BIOMETRIC SOLUTION OF FAKE VOTING PROBLEM

Implimented using Adhar card & cloud

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ABSTRACT

Today Biology is playing an significant role in the todays scientific advancement on human body solutions. For example Finger print reader and eye scanners. It provides basis for more scientific solutions for recognition of human identity. In today's era biotechnology identifies a lot more detailed research in the field of biological hand shake with Technology. In this paper we describe how biological Identification leads to secure voting system in India or anywhere else in the world.

Keywords: Biometric Identification, voting system Private Cloud, UID

INTRODUCTION

Today **Biology** is a natural science concerned with the study of life and living organisms, including their structure, function, growth, evolution, distribution, and taxonomy. Biology has many sub disciplines unified by five so-called axioms of modern biology. biology examines the basic building block of all life, the cell; physiology examines the physical and chemical functions of tissues, organs, and organ systems of an organism; evolutionary biology examines the processes that produced the diversity of life; and ecology examines how organisms interact in their environment.

Biotechnology is the use of living systems and organisms to develop or make useful products, or "any technological application that uses biological systems, living organisms or derivatives thereof, to make or modify products or processes for specific use" (UN Convention on Biological Diversity). Depending on the tools and applications, it often overlaps with the (related) fields of bioengineering and biomedical engineering.

A Unique Identification is merely a string assigned to an entity that identifies the entity uniquely.The Unique Identification Authority of India (UIDAI) plans to assign a Unique ID to every person residing in India. Biometric identification system and checks would be used to ensure that each individual is as-signed one and only UID and the process of generating a new UID would ensure that duplicates are not issued as valid UID numbers. The **AADHAR system** is being designed to eventually service the entire population of India, and will involve the biometric identification of 1.2 billion residents. Since the estimated database size (1.2 Billion residents) is an order of magnitude larger than the current largest biometric database (115 Million), the biometric subsystem will have to be constantly monitored for accuracy, scalability and performance. To de-risk the entire program, the system will operate multiple concurrent solutions with the ability to introduce and test newer solutions.

Each **Automated Biometric Identification Subsystem** (ABIS) must implement an interface that is compliant with this specification. That de-couples the biometric subsystem from the main application logic, and enables a management layer that can orchestrate across the multiple solution providers, continuously measure accuracy, performance and enable better decision making. Initially, the same interface will be used for enrolment and authentication. At a later time, authentication may be moved out to a separate sub-system

for better scaling, and replication. More generally, as the UID database grows in size, the requirements of the biometric system may evolve, and implementers of this interface will have to keep up with them.

IRIS SCANER FINGER PRINT READER LESER PRINTER WEB CAM

Cloud computing is set of resources and services offered through the Internet. Cloud services are delivered from data centers located throughout the world. Cloud computing facilitates its consumers by providing virtual resources via internet. General example of cloud services is Google apps, provided by Google and Microsoft SharePoint. The rapid growth in field of "cloud computing" also increases severe Implementation issues. Network has remained a constant issue for Open Systems and internet, when we are talking about Speed and Routing Technique cloud really needs high cost Networking Resources. Lack of Networking Resources is one of hurdle in wide adoption of cloud computing. Cloud computing is surrounded by many network issues like Communication Channel, Routing Technique and the utilization of cloud by the cloud computing vendors. The boom in cloud computing has brought lots of Cloud Adoption challenges for the Vendors and service providers. Our work will enable solutions to know about users and vendors concerns and critical analysis about the different communication channels and routing technique models and tools proposed.

Private cloud is cloud infrastructure operated solely for a single organization, whether managed internally or by a third-party and hosted internally or externally. Undertaking a private cloud project requires a significant level and degree of engagement to virtualize the business Environment, and it will require the organization to reevaluate decisions about existing resources. When it is done right, it can have a positive impact on a business, but every one of the steps in the project raises security issues that must be addressed in order to avoid serious vulnerabilities.

