

Zabbix : Interview of Alexei Vladishev

Monitoring-fr : Hello Alexei Vladishev, can you introduce yourself to the French community please?

Alexei Vladishev : I am a 36 year old engineer with a background in system administration, development and software architecture for financial OLTP systems. I have a degree in computer science from Latvian University.

More than ten years ago I started my work on a server and application monitoring tool, which later was publicly released and known as 'Zabbix'.

Currently I lead Zabbix Company (called Zabbix SIA) having multiple responsibilities including company operations as well as product management. I tend to be focused on technical and design issues, which is what I enjoy very much.

The company was established six years ago, I was the only employee at that time. It is fully focused on development of Zabbix and providing commercial services around it such as annual support agreements, training programs, sponsored development, integration and implementation works, etc.

M-fr : Can you describe Zabbix in a few words?

A.V. : Zabbix is a free platform for real time monitoring and alerting. It's primary focus is monitoring of servers, applications and network devices, however it is being successfully used in other areas including monitoring of environmental conditions such as temperature and humidity, voltage, and other metrics not directly related to pure IT environments.

It can be easily adapted to other industries interested in real time monitoring and graphing.

Zabbix is all in one integrated solution, which has little dependencies. Graphing, maps, escalations, agent based and agent-less monitoring, monitoring of distributed environments, trending, flexible user permissions, Zabbix API - all this and more is part of Zabbix. The native Zabbix agents are available for virtually all platforms including AIX, HP-UX, Linux, Solaris, *BSD and Windows.

Zabbix scales to hundreds of thousands of devices and is able to execute and process more than one million performance and availability checks per minute giving you nearly instant response to any potential problems with your IT environment.

Another interesting fact is that both Zabbix server and agents are written in C language, which guarantees the maximum possible performance as well as lowest possible CPU and memory resource usage.

Monitoring must not affect monitored system, this principle is very important. I am really scared of those monitoring systems using Java based agents.

M-fr : What motivated you to start this project ? Why Zabbix simply?

A.V. : My interest in monitoring solutions was raised around 15 years ago when I was in charge for system administration and management of various Unix boxes (mainly HP-UX), database engines such as Oracle, Informix SE/Online, DB2 and daily batch processing.

I hoped to find a way how to automate certain administration and monitoring tasks. The goal was to deliver nearly 100% uptime and be informed immediately about any issues in production environments doing financial transaction processing.

I realized very soon that standard commercial solutions won't be able to deliver what I wanted for a reasonable budget. My expectations were pretty low at that moment: real-time graphing, pro-active alerting and access to historical data.

I started with a bunch of Perl scripts initially but completely rewrote everything in C afterwards when it transformed into my hobby project. The front-end was written in PHP, which actually was the only reasonable option to develop a WEB client ten years ago. :)

At some point I decided to release my software under a free license, but I had no name! I started to invent unique names unknown to anyone else. My test was very simple, I tried to search for new invented names in Yahoo search, after two weeks (yes, it took nearly two weeks to come up with a good combination of letters!)

I came up with word 'Zabbix'. Finally Yahoo didn't return anything, test passed, I was absolutely happy.

I heard many versions, but despite of various speculations I say officially that there are no any meanings behind word 'Zabbix'. :)

Actually it appeared to be a good name sounding nice in many languages and currently it is a registered trademark in many countries.

M-fr : What audience is Zabbix?

A.V. : The audience is quite broad from individuals to multi-national global companies. There are people using Zabbix for monitoring of just a couple of boxes and there are also big corporations using Zabbix for monitoring global infrastructures of tens and hundreds of thousands of servers collecting terabytes of historical data per year.

Interesting fact, I tend to think it's because of my semi-financial background, but Zabbix is very well received as a monitoring platform for companies from financial sector. There are number of large financial institutions and banks in Europe using Zabbix for monitoring of IT infrastructure. In Latvia, home of Zabbix, it is actively used by most of Top 10 banks.

The broad audience makes all architectural decision much more challenging. Five years ago our

typical customer was a company having a few hundreds of devices, nowadays we communicate more frequently with large enterprises having distributed environments and tens of thousands of devices to monitor.

M-fr : What distinguishes Zabbix other major solutions of open source monitoring?

A.V. : There are several things I feel are very important and make Zabbix a very strong competitor of even the very expensive commercial alternatives.

First, Zabbix is absolutely free software released under GPLv2 license, which does not have non-free enterprise or limited community versions. You may use absolutely all features without any strings attached absolutely free with no license cost.

I do not use term "Open Source" here because it is quite confusing nowadays. I prefer to call Zabbix free not open source, however both terms are used on our home page.

It is an all in one solution, which means that you do not have to think how to integrate various products to get the level of functionality Zabbix provides out of the box.

