

Commercial Open Source vs. “free download”

This whitepaper gives an overview of how op5’s solutions add real value to an alternative “open source download”. The paper is targeting two key areas:

- ***Why pay for open source?***
- ***What are the technical benefits of “commercial open source”?***

Introduction

Open Source has now been available for a number of years and is constantly maturing. However, in order to answer the question “Why pay for open source?” we need to define what part of the open source market we address. A basic way to differentiate the market is:

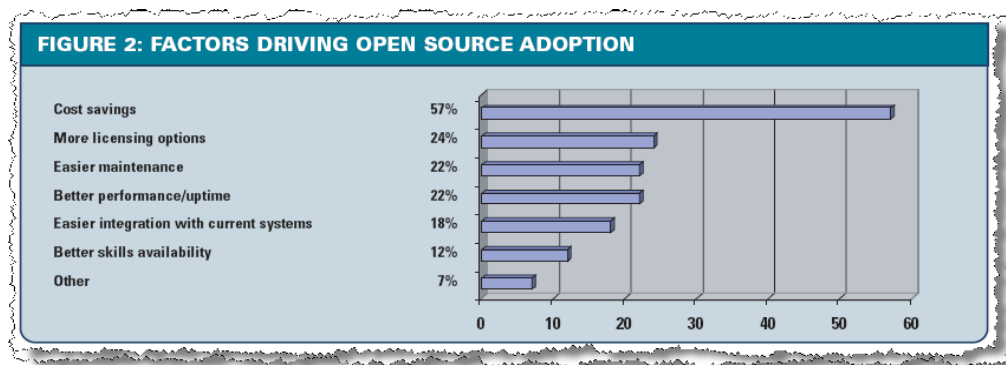
- Stand alone programs such as MySQL, Apache, Nagios etc.
- Applications that in one way or many utilises different underlying open source programs.

Free software is the freedom to change and add in the code, not automatically free of charge. This paper focuses on the Application market as it is the market op5 is present in.

System life cycle

Implementing an IT system of any type is an investment. A normal IT system’s lifecycle ranges from a year and up. The trend is for longer lifecycles rather than shorter ones due to the overall cost of change. There are numerous independent reports from the major analysis companies* all indicating a general split for system cost of ownership of 20% initial investment and 80% running maintenance cost.

One can argue in the case of an open source based solution that these numbers are even higher as the need for access to experts are generally higher utilising OSS based systems whereas the “cost” of downloading an OSS is zero.



Source: IOUG 2006 Survey on Open Source Trends

Key cost analysis

There are many ways to calculate “cost”. But it is fair to state that any system’s cost is heavily depending on:

- How soon will the investment start to pay off?
- What is the general need for long term “experts”, internal or external, in order to maintain or grow the system?
- What is the alternative cost / alternative income?

Commercial open source adds initial key value

The op5 Monitor solution integrates more than 250 individual open source projects into one application. Addressing the 'time to investment payback' question, it is easy to calculate it by just understanding the need for internal or external experts in setting up a basic similar platform. An installation of a 200 node network with monitoring of key infrastructure, traffic flows and applications is *a two days operation*.

The need for change and long term access to experts

An NMS system like op5 Monitor is no different than any other business critical application – unless the system is actively updated it quickly becomes old and loses its trust from the IT department. So slowly but surely it will die. This is highly applicable in the NMS market (see note from Gartner above). The maturity of Open Source programs vary greatly between different projects. The scale reaches from just a few code lines to fully documented software.

Gartner group found that 70% of all enterprise network and system management investments fail due to the complexity of the software, the cost and time it takes to implement and operate it and the difficulty in finding and retaining network engineers.

