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- RedHat/CentOS 5/6 x86\_64
- IBM DB2 v9.7 Server

???? Linux ??? Hypervisors (??????)

????? <http://www-969.ibm.com/software/repo...Platform=Linux>



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1. DB2\_AESE\_97\_Linux\_x86-64.tar.gz?DB2 ??????????????????
2. v9.7fp11\_linuxx64\_universal\_fixpack.tar.gz?DB2 fixpack?????????

## CentOS ?????Minimal Desktop

????????

NOTE?

- libstdc++ ?? 32bit ? 64bit ????

- ??? 32bit ????????????????????????????????? DVD2 ??????

- CentOS 7 ? 32bit ????? CentOS-7.-x86\_64-**Everything**-??? ISO ???

CentOS 6, 7)

# yum install libaio ksh rsh-server pam-devel nfs-utils compat-libstdc++-33

# yum install libstdc++.i686 pam-devel.i686 compat-libstdc++-33.i686

# rpm -qa | grep

"ksh\|openssh\|rsh-server\|nfs-utils\|libaio\|libstdc++\|libstdc++.i686\|pam-devel\|pam-devel.i686\|compat-libstdc++-33"

libstdc++-4.4.7-16.el6.x86\_64

nfs-utils-lib-1.1.5-11.el6.x86\_64

openssh-clients-5.3p1-111.el6.x86\_64

pam-devel-1.1.1-20.el6.i686

libaio-0.3.107-10.el6.x86\_64

ksh-20120801-28.el6.x86\_64

libstdc++-4.4.7-16.el6.i686

openssh-server-5.3p1-111.el6.x86\_64

pam-devel-1.1.1-20.el6.x86\_64

nfs-utils-1.2.3-64.el6.x86\_64

openssh-5.3p1-111.el6.x86\_64

rsh-server-0.17-64.el6.x86\_64

CentOS 5.11)

#&gt; yum install pdksh nfs-utils rsh-server compat-libstdc++-296.i386 compat-libstdc++-33.i386

compat-libstdc++-33.x86\_64 openssh

CentOS ?????

?? SELinux

#&gt; setenforce 0

#&gt; sed -i 's/SELINUX=.\*\$/SELINUX=disabled/' /etc/selinux/config

?? NetworkManager

#&gt; service NetworkManager stop

#&gt; chkconfig NetworkManager off

????????

#> ipcs -l

----- Shared Memory Limits -----

```
max number of segments = 4096           // SHMMNI
max seg size (kbytes) = 67108864       // SHMMAX
max total shared memory (kbytes) = 17179869184 // SHMALL
min seg size (bytes) = 1
```

----- Semaphore Limits -----

```
max number of arrays = 128             // SEMMNI
max semaphores per array = 250        // SEMMSL
max semaphores system wide = 32000    // SEMMNS
max ops per semop call = 32           // SEMOPM
semaphore max value = 32767
```

----- Messages: Limits -----

```
max queues system wide = 7916         // MSGMNI
max size of message (bytes) = 65536   // MSGMAX
default max size of queue (bytes) = 65536 // MSGMNB
```

?? /etc/sysctl.conf

- shmmax: ??????? (byte)??? : ??? CentOS/RedHat 32-bit???????? Linux kernel ?????? 3GB (3221225472)???? hugemem kernel ?????? 4GB?????[https://access.redhat.com/documentat...MAX\\_Parameter](https://access.redhat.com/documentat...MAX_Parameter)
- shmall: ??????? 90% (Pages, 4KB/page)??? : ??? 32-bit ??????????????????
- NOTE: ? v9.7 ?????????????????????? DB2 Instance ?????????????????????? db2diag.log?
- msgmni, sem : ?????
- randomize\_va\_space: ??? FP5 ?????

????????

# for DB2

# shmmax: 4GB

kernel.shmmax = 4294967296

fs.file-max = 16384

kernel.randomize\_va\_space = 0

```
kernel.shmall, fs.file-max, kernel.msgmni, kernel.sem ??? v9.7 ???????fs.file-max ??????? 16384??
DB2 Instance ??????? 16384????????????????
```

????????

