

Cloud based IT Infra with Central Identity

{ Project reboot }

Preliminary Project Plan

Project Guide

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Abstract

The main objective of “Cloud based IT Infra with Central Identity” is to develop new IT Infrastructure using private cloud and provide access to all its services using Central Identity which can be available to third party developers as Identity as a service with dynamic role management and resource endpoints.

New private cloud is aimed to develop using opensource tools such as OpenStack, Ubuntu and provide virtual machines with high computational power and best platform to providing the virtual labs rather than dedicated lab hardware.

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Chapter 1

Introduction

1.1 Introduction

“Cloud Based IT Infra with Central Identity” is a complete solution, based on private cloud to enhance and efficient utilization the IT Infrastructure of an emerging Universities and Organizations with Central Identity for all its users to access its services.

It is going to developed in 3 phases

- *Private cloud*
- *Deploying Network Services*
- *Central Identity*

1.1.1 Private Cloud

Private Cloud establishment is targeted for hardware resource pooling, providing high computational and scalable virtual machines for deploying network based applications (smtp, proxy, ftp), web application and Network storage.

1.1.2 Deploying Network Services

Configuration of Uniform hardware experience over the complete university includes single sign on on every device, configuration of mail servers etc.

1.1.3 Central Identity

Essential part that combines normal network services(proxy, mail, etc.) and organizational web & native applications. In addition to that this central identity is available to thrid party developers as API with dynamic based role user authentication protocols.

Chapter 2

Typical Solution

2.1 Present System

We have observed some organizations are

- Failed to maintain large user load web services and network applications.
- No Central Identity, Storage & High capacity hardware resource pool.
- Redundent data in each prospect
- Inadequate resource requirements for Research.
- Dedicated computer course labs like Matlab, VLSI, etc.

2.2 Proposed System

To avoid above mentioned observations we are proposing one new system with

- Cloud based hardware resources clustering.
- Central Identity for Network Applicaitons with REST API.
- Dynamic user role management.
- New CPanel for Network Administration.
- Providing Virtual Labs (MatLab).
- High Configurational Virtual Machines for research.