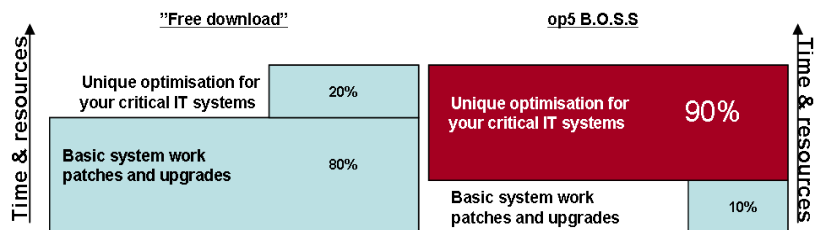
Choosing what open source code to use in a solution is a mixture of validating:

- Initial core functionality
- Long term project vulnerability, i.e. is the project stable and viable for the long term?
- Security – what is the security impact of integrating the code?
- Stability – is the code stable? How long has it been stable? What is the track record?
- Compatibility – will it work in all environments?
- Scalability – can it work for 10 users or 1000? What are the overall performance degradations?
- Usability – is there a user interface? If so, is it workable for a large user base?
- Integration – does this piece of code have special needs for integrating it into the overall application?
- Documentation – is it there? If so, is it useful?
- Legal – are there any constraints in the licensing of this particular OSS or how we plan to integrate it?

Understanding these questions and applying them to a general change and update scheme for each individual OSS integrated in to the overall application, it should be very clear that unless the organisation has “free and unlimited” access to programmers or IT specialists the overall calculation is in total favour of boxed open source vs. “free downloads”.

Turning the pyramids for optimising your key resources

Many of op5’s current customers have a history of utilizing parts or specific OSS projects today integrated in our products. Buying an open source based product directly frees business critical resources. Instead of wasting these resources on basic and time-consuming work primarily focused on patch handling, testing etc. (see list above) you can now use them for adding and shaping the solution to optimise your particular business needs.



A non-boxed Nagios installation also demands a vast amount of text editing for initializing a standard check. Your resources are better utilized for developing and deploying checks designed for your specific business demands.

Ease of use – the single most important feature

A system, however feature full not used is a waste of money and resources. An NMS system collects huge amounts of valuable information – providing the user can understand it! Another key challenge is to keep the NMS system up to date with moves, adds, changes and deletes in the monitored systems. This can be a heavy burden to any IT support organisation.

Comparing op5 products with the underlying free open source projects our main focus is to easy the use on input data (handling the moves, adds, changes and deletes) and the output data i.e. reports.

Example of adding a new host with x number of services monitored will need a unix/linux experienced IT resource to work through up to 9 different steps.

