Atualização SUSE

Manual para instrução de atualização do SO SUSE da versão 12 SP5 para à versão 15 SP3

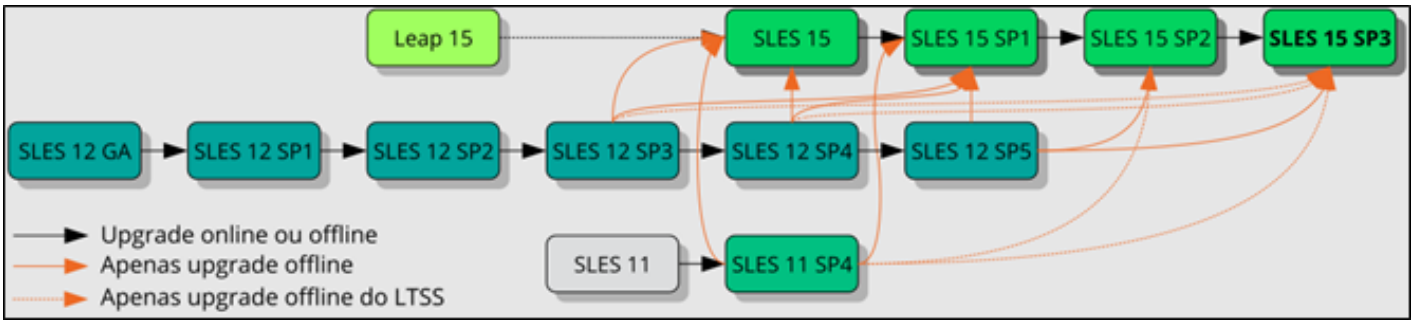
1. Objetivo

Este documento visa descrever as etapas envolvidas no processo de atualização do Suse Linux da versão 12 SP5 para a versão 15 SP3.

3. Processo de atualização

Segundo o fabricante, a atualização do SUSE Linux na versão 12 SP5 para a versão 15 SP3 só é possível de forma offline.

O upgrade offline implica no sistema operacional não estar em execução (estado do sistema inativo). Em vez disso, o instalador para o sistema operacional de destino é inicializado (por exemplo, da mídia de instalação, por rede ou por meio do carregador de boot local) e executa o upgrade.



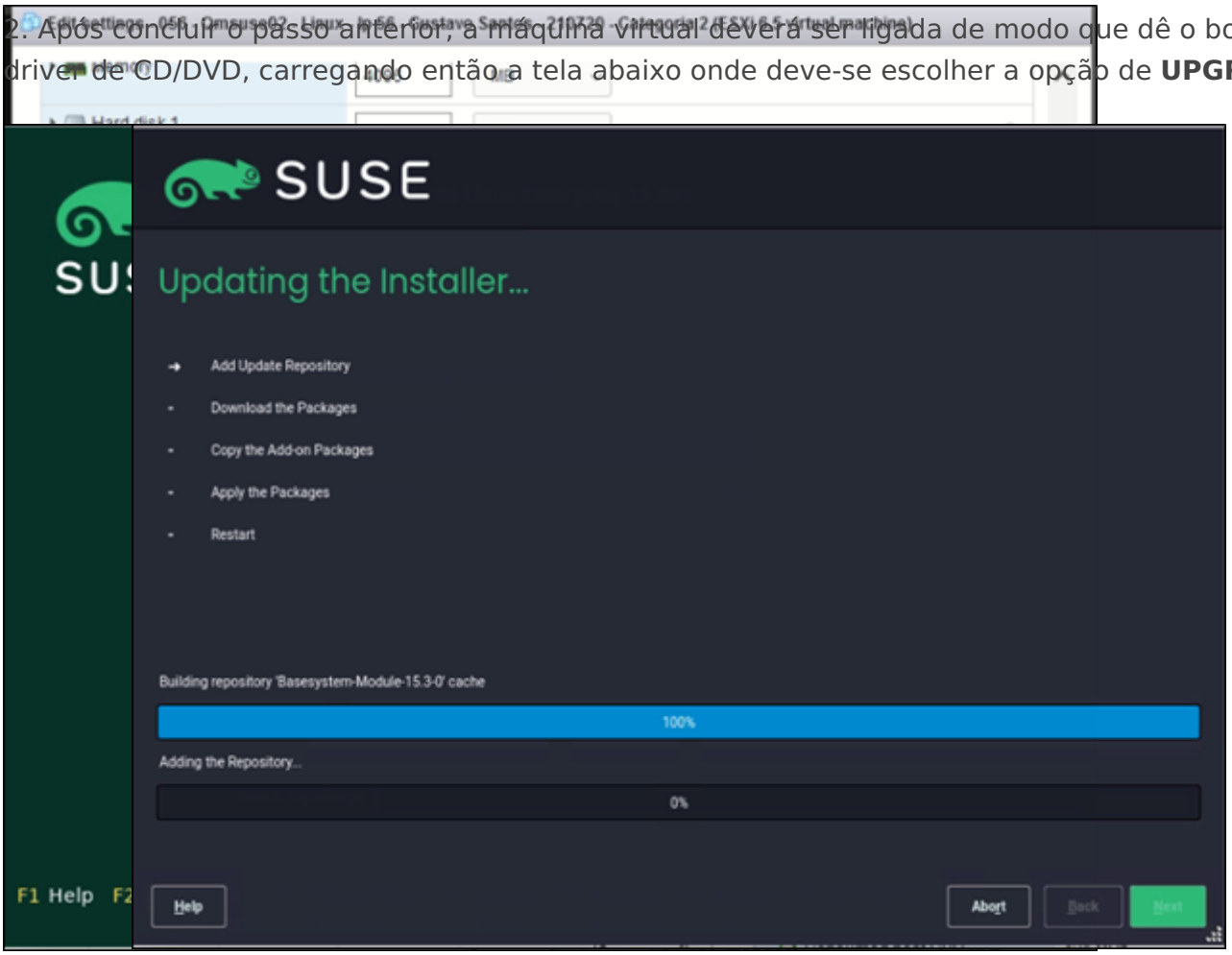
https://documentation.suse.com/pt-br/sles/15-SP3/single-html/SLES-upgrade/

