



Hewlett Packard
Enterprise

Rapid Setting For Oracle

Automatize your Oracle database installation prerequisites

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What is RSFO?

RSFO is a set of cluster aware scripts that will automate the setting of your Oracle database installation prerequisites

- Cluster aware scripts – from 1 to 12 nodes –
- Oracle 12c prerequisites only
- Perform automatically most of the pre-installation steps
- Supported with RedHat 6 & 7
- Focus is mainly for fast setting of demo environment
- Set the environment for Oracle Single Instance and RAC database
- Available via GitHub
- Is installed in /opt/hpe/rsfo

The Github repository

<https://github.com/yannallandit/rsfo>

Contains:

- RPM
- Source files
- Documentation
- Project tracking

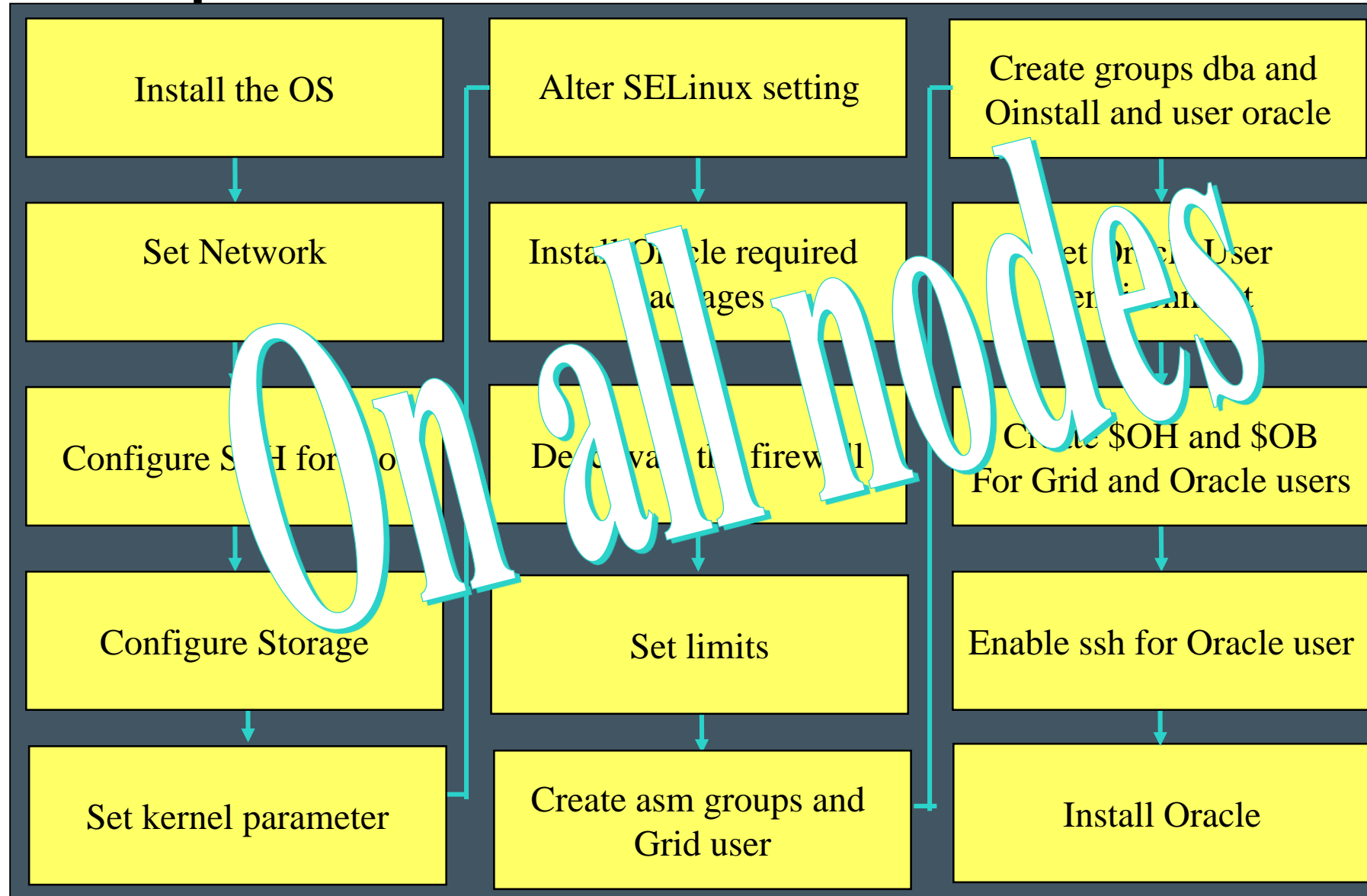
The screenshot shows the GitHub repository page for 'yannallandit / rsfo'. At the top, there's a search bar and navigation links for 'Pull requests', 'Issues', and 'Gist'. Below this, the repository name 'yannallandit / rsfo' is displayed with 'Unwatch', 'Star' (0), and 'Fork' (0) buttons. A secondary navigation bar includes 'Code', 'Issues' (0), 'Pull requests' (0), 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The main heading is 'Rapid Setting For Oracle (RAC) — Edit'. A summary bar shows '3 commits', '1 branch', '0 releases', and '1 contributor'. Below this, a row of buttons includes 'Branch: master', 'New pull request', 'New file', 'Upload files', 'Find file', 'HTTPS', the repository URL, and 'Download ZIP'. A commit history table follows, with columns for the commit, the file changed, and the time since the commit. The latest commit is by 'yannallandit' adding 'rsfo-1.0.6-2.el7.noarch.rpm' 22 minutes ago. Below the table, a blue box prompts the user to 'Add a README' to help people understand the project.