Cloud Services

1. **Platform as a service (PaaS) :**

In the PaaS model, cloud providers deliver a computing platform typically including operating system, programming language execution environment, database, and web server. Application developers can develop and run their software solutions on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software layers.

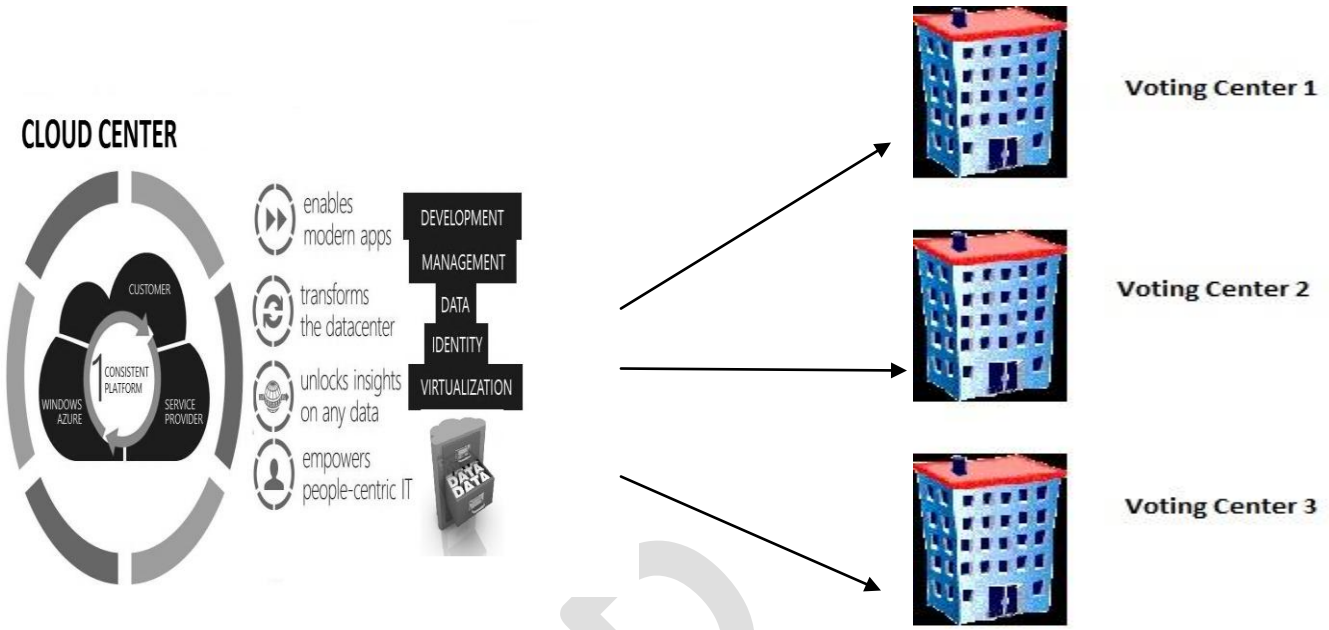
Current Voting scheme Requirement:

Today most of the voting points use special kind of voting machine to vote. These machines are not trustworthy and store votes count in it. After that the machine has been sealed and sent to significant places to count vote.

Remedies of this scheme:

1) Many Booth capturing incidence are happened.
2) At many places the voting has been discarded due to illegal operations.
3) Many of the Political Debate happens on Transparency of voting system.
4) A large cost incurred in repeated voting on suspended election centers.

Proposed Scheme For Voting:



Components of Proposed scheme:

Cloud Center:

Cloud Center Provide the Storage, Services and Software facilities to the UID registration Centers. All the data is stored in the cloud center in separate storage medium.

Services like OS, Operating Software's are also provided as platform as service of cloud.

Vote Center:

These centers are equipped by iris scanner, Finger Print reader and cloud enable client computer which is used for storing number of voters enters in the center.