4. Upgrade

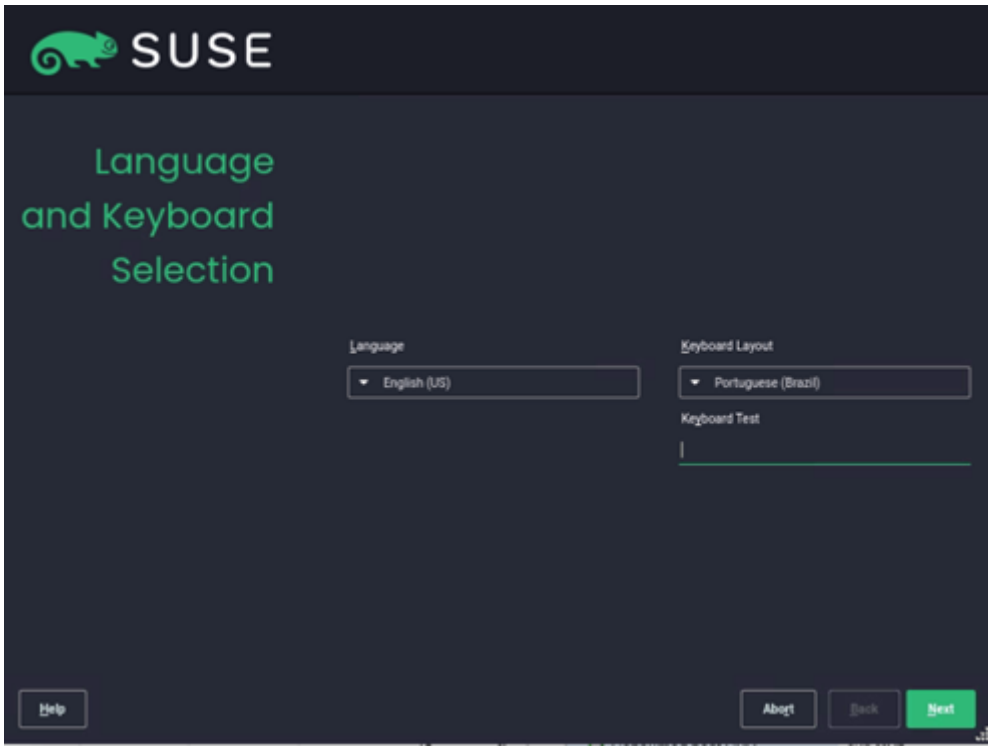
> **Obs: É de extrema importância que seja feito um backup e/ou um snapshot do servidor em questão antes de iniciar o processo de atualização do SO.**

1. Com a máquina virtual já desligada, deve-se inserir a ISO do SUSE Linux 15 SP3 nas configurações do driver de CD/DVD da VM:

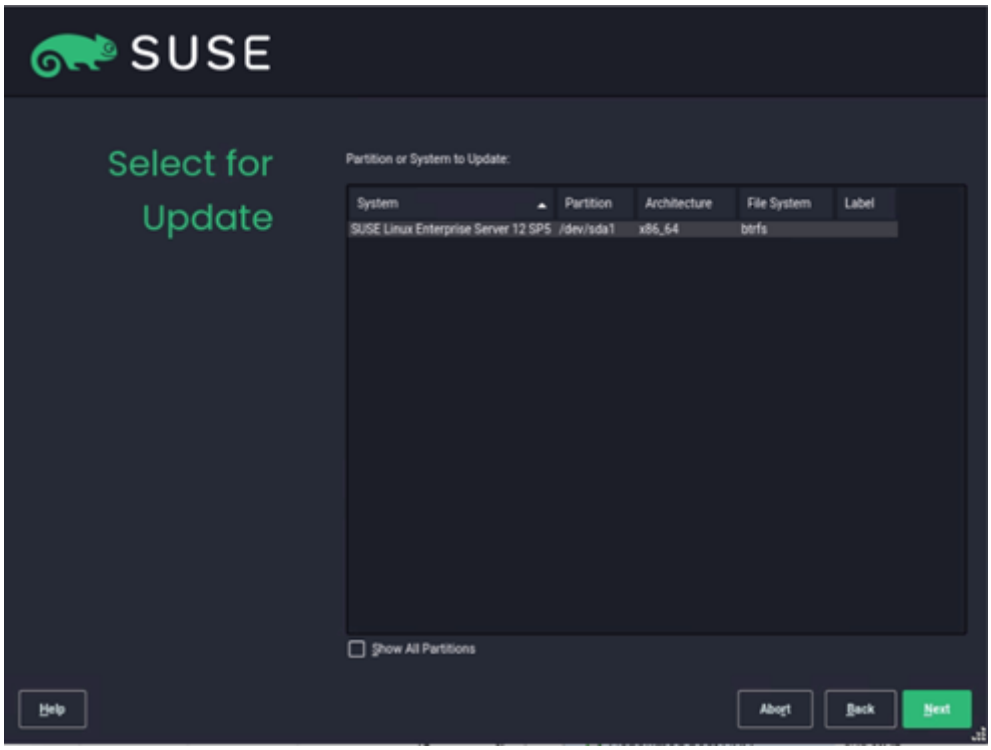
2. Após concluir o passo anterior, a máquina virtual deverá ser ligada de modo que dê o boot pelo driver de CD/DVD, carregando então a tela abaixo onde deve-se escolher a opção de **UPGRADE**:

