creating a new server for a particular service.
- This request is being processed by the IT administration to start seeing the servers' resource pool, matching these resources with requirements
- Starting the provision of the needed virtual machine.
- Once it provisioned and started, it is ready to provide the required service according to an SLA(Service Level agreement).
- Virtual is being released; and free resources.

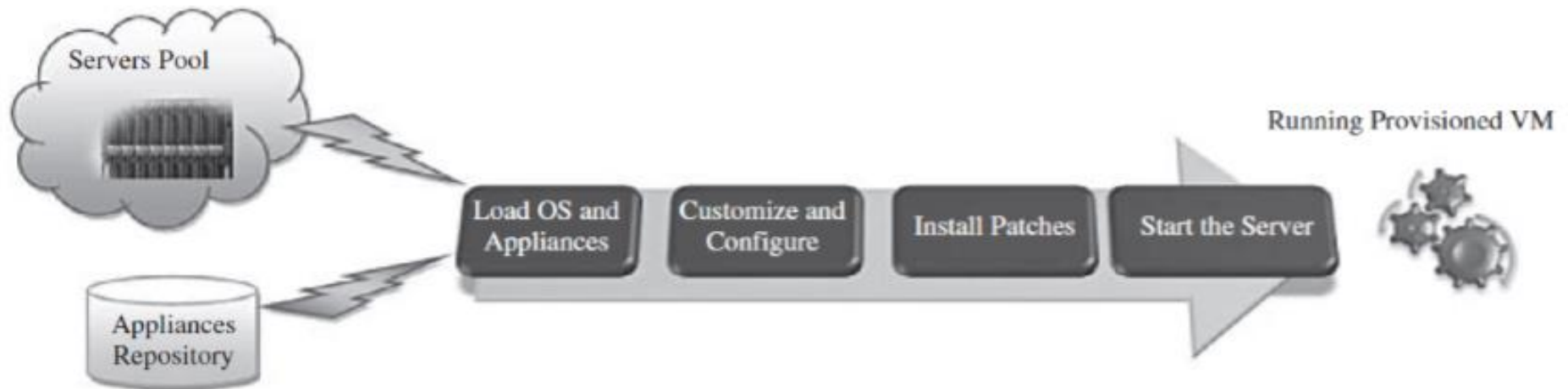
Virtual Machine Life Cycle



VM Provisioning Process

Steps to Provision VM -

- Select a server from a pool of available servers along with the appropriate OS template you need to provision the virtual machine.
- Load the appropriate software.
- Customize and configure the machine (e.g., IP address, Gateway) to an associated network and storage resources.
- Finally, the virtual server is ready to start with its newly loaded S/W.



VM Provisioning

- Server provisioning is defining server's configuration based on the organization requirements, a H/W, and S/W component (processor, RAM, storage, networking, operating system, applications, etc.).

VMs can be provisioned by

- Manually installing an OS,
- Using a preconfigured VM template,
- Cloning an existing VM, or importing a physical server or a
- Server from another hosting platform.
- Physical servers can also be virtualized and provisioned using P2V (Physical to Virtual)

VM Provisioning using templates

- Provisioning from a template reduces the time required to create a new virtual machine.
- Administrators can create different templates for different purposes.

For example –

- Vagrant provision tool using VagrantFile (template file) (demo)
- Heat – Orchestration Tool of openstack (Heat template in YAML format)
(demo – Instance creation in cloud, Load balancer in cloud)

This enables the administrator to quickly provision a correctly configured virtual server on demand.