

UNIT - V

Governance, and Case Studies

Topic - 1:

Organisational Readiness and Change management in the cloud age;

Introduction:

- studies for organisation for Economic Co-operation and Development (OECD) economies in 2002 demonstrated that there is a strong correlation between changes in organisation and workplace practices and investment in information technologies
- In order to effectively enable and support enterprise business goals and strategies, information technology (IT) must adapt and continually change.

The Context :

- The adoption of cloud computing has forced many companies to recognize the clarity of ownership of the data is of paramount importance. The protection of intellectual Property (IP) and other copyright issues is of big concern and needs to be addressed carefully.

The Take Away:

— Transition the organisation to a desirable level of change management maturity level by enhancing the following key domain of knowledge and competencies :

Domain 1 : Managing the Environment : Understand the organisation

Domain 2 . Recognizing and Analysing the Trends ;
Observe the key drivers for changes .

Domain 3 . Leading for Results : Assess organisational readiness and architect solution that delivers definite business values .

Basic Concept of Organisational Readiness :

→ change can be challenging ; it brings out the fear of having to deal with uncertainties . This is the FUD syndrome : Fear , Uncertainty , and Doubt .

• Protect Existing Investment : By building a private cloud to leverage existing infrastructure .

• Manage Security Risk : Placing private cloud computing inside the company reduces some of the fear usually associated with public cloud .

A Case Study: Waiting in Line for a Special Concert Ticket.

→ It is a Saturday morning in the winter, the temp is -212°C outside and you have been waiting in line outside the arena since 5:00 AM this morning for concert tickets to see a performance by Super Dramp. When it is your turn at the counter to order tickets, the sales clerk announces that the concert is all sold out. What is your reaction?

- Denial
- Anger
- Bargaining
- Depression
- Acceptance

Drivers for Changes: A framework to comprehend the Competitive Environment:

The framework: The five driving factors for change encapsulated by the framework are:

- Economic
- Legal, political and regulatory compliance

- Environmental

- Technology developments and innovation

- Socio cultural

The five driving factors for change is an approach to investigate, analyse, and forecast the emerging trends of a plausible future, by studying and understanding the five categories of drivers for change. The results will help the business to make better decisions and it will also help shape the short-and-long-term strategies of that business.

Technology Developments and Innovation:

→ Scientific discoveries are seen to be key drivers of economic growth; leading economists have identified technological innovations as the single most important contributing factor in sustained economic growth.

1. When will the IT industry standards be finalized?

2. Who is involved in the standardization process?

3. Who is the leader in cloud computing technology?

Socio Cultural (Markets and Customers)

→ Societal factors usually deal with the intimate understanding of the human side of changes and with the quality of life in general.

Creating a Winning Environment:

→ At the cultural level of an organisation, change too often requires a lot of planning and resource.

Common Change Management Models:

There are many different change management approaches and models.

i) Lewin's Change Management Model:

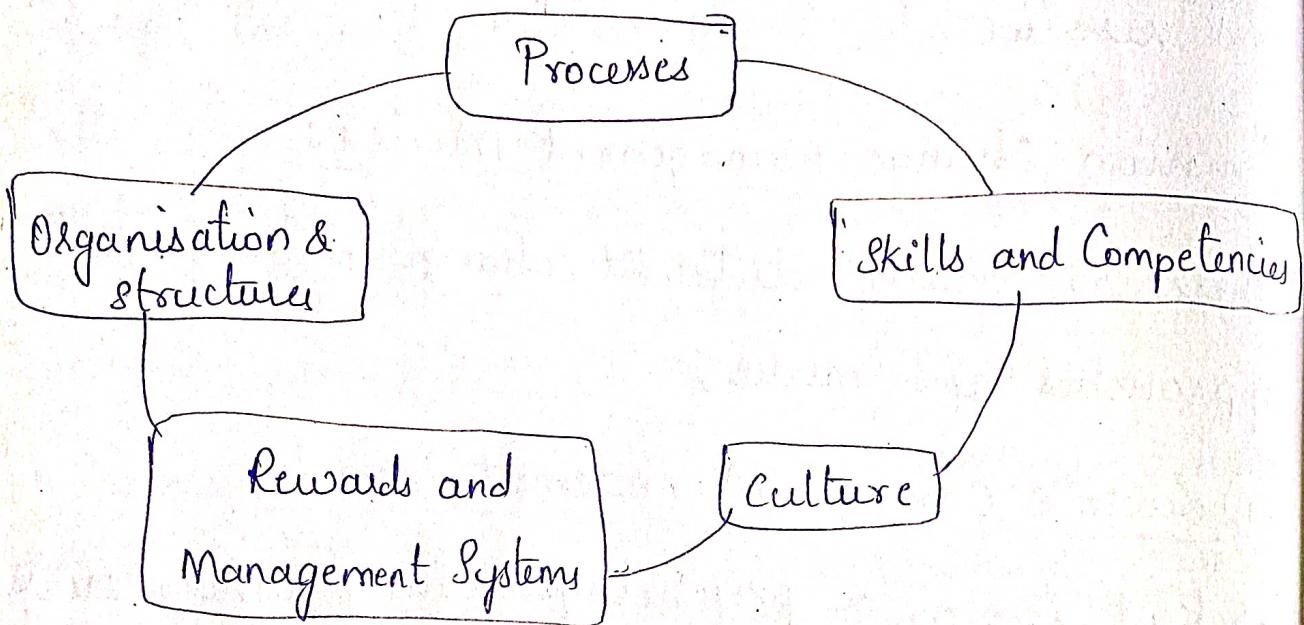
→ Kurt Lewin, a psychologist by training, created this change model in the 1950s. Lewin observed that there are three stages of change, which are: Unfreeze, Transition and Refreeze. It is recognised that people tend to become complacent or comfortable in this - freeze.