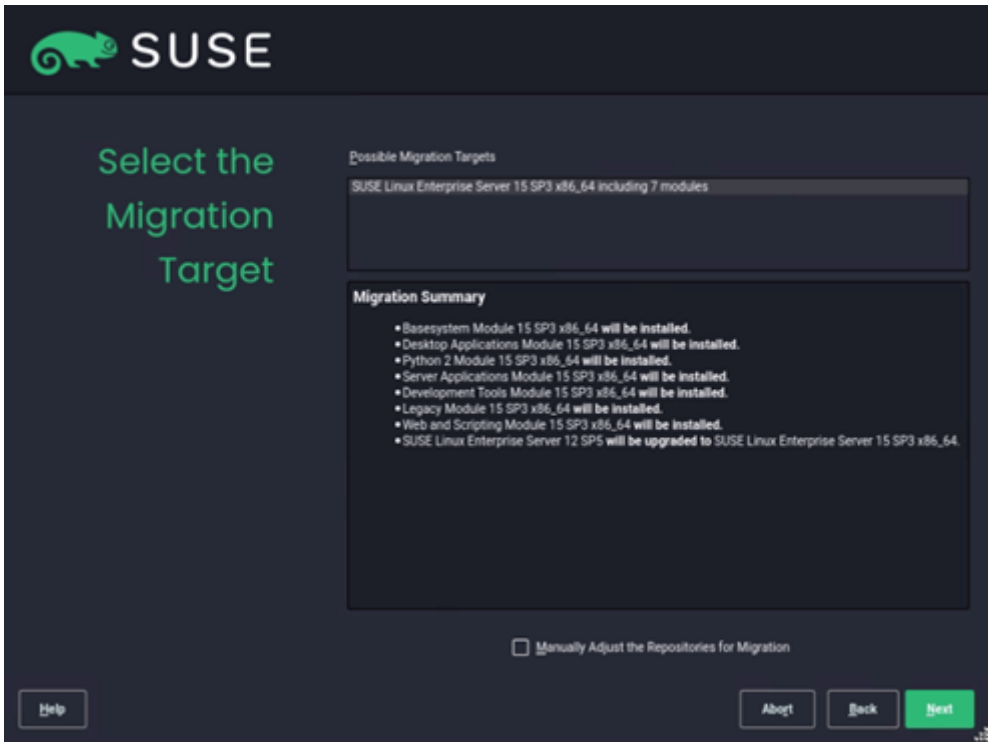


3. Escolha o layout do teclado:



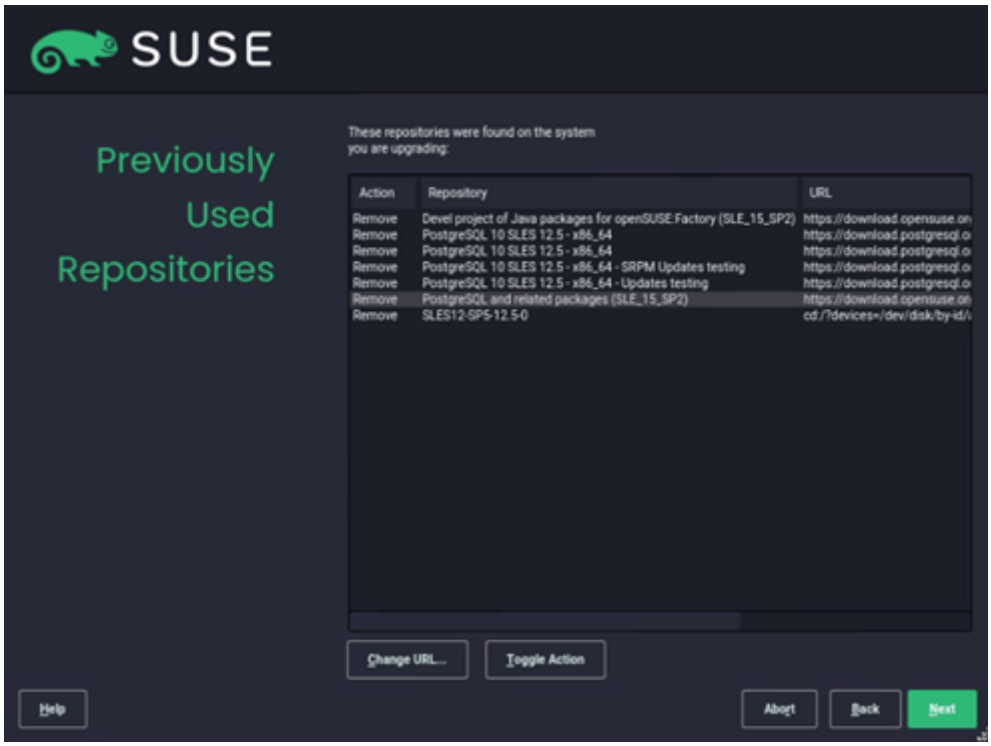
4. Seleção da partição onde o SUSE Linux 12 SP5 está instalado:



