Chief Editor
Dr. A. Singaraj, M.A., M.Phil., Ph.D.
Editor
Mrs.M.Josephin Immaculate Ruba

Editorial Advisors

1. Dr.Yi-Lin Yu, Ph. D
   Associate Professor,
   Department of Advertising & Public Relations,
   Fu Jen Catholic University,
   Taipei, Taiwan.
2. Dr.G. Badri Narayanan, PhD,
   Research Economist,
   Center for Global Trade Analysis,
   Purdue University,
   West Lafayette,
   Indiana, USA.
3. Dr. Gajendra Naidu.J., M.Com, LL.M., M.B.A., PhD. MHRM
   Professor & Head,
   Faculty of Finance, Botho University,
   Gaborone Campus, Botho Education Park,
   Kgale, Gaborone, Botswana.
4. Dr. Ahmed Sebihi
   Associate Professor
   Islamic Culture and Social Sciences (ICSS),
   Department of General Education (DGE),
   Gulf Medical University (GMU), UAE.
5. Dr. Pradeep Kumar Choudhury,
   Assistant Professor,
   Institute for Studies in Industrial Development,
   An ICSSR Research Institute,
   New Delhi- 110070.India.
6. Dr. Sumita Bharat Goyal
   Assistant Professor,
   Department of Commerce,
   Central University of Rajasthan,
   Bandar Sindri, Dist-Ajmer,
   Rajasthan, India
7. Dr. C. Muniyandi, M.Sc., M. Phil., Ph. D,
   Assistant Professor,
   Department of Econometrics,
   School of Economics,
   Madurai Kamaraj University,
   Madurai-625021, Tamil Nadu, India.
8. Dr. B. Ravi Kumar,
   Assistant Professor
   Department of GBEH,
   Sree Vidyanikethan Engineering College,
   A.Rangampet, Tirupati,
   Andhra Pradesh, India
9. Dr. Gyanendra Awasthi, M.Sc., Ph.D., NET
   Associate Professor & HOD
   Department of Biochemistry,
   Dolphin (PG) Institute of Biomedical & Natural Sciences,
   Dehradun, Uttarakhand, India.
10. Dr. D.K. Awasthi, M.SC., Ph.D.
    Associate Professor
    Department of Chemistry, Sri J.N.P.G. College,
    Charbagh, Lucknow,
    Uttar Pradesh. India

ISSN (Online) : 2455 - 3662
SJIF Impact Factor :3.967

EPRA International Journal of

Multidisciplinary Research

Monthly Peer Reviewed & Indexed International Online Journal

Volume: 2 Issue: 12 December 2016

Published By : EPRA Journals

CC License

EPRA International Journal of Multidisciplinary Research (IJMR) ISSN (Online): 2455-3662

SJIF Impact Factor: 3.967 Volume: 2 | Issue: 12 |December 2016

PERFORMANCE ANALYSIS AND OPTIMIZED RESOURCE UTILIZATION OF NETWORK INFRASTRUCTURE USING ESX SERVER

Shivpuje Prakash R[1]

[1]Research Scholar
School of Computational Sciences,
SRTM University,
Nanded, Maharashtra, India

Dr. Deshmukh Nilesh K[2]

[2]Asst.Professor,
School of Computational Sciences,
SRTM University
Nanded, Maharashtra, India

Rathod R.P[3]

[3]Research Scholar
School of Computational Sciences,
SRTM University
Nanded, Maharashtra, India

ABSTRACT

With virtualization software, a single physical server can run several virtual machines simultaneously. Each of these machines believes it is running on its own dedicated hardware, as if it were separate from all the other machines. The hypervisor architecture of VMware vSpere is playing very important role in management of virtual infrasture the bare metal architecture significantly improved the performance and reliability of network infrastructure this leads towards the extent use of virtualization. ***[1]*** *The server rooms are very secure like banks, What is interesting about most server rooms is that each of the machines in the room is probably not being used to its fullest capacity. Even high-bandwidth servers rarely have to use a large percentage of their CPU or RAM at any given time. This can be quite an inefficient use of resources (after all, you are powering the thing, whether it is being used or not, right?), which can cost you money. However, there is a solution to this issue. We should go with such solution which does proper utilization of resources.[3]*

