

# Install Manually

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- install\_verticarootsudo

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- /

- Linux
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- Vertica RPM
- install\_vertica
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- kernel
- vsql
- SLES 11.3
- Vertica
- 
- Vertica
- MC Management Console

## Linux

dbadmin -  
verticadba - DBA

- - 
  - Vertica
- - dbadmin
  - dbadminshellbash
  - 
  - /opt/vertica/\*
  - /home/dbadmin (datacatlog)
- - Verticarootsudo
  - dbadmin/
  - dbadminAdministration tools

- - RHEL 6.x 7.x
  - bash
  - sudo
  -
- - K-safe=160%
  - hash join
  - 
  -
- - perl 5
  - LVM
  - TZ
    - tzdata `yum update -y tzdata`
    - dbadmin `TZ='Asia/Shanghai'; export TZ (tzselect)`
  - LANG
    - `export LANG=en_US.UTF-8`
    - `yum install -y openssh which dialog`
    - ext3/ext4
    - NFS for backup
    - Amazon S3 for Eon mode
  - >= 2G swap
  - cpu1G
  - 4k block
    - `# blockdev --getbsz /dev/sda2`
  - - Nice Limits / min\_free\_kbytes / User open file limit / System open File limit / pam Limits / Address Space limit / File size limit / User process limit / maximum Memory Maps
  - - Disk Readhead `2048 < n < 8192`  
`/sbin/blockdev --setra 2048 /dev/sda`  
  
`echo '/sbin/blockdev --setra 2048 /dev/sda' >> /etc/rc.local`
    - NTP services , RHEL 7RHEL7chrony  
`/sbin/service ntpd restart`  
  
`/sbin/chkconfig ntpd on`  
  
`systemctl enable chronyd for RHEL 7`
    - SELinux  
`vim /etc/selinux/config`
    - **CPU Frequency Scaling**  
**BIOS how?**
    - swappiness  
`echo 1 > /proc/sys/vm/swappiness`
    - Transparent Hugepages **RHEL 7Amazon Linux 2.0 always** madvisedisabled  
  
`echo never > /sys/kernel/mm/transparent_hugepage/enabled`  
  
`echo 'echo never > /sys/kernel/mm/transparent_hugepage/enabled' >> /etc/rc.local`
    - defrag  
`echo never > /sys/kernel/mm/transparent_hugepage/defrag`  
  
`vim /etc/rc.local`  
  

```
if test -f /sys/kernel/mm/transparent_hugepage/enabled; then
    echo never > /sys/kernel/mm/transparent_hugepage/defrag
fi
```
    - I/O scheduler deadlinenop  
`echo deadline > /sys/block/sda/queue/scheduler`  
  
`echo 'echo deadline > /sys/block/sda/queue/scheduler' >> /etc/rc.local`  
  
`cat /sys/block/sda/queue/scheduler`  
  
`noop [deadline] cfq`  
  
`{ [mq-deadline] kyber bfq none redhat-8 }`

- tuning  
*chkconfig tuned off*
- pstack / mcelog /sysstat (for RHEL 6 )  
gdb / mcelog /sysstat (for RHEL 7 )

Port	Protocol	Service	Notes
22	TCP	sshd	Required by <a href="#">Administration Tools</a> and the <a href="#">Management Console Cluster Installation</a> wizard.
5433	TCP	Vertica	Vertica client (vsq, ODBC, JDBC, etc) port.
5434	TCP	Vertica	Intra- and inter-cluster communication. Vertica opens the Vertica client port +1 (5434 by default) for intra-cluster communication, such as during a plan. If the port +1 from the default client port is not available, then Vertica opens a random port for intra-cluster communication.
5433	UDP	Vertica	Vertica spread monitoring.
5444	TCP	Vertica Management Console	MC-to-node and node-to-node (agent) communications port. See <a href="#">Changing MC or Agent Ports</a> .
5450	TCP	Vertica Management Console	Port used to connect to MC from a web browser and allows communication from nodes to the MC application /web server. See <a href="#">Connecting to Management Console</a> .
4803	TCP	Spread	Client connections.
4803	UDP	Spread	Daemon to daemon connections.
4804	UDP	Spread	Daemon to daemon connections.
6543	UDP	Spread	Monitor to daemon connection.

```

firewall-cmd --add-port=5433/tcp --permanent
firewall-cmd --add-port=5434/tcp --permanent
firewall-cmd --add-port=5433/udp --permanent
firewall-cmd --add-port=5444/tcp --permanent
firewall-cmd --add-port=5450/tcp --permanent
firewall-cmd --add-port=4803/tcp --permanent
firewall-cmd --add-port=4803/udp --permanent
firewall-cmd --add-port=4804/udp --permanent
firewall-cmd --add-port=6543/udp --permanent
firewall-cmd --reload
--warn Threshold = WARN

systemctl stop firewalld
systemctl disable firewalld

```

1. 1TBAdministrator HOST
2. Administrator Host *rpm -Uvh vertica-10.0.0-0.x86\_64.RHEL6.rpm*
3. Administrator Host

```

/opt/vertica/sbin/install_vertica --hosts vertica1,vertica2,vertica3 --rpm /tmp/vertica-10.0.0-0.x86_64.RHEL6.rpm --data-dir /vdata

```