

# Service Pack Roll: Users Guide



**Version 5.0.2 Edition**



**Service Pack Roll: Users Guide :**

Version 5.0.2 Edition

Published Jul 2008

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# Preface

The Rocks Service Pack Roll contains fixes for Rocks version 5.0.2.

# Chapter 1. Overview

**Table 1-1. Summary**

Name	service-pack
Version	5.0.2
Maintained By	Rocks Group
Architecture	i386, x86_64
Compatible with Rocks™	5.0.2

**Table 1-2. Roll Compatibility**

Roll	Requires <sup>a</sup>	Optional <sup>b</sup>	Conflicts
alpha		X	
area51		X	
base	X		
bio		X	
condor		X	
ganglia		X	
grid		X	
hpc		X	
java		X	
kernel	X		
os (disk 1)	X		
os (disk 2)	X		
os (disk 3)		X	
os (disk 4)		X	
os (disk 5)		X	
os (disk 6)		X	
os (disk 7)		X	
pbs		X	
service-pack		X	
sge		X	
viz		X	
web-server		X	

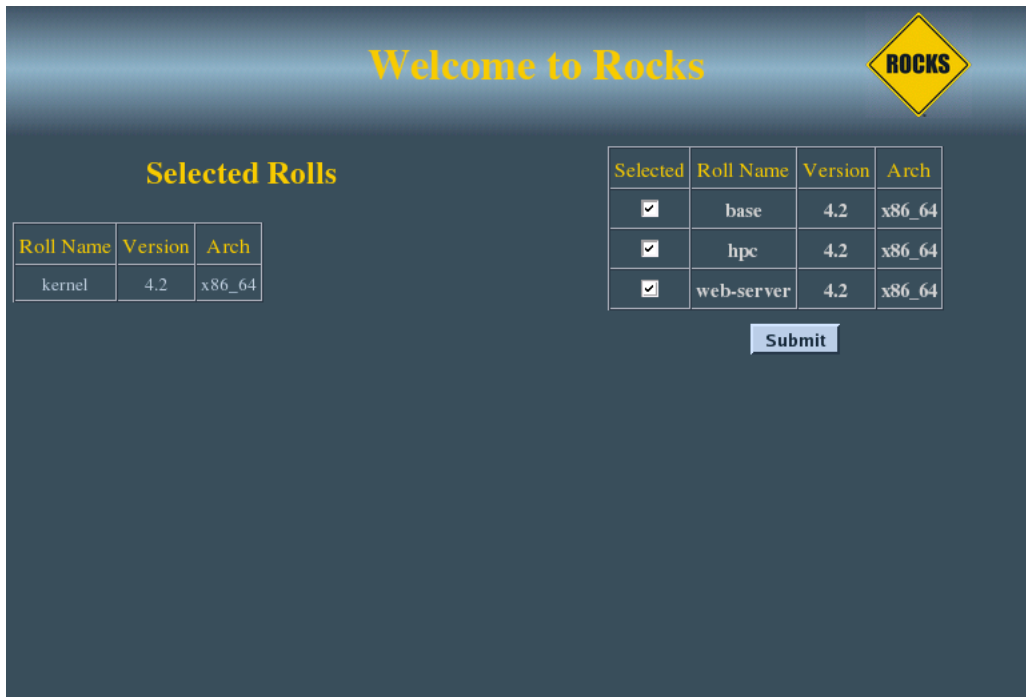
Notes:

- a. You may also substitute your own OS CDs for the Rocks™ OS Roll CDs. In this case you must use all the CDs from your distribution and not use any of the Rocks™ OS Roll CDs.
- b. Only Rolls that have been verified as compatible with this Roll are listed. Other Rolls will likely work, but have not been tested by the maintainer of this Roll.

# Chapter 2. Installing

## 2.1. On a New Server

The service-pack Roll should be installed during the initial installation of your server (or cluster). This procedure is documented in section 1.2 of the Rocks™ usersguide. You should select the service-pack Roll from the list of available rolls when you see a screen that is similar to the one below.



## 2.2. Adding the Roll to a Running System

The Service Pack Roll can also be added to running frontend. Here's the procedure for an x86\_64 cluster (for an i386 cluster, substitute *x86\_64* with *i386*).

```
# cd /tmp
# wget ftp://ftp.rocksclusters.org/pub/rocks/rocks-5.0/service-pack-5.0.2-1.x86_64.disk1.iso
# rocks add roll service-pack*iso
# rocks enable roll service-pack
# cd /home/install
# rocks-dist dist
# kroll service-pack > /tmp/service-pack-install.sh
# sh /tmp/service-pack-install.sh
```

Then, reboot your frontend:

```
# init 6
```

When the frontend reboots, the Service Pack Roll is now installed. There is no need to reinstall your compute nodes.



# Chapter 3. Fixes Included in the Service Pack Roll

- Base Roll - An installation scalability fix. When multiple compute nodes are simultaneously reinstalled, there is a chance that some of the compute nodes will not complete their install. If you plug a monitor into a compute node in this state (or if you connect to the compute node's virtual console with `rocks-console`), you'll see a message indicating that the compute node can not download a specific package.

The fix is to aggressively retry when there is a package download failure.

- SGE Roll - A fix for the 'Job Queue' web page. The output of 'qstat -f' changed between SGE 6.0 and 6.1u4 that caused no queued jobs to be reported on the 'Job Queue' ganglia web page.

The fix is to change the way the ganglia metric gets job queue info from SGE (the old method was 'qstat -f -xml' and the new method is 'qstat -f -u \\* -xml'.

- Base Roll - A 411 scalability fix. In larger clusters, 'rocks sync users' was not pushing all the user-related files (e.g., /etc/passwd, /etc/shadow, etc.) out to all the nodes. This was due to the fact that the 411 listener on each compute node, was rebroadcasting the 411 alert that it received from the frontend. On a vanilla Rocks cluster, there are 9 files that are pushed from the frontend to the cluster nodes when one executes 'rocks sync users'. On a 100-node cluster without this fix that means that each compute node would receive 900 411 alert messages!

This fix removes the rebroadcasting of the 411 alert messages, so now each compute node only receives 9 alerts, regardless of the cluster size.

# Appendix A. Rocks Copyright

Rocks(r)  
www.rocksclusters.org  
version 5.0 (V)

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