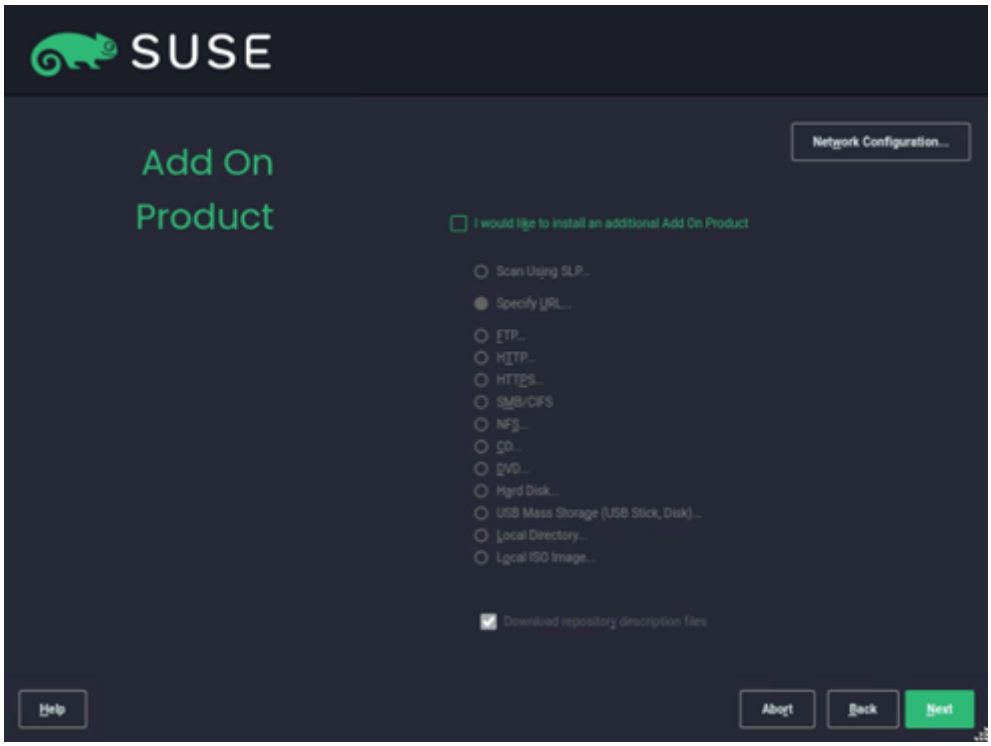


5. Termos de licença:

6. Lista de repositórios encontrados no sistema:

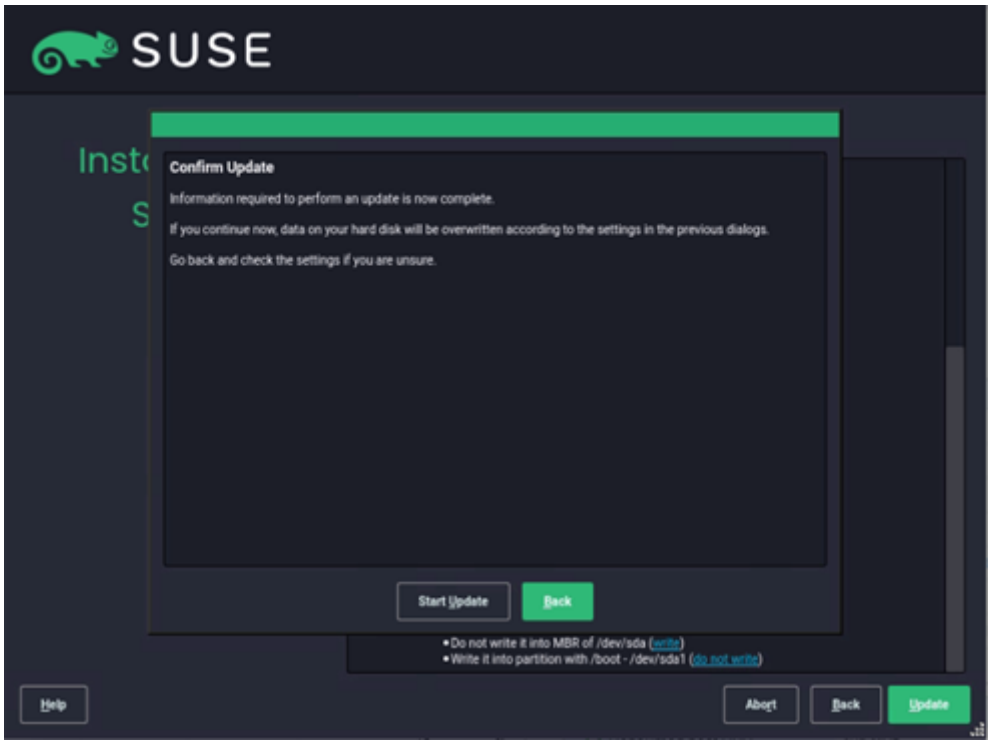


7. Seleção de algum produto adicional (não se aplica):

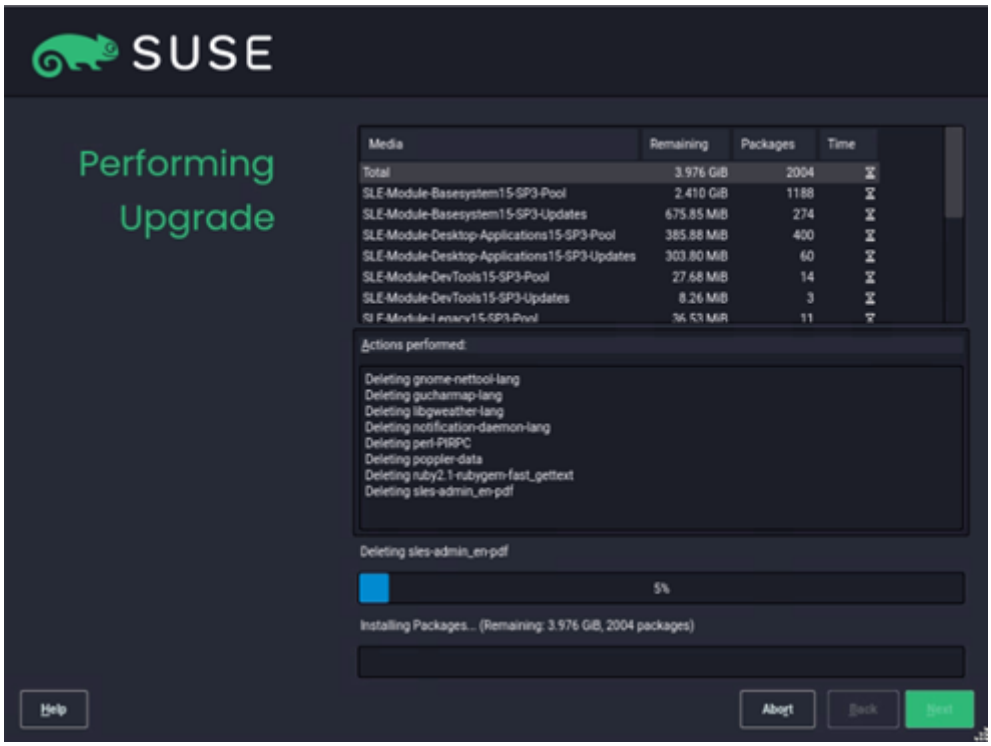


8. Resumo:

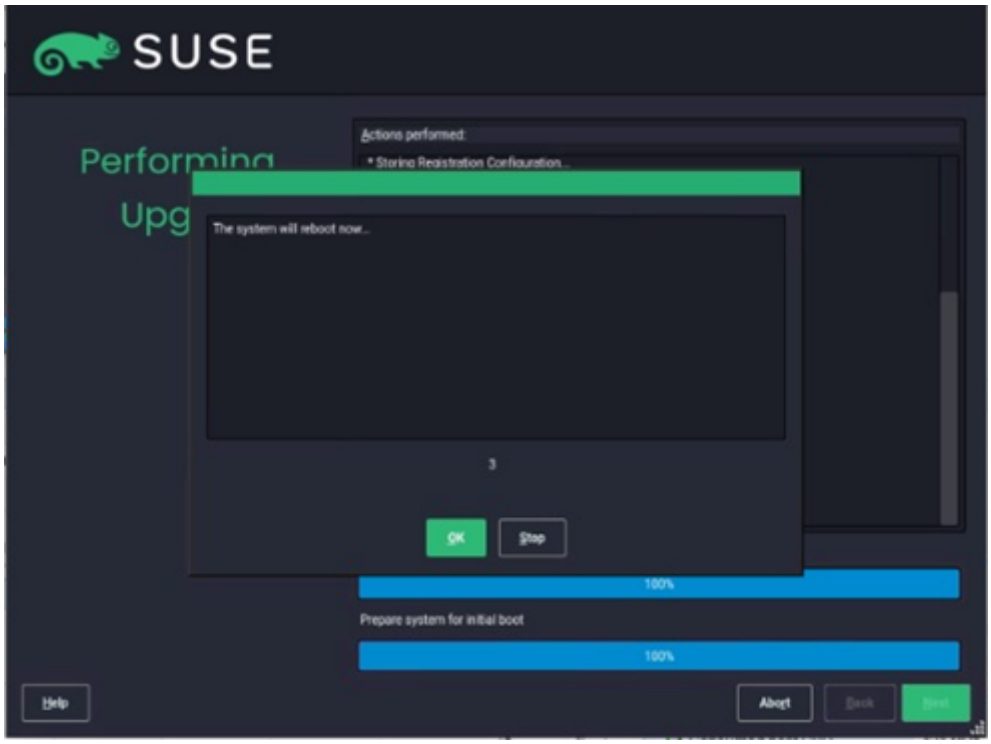
9. Confirmação para iniciar a atualização:



10. Início da atualização:



11. Finalização da atualização, sem erros:



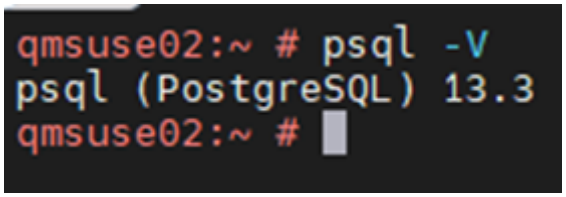
12. Verificação de registro e de versão do SO:

```
qmsuse02:~ # SUSEConnect --status
[{"identifier":"SLES","version":"15.3","arch":"x86_64","status":"Registered","regcode":"0042278019D48B07","starts_at":"202
0-09-01 00:00:00 UTC","expires_at":"2021-08-31 00:00:00 UTC","subscription_status":"ACTIVE","type":"full"},{"identifier":"
sle-module-basesystem","version":"15.3","arch":"x86_64","status":"Registered"},{"identifier":"sle-module-legacy","version"
:"15.3","arch":"x86_64","status":"Registered"},{"identifier":"sle-module-server-applications","version":"15.3","arch":"x86
