Definitions, Acronyms, and Abbreviations

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| Name | Definition |
| IMS | Information Management System |

Table 1: Definitions, Acronyms, and Abbreviations

# A. Introduction

## 1. Project Information

* + Project name: **Build an Information Management System for a datacenter**
  + Project Code: **IMS-datacenter**
  + Product Type: **Website**
  + Start Date: **4th January, 2016**
  + End Date:

## 2. Introduction

In the “Information technology age”, the need of using servers as the data storage, uploading website to the internet or even to store useful software. Normally, people prefer rental server or entrusting their servers in data center. One of the reasons, because the cost to buy and maintain server is so expensive, and others related problems such as monitoring temperature in server room, fire prevention, management of electronic and cable system, network connection, and security(copy data, computer burglary,..). Therefore, in order to cut down lots of expenses as above, the individuals or companies often entrust their servers or rent servers at the prestigious data center

Data center is the place to give us conditions to run and manage the server. The current situation of data management in data center is still facing many difficulties, for instance, customer information, sever, IP address, mostly managed by Excel, Word. It causes a lot of time and effort not only for staffs in data center, but also the customer.

## 3. Current Situation

Management of a huge system as data center is really a big deal. Their work are not just 24/24 server monitoring, but also manage and maintain other infrastructure such as network, temperature and so on. In the case of customer entrusts their servers to the center, how to set up an appointment in range of many kind of request for example upgrading server or temperately bringing server out of the center. Manually managing will take a lot of time and efforts, even more human errors. It will be annoying to customer if their history of upgrading server is tracked incorrectly, they would be in trouble with lots of nonsensical procedure. Or when IP address of a server is changed, staff has to find the location of that server to change the IP tag on it. It must take time to find the location even in a small data center.

## 4. Problem Definition

Below are disadvantages of current situation:

* Information of data center can be lost.
* Must have a large space to save information.
* Waste lots of time of data center’s staff and customers.
* Waste lots of effort of data center’s staff and customers.
* Can cause conflict between data center’s staff and customers.
* Cause discomfort to the customers when they use this service.
* Very difficult to manage information when too many servers are entrusted.
* Unprofessional process, losing of trust with customers.
* Need many staffs to manage.

## 5. Proposed Solution

The solution of these problems is to build a website named “Information Management System for a data center”. This website can help the moderators of data center to search and handle customer information, server information, and server placement, IP address allocation faster and easier. Information can be stored and accessed quickly and safely.

IMS has following functions:

### Feature functions:

- **Customer information management**:

- Staff can manage the private information of customer, the status of customer account and the time when customers go into data center.

- **Server information management**:

- Staff can manage the configuration of a server, the history of a server which was carried on/out server room, the information of server delivery and the time when server was upgraded configuration.

- The customer can also view the information and the history of their servers by this system.

- **Server placement management**:

- Staff can manage the location of server on a rack, the network configuration of server and the time when server was moved from a rack to a rack.

- This system can help staff to create report of server moving.

- **IP address location management**:

- Staff can add new IP address into system, update usage status of IP address.

- This system can support staff to record the IP address assigned to server and search available/ unavailable IP addresses when necessary.

- **Usage history of IP address reporting:**

- This system can help staff to create report of blocked IP address or free IP address.

- This system can create a statistic IP addresses being used by customers.

### 5.2 Advantages and disadvantages:

* Advantages:
* Support the staff of data center to manage information easier and faster, time saving and reduce effort of staff.
* Customer can view the information of their servers immediately by this system.
* Reduce conflict, make the comfortable working environment between staff and customer.
* Avoid losing the important information of data center.
* Can create reports, statistics quickly and accurately.
* Disadvantages:
* Initially, it takes time to enter information into system.
* The staff must spend time to learn how to use the system and practice to use expertly.
* A few problems arising can happen and the system cannot cover all of the functions.

## 6. Functional Requirements

* 1. Manage customer information:
     1. Add/Update/Active or Deactivate customer information
     2. Record time customer go into data center
  2. Manage server information:
     1. Add/Edit/Search/Delete configuration of a server
     2. Record history of a server: carry on/out server room
     3. Create report of server delivery
     4. Record time server which was upgraded configuration.
  3. Manage placement of server:
     1. Add/ Update/ Search/ Delete location of server on a rack
     2. Add network configuration of server
     3. Record time server is moved from a rack to a rack
     4. Create report of server moving.
  4. Manage IP address allocation:
     1. Add new IP address
     2. Update usage status of IP address
     3. Record IP address assigned to server. IP assignment can be done manually or automatically
     4. Search available/ unavailable IP addresses
  5. Report usage history of IP address.
     1. Report blocked IP address
     2. Report free IP address
     3. Statistic IP addresses being used by customers

## 7. Role and Responsibility

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| --- | --- | --- | --- | --- |
| No | Full Name | Role | Position | Contact |
| 1 | Ngô Đăng Hà An | Project Manager | Supervisor | anndh@fpt.edu.vn |
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Table 2: Roles and Responsibilities