Working Of Proposed Scheme:

1) When voter comes in the voting center than the voting center in charge take his iris scan or finger print.

2) After that the system connected with the iris scanner or finger print reader starts search the match with the pre-loaded scan of iris or finger print in the cloud database of UID registration.

3) If match found than voter is verified as a valid voter otherwise he will not able to give vote.

4) After that voter will be permitted to vote that should be confidential.

5) After voting the voting machine connected with cloud center is submitted the vote count on cloud storage or database situated in Election commission head quarter.

Advantage of Proposed Architecture

1) In proposed architecture the problem of fake voting is avoided because the identification is based on UID Database.

2) Booth capturing problem is solved as data is transferred instantly on Election commission Exchange.

3) Fast result obtained of election.

4) Transparency is achieved because fake voter and voting is avoided in this system.

5) No need to take security head hack as system is secured enough.

6) Cost benefit is achieved due to no repetition of Election.

Mitigating Security and other Concern:

1) Cloud security concern:

Cloud has major security concern so we implemented this architecture on Private cloud own by Election comity.

2) Confidentiality Of Voter voting:

What voter vote to which party do not record anywhere in the system but only the vote count is recorded corresponding to each party.

3) Confidentiality of result:

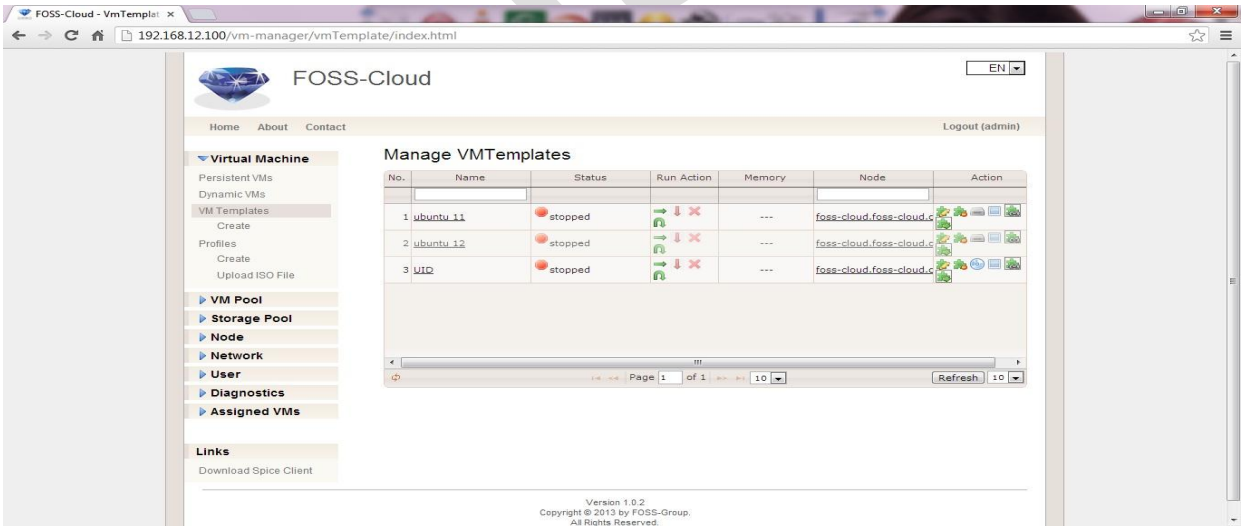
It is already has been clear that vote count is saved on election commission exchange so the result has been preserved by Election commission.

