

# Cloud Computing Services for Higher Education: **Architecture , Strategy**

## & Recommendations for Effective Adaptation

Rahimah K. \*, HB. Adnan, M. Lutfi, N. Aziati

### ABSTRACT

The financial crisis and the growing needs caused Higher Education Institutes (HEIs) are facing challenges in providing necessary Information Technology (IT) support for educational, research and development activities. Software as a service (SaaS) in Cloud Computing (CC) environment platform could rescue the HEIs from the challenges. The HEIs must exploit the opportunities provided by CC services while reducing the associated security risks related to permit access to advanced IT infrastructure, data centers, and applications and protect sensitive information. Therefore, in this paper, the architecture of cloud computing for HEIs containing the various deployment models, Service Models, and user domain are proposed. For smoothing the transition from the traditional system to CC based system, a five-phase strategy is involved.

**KEYWORDS:** SaaS, migration, Service model, deployment model

### ACKNOWLEDGEMENTS

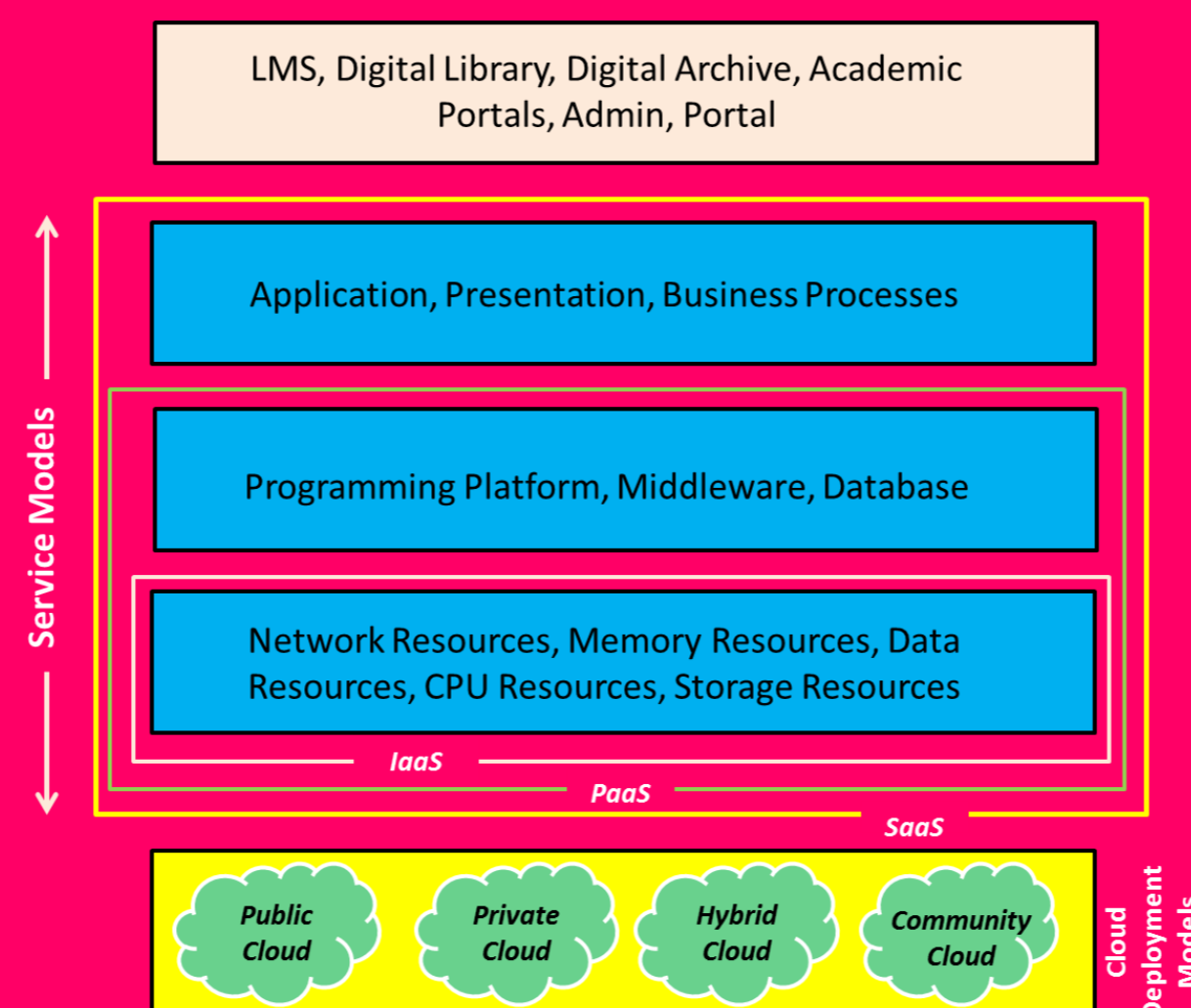
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### OBJECTIVES

