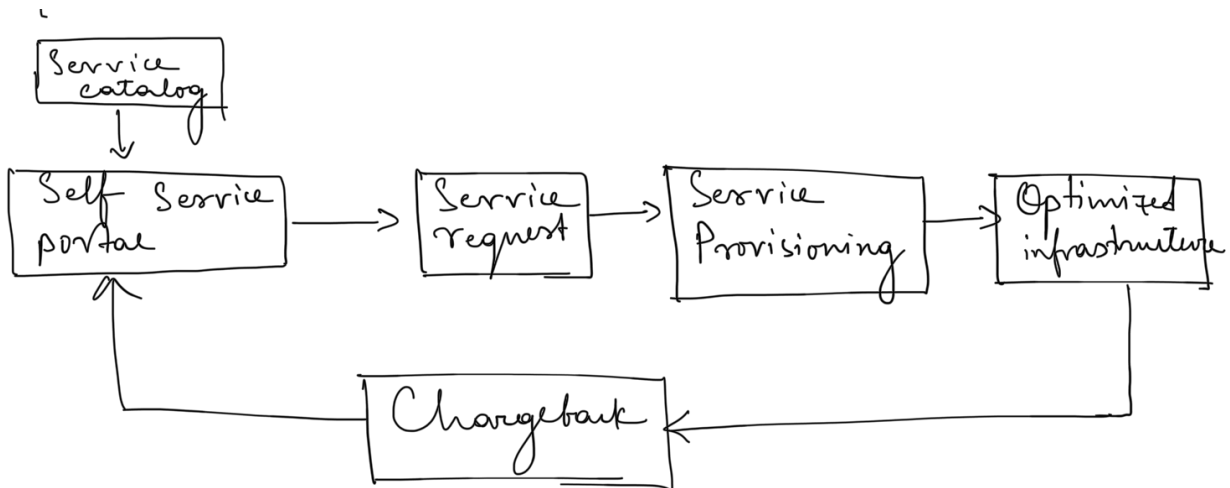# Cloud computing solution components workflow

A cloud computing solution is the end to end integration of the components, each bringing a specific value to the user.

Benefits of cloud computing solution components:

1. User/IT cell service:

It improves customer satisfaction and responsiveness as the entire ecosystem is user centric.

2. Standardize delivery models:

Services available in the service catalog in a standard form which helps the new user to configure and deploy the services in a hassle free manner.

3. Capacity management:

Cloud service provider creates usage pattern analysis of each user to predict possible usage requirements of each user. That helps the user and as well as service provider to manage the capacity efficiently.

4. Controlled anticipation:

Validate change requests of the user service with automated workflow process.

5. Low deployment cost:

Deployment cost of launching an instance/service gets reduced due to capacity management and controlled anticipation.

6. Deploy new services faster:

Deploy new services faster in automated cloud solution workflow process.

7. Improve server and power utilization:

Created Servers/instances that are not in use may by shut down temporarily to reduce power consumption.

8. Consistency of configuration:

Driving compliance, easier support and auditing, consisting security.

The following steps are present in cloud computing solution components workflow:

a. Service catalogue:

Service is defined by virtual image with content operating system, middleware and software associated with VM definitions, And so on.

Service catalogue has the following features:

- Service creation
- Service modification
- Service termination
- Service topology to offer
- Service instance process creation details
- Associated management functions.

b. User self-service portal:

User self-service portal allows to access the following features in the self-service interface:

- Approvals and notifications of different services.
- Creating a project and adding a virtual server.
- Creating a project from a saved server image.
- Cancelling a project.
- Modifying your project.
- Modifying servers.
- Backing up and restoring server images.
- Managing image library.
- Managing users.
- Viewing request.
- Viewing the details of submitted request.
- Viewing and managing request for approval.

c. Service request management:

Service request management links between user actions on the portal and services deployment with provisioning.

It provides business work flows between cloud users like approval, mail integration to disseminate information and transaction list identifying services being requested.

It provides capacity planning and reservation. It provides change management allowing reconfiguration of the deployed service.

d. Provisioning:

- Provisioning is one of the key processes that accelerated the emergence. It checks provisioning of physical resources to cater the future resource requirement.
- Provisioning keep monitoring workflow execution to proper completion or stable recovery stage.
- To integrate customers current demand which features service requirement.

e. Optimized infrastructure:

Optimized infrastructure in cloud computing provides a means to manage large numbers of highly virtualized resources and control the delivery of services. The infrastructure should be managed in such a manner that it should be scalable and available in all conditions.

f.Chargeback:

Chargeback is the component which supports the pay per use functions:

Baesd on the matrices provided by the optimized infrastructure.

Establishes cost for delivered services

Charges are generally based on what the user uses like memory, CPU, storage. Charges are incurred based on the following matrices which could be linked to a specific workload and can be specific to a customer environment. There should be a proper chargeback model agreement between the cloud provider and cloud consumer.