PLAN: Recognize an opportunity and plan a change

DO: Execute the plan in a small scale to prove the concept.

CHECK: Evaluate the performance of the change and report the results to sponsor.

ACT: Decide on accepting the change and standardizing it as part of the process.



2) Change Management Maturity Model (CMMM):

→ CMMM helps organisations to analyse, understand and visualize the strength and weakness of the firm's change management process and identify opportunities for improvement and building competitiveness.

Topic 2:

Data Security in Cloud:

Introduction to the idea of Data Security :}

→ Taking Information and making it secure, so that only yourself or certain others can see it, is obviously not a new concept. However, it is one that we have struggled within in both the real world and the digital world.

The Current State of Data Security in the cloud:

→ At the time of writing, cloud computing is at a tipping point: It has many arguing for its use because of the improved interoperability and cost savings it offers. On the other side of the argument are those who are saying that cloud computing cannot be used in any type of pervasive manner until we resolve the security issues inherent when we allow a third party to control our information.

Homo Sapiens and Digital Information:

→ cloud computing offers individuals and organisations a much more fluid and open way of communicating information technology, because it provides a more accurate mimic of the natural way that information is communicated between individuals and groups of human beings.

Cloud Computing and Data Security Risk:

→ The cloud computing model opens up old and new data security risks. By its very definition, cloud computing is a development that is meant to allow more open accessibility and easier and improved data sharing.

→ Data are uploaded into a cloud and stored in a data center, for access by users from that data center; or in a more fully cloud-based model, the data themselves are created in the cloud and stored and accessed from the cloud. The most obvious risk in this scenario is that associated with the storage of that data.

Cloud Computing and identity:

- Digital identity holds the key to flexible data security within a cloud environment. This is a bold statement, but nonetheless appears to be the method of choice by a number of industry leaders.
- However, as well as being a perceived panacea for the ills of data security, it is also one of the most difficult technological methods to get right.

The Cloud, Digital identity and Data Security:

- When we look at protecting data, irrespective of whether that protection is achieved on a desktop, on a network drive, on a remote laptop, or in a cloud, we need to remember certain things about data and human beings. Data are most often information that needs to be used; it may be unfinished and require to be passed through several hands for collaboration for completion.

Topic-3: Legal Issues in Cloud Computing:

Overview of Legal Issues:

→ The legal issues that arise in cloud computing are wide ranging. Significant issues regarding privacy of data and data security exist, specifically as they relate to protecting personally identifiable information of individuals, but also as they relate to protection of sensitive and potentially confidential business information either directly accessible through or gleaned from the cloud systems.

Distinguishing Cloud Computing from Outsourcing and provision of Application Services:

→ In general, outsourcers tend to take an entire business or IT process of a customer's organisation and completely run the business for the benefit of the customer.

→ Depending on the nature of the outsourcing, the software belongs to the customer and

software sublicense rights were transferred to the outsourcer as part of the arrangement.