_64","status":"Registered"},{"identifier":"sle-module-python2","version":"15.3","arch":"x86_64","status":"Registered"},{"i
dentifier":"sle-module-desktop-applications","version":"15.3","arch":"x86_64","status":"Registered"},{"identifier":"sle-mo
dule-development-tools","version":"15.3","arch":"x86_64","status":"Registered"},{"identifier":"sle-module-web-scripting","
version":"15.3","arch":"x86_64","status":"Registered"}]
qmsuse02:~ # cat /etc/os-release
NAME="SLES"
VERSION="15-SP3"
VERSION_ID="15.3"
PRETTY_NAME="SUSE Linux Enterprise Server 15 SP3"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15:sp3"
DOCUMENTATION_URL="https://documentation.suse.com/"
qmsuse02:~ #
```

5. Configurações pós-atualização

5.1. Ajustes no PostgreSQL

Durante o processo de atualização foi instalado o PostgreSQL 13 que será necessário ser removido para instalar o PostgreSQL 12 (versão atualmente homologada pelo Quality Manager).

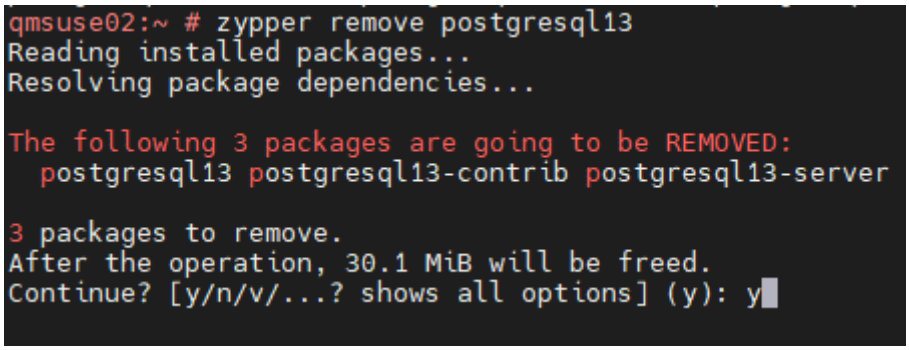


1. Backup do banco atual:

```
$ pg_dump -h 127.0.0.1 -U md2net -d qualitymanager |  gzip --best > ./bkp_DB_QM_$(date +\%Y\%m\%d_\%I_\%M_\%p).psql.gz
```