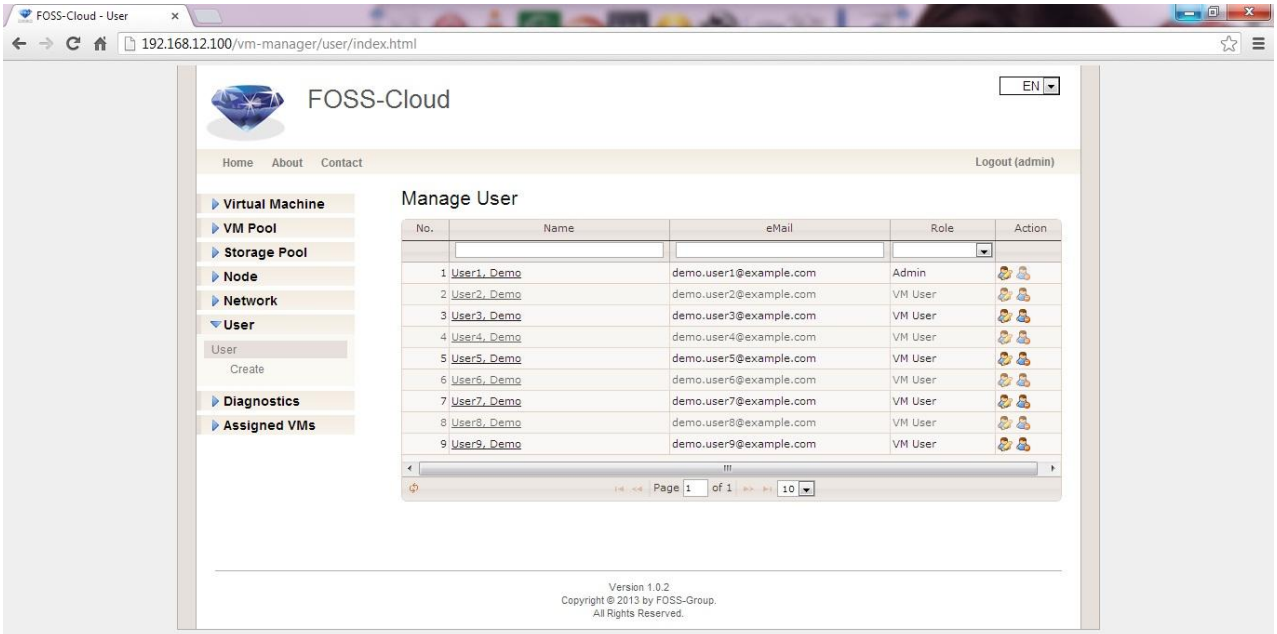
4) Based on UID Database:

The voter recognition is based on UID registration Database so that Database has to be authentic.

IMPLIMENTATION OF UID CLOUD:

1] Developing Cloud For UID :