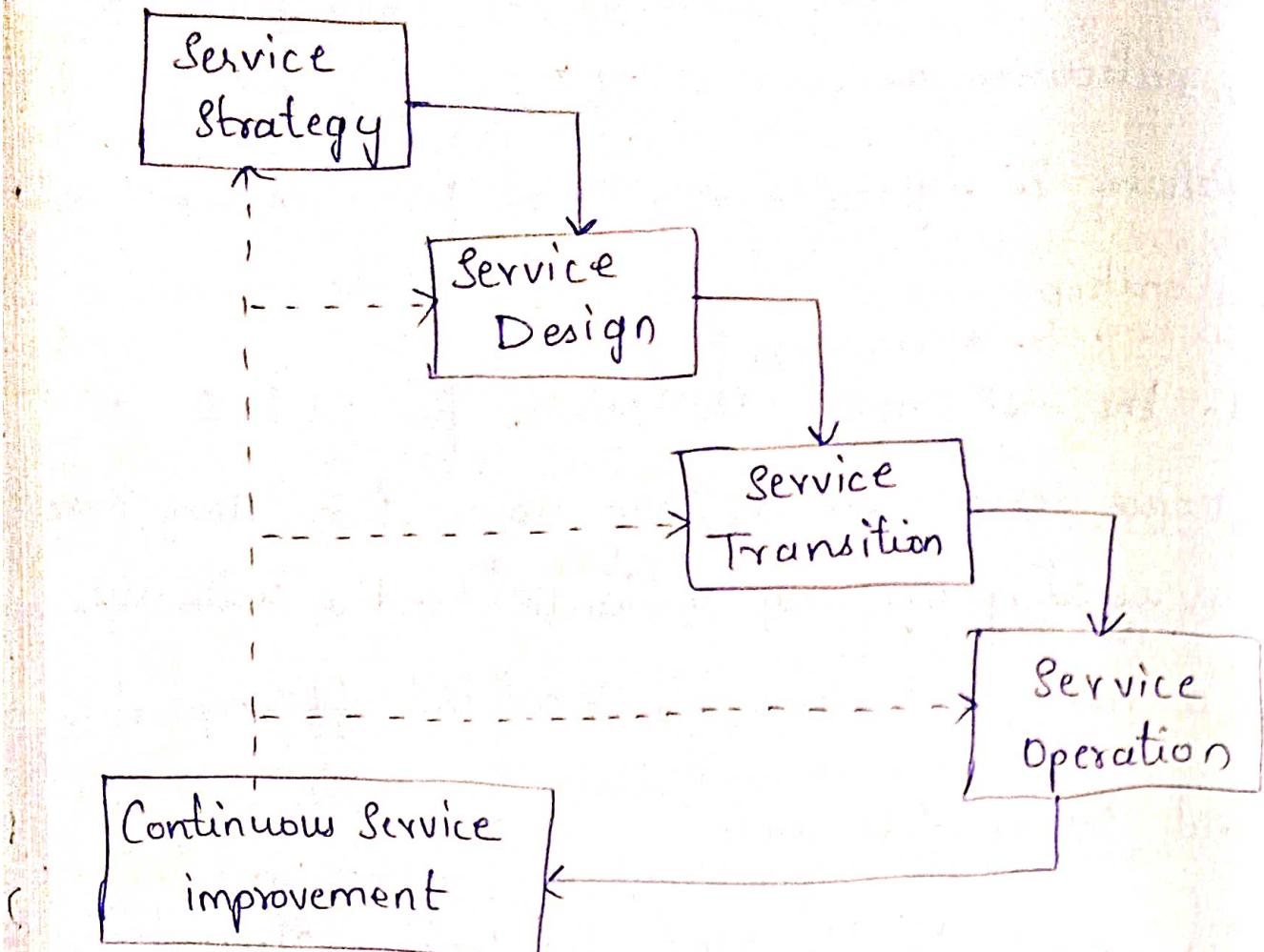
→ Pricing is typically negotiated for each outsourced relationship.

→ In the ASP model, the service provided is a software service. The software application may have been used previously in-house by the customer, or it may be a new value-added offering.

Cloud Service Life Cycle:

→ The input to the production of a cloud service are all the resources and assets that will compose the cloud service. The outcome of the cloud service production is an acceptable and marketable cloud service, which will provide a measurable value to the business objectives and outcomes.

→ Cloud computing covers multiple service models. As of this writing, access to cloud computing services are, for the most part, one-size-fits-all 'click here to accept' agreements, not negotiated arrangements.



Cloud Service Life Cycle

Topic-4 :

Achieving production Readiness for cloud Services

There are 5 steps to achieve production

Readiness for cloud services :

1) Workloads :

→ Evaluate workloads of the group of applications that the customer wants to move to cloud.

Ex: business applications, email services, SaaS services

2) Prioritizing :

→ The CIOs may ask the team to do risk analysis or a proof of concept for testing cloud underlying infrastructure and services. You should test a non-critical application's migration to cloud before committing to a total cloud transformation.

3) Timelines :

→ Customers must decide the specific time slots for their migration. They are different than downtime requirements for migration.

4) Grouping or interface :

→ Sometimes subcomponents of the same application are named differently. Over a period of a business application's lifetime they are treated and founded separately, and the top level IT staff categorize them separately during assessment.

5) Migration strategy:

→ Cloud migration is considered a pure "lift and shift" of the software stack. The customer expects similar functionality and features after the application is enabled in cloud environment.