Another very important thing is that we pay serious attention to maintenance aspects of Zabbix. We guarantee backward compatibility of newer releases with older agents, all Zabbix components are 100% compatible within one major release.

Zabbix keeps all configuration and historical data in a standard SQL database engine. So in order to backup Zabbix you just have to backup Zabbix database using standard utilities.

Zabbix scales from embedded fan-less systems running on SQLite to large distributed installations with Oracle back-end.

Zabbix API introduced in version 1.8 makes integration with third party tools much easier. Our goal is to provide a clear API for managing Zabbix and getting information out of Zabbix using your favorite language. The API is based on JSON-RPC standard making it very easy to use with Python, Ruby, PHP, and many other languages.

We have number of mobile clients for Zabbix built on top of Zabbix API and available for iPhone, Android, Blackberry and even Windows Phones.

In one sentence, Zabbix is a mature monitoring system with great level of flexibility. :)

M-fr : Soon Zabbix version 2.0? An estimate on the date of its release?

A.V. : I am known to be very bad at estimating release dates. :) I think it's a destiny of any free software, the software must be released when it's ready. This year we invested lot of effort to introduce infrastructure for automated testing and continuous integration, which took our resources

however it was a very important step in improving development process as well as quality of the product.

At the moment we have 90% of all planned functionality of Zabbix 2.0 finished. As soon as we have all features ready we'll go into testing phase, which may take some time. It is very important to have high quality product released, so I won't sacrifice quality in return for an earlier release date.

M-fr : How do you see the evolution of Zabbix on the longer term? Your ambitions?

I'd like to see Zabbix to be a number one free monitoring platform of choice but it is not the primary goal. I feel that it is far more important to have a product people can trust. Another important point is to feel and understand needs of end-users so that we could deliver solution for real problems and challenges our users face.

Money or a financial success has never been a priority, yet it is important factor for steady growth of the Zabbix Company.

M-fr : What is your view on recent developments in open source monitoring software? What future for monitoring?

A.V. : Probably I am not the best person to answer these questions or ask for any predictions.

I see that open source monitoring software already became a strong competitor to traditional commercial alternatives from vendors like HP or IBM. Open source solutions are much flexible when it comes to functionality and interoperability. Besides, if we look at Zabbix, our users are able to actively influence what features and what functionality should be included into next release either by sponsoring development works or by voting for the most popular features from publicly available list. I doubt that any mature commercial software can offer it.

I really like that we have more and more open source products in monitoring area, they do a very good job of creating market share and bringing a message that there are better and cheaper alternatives.

By the way, I never compare Zabbix to other open source solutions even if I asked to. It is extremely difficult to say what product is "better" and comparisons are extremely subjective and unfair. I also do feel great respect for products like OpenNMS and people staying behind them and dedicated to work on free software.

I believe I am not the only one noticing a tendency of transforming of a traditional system into cloud-ready solutions. It may change the landscape of the market, because the monitoring functionality may become an essential part of the cloud infrastructure. However end-users will still be interested in, let's call it, "independent" monitoring to be confident that the services you are paying for are delivered according to certain SLAs.

I think that future of supervision is smarter systems, i.e. systems that can learn, detect anomalies and

fix issues automatically without human intervention. Also a monitoring system must be smart enough not only to tell what's wrong but also provide an advice on how to configure your system better. Think about it as a global knowledge base able to analyze your environment.

AI (artificial intelligence) and smarter algorithms may also help to bring a new level of value to monitoring systems. Suppose you rent cloud or virtual (VMs) resources and you would like to minimize your expenses. You can do this by switching off unneeded nodes as well as migrating VMs to less utilized physical servers. A smart monitoring system can be of a great help here.

M-fr : As we enter 2011, what can we hope to Zabbix?

A.V. : I am very optimistic! We have a great team of people working on Zabbix. In early June we moved to a new bigger office in Riga and I expect our team to grow significantly by the end of 2011. Our company is growing every year and this year won't be an exception.

Zabbix 2.0 will also be released, so we could start working actively on finalizing Zabbix 2.2 roadmap.

We are having Zabbix Conference 2011 in September to celebrate 10 year anniversary of Zabbix as well as to meet our friends, tell where we are going. More information about the conference is available at <http://www.zabbix.com/conference2011.php> If you haven't registered yet, do it now! :)

M-fr : A word to conclude?

A.V. : Some people do not realize how great of a help a monitoring system may provide. Most of businesses rely on IT services very much, any downtime leads to financial losses and reputation risks. A good monitoring system may help to eliminate most of these issues and warn you way before something nasty has happened. Good sleep and piece of mind is guaranteed! ;)