2. Desinstalação do PostgreSQL 13:

```
$ zypper remove postgresql13
```



3. Instalação do PostgreSQL 12:

```
$ zypper install postgresql12 postgresql12-contrib postgresql12-server
```

```
qmsuse02:~ # zypper install postgresql12 postgresql12-contrib postgresql12-server
Refreshing service 'Basesystem_Module_15_SP3_x86_64'.
Refreshing service 'Desktop_Applications_Module_15_SP3_x86_64'.
Refreshing service 'Development_Tools_Module_15_SP3_x86_64'.
Refreshing service 'Legacy_Module_15_SP3_x86_64'.
Refreshing service 'Python_2_Module_15_SP3_x86_64'.
Refreshing service 'SUSE_Linux_Enterprise_Server_15_SP3_x86_64'.
Refreshing service 'Server_Applications_Module_15_SP3_x86_64'.
Refreshing service 'Web_and_Scripting_Module_15_SP3_x86_64'.
Loading repository data...
Reading installed packages...
Resolving package dependencies...

The following 3 NEW packages are going to be installed:
  postgresql12 postgresql12-contrib postgresql12-server

The following 3 packages need additional customer contract to get support:
  postgresql12 postgresql12-contrib postgresql12-server

3 new packages to install.
Overall download size: 6.8 MiB. Already cached: 0 B. After the operation, additional 29.9 MiB will be used.
Continue? [y/n/v/...? shows all options] (y):
```

4. Após instalar o PostgreSQL12, deve-se parar os serviços do postgresql para então começar o processo de migração do postgresql10 para o recém-instalado, postgresql12.

```
$ systemctl stop postgresql.service
```

```
qmsuse02:/opt/qm_static/script # systemctl stop postgresql.service
qmsuse02:/opt/qm_static/script # systemctl status postgresql.service
● postgresql.service - PostgreSQL database server
     Loaded: loaded (/usr/lib/systemd/system/postgresql.service; enabled; vendor preset: disabled)
     Active: inactive (dead) since Fri 2021-08-06 12:00:22 -03; 11s ago
    Process: 1612 ExecStart=/usr/share/postgresql/postgresql-script start (code=exited, status=0/SUCCESS)
    Process: 5721 ExecStop=/usr/share/postgresql/postgresql-script stop (code=exited, status=0/SUCCESS)
   Main PID: 1675 (code=exited, status=0/SUCCESS)

Aug 06 11:55:20 qmsuse02 postgresql-script[1675]: 2021-08-06 11:55:20.802 -03   [1675]LOG:  listening on Unix socket "/var/run/postgresql/.s.PGSQL.5432"
Aug 06 11:55:20 qmsuse02 postgresql-script[1675]: 2021-08-06 11:55:20.804 -03   [1675]LOG:  listening on Unix socket "/tmp/.s.PGSQL.5432"
Aug 06 11:55:21 qmsuse02 postgresql-script[1675]: 2021-08-06 11:55:21.529 -03   [1675]LOG:  redirecting log output to logging collector process
Aug 06 11:55:21 qmsuse02 postgresql-script[1675]: 2021-08-06 11:55:21.529 -03   [1675]HINT:  Future log output will appear in directory "log".
Aug 06 11:55:21 qmsuse02 systemd[1]: Started PostgreSQL database server.
Aug 06 12:00:22 qmsuse02 systemd[1]: Stopping PostgreSQL database server...
Aug 06 12:00:22 qmsuse02 postgresql-script[5721]:  Your database files were created by PostgreSQL version 10.
Aug 06 12:00:22 qmsuse02 postgresql-script[5721]:  Using the executables in /usr/lib/postgresql10/bin.
Aug 06 12:00:22 qmsuse02 systemd[1]: postgresql.service: Succeeded.
Aug 06 12:00:22 qmsuse02 systemd[1]: Stopped PostgreSQL database server.
qmsuse02:/opt/qm_static/script #
```

5. Por padrão do SUSE Linux, o diretório de dados do postgre encontra-se no seguinte diretório: **/var/lib/pgsql/**. A pasta “data” deve ser renomeada para “data.old”:

```
$ cd /var/lib/pgsql


$ mv data/ data.old
```

```
qmsuse02:/var/lib/pgsql # pwd
/var/lib/pgsql
qmsuse02:/var/lib/pgsql # ls
.bash_history  .bash_profile  .pgpass  .psql_history  .viminfo  data  initlog
qmsuse02:/var/lib/pgsql #
qmsuse02:/var/lib/pgsql # mv data/ data.old
qmsuse02:/var/lib/pgsql #
qmsuse02:/var/lib/pgsql # ls
.bash_history  .bash_profile  .pgpass  .psql_history  .viminfo  data.old  initlog
qmsuse02:/var/lib/pgsql #
```

6. Deve-se iniciar e parar o serviço do postgre para que uma nova pasta “data” seja criada:

```
$ systemctl start postgresql.service
```

```
$ systemctl stop postgresql.service
```

```
qmsuse02:/var/lib/pgsql # systemctl start postgresql.service
qmsuse02:/var/lib/pgsql # systemctl stop postgresql.service
```

7. Iniciando a migração com o usuário “postgres”.

```
$ sudo su - postgres
```

```
$ pg_upgrade --old-datadir "/var/lib/pgsql/data.old" --new-datadir "/var/lib/pgsql/ data" --old-bindir "/usr/lib/postgresql10/bin/" --new-bindir "/usr/lib/postgresql12/bin/"
```


```
qmsuse02:/var/lib/pgsql # sudo su - postgres
postgres@qmsuse02:~> psql
psql (12.7)
Type "help" for help.

postgres=# select version();
                                          version
-------------------------------------------------------------------------------------------
 PostgreSQL 12.7 on x86_64-suse-linux-gnu, compiled by gcc (SUSE Linux) 7.5.0, 64-bit
(1 row)

postgres=#
```

