

FOSDEM 2007



<http://pandora.sourceforge.net>

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Pandora FMS



Pandora is a monitoring tool designed to monitor either systems or applications. It will allow you to know the status of any of your systems, whether they're hardware for network communications, web applications or just an operating system.

Pandora is able to monitorize **whatever** you want.

Pandora FMS



Pandora FMS 1.2 has just been released, coded in several languages, like Perl5.8, C, C++, ShellScript and PHP5.

Pandora FMS 2.0 will be release in Q3 2007, and it's core is being coded in C, rewritting almost Perl code.

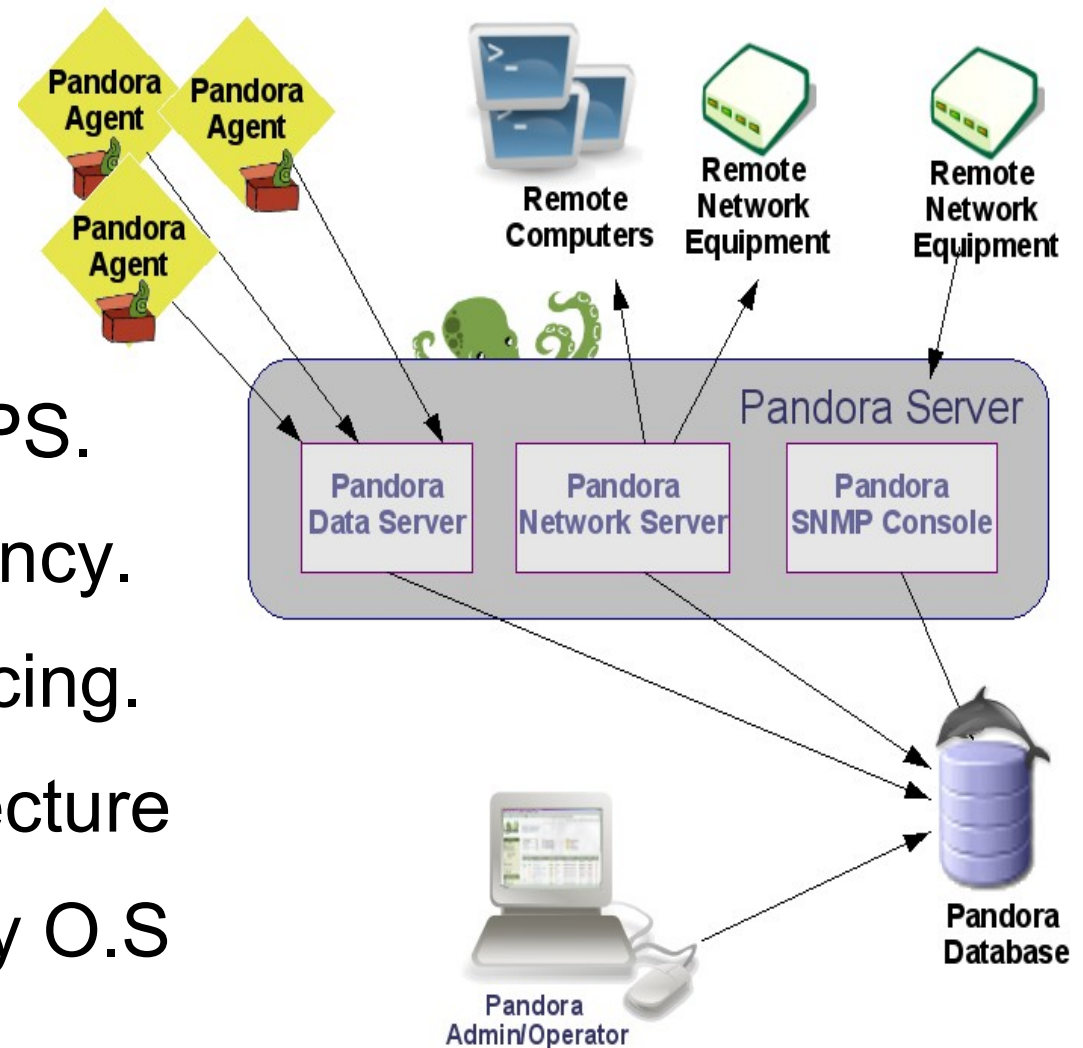
Monitoring system agents

- Pandora Agents are able to run in any Unix or Linux System, and... Windows :)
- It can keep monitorized any network device, application, system component, logfile, port...
- Easily management of incidents from a Web Console.
- Customized reports can be done using a SQL backend (MySQL 5), which is Open Source.



Architecture

- WEB management
- Secure connections:
SSH, SSL, HTTPS.
- Component redundancy.
- H.A and Load Balancing.
- Client-Server Architecture
- Native agents for any O.S



Pandora agents

- Totally customizable (easy shell language).
- Coded in Bash for Linux systems.
- Coded in csh for BSD and NokiaIPSO systems
- Coded in ksh for Solaris & AIX systems.
- Coded in C++ for Windows systems (MinGW).
- Installer has been builded with Install Jammer (Win), RPM for Linux, and shellscript for Unix.
- Free Source, so it is available to modify and improve any one of it.