Commit	File	Time
yannallandit	new file: rsfo-1.0.6-2.el7.noarch.rpm	Latest commit 2f35ee5 22 minutes ago
	rsfo-1.0.6	modified: rsfo-1.0.6/README.txt an hour ago
	rsfo-1.0.6-2.el7.noarch.rpm	new file: rsfo-1.0.6-2.el7.noarch.rpm 22 minutes ago



System Setting for Oracle 12c on RedHat 6 & 7

Oracle Pre-Requisites for RedHat



Oracle Pre-Requisites for RedHat with RSFO





RSFO Prerequisites and usage

RSFO Prerequisites

- A YUM repository with the distribution packages need to be available. RSFO will install from it the missing rpms
- SSH for root need to be configured and allowing connection without password nor passphrase **including on the local node**
 - In case of multiple single installation, the ssh setting has to be define only from the first node to all the other nodes (one way)
 - In Case of RAC installation, SSH need to be defined both ways
- look at “ssh_setting.txt” for the configuration procedure



How to use rsfo

- Download the latest rpm from the Github page <https://github.com/yannallandit/rsfo>
- Install the rpm: `yum install -y rsfo-1.0.7-1.el7.noarch.rpm`
- Go to the location directory: `# cd /opt/hpe/rsfo/`
- Run the first script: `# ./rsfo_run1_os7up.sh`
 - Provides the list of nodes where Oracle will be installed
- Run the second scripts: `# ./rsfo_run2_cruser.sh`
 - Confirm the targeted nodes
 - Provide the location of the Grid and the Oracle BASE location



Setting performed by RSFO

System setting performed by RSFO

Package installation: If needed, install the packages requested by Oracle

Firewall: Deactivate the firewalld service

SELinux: Set to persistently SELinux state to permissive

Kernel parameters: as shown below

```
kernel.sem = 250 32000 100 128
kernel.shmall = 80% of the RAM in 4KB pages
kernel.shmmax = 70% of the RAM in Bytes
kernel.shmmni = 4096
fs.file-max = 6815744
net.ipv4.ip_local_port_range = 9000 65500
net.core.rmem_default = 262144
net.core.wmem_default = 262144
net.core.rmem_max = 4194304
net.core.wmem_max = 4194304
fs.aio-max-nr = 1048576
vm.swappiness = 0
vm.dirty_background_ratio = 3
vm.dirty_ratio = 80
vm.dirty_expire_centisecs = 500
vm.dirty_writeback_centisecs = 100
```

```
List of packages for RH7 (*)
binutils.x86_64
compat-libcap1.x86_64
compat-libstdc++-33.i686
compat-libstdc++-33.x86_64
gcc.x86_64
gcc-c++.x86_64
glibc.i686
glibc.x86_64
glibc-devel.i686
glibc-devel.x86_64
ksh.x86_64 libgcc.i686
libgcc.x86_64
libstdc++.i686
libstdc++.x86_64
libstdc++-devel.i686
libstdc++-devel.x86_64
libaio.i686 libaio.x86_64
libaio-devel.i686
libaio-devel.x86_64
libXext.i686
libXext.x86_64
libXtst.i686
libXtst.x86_64
libX11.i686
libX11.x86_64
libXau.i686
libXau.x86_64
libxcb.i686
libxcb.x86_64
libXi.i686
libXi.x86_64
make.x86_64
sysstat.x86_64
unixODBC-devel.x86_64
unixODBC.x86_64
```

(*) slightly different on RH6

User related setting performed by RSFO

Groups: oinstall, dba, asmadmin, asmdba

Users: oracle, grid

User equivalence: “uid” and “gid” have to be the same on all for a user or a group (see notes)

Environment variables: are set in the .bash_profile based on user provided \$ORACLE_BASE

Directories: HOME and BASE directories with ownership and rights are automatically created based on user input

SSH: enable ssh between the Oracle users of the cluster

Limits: Oracle and grid limits are set

grid	soft	nproc	2047
grid	hard	nproc	16384
grid	soft	nofile	1024
grid	hard	nofile	65536
grid	soft	stack	10240
grid	hard	stack	32768
grid	soft	memlock	41984000
grid	hard	memlock	41984000

oracle	soft	memlock	41984000
oracle	hard	memlock	41984000
oracle	soft	nproc	2047
oracle	hard	nproc	16384
oracle	soft	nofile	1024
oracle	hard	nofile	65536
oracle	soft	stack	10240
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