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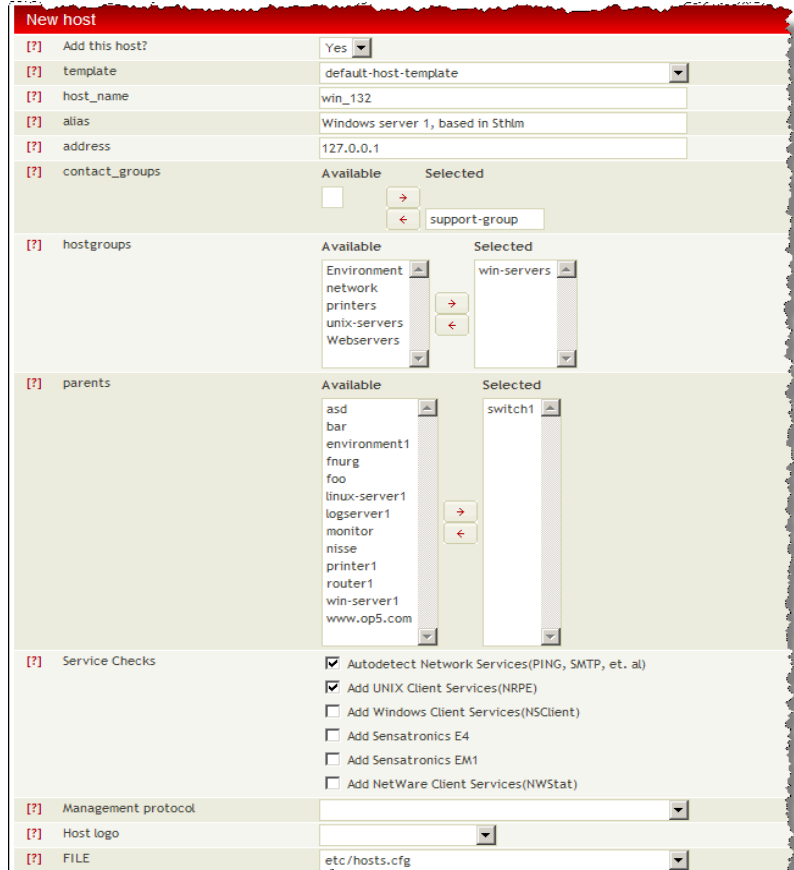
10:29 checkcommands.cfg 3, Add the checkcommands associated to individual services
14:15 checkcommands.cfg.rpmnew
10:29 contactgroups.cfg 4, Add the appropriate contact group/groups
10:29 contacts.cfg 5, Add/change contact in contact group
10:29 eventhandlers.cfg
10:29 hostdependencies.cfg
10:29 hostescalations.cfg
10:29 hostextinfo.cfg 6, Add correct icons, coordinator, links etc. for the host
10:29 hostgroups.cfg 7, Add if host is present in a host group or groups
10:29 hosts.cfg 1, Add the new host
10:42 httpasswd.users
10:29 misccommands.cfg 8, How notification should be handled
16:13 nagios.cfg
13:59 old
2007 resource.cfg
10:29 servicedependencies.cfg
10:29 serviceescalations.cfg
10:29 serviceextinfo.cfg 9, Add if included services should be in service groups
10:29 servicegroups.cfg
10:29 services.cfg 2, Add the service/services you want to monitor
10:29 timeperiods.cfg
    
```

```

# host 'linux-server1'
define host{
    use                default-host-template
    host_name          linux-server1
    alias              test 12345
    address            linux-server1
    hostgroups         unix-servers
    parents            switch1
    contact_groups     support-group
    "hosts.cfg" 125L, 4211C
    }
    
