# Project Report on Zenoss Core

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## Introduction:

Zenoss core is an open source IT infrastructure monitoring system.

It manages the performance and availability of various IT infrastructure like: network, server, storage, applications, converged infrastructure etc.

It also provides event and fault management. These features tie into configuration database. The power of Zenoss Core begins with its in-depth IT inventory and configuration database. Zenoss creates this database by discovering managed resources -- networks, servers, storage, and other devices -- in an IT environment.

These features help drive operational efficiency and productivity.

It automates many of the notifications, alerts , escalation, and remediation tasks that are performed by the operator.

## Current technology:

It uses Agent less technology. In agent less technology one does not need to install particular protocol that is agents in each and every computer system in network instead use the existing protocols.

The modeling system uses SNMP, SSH, and WMI to collect information from remote machines.

Zenoss core works through a fully interactive web user interface wherein at highest levels following major areas are there:

1.Discovery and configuration

2.Performance and availabiliy

3.Fault and event management

4.Alerting and remediation

5.Reporting

Zenoss Core is built upon the following open source technologies:

• Zope Application server: An object-oriented web server written in Python.  
• Python Extensible programming language.  
• Net-SNMP: Monitoring protocol that collects systems status information.  
• RRDtool: Graph and log time series data.  
• MySQL: A popular open source database.  
• Twisted: An event-driven networking engine written in Python

## Benefits:

* First of all, it is free and open source. Backed by the efforts of a large community of users .Users can deploy and adapt on their own terms.
* It provides visibility of full lifecycle: Discover & model entire network/server infrastructure Group, organize & visualize environment ,Track inventory & configuration changes ,Monitor performance and availability ,Centralize fault/alarm/event management Real-time alerting & reporting
* Cross-platform support-It supports windows , linux and unix
* Single integrated view of networks, servers and apps
* Distributed architecture proven to scale to thousands of devices
* Open architecture makes it easy to customize and extend
* Affordable - Some of the products are readily available and one can buy other products as and when needed.

## Drawbacks:

* Performance -When Zenoss core is developed in MySQL DB its SELECT operations produces extra high I/O when getting some data from the event's history.
* Complexity-It is not only an IT monitoring system but because of lot of features it has become IT management system which requires the user to have extra knowledge about the language ,simply learning interface is not enough.

## References:

* <http://community.zenoss.org/docs/DOC-5885>
* <http://sourceforge.net/projects/zenoss/>
* <http://www.zenoss.com/sites/default/files/documentation/Zenoss_Core_Administration_02-022014-4.2-v08.pdf>
* <http://adminotes.blogspot.in/2011/08/zenoss-introduction.html>