FOSS-Cloud - User
192.168.12.100/vm-manager/user/index.html
FOSS-Cloud
EN
Home
About
Contact
Logout (admin)
Virtual Machine
VM Pool
Storage Pool
Node
Network
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Create
Diagnostics
Assigned VMs
Manage User
No.
Name
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Role
Action
1 User1, Demo demo.user1@example.com Admin
2 User2, Demo demo.user2@example.com VM User
3 User3, Demo demo.user3@example.com VM User
4 User4, Demo demo.user4@example.com VM User
5 User5, Demo demo.user5@example.com VM User
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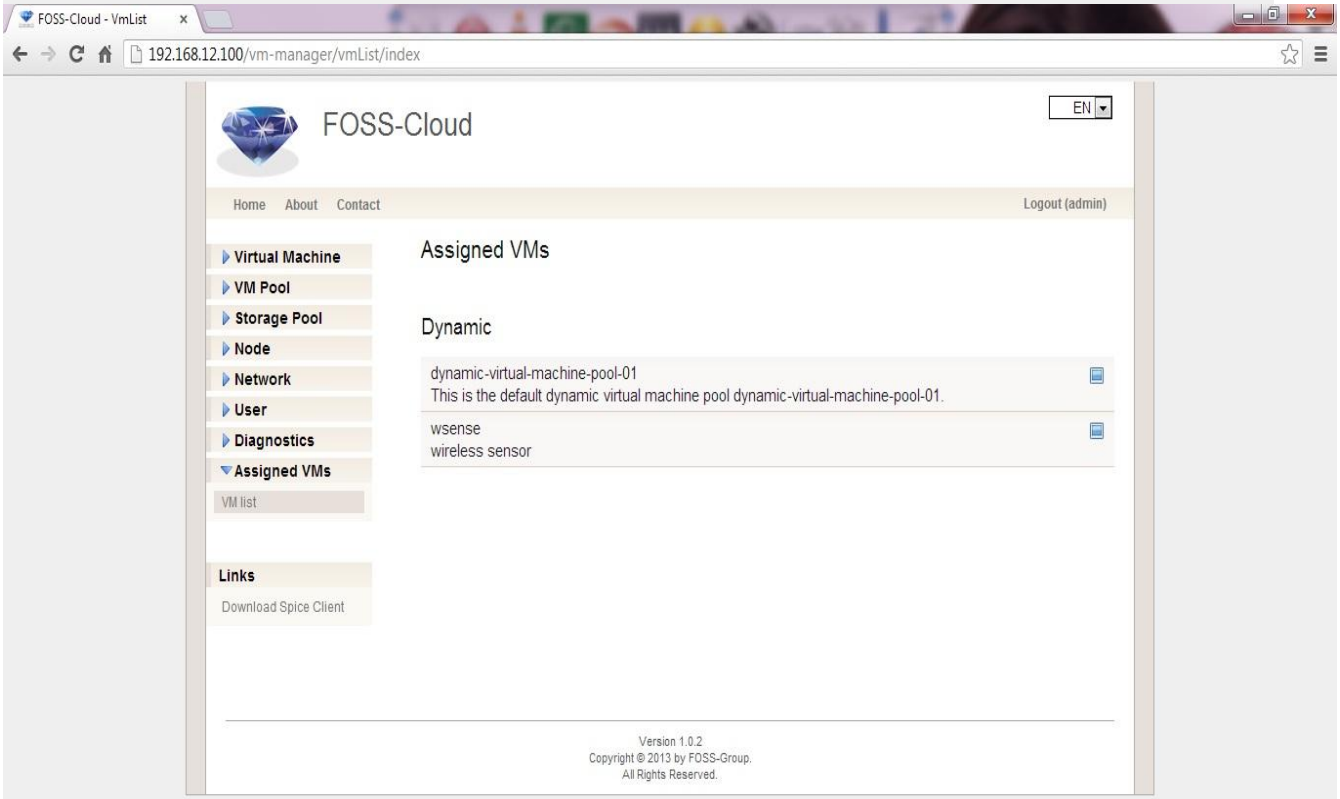
FOSS-Cloud - VmList
192.168.12.100/vm-manager/vmList/index
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Home
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Contact
Logout (admin)
Virtual Machine
VM Pool
