

IT Infrastructure Management and Maintenance System – A Positive Climate Architecture (ITIMMS)

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Abstract:

Infrastructure management is to manage external contacts and essential operation components of an industry. It is rarely divided into two types namely system management and storage management. It works in all business activities, based upon infrastructure. Information technology is the standard form of IT infrastructure. This is used to identify the best planning design. IT management programs provide students for technical knowledge and management knowledge. All library infrastructure and managed groups are under infrastructure management and support (IMS). It also supports production applications and collaborates with the library. IT management is applying for application, security patches and business continuity plans. Selection and organizational strategic goals is mostly supports for business processes. Project and planning to implement in it management is more efficient and as well as prominent, Even though it is maintaining the IT service catalogue and implement backup. It also processed in administration of emerging and converging information. IT infrastructure Id is not a part of process and documentation. IT is used to develop test deliver monitor control or support IT services.

Keywords: *IT Infrastructure Management, Maintenance, Hardware and Software Management, Network and Data Management, Research Lab Setup.*

I. Introduction

- a) *IT Management:* It is defined by series of steps for IT management discipline. In business, practices and procedures are used to maintain technology and install. It performs strategic planning and selected technologizing used to support and transform technology. It is highly reliable, usable and functional.
- b) *IT Infrastructure Management:* It is a basic physical and performable organizational structure for operation of a society or enterprise. Services and facilities are two methods to perform economy to function as well. Infrastructure facilities are the production of goods and services. It is providing physical components of interrelated systems, commodities and services.
- c) *Hardware Management:* The hardware management console is an important key element for controlling your system. It is digitally signed for trim ware delivery and also used to controls network security. Hardware management is also applicable for APIs remote secure facility and audit capabilities. It also performs some HMC's role for common criteria.
- d) *Software Management:* Management software is a general phrase and used to define a category of computer software. It is used to designed streamline. This management can also apply for financial

management software. The management performs schedule coordination and task assignment. It plays important role in budgeting time and risk analysis.

e) *Network and Data Management*: The network database model was mainly created for three purposes. This purposes help to representing a complex data for improving database performance and imposing a database standard. The structure is difficult in network database model and type of system is also very complex. It mostly worked in hierarchal model. It uses are data access flexibility, handle more relationship types, promote database integrity and allows for data independence.

f) *Research Lab Setup*

You can build a low cost computer lab out of old computers by using simple steps,

1. *Identify the old space*
2. *Find out number of computers you may know in a classroom*
3. *Know about furniture needs*
4. *Seating configuration*
5. *Important to identify power sources*
6. *Estimate number of computers and monitors that should be sufficiently powered with their available power sources*
7. *Arrange furniture for lab*
8. *Connect computers and monitors to lab with power supply*
9. *Install Linux terminal server project on client and server*
10. *Connect computer to network and test it works or not*

II. IT Infrastructure Management and Maintenance System

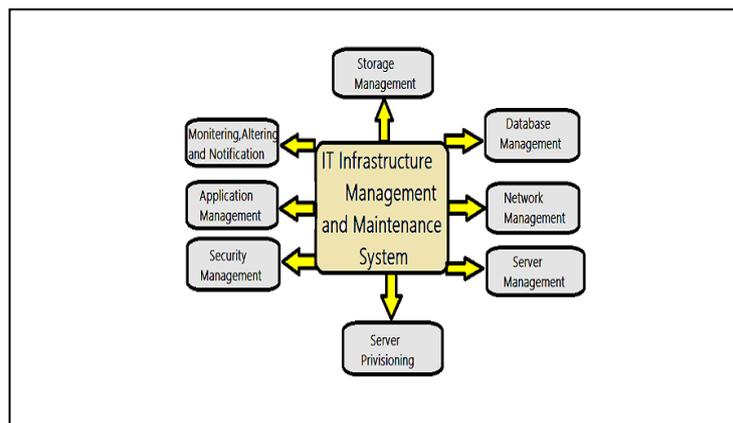


Fig: 1.Components of ITIMMS

III. Components of the Model

i. *Storage Management*

The general description is consistent and delivery of a quality. The main advantage is, client focused service is only noticed what initially look for. They have to prove that we made the right choice.

ii. *Database Management*

Database management is the greatest one for who is doing business related entity and whether it is public or private. Using this management we can easily Trace about personnel and salary information. The most experienced worker in creating database is

administrator. We have to more care full in sharing and accessing data .The database will be running smoothly with the help of experienced staff who monitors the daily operations within the data centre. Database should be highly secured.

iii. Network Management

It manages the activities the methods, steps, tools for perform operation, administration, management and provisioning, network systems. Network management generally carried out of a network operations centre, it encompasses to command and control practices. Operation performs network up and running smoothly. Before users affected ideally, it includes monitoring the network to spot errors in fast. Maintenance deals with performing repairs and upgrades. For system run better, it involves corrective and preventive measures. Network management functions are FCAPS fault, configuration, accounting, performance, and security. Functions may also include controlling, planning, allocating, deploying, coordinating, bandwidth management, security management, and route analysis. In the past network management is mainly consisted of monitoring whether devices were up or down. But now a day it become a crucial part of the IT teams role about a host of challenge mainly in global organizations

iv. Server Management

It is used to maintain the web servers and should be fully managed server. If your server is not fully managed then it will not be maintain the server and your web host is responsible for maintenance some or all server. You only have to be hiding someone to maintain it for you. one useful advantage in server is to cover specifics to come to an agreement on to choose what services will be done.

v. Server Provisioning

Server provisioning perform the process of preparing and equipping the network used to allow new services for the user. It supports for telecommunication. It is based on the concept of network provisioning supports mostly in telecommunication industry. Today's there is no possible distinction in signal infrastructure employing information technology at all levels. The security of enterprise resources will ensure that all rights and privileges in provisioning process.

vi. Security Management

IT protect infrastructure and the most common real time example is, vulnerable infrastructure was the electrical grid in 2003. The natural utility for critical infrastructure use IT add this capability has more available. it may be might provoke unexpected failures because of intrusions and disruptions. Security is very important for each thing in IT.

vii. Application Management

It given rise to the practise of application lifecycle management (ALM). now a days application management focus more on API management capabilities. It is also called application development lifecycle management. Product lifecycle management access to centralized data repository which all the tools are synchronized with each other for the whole application development stages. It has visibility in cross tool and cross project. If any changes occurred in development process and there is no last minute delivery. It is applied in computer programming, software testing, software maintenance, continuous management, change management, project management and release management.

viii. Monitoring Altering and Notification

It alerts even triggers. If you want to know about recent events, first you will list out a specific type of event. This is the normal application to alert notification sequence. If the

alert is open, the application monitoring will detect this by using downtime event, after five minutes it resolve all downtime problems or critical problems. The alert summary information will inform recent events list for your new relic APM. You may also know about dashboard details in alerts. New relic will sends initial notification and it escalates the problem to downtime event and sends another notification. It includes history, charts and errors. From above details you can get an acknowledgement that you received the alert notification.

Conclusion: As data size is getting increased, the infrastructure of IT is also supposed to be faster. In addition to that the computation process also is to be improved. This above mentioned model is opting to be a compact one. It supports the high positive climate to enterprises.

References:

<http://www.tcs.com/SiteCollectionDocuments/Brochures/IT-Infrastructure-Services-0514-1.pdf>

http://www.wipro.com/documents/Capitalizing_on_IT_Infrastructure_Services_For_an_Effective_IT_Risk_Management_in_Banks.pdf

https://www.steria.com/fileadmin/com/sharingOurViews/publications/files/Infrastructure_Management_Services_Overview.pdf