KEYWORDS: *ESXi, VMware Vspher, Vsphere client, Hypervisor, ESXiHost*

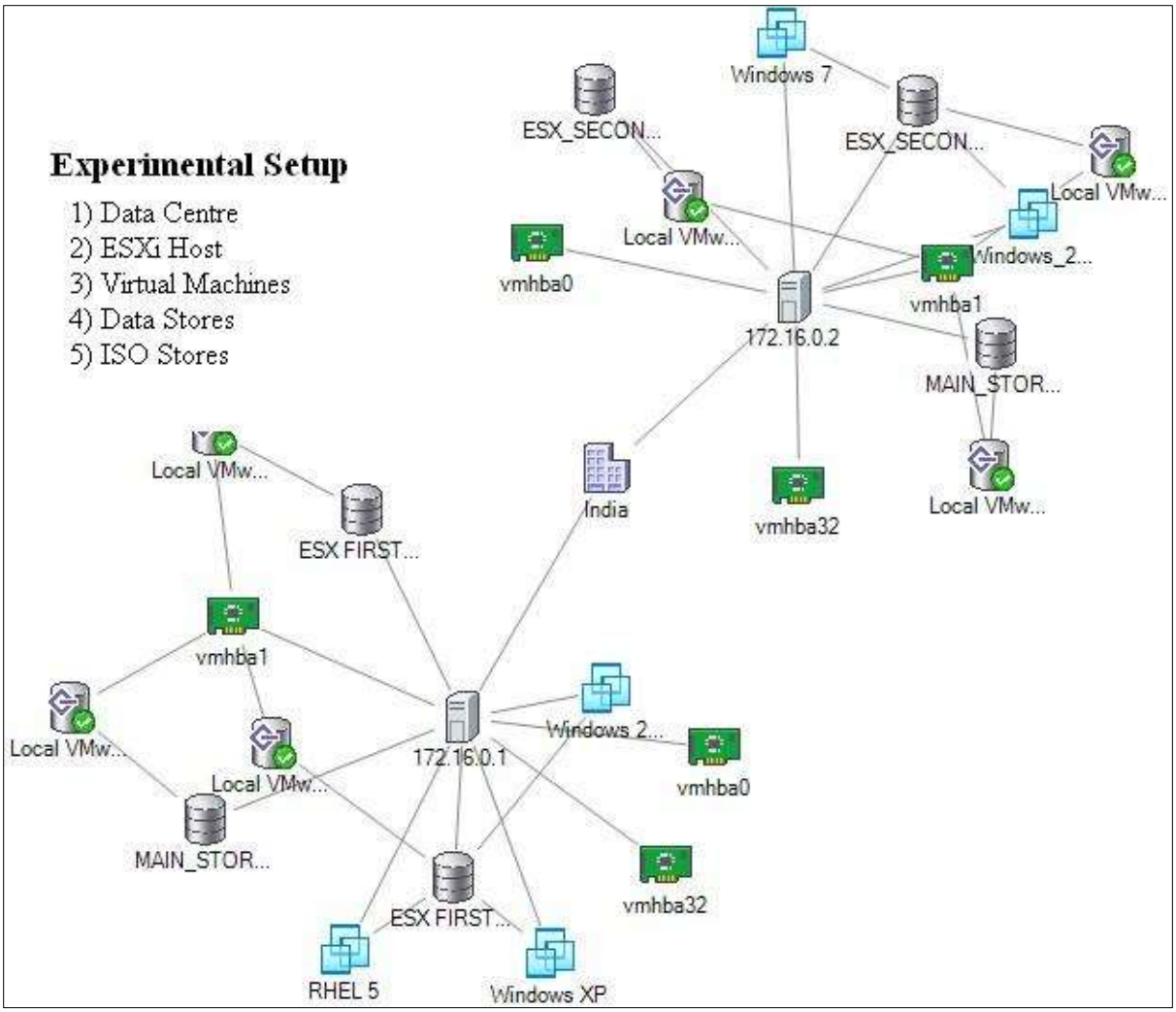
INTRODUCTION

Purpose: - The main intention is that we are worried about hardware infrastructure which is not get properly utilized, here we are introducing the ESXi server virtualization by using which we can manage resources and guarantee that efficient use of resources as compared to past

What is ESXi :- VMware ESX. VMware ESX is an enterprise-level computer virtualization product offered by VMware, Inc. ESX is a component of VMware's larger offering, VMware Infrastructure, which adds management and reliability services to the core server product. VMware is replacing the original ESX with **ESXi**.**[2]**

What is Vspher :- vSphere is a software suite that has many software components like vCenter, ESXi, vSphere client and so on. So, the combination of all these software components is vSphere. vSphere is not a particular software that you can install and use, "it is just a package name which has other sub components".**[4][5]**