#> sysctl -p

#> ipcs -l

```
----- Shared Memory Limits -----
max number of segments = 4096
max seg size (kbytes) = 4194304
max total shared memory (kbytes) = 3670016
min seg size (bytes) = 1
```

```
----- Semaphore Limits -----
max number of arrays = 2048
max semaphores per array = 250
max semaphores system wide = 64000
max ops per semop call = 32
semaphore max value = 32767
```

```
----- Messages: Limits -----
max queues system wide = 4096
max size of message (bytes) = 65536
default max size of queue (bytes) = 65536
```

???????

???????????

```
#> cat /proc/sys/kernel/shmmax
#> cat /proc/sys/kernel/shmall
```

```
#> ipcs -lm
```

```
----- Shared Memory Limits -----
max number of segments = 4096
max seg size (kbytes) = 3145728          SHMMAX
max total shared memory (kbytes) = 2621440  SHMALL
min seg size (bytes) = 1
```

????

?????

```
tar xzf DB2_AESE_97_Linux_x86-64.tar.gz
cd aese/
./db2prereqcheck
./db2_install -f NOTSAMP
```

-f NOTSAMP : ??? SAMP (System Automation for Multiplatforms)??? CentOS ???????

Default directory for installation of products - /opt/ibm/db2/V9.7

\*\*\*\*\*

Do you want to choose a different directory to install [yes/no] ?

no

Specify one of the following keywords to install DB2 products.

AESE  
CLIENT  
RTCL

Enter "help" to redisplay product names.

Enter "quit" to exit.

\*\*\*\*\*

AESE

?? fixpack ??

???: v9.7fp11\_linuxx64\_universal\_fixpack.tar.gz

```
tar xzf v9.7fp11_linuxx64_universal_fixpack.tar.gz
cd universal/
./db2prereqcheck
```

?????:

- DBT3534W The db2prereqcheck utility determined that ASLR is set to ON and that this could cause issues with some tools.

?: ? /etc/sysctl.conf, ????

kernel.randomize\_va\_space = 0

?? echo 0 > /proc/sys/kernel/randomize\_va\_space

- WARNING:

The 32-bit library file libpam.so is not found on the system.

?: ??????

yum install pam-devel pam-devel.i686

- WARNING:

The 32 bit library file libstdc++.so.5 is not found on the system.

??yum install compat-libstdc++-33.i686

./installFixPack

Enter full path name for the install directory -

-----  
/opt/ibm/db2/V9.7 <== ?? DB2 ????????

**?? DB Instance**

```
#> groupadd db2adm
#> useradd -g db2adm -c "DB2 Instance User" devinst
```

```
#> cd /opt/ibm/db2/V9.7/instance/
#> ./db2icrt -s ese -u devinst devinst
```

**?? DB2 ???**

```
????:
```

- ?? license ???? DB Instance ???
- ??????????????
  - ? db2aese\_c.lic - DB2 Advanced Enterprise Server Edition(aese), CPU License type(\_c)
  - ? db2ese\_c.lic - DB2 Enterprise Server Edition(ese), CPU License type(\_c)
  - ? db2wse\_c.lic - DB2 Workgroup Server Edition(wse)?CPU License type(\_c)
  - ? db2aese\_t.lic - DB2 Advanced Enterprise Server Edition(aese), Trial License type(\_t)
- ??????????????
- V9.1 ? V9.7 ????????

**TIP**

```
_c ? CPU ??
_t ???
_u ? USER ???
```

```
????
```

```
su - db2inst
unzip DB2_AESE_CPU_QS_Activation_97.zip
cd aese_c/
```

```
????????
```

```
db2licm -l
```

```
Product name:          "DB2 Advanced Enterprise Server Edition"
License type:          "License not registered"
Expiry date:           "License not registered"
Product identifier:    "db2aese"
Version information:   "9.7"
```

```
db2level
```

DB21085I This instance or install (instance name, where applicable: "mydev") uses "64" bits and DB2 code release "SQL0907B" with level identifier "080C0107".