8. Durante a migração o banco de dados “qualitymanager”, as roles “md2net” e “mdm” foram perdidas:

```
postgres=# \l
                                 List of databases
   Name    |  Owner   | Encoding | Collate |    Ctype    |   Access privileges
-----------+----------+----------+---------+-------------+-----------------------
 postgres  | postgres | UTF8     | C       | en_US.UTF-8 |
 template0 | postgres | UTF8     | C       | en_US.UTF-8 | =c/postgres          +
           |          |          |         |             | postgres=CTc/postgres
 template1 | postgres | UTF8     | C       | en_US.UTF-8 | =c/postgres          +
           |          |          |         |             | postgres=CTc/postgres
(3 rows)

postgres=#
```

```
postgres=# \du
                                   List of roles
 Role name |                         Attributes                         | Member of
-----------+------------------------------------------------------------+-----------
 postgres  | Superuser, Create role, Create DB, Replication, Bypass RLS | {}
```

9. Criando o banco de dados e roles:

```
postgres=# create user md2net with encrypted password 'md2net2018';
CREATE ROLE
postgres=# alter user md2net with superuser;
ALTER ROLE
postgres=# create user mdm with encrypted password 'md2net2018';
CREATE ROLE
postgres=# \du
                                   List of roles
 Role name |                         Attributes                         | Member of
-----------+------------------------------------------------------------+-----------
 md2net    | Superuser                                                  | {}
 mdm       |                                                            | {}
 postgres  | Superuser, Create role, Create DB, Replication, Bypass RLS | {}

postgres=#
```

```
postgres=# create database qualitymanager;
CREATE DATABASE
postgres=# \l
                                  List of databases
      Name       |  Owner   | Encoding | Collate |    Ctype    |   Access privileges
-----------------+----------+----------+---------+-------------+-----------------------
 postgres        | postgres | UTF8     | C       | en_US.UTF-8 |
 qualitymanager  | postgres | UTF8     | C       | en_US.UTF-8 |
 template0       | postgres | UTF8     | C       | en_US.UTF-8 | =c/postgres          +
                 |          |          |         |             | postgres=CTc/postgres
 template1       | postgres | UTF8     | C       | en_US.UTF-8 | =c/postgres          +
                 |          |          |         |             | postgres=CTc/postgres
(4 rows)

postgres=#
```

10. Ajuste no arquivo pg_hba.conf para permitir conexões remotas:

```
$ vim /var/lib/pgsql/data/pg_hba.conf
```

```
# TYPE  DATABASE        USER            ADDRESS                 METHOD

# "local" is for Unix domain socket connections only
local   all             all                                     peer
# IPv4 local connections:
#host    all             all             127.0.0.1/32            ident
host    all             md2net          0.0.0.0/0               md5
# IPv6 local connections:
#host    all             all             ::1/128                 ident
host    all             md2net          ::1/128                 md5
```

11. Executando dump (backup) do banco de dados feito no passo 1:

```
qmsuse02:/tmp # gunzip -c BKP_DB_QM_20210806_03_36_PM.psql.gz| psql -h 127.0.0.1 -U md2net qualitymanager
```

5.2. Ajustes do Tomcat

1. Verificação da versão do JAVA.

```
qmsuse02:/var/lib/tomcat # java -version
openjdk version "1.8.0_292"
OpenJDK Runtime Environment (IcedTea 3.19.0) (build 1.8.0_292-b10 suse-3.52.1-x86_64)
OpenJDK 64-Bit Server VM (build 25.292-b10, mixed mode)
qmsuse02:/var/lib/tomcat #
```

2. Download do tomcat 9.0.31.

```
$ cd /var/lib/tomcat/
$ wget https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.31/bin/apache-tomcat-9.0.31.tar.gz
$ tar -vzxf apache-tomcat-9.0.31.tar.gz
$ chown -R tomcat:root apache-tomcat-9.0.31.tar.gz
```

```
qmsuse02:/var/lib/tomcat # wget https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.31/bin/apache-tomcat-9.0.31.tar.gz
--2021-08-06 12:19:41--  https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.31/bin/apache-tomcat-9.0.31.tar.gz
Resolving archive.apache.org (archive.apache.org)... 138.201.131.134, 2a01:4f8:172:2ec5::2
Connecting to archive.apache.org (archive.apache.org)|138.201.131.134|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11042076 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.31.tar.gz'

apache-tomcat-9.0.31.tar.gz                                 100%[=========================================================>]

2021-08-06 12:19:44 (4.19 MB/s) - 'apache-tomcat-9.0.31.tar.gz' saved [11042076/11042076]

qmsuse02:/var/lib/tomcat #
```

```
qmsuse02:/var/lib/tomcat # tar -vzxf apache-tomcat-9.0.31.tar.gz
apache-tomcat-9.0.31/conf/
apache-tomcat-9.0.31/conf/catalina.policy
apache-tomcat-9.0.31/conf/catalina.properties
apache-tomcat-9.0.31/conf/context.xml
apache-tomcat-9.0.31/conf/jaspic-providers.xml
apache-tomcat-9.0.31/conf/jaspic-providers.xsd
apache-tomcat-9.0.31/conf/logging.properties
apache-tomcat-9.0.31/conf/server.xml
apache-tomcat-9.0.31/conf/tomcat-users.xml
apache-tomcat-9.0.31/conf/tomcat-users.xsd
apache-tomcat-9.0.31/conf/web.xml
apache-tomcat-9.0.31/bin/
apache-tomcat-9.0.31/lib/
apache-tomcat-9.0.31/logs/
```

```
qmsuse02:/var/lib/tomcat # chown -R tomcat:root apache-tomcat-9.0.31/
qmsuse02:/var/lib/tomcat #
```