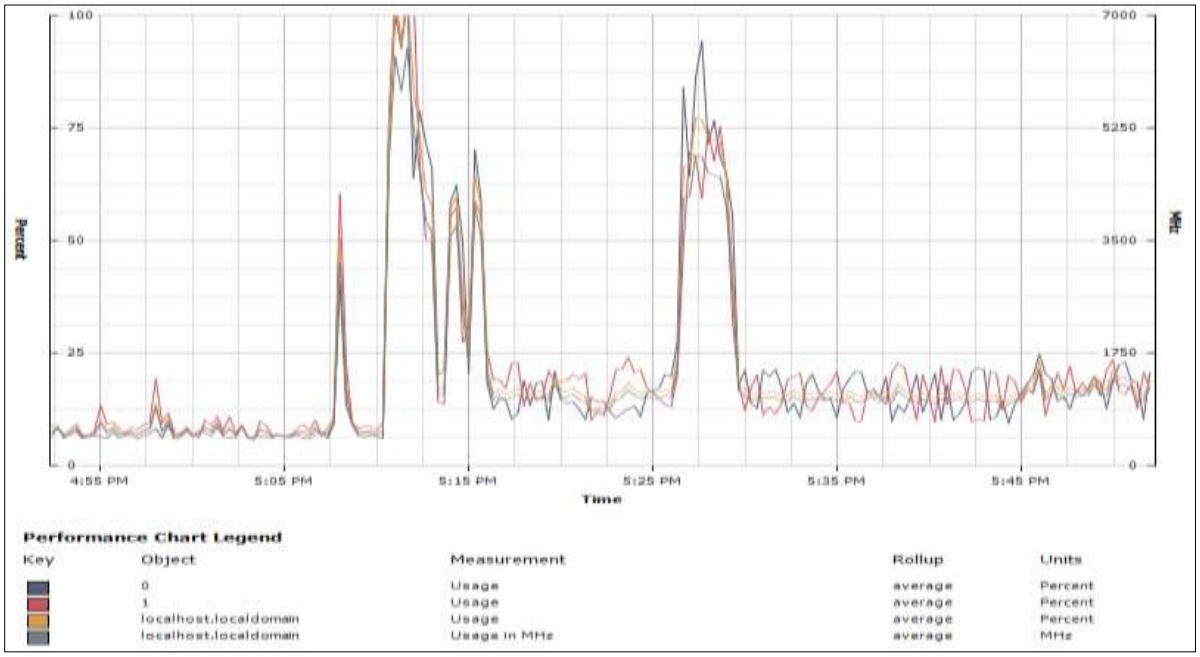
Experimental Setup (Methodology):-



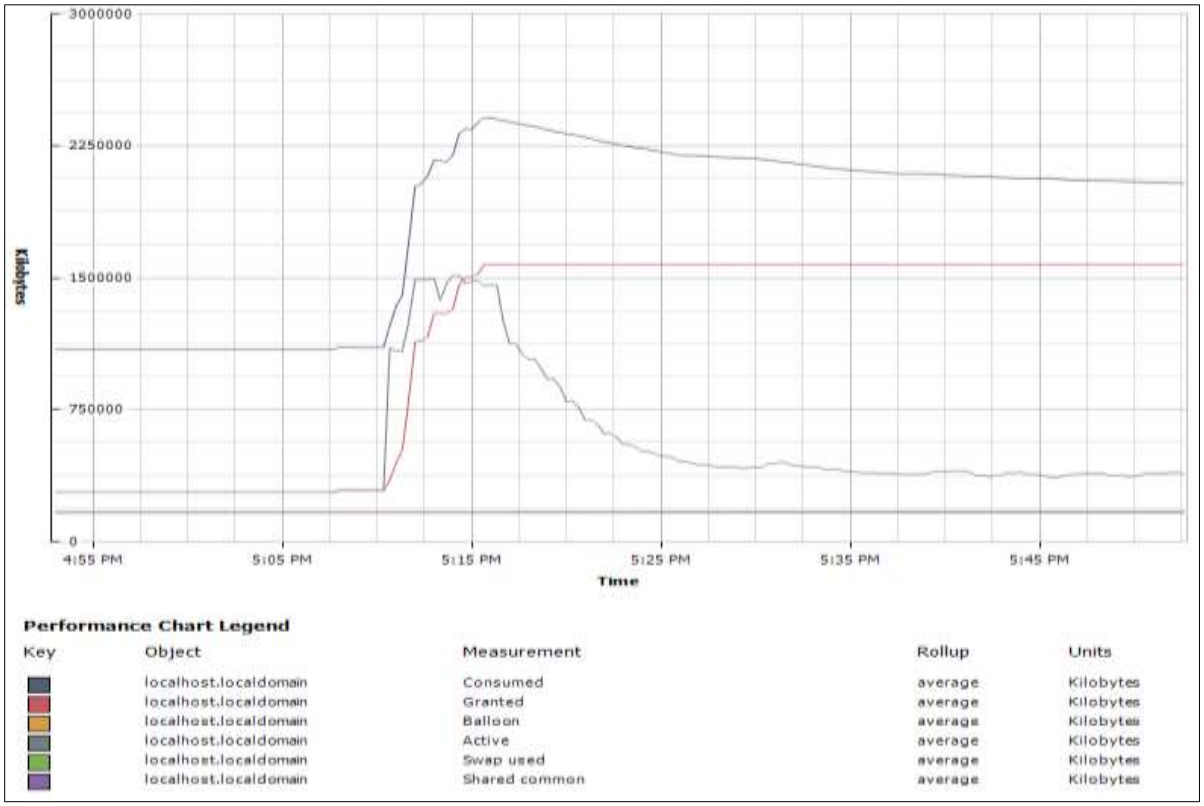
Main Physical Server configurations
8GB Ram
Intel Core I5 (IIGen)
1 TB HDD
DH 61 WW Desktop board

