

# Cloud based IT Infra with Central Identity

## Final Presentation

### Project Guide

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### Presenting by

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# About us

We are from team *r3b00+* {reboot}

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# Outline

- 1 Objective
  - Objective
  - Motivation
- 2 Proposed System

# Objective

Our objective is to create a private cloud and availing access of all its services using central identity with single sign on through dynamic role based management along with REST API to third party for application developers and users.

This can be developed by using open source tools like OpenStack, NFS, LDAP, Ubuntu and etc

Expecting to serve with virtual machines to the research, virtual labs rather than dedicated lab hardware.

# Motivation

- No Central Identity, Central Storage & High capacity hardware resource pool.
- Failed to maintain large user load web services like ONB, Exam servers, etc.
- Dedicated computer course labs like Matlab, VLSI, etc.
- No proper Web Application Security & Standards.
- Inadequate resource requirements for Research.

# Outline

## 1 Objective

## 2 Proposed System

- Users & IT Services
- Cloud Infrastructures

# Users & IT Services

We are collaborating all IT Services that are required for University and identifying the users who is going to use them. All Users are catagorized into 4 groups <sup>[1]</sup>

- Studens, Developers, Staff, faculty & Researches

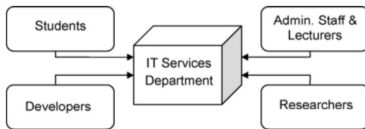


Figure : Simplified structure of the main users of IT services.

# Cloud Infrastructures

All University IT Services are deployed in a private cloud, constructed over existing infrastructure, that can be broadly viewed as

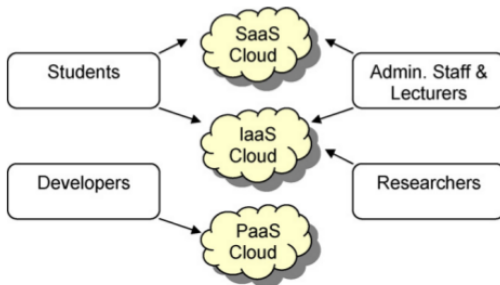


Figure : IT Services and Users in Cloud Computing



# Proposed System - Main Components

- Network Components
  - AAA, LDAP, NFS
- Central Identity
  - Single Sign on
  - Federated Identity
  - Dynamic Role Based Access Control
  - REST API to third party
- Cloud Infrastructure
  - Cloud Computing, Private Cloud, Open source tools

# End

Thank you and Any Queries ?