Storage Pool
Node
Network
User
Diagnostics
Assigned VMs
VM list
Links
Download Spice Client
Assigned VMs
Dynamic
dynamic-virtual-machine-pool-01
This is the default dynamic virtual machine pool dynamic-virtual-machine-pool-01.
wsense
wireless sensor
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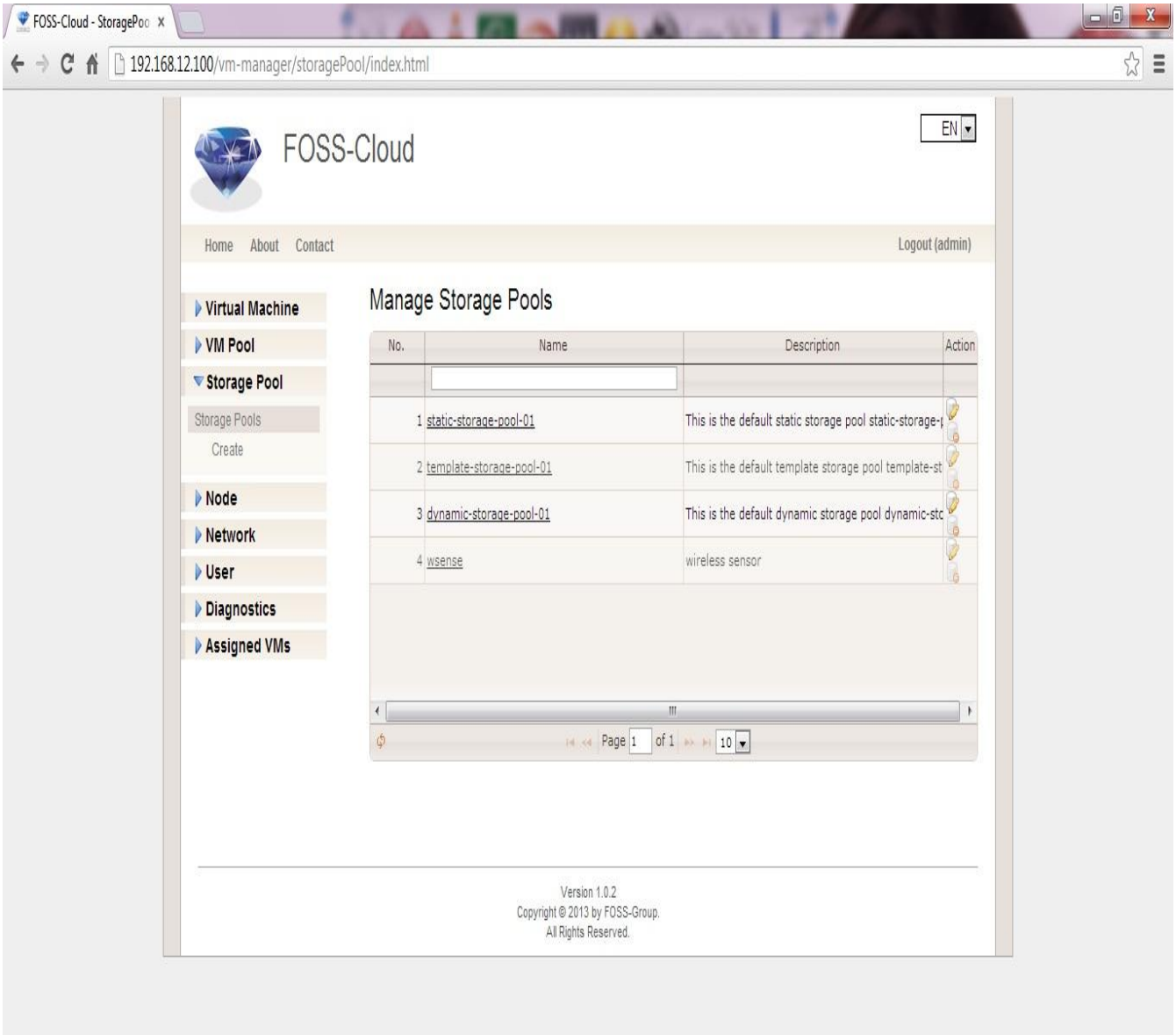
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Virtual Machine
VM Pool
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Assigned VMs
Manage Storage Pools
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Action
1 static-storage-pool-01
This is the default static storage pool static-storage-
2 template-storage-pool-01
This is the default template storage pool template-st
3 dynamic-storage-pool-01
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4 wsense
wireless sensor
Page 1 of 1