```

Example of a hostname.cfg for edit

Same operation in op5 Monitor using the web based GUI configuration were everything is directly visible, drop down menus for option, integrity checks for functionality etc. etc.



The screenshot shows the 'New host' configuration page in the op5 Monitor web interface. It features several sections for configuring a new host:

- Add this host?**: A dropdown menu set to 'Yes'.
- template**: A dropdown menu set to 'default-host-template'.
- host_name**: A text input field containing 'win_132'.
- alias**: A text input field containing 'Windows server 1, based in Sthlm'.
- address**: A text input field containing '127.0.0.1'.
- contact_groups**: A selection interface with 'Available' and 'Selected' columns. 'support-group' is selected and moved to the 'Selected' column.
- hostgroups**: A selection interface with 'Available' and 'Selected' columns. 'win-servers' is selected and moved to the 'Selected' column.
- parents**: A selection interface with 'Available' and 'Selected' columns. 'switch1' is selected and moved to the 'Selected' column.
- Service Checks**: A list of checkboxes for various services:
 - Autodetect Network Services(PING, SMTP, et. al)
 - Add UNIX Client Services(NRPE)
 - Add Windows Client Services(NSClient)
 - Add Sensatronics E4
 - Add Sensatronics EM1
 - Add NetWare Client Services(NWStat)
- Management protocol**: A dropdown menu.
- Host logo**: A dropdown menu.
- FILE**: A dropdown menu set to 'etc/hosts.cfg'.

Note!

Many experienced users may prefer the text based way to handle Moves, adds & changes and the op5 system fully allows that. The key point here is to make the system more user friendly to a larger user base within the IT support limited staff. And to limit the need for super script experts for everyday work.

Support

Direct access via phone, email or the service and support portal assures quick and accurate problem fixes. We will fix bugs, record and respond to enhancement requests, provide access to plug-ins and agents, and assist with issues related to integration between the op5 systems and monitored hosts. Since op5 delivers the complete solution, we support it.

Technical benefits using op5 Monitor and op5 Statistics

General benefits that apply to all op5 products are:

N = No or that a specific resource internal or external needs hands-on expertise in order to provide the feature.

Hard features – op5 Monitor	op5	Nagios download
Optimized and integrated hardware system platform	Y	N
Enhanced usability GUI	Y	N
Complete web based change management	Y	N
Interactive multilayer map function for displaying system status multiple levels	Y	N
Enhanced security with SSL encryption and multi user access capabilities	Y	N
Built-in SMS gateway with intelligent notifications and escalations	Y	N
Access to more the approx. 200 fully supported and documented plug-ins for flexible and safe maximal system utilization	Y	N
Integrated SLA schedule reports with automatic weekly and monthly e-mail distribution in PDF or HTML format	Y	N
Tray application for windows with popup notifications	Y	N
Templates for commonly used infrastructure, applications or traffic flows	Y	N
Automatic IP range scan function for quick set up and general change management	Y	N
Fully integrated add-ons for HP, DELL, Solaris and other generally available agents.	Y	N
Direct configuration of op5 Statistics graphs and trend analysis	Y	N
Easy integration to ITIL Service Desks ie. ARS Remedy, Easit, Nilex	Y	N
Automatic back-up and restore of specific configuration files. Access to full system recovery CD	Y	N
Hard features – op5 Statistics	op5	Cacti download
Direct and integrated configuration from op5 Monitor	Y	N
Scheduled reports for weekly and monthly automatic distribution	Y	N
Superior Polling – fast performance, minimum wan/lan load	Y	N
Enhanced web based change management and configuration	Y	N
General templates for commonly used graphs	Y	N
SSL encrypted traffic	Y	N

Note: This is just a high level summary of the constantly growing feature list that is automatically generated with more then 300 installed systems in a broad range of enterprises, governmental and telco provider networks.

Technical benefits using op5 Monitor and op5 Statistics

Soft features	op5	“free download”
Fast and quality assured installation	Y	N
Stable and proven application	Y	N
Full documentation with release notes, manuals etc	Y	N
Full support on the overall application/system with on site replacement at hw related problems	Y	N
Long term commitment with roadmaps etc.	Y	N
Access to the op5 community for real hands on experience and knowledge sharing	Y	N
Intelligent version upgrades in online pre-packet RPM software bundles and YUM based	Y	N
Scheduled Training events	Y	N
Function growth by sharing code in customer community	Y	N
Online/inline help in the applications	Y	N

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Summary

Open Source is great – however it does provide new challenges for the IT department. Many organisations today utilise a broad spectrum of different open source individual programs and in summary the value of open source is directly related to the grade of business criticalness of the application and the amount of planned or unplanned changes affecting the open source application.

Any NMS system is all about changes and keeping up the quality of the information generated by the NMS system. This demands high levels of change management and continuous quality assurances and updates.

The op5 solutions are all about saving your limited resources and at the same time delivering a proven, 100% tested and fully optimized function with all the necessary soft services that are needed for a successful implementation and long term system life cycle.

Beware of the boiled chicken syndrome in the OSS world:

- Nice at start, low initial cost and then gradually increasing need for resources to handle basic patches and ever and never ending fixes / upgrades of underlying OSS upgrades messes up the chicken.

Quick facts about op5

Our business concept is to offer the market the most cost effective solutions for IT support organizations. Our solutions provide significant and fully measurable improvements from both a quantity (uptime) and quality perspective. We offer our customers maximum cost efficiency because we base our product development on Open Source.

We utilize the power and efficiency of Open Source as the prime component in our product development as this further enhances the openness and flexibility for our customers. And it prevents old fashioned "lock in" or proprietary based future enhancements.