Performance analysis chart

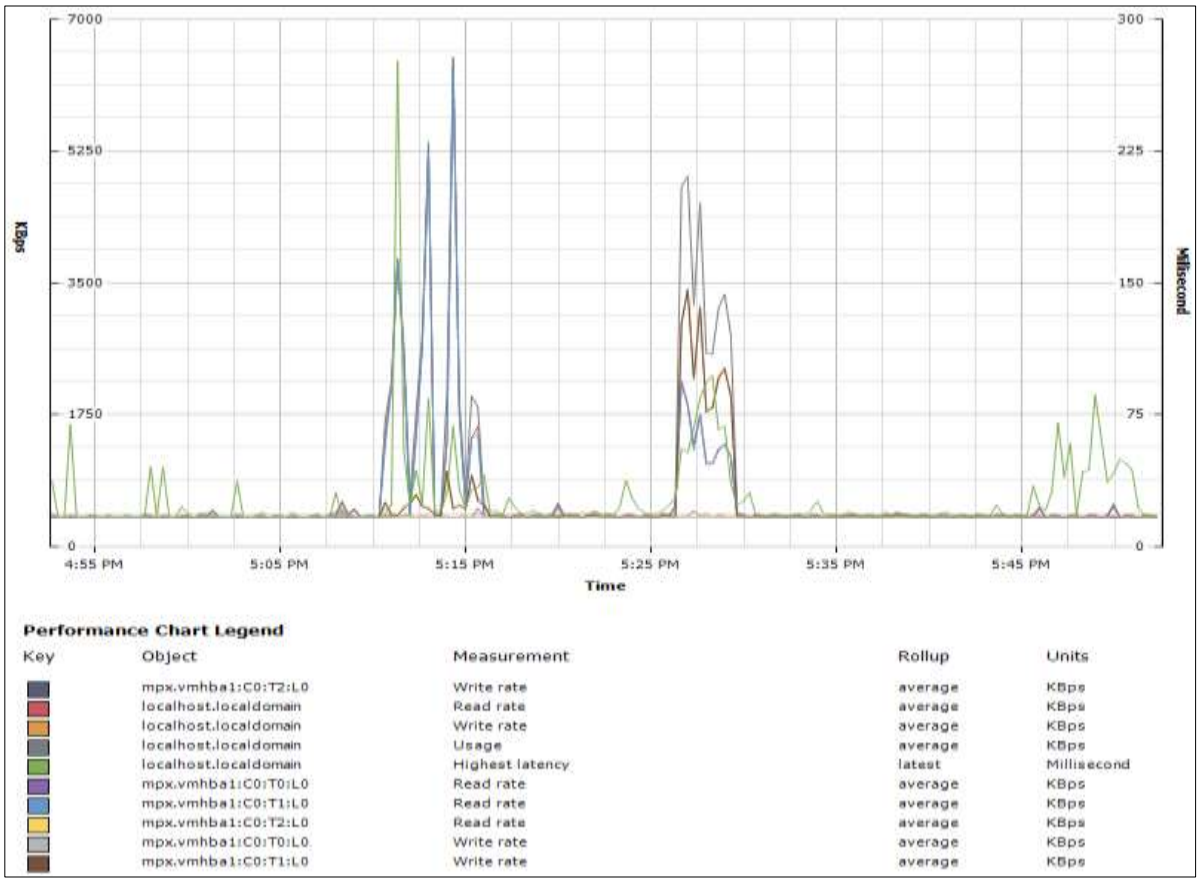
Real time monitoring of CPU



Real time monitoring of Memory



Real time monitoring of DISK



CONCLUSION

Above performance analysis chart clearly tells that in our experimental setup hardware performance get optimized and resources get utilized

REFERENCES

1) *P. Padala, X. Zhu, Z. Wang, S.Singhal, and K. Shin, "Performance Evaluation of Virtualization Technologies for Server Consolidation"*
2) *Samantha S. Foley, Vinay Pandey, Minh Tang, Felix Terkhorn and Aparna Venkatraman, "Benchmarking Servers using Virtual Machines" April 27, 2007*
3) *C. Chaubal, "The Architecture of VMware ESXi", VMware White Paper, Available: http://www.VMware.com/files/pdf/VMware-esxi-architecture-wp.pdf*
4) *VMware vSphere introduction by Michael.*
5) ***www.vmware.com***