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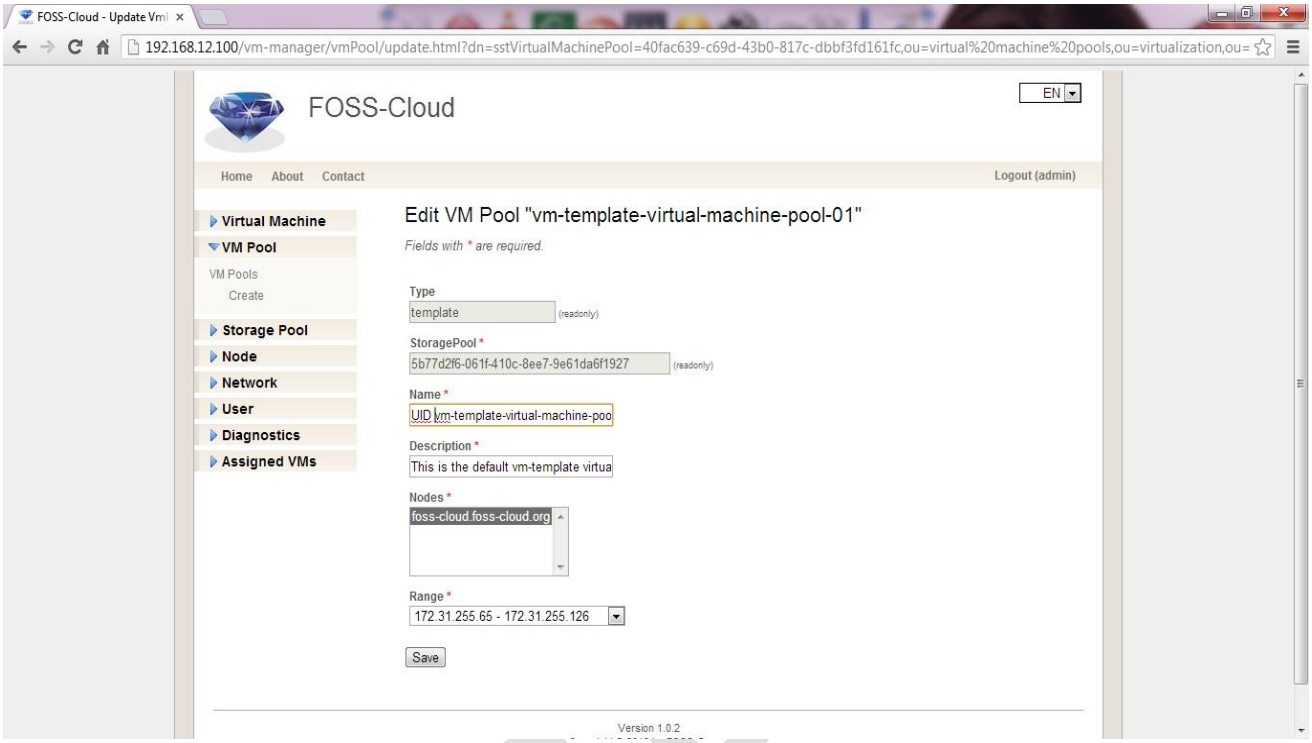
FOSS-Cloud - Update Vm
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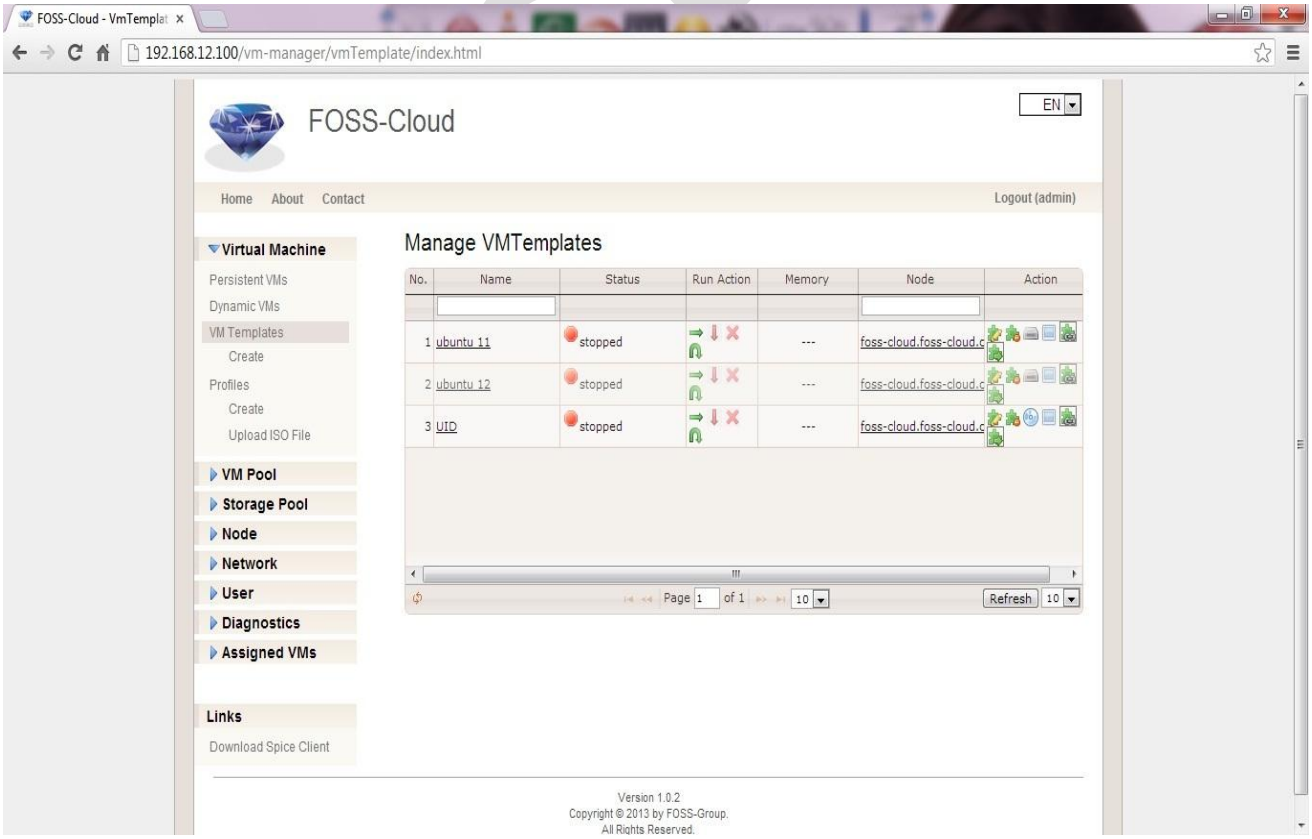
FOSS-Cloud
EN
Home
About
Contact
Logout (admin)
Virtual Machine
VM Pool
VM Pools
Create
Storage Pool
Node
Network
User
Diagnostics
Assigned VMs
Edit VM Pool "vm-template-virtual-machine-pool-01"
Fields with * are required.
Type
template
(readonly)
StoragePool *
5b77d2f6-061f-410c-8ee7-9e61da6f1927
(readonly)
Name *
UID vm-template-virtual-machine-poo
Description *
This is the default vm-template virtua
Nodes *
foss-cloud.foss-cloud.org
Range *
172.31.255.65 - 172.31.255.126
Save
Version 1.0.2


FOSS-Cloud - VmTemplat
192.168.12.100/vm-manager/vmTemplate/index.html
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Virtual Machine
Persistent VMs
Dynamic VMs
VM Templates
Create
Profiles
Create
Upload ISO File
VM Pool
Storage Pool
Node
Network
User
Diagnostics
Assigned VMs
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1 ubuntu 11
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foss-cloud.foss-cloud.c
2 ubuntu 12
stopped
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foss-cloud.foss-cloud.c
3 UID
stopped
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foss-cloud.foss-cloud.c
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CONCLUSION:

We are successfully implemented Voting Identification and secure voting scheme via cloud using UID Database. It will reduce cost and effort for implementing infrastructure for Election commission.

FUTURE SCOPE:

In Future it is possible that many of the government schemes are implemented using Biotechnology via cloud.

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