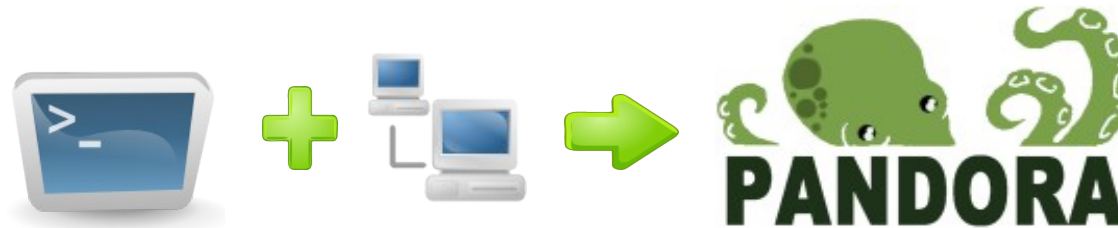


Using Pandora FMS agents



- Scripts runs and generate a data XML.
- The connection could be made by any way: SSH, SSL transport, HTTP, FTP or whatever you require or can imagine.
- We are involved in the development of new protocol to transfer the file, called “Tentacle” that uses TCP/SSL.
- Agents are run as a daemon, contacting server at regular intervals of time.

Pandora FMS module example



```
module_begin
```

```
module_name disk_root_free
```

```
module_type generic_data
```

```
module_interval 2
```

```
module_exec df -kh / | tail -1 | awk '{ print 100-$5 }'
```

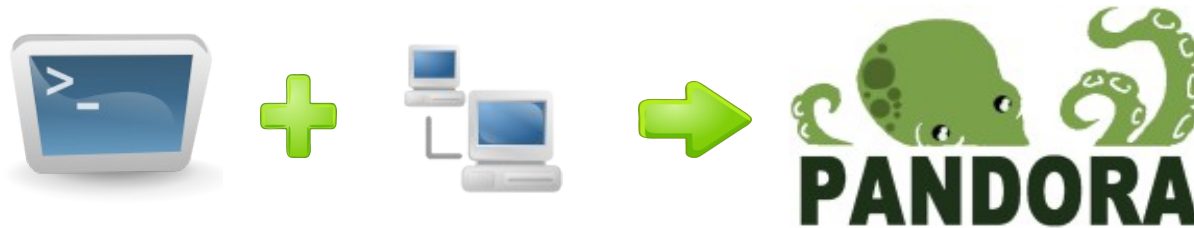
```
module_max 100
```

```
module_min 0
```

```
module_description Free disk Percentage of root partition
```

```
module_end
```


Pandora FMS servers



- **Pandora Data Server.** The agents send the XML. The server periodically verifies if it has new data files waiting to be processed. Setting up different data servers in different systems or in the same host is possible.
- **Pandora Network Server.** Execute network tasks like sending pings, TCP, SNMP or UDP request. Automatic failover of Pandora Network servers in a HA environment.

Pandora FMS alert system

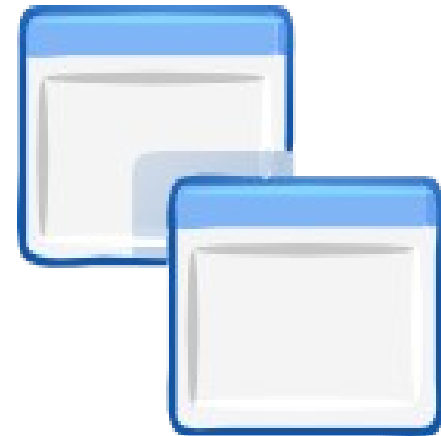


- It can inform using customizable thresholds, ranges and exceptions.
- Kind of alerts: SMS, eMail, Log, internal audit, SNMP Trap, Syslog...or whatever you need.
- Template to define how alerts must run.
- Internal auditing for alerts.
- Console to manage SNMP traps.

Pandora FMS agents runs periodically

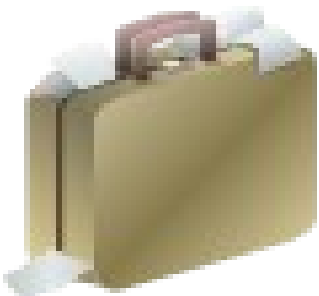


- Pandora server is always alive, waiting for data from the agents.
- Agents can be set up to run periodically, hours, 1 day, or just 1 week
- When a XML file is received, Pandora will process it automatically



Pandora FMS database

- At the moment, only MySQL is supported.
- Asynchronous database
- Temporary cohesion of everything received is done.
- Periodic and automatic maintenance of the database can be done, with a few clicks.
- Purging database can be set up automatically.

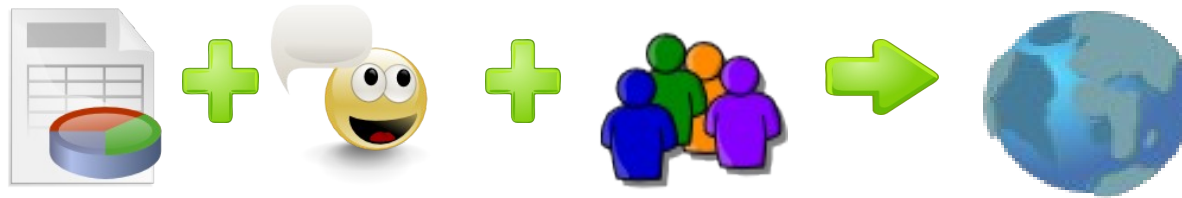


About ArticaST



- Free Software I+D. Working also with Universities
- Pioneer Free Software projects developed.
- System and Security Experts.

Pandora FMS project



- All code licensed under GPL2.
- Currently 10 developers
- Everybody is welcome to the project.
- Feeling like to contributed? Tell us.

<http://pandora.sourceforge.net>