

ZABBIX The Ultimate Monitoring Solution

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Doc source <http://www.zabbix.com> What is ZABBIX? ZABBIX is an enterprise-class open source distributed monitoring solution. ZABBIX is software that monitors numerous parameters of a network and the health and integrity of servers. ZABBIX uses a flexible notification mechanism that allows users to configure e-mail based alerts for virtually any event. This allows a fast reaction to server problems. ZABBIX offers excellent reporting and data visualisation features based on the stored data. This makes ZABBIX ideal for capacity planning. ZABBIX supports both polling and trapping. All ZABBIX reports and statistics, as well as configuration parameters are accessed through a web-based front end. A web-based front end ensures that the status of your network and the health of your servers can be assessed from any location. Properly configured, ZABBIX can play an important role in monitoring IT infrastructure. This is equally true for small organisations with a few servers and for large companies with a multitude of servers. ZABBIX is free of cost. ZABBIX is written and distributed under the GPL General Public License version 2. It means that its source code is freely distributed and available for the general public. Both free and commercial support is available and provided by ZABBIX Company. ZABBIX offers:

- § auto-discovery of servers and network devices
- § distributed monitoring with centralised WEB administration
- § support for both polling and trapping mechanisms
- § server software for Linux, Solaris, HP-UX, AIX, Free BSD, Open BSD, OS X
- § native high performance agents (client software for Linux, Solaris, HP-UX, AIX, Free BSD, Open BSD, OS X, Tru64/OSF1, Windows NT4.0, Windows 2000, Windows 2003, Windows XP, Windows Vista)
- § agent-less monitoring
- § secure user authentication
- § flexible user permissions
- § web-based interface
- § flexible e-mail notification of predefined events
- § high-level (business) view of monitored resources
- § audit log

more over Zabbix is

- § Open Source solution
- § highly efficient agents for UNIX and WIN32 based platforms
- § low learning curve
- § high ROI. Downtimes are very expensive.
- § low cost of ownership
- § very simple configuration
- § Centralised monitoring system. All information (configuration, performance data) is stored in relational database
- § high-level service tree
- § very easy setup
- § support for SNMP (v1,v2). Both trapping and polling.
- § visualisation capabilities
- § built-in housekeeping procedure

Use of ZABBIX Distributed monitoring

- Auto-discovery
- Pro-active monitoring
- Monitoring of WEB applications

ZABBIX provides very efficient scenarios-based way of monitoring WEB applications. Both HTTP and HTTPS are supported.

Performance monitoring

One of most important uses of ZABBIX is performance monitoring. Processor load, number of running processes, number of processes, disk activity, status of swap space, and memory availability are some of the numerous system parameters ZABBIX is able to monitor. ZABBIX provides a system administrator with timely information about performance of a server. In addition, ZABBIX can produce trend graphs to help identify bottlenecks in system performance.

Alerting users

Having performance monitoring is good, but it is almost useless without a powerful notification mechanism. With ZABBIX, an administrator can define virtually any possible condition for a trigger, using flexible expressions. Any time these expressions become true (or false), an alert will be emailed to any address defined by the administrator. External programs can be used for user-defined notification methods such as SMS, phone notifications, etc. ZABBIX can predict future behavior of monitored parameters using Least Square Algorithm. This allows user to be notified even before system state achieves critical level. Note: This functionality will be completed in future versions of ZABBIX

Monitoring of log files

ZABBIX can be used for centralized monitoring of log files. Note: This functionality will be completed in future versions of ZABBIX

Integrity Checking

ZABBIX is capable of server integrity monitoring. All critical configuration files, binaries, kernel, scripts, and web server HTML pages can be monitored by ZABBIX so that the administrator can be alerted to modifications made to these files.

Logging services

All values of monitored parameters are stored in a database. The collected data can be used later for any purposes.

Capacity planning

Viewing trends of process load, disk usage, database activity, or other important metrics allows a system administrator to clearly see when the next hardware upgrade should be made.

Assuring and monitoring of SLA

ZABBIX is able to monitor Service Level Agreements (SLA). It also keeps SLA related historical data that helps to identify and improve weak areas of an IT infrastructure.

High level view of IT resources and services

A High level service tree allows the creation of dependencies between various IT resources. Such representation enables the following questions to be answered: What IT services depends on availability of resource X? Example: If processor load is too high on server A, then these IT services will be affected: Oracle server, WEB banking, online transaction processing, etc. What resources specific IT service depends on? Example: WEB portal may depend on the following resources: processor load on server A, connection to ISP provider, disk space on volume /data on server A, availability of Oracle DB engine on server B, speed of execution of user requests, availability of Apache server on server etc etc. Such a dependency tree helps identify weak points in IT infrastructure. Example: If several critical services offered by IT department depends on, for example, availability of disk space on some server, then it is time to think about distribution of the volume across different servers or disk arrays to eliminate possible risks. Other availability analysis

- § graphical representation of collected information
- § Network maps
- § custom screens

What's new in Latest ZABBIX 1.4

- Auto-discovery

ZABBIX distributed monitoring module allows to deploy ZABBIX systems easily. The discovery supports IP ranges, service checks, agent and SNMP checks for efficient auto-discovery. Distributed monitoring

ZABBIX distributed monitoring is made for complex environments consisting of different locations. ZABBIX supports monitoring of an unlimited number of nodes. Centralized configuration allows easy all the nodes to be configured from a single location easily.

WEB monitoring

WEB monitoring module enables flexible and easy monitoring of availability and performance of WEB sites and WEB-based applications. It supports passing of GET and POST variables.

Installation Wizard

Installation Wizard automatically checks pre-requisites, database connectivity and generates a configuration file for WEB front end.

Support of new database engines

SQLite support has been implemented. It allows to use ZABBIX in embedded environments.

WEB interface improvements

WEB interface speed and

usability have been improved greatly. ZABBIX Manual v1.4 Copyright 2007 ZABBIX SIA Page 25 of 212

New notification methods Native support of Jabber messaging has been introduced. Many-to-many template linkage More flexible host-template linkage saves time and makes the configuration of hosts more flexible and straight forward. Database watchdog ZABBIX server will automatically warn the group of users if the database is down and continues normal operations when the database is back. Implemented for MySQL only. XML data import/export New XML data import and export functionality is an excellent way of sharing templates, hosts configuration and items/triggers related information. Windows Vista Support ZABBIX Windows agent supports Windows Vista, both 32 and 64 bit versions. More flexible actions Multiple operations (notifications, script execution) per action are supported. The choice of action calculation algorithm was introduced. Server-side external checks The server-side external checks can be used to introduce custom checks executed on ZABBIX server side. New user permission schema The old user permission schema is no longer supported. It was replaced by a new more efficient, yet simple, schema working on the level of user groups and host groups. Hysteresis support ZABBIX supports the use of different trigger expressions for going to ON and OFF states. Slide show support Several screens can be grouped into a slide show for better presentation. ZABBIX server can spread the workload across several servers Groups of server side processes (discoverer, poller, HTTP poller, trapper, etc) can be located on different physical servers for better performance and availability.