3. Alteração do diretório dentro do arquivo do serviço do Tomcat.

```
$ vim /etc/systemd/system/tomcat.service


$ systemctl daemon-reload
```

```
$ systemctl start tomcat


$ systemctl status tomcat
```

```
qmsuse02:/var/lib/tomcat/apache-tomcat-7.0.105/conf # vim /etc/systemd/system/tomcat.service
[Unit]
Description=Apache Tomcat Web Application Container
After=syslog.target network.target



[Service]
Type=forking
ExecStart=/var/lib/tomcat/apache-tomcat-9.0.31/bin/startup.sh
ExecStop=/var/lib/tomcat/apache-tomcat-9.0.31/bin/shutdown.sh
User=tomcat
Group=root



[Install]
WantedBy=multi-user.targer
~
```

```
qmsuse02:/var/lib/tomcat/apache-tomcat-7.0.105/conf # systemctl daemon-reload
qmsuse02:/var/lib/tomcat/apache-tomcat-7.0.105/conf # systemctl start tomcat
qmsuse02:/var/lib/tomcat/apache-tomcat-7.0.105/conf # systemctl status tomcat
● tomcat.service - Apache Tomcat Web Application Container
     Loaded: loaded (/etc/systemd/system/tomcat.service; disabled; vendor preset: disabled)
     Active: active (running) since Fri 2021-08-06 12:23:59 -03; 18s ago
   Main PID: 18431 (java)
      Tasks: 42
     CGroup: /system.slice/tomcat.service
             └─18431 /usr/bin/java -Djava.util.logging.config.file=/var/lib/tomcat/apache-to

Aug 06 12:23:59 qmsuse02 systemd[1]: Starting Apache Tomcat Web Application Container...
Aug 06 12:23:59 qmsuse02 startup.sh[18417]: Tomcat started.
Aug 06 12:23:59 qmsuse02 systemd[1]: Started Apache Tomcat Web Application Container.
lines 1-11/11 (END)
```

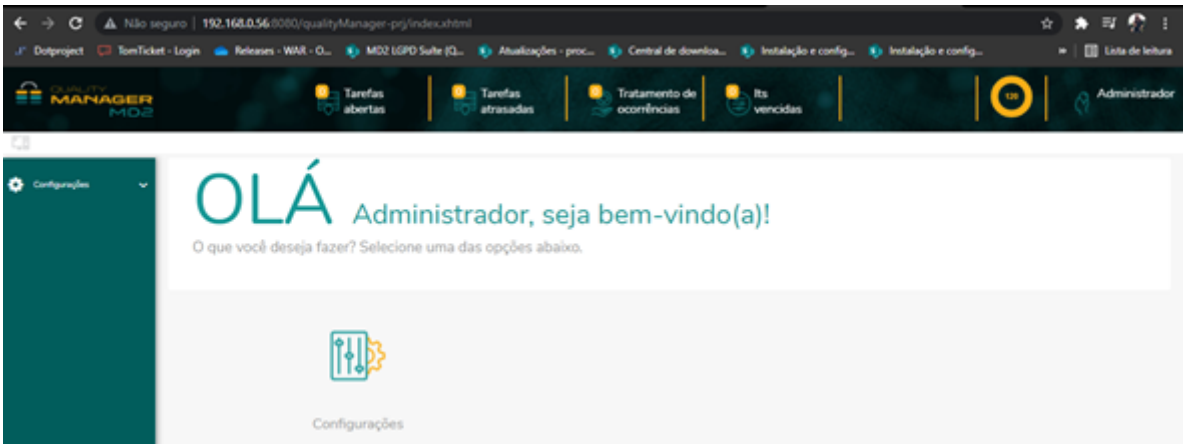
4. Transferência do arquivo da aplicação para a pasta webapps do Tomcat:

```
qmsuse02:/tmp # systemctl stop tomcat
qmsuse02:/tmp # rm -rf /var/lib/tomcat/apache-tomcat-9.0.31/webapps/qualityManager-prj*
qmsuse02:/tmp # mv qm2-war-2.43.1.war /var/lib/tomcat/apache-tomcat-9.0.31/webapps/qualityManager-prj.war
qmsuse02:/tmp # systemctl start tomcat
qmsuse02:/tmp # systemctl status tomcat
● tomcat.service - Apache Tomcat Web Application Container
     Loaded: loaded (/etc/systemd/system/tomcat.service; disabled; vendor preset: disabled)
     Active: active (running) since Fri 2021-08-06 12:38:26 -03; 4s ago
    Process: 23722 ExecStart=/var/lib/tomcat/apache-tomcat-9.0.31/bin/startup.sh (code=exited, status=0/SUCCESS)
   Main PID: 23736 (java)
      Tasks: 16
     CGroup: /system.slice/tomcat.service
             └─23736 /usr/bin/java -Djava.util.logging.config.file=/var/lib/tomcat/apache-tomcat-9.0.31/conf/logging

Aug 06 12:38:26 qmsuse02 systemd[1]: Starting Apache Tomcat Web Application Container...
Aug 06 12:38:26 qmsuse02 startup.sh[23722]: Tomcat started.
Aug 06 12:38:26 qmsuse02 systemd[1]: Started Apache Tomcat Web Application Container.
lines 1-12/12 (END)
```

5. Teste via browser:


powered by
MD2
QUALITY
MANAGER
MD2
login
senha
Acessar
Esqueceu a senha
2.43.1


Não seguro | 192.168.0.56:8080/qualityManager-prj/index.xhtml
Dotproject
TomTicket - Login
Releases - WAR - O...
MD2 LGPD Suite (Q...
Atualizações - proc...
Central de downloa...
Instalação e config...
Instalação e config...
Lista de leitura
QUALITY
MANAGER
MD2
Tarefas abertas
Tarefas atrasadas
Tratamento de ocorrências
Its vencidas
120
Administrador
Configurações
OLÁ
Administrador, seja bem-vindo(a)!
O que você deseja fazer? Selecione uma das opções abaixo.
Configurações

6. Conclusão

Este documento descreve e evidencia, em linhas gerais, as etapas e procedimentos realizados para a atualização do SUSE Linux para receber a aplicação do Quality Manager.