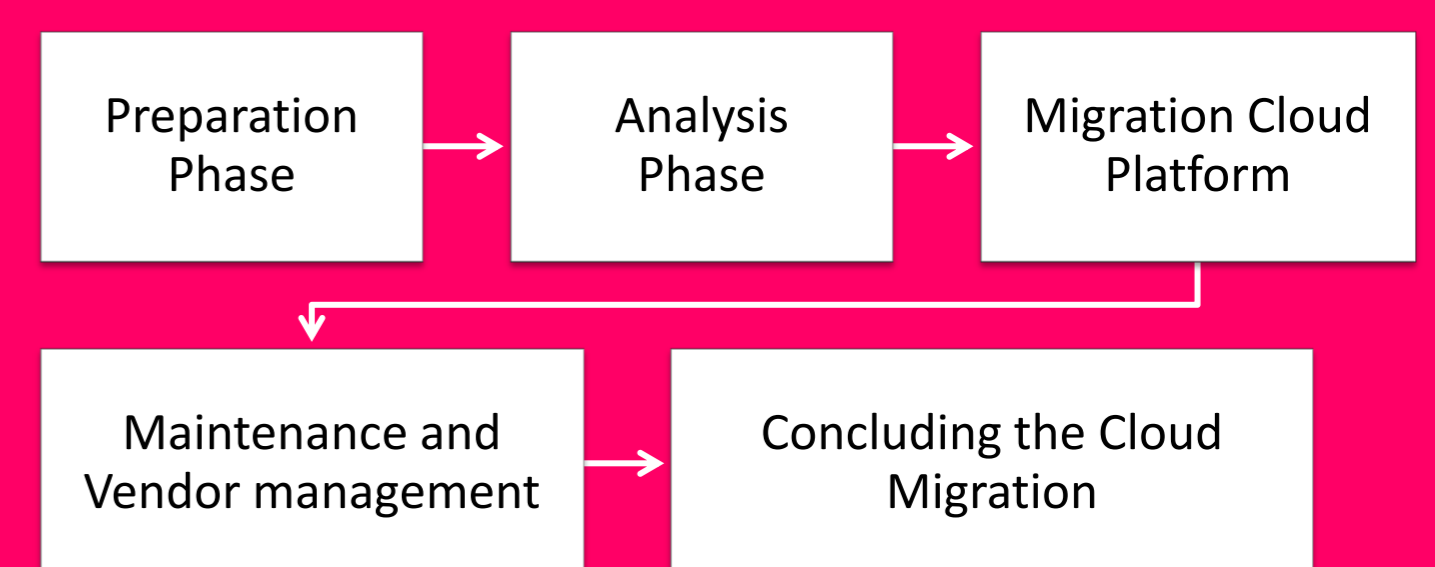
1. To propose the architecture for cloud Computing Higher Education Institution (HEI) including various service and deployment models.
2. To propose a strategy for effective implementation cloud environment in HEI.
3. To provide recommendations to HEI for successful and efficient migration of its traditional system to cloud based system.

### FINDING/ RESULT

#### Architecture Of Cloud Environment For HEIs



#### Strategy For Implementing Cloud Environment In Education



### Recommendation For Effective Implementation

- 1 Understand that implementing cloud services is just like implementing some form of outsourcing. The HE institution needs a properly framed outsourcing strategy to find the optimal balance between "do it yourself" and "hired hand" to truly leverage the cloud.
- 2 Appoint an active and experience vendor for cloud management. Make sure that the vendor has adequate staff that possesses legal and SLA to control your risk.
- 3 Strengthen your integration skills. Develop a center of excellence for integration to ensure a flexible infrastructure. The HEI needs a properly study the determinants of cloud computing implementation.
- 4 Identify the type of cloud computing that suits best for campus needs. Private clouds can be operated the Identify the opportunities and benefits associated with the migrating from traditional existing computing arrangements to cloud services.
- 5 Evaluate the costs, benefits, and risks of migrating to the cloud. For example, determine critical and sensitive data cannot be stored on a public cloud for legal or security reasons.