Informational tokens are "DB2 v9.7.0.11", "s150922", "IP23944", and Fix Pack "11".

Product is installed at "/opt/ibm/db2/V9.7".

????

```
db2licm -a db2/license/db2aese_c.lic
```

LIC1402I License added successfully.

LIC1426I This product is now licensed for use as outlined in your License Agreement. USE OF THE PRODUCT CONSTITUTES ACCEPTANCE OF THE TERMS OF THE IBM LICENSE AGREEMENT, LOCATED IN THE FOLLOWING DIRECTORY: "/opt/ibm/db2/V9.7/license/en\_US.iso88591"

?????????

```
db2licm -l
```

```
Product name:          "DB2 Advanced Enterprise Server Edition"
License type:          "CPU Option"
Expiry date:           "Permanent"
Product identifier:    "db2aese"
Version information:   "9.7"
Enforcement policy:    "Soft Stop"
```

TIPs?

?????????????

```
db2licm -r [Product identifier]
```

## DB2 Instance ??

```
#> su - mydev
$> db2 "update dbm cfg using svcename DB2_mydev"
$> db2set DB2COMM=TCPIP
$> db2set DB2CODEPAGE=950
$> db2set DB2AUTOSTART=NO
$> db2start
$> ps -ef | grep db2sysc
```

TIPs?

???????? Port????? /etc/services?

????

DB2 Instance?

```
$> db2 "update dbm cfg using HEALTH_MON OFF"
```

```
$> db2 "update dbm cfg using DIAGSIZE 50"
```

```
db2 "update db cfg for <db-name> using AUTO_MAINT off"
```

```
db2 "update db cfg for <db-name> using AUTO_TBL_MAINT off"
```

```
db2 "update db cfg for <db-name> using AUTO_RUNSTATS off"
```

```
db2 "update db cfg for <db-name> using AUTO_STMT_STATS off"
```

// If enabled HADR

```
db2 "update db cfg for <db-name> using BLOCKNONLOGGED yes"
```

## FAQ

Q: ?? db2\_install ??????

db2\_install.log?

DBI1130E The IBM Tivoli System Automation for Multiplatforms (SA MP) could not be installed or updated because system prerequisites were not met. See the log file /tmp/prereqSAM.log.3380 for details.

prereqSAM.log?

```
prereqSAM: OPTIONS = '-l /tmp/prereqSAM.log.8304 --nolicheck --silent'
```

```
prereqSAM: OPT_SILENT = 1
```

```
prereqSAM: OPT_NOLICCHECK = 1
```

```
prereqSAM: Detected operating system: Linux
```

```
prereqSAM: Detected architecture: i386x
```

```
prereqSAM: Detected distribution: RH
```

```
prereqSAM: Supported operating system versions: RH Linux i386x - 4.6 5.0
```

```
prereqSAM: Detected operating system version:
```

```
Red Hat Enterprise Linux Server release 6.7 (Santiago)
```

```
prereqSAM: Error: None of the supported operating system versions matched the version detected for the operating system: RH Linux i386x
```

```
prereqSAM: Supported operating system versions: RH Linux i386x - 4.6 5.0
```

```
prereqSAM: Detected operating system version:
```

```
Red Hat Enterprise Linux Server release 6.7 (Santiago)
```



prereqSAM: Error: Prerequisite checking for the ITSAMP installation failed: Linux i386x RH  
Red Hat Enterprise Linux Server release 6.7 (Santiago)  
prereqSAM: Most severe error code returned: 22  
prereqSAM: The operating system has a version that is not supported.

????? CentOS 6.7 ? RedHat 6.7 ?????????????? SLES 11 ?????????? SAMP ????? CentOS/RedHat?????????????  
???

./db2\_install -f NOTSAMP