

Update from Release 3.23 and above

This procedure describes the process required to update the jtel system, assuming a MySQL server 8.0.x and portal release 3.23 or above.

Running Commands

All of the commands on this page are designed to be run by the **jtel** user.

Backup

Always have a way back. Remember to backup your system before updating.

Snapshots

Cold Snapshots

The simplest way to backup a system is using cold snapshots - i.e. shutdown the relevant VMs and take a snapshot when they are powered off.

This will ensure a consistent backup.

Live Snapshots

Live snapshots may not work.

In particular, if you are using replication, a running "live" snapshot of two databases may be inconsistent, and you may need to rebuild the slave after restoring the snapshot.

Also, when using DRBD to replicate the file system, this may also not work.

If you do take live snapshots, then it is probably best to:

- Snapshot the slave database before the master. That way, you have a chance that the slave can catch up to the master. If you do it the other way round, the slave will always be inconsistent as the master will not have the next position in the binary logs when it starts.
- Snapshot the passive storage before the active storage. The same principle applies.

Note, this will only give you a chance of data consistency, not a guarantee.

Manual Backup

If you do a manual backup, then as a minimum, backup the following into /srv/jtel/shared/backup/<Folder_CurrentDate>:

Backup Folder

```
JT_DATE_TIME=$(date +%F)
mkdir /srv/jtel/shared/backup/${JT_DATE_TIME}
```

Data Directory

Tar up the data directory on the active STORE machine as follows:

```
tar cfvz /srv/jtel/shared/backup/${JT_DATE_TIME}/Data_Before_Update.tar.gz /srv/jtel/shared/Data
```

JTEL and JTELCarrierPortal Repositories

```
tar cfvz /srv/jtel/shared/backup/${JT_DATE_TIME}/JTEL_Before_Update.tar.gz /srv/jtel/shared/JTEL
tar cfvz /srv/jtel/shared/backup/${JT_DATE_TIME}/JTELCarrierPortal_Before_Update.tar.gz /srv/jtel/shared/JTELCarrierPortal
```

If jtel-system-java-services exists

```
tar cfvz /srv/jtel/shared/backup/${JT_DATE_TIME}/jtel-system-java-services_Before_Update.gz /srv/jtel/shared/jtel-system-java-services
```

If a customer directory exists

```
tar cfvz /srv/jtel/shared/backup/${JT_DATE_TIME}/<CustomerDir_Before_Update>.gz /srv/jtel/shared/<CustomerDir>
```

Manual Backups

Services on the Telephony Server must be backed up manually. The minimum of services is:

- 8Server
- PlatformUDPListener
- PBXConnector

There may also be services like jrest, IMAP or Exchange

MySQL

Backup the MySQL Master Database from the active STORE machine as follows:

CAUTION PASSWORD

```
mysqldump -uUSER -pPWD -hacd-dbm --single-transaction --master-data=2 --databases JTELWeb JTELStats JTELStats2 JTELLog --add-drop-database --add-drop-table --events --routines --triggers > /srv/jtel/shared/backup/${JT_DATE_TIME}/ACD-DBM_Before_Update.sql
```

After MySQL Version 8.0.27

```
mysqldump -uUSER -pPWD -hacd-dbm --single-transaction --source-data --databases JTELWeb JTELStats JTELStats2 JTELLog --add-drop-database --add-drop-table --events --routines --triggers > /srv/jtel/shared/backup/${JT_DATE_TIME}/ACD-DBM_Before_Update.sql
```

Check GIT Status

Check the GIT status of the repository on the active STORE as follows, for the **JTEL** and **JTELCarrierPortal** repositories:

```
cd /srv/jtel/shared/JTEL
git status
cd /srv/jtel/shared/JTELCarrierPortal
git status
cd /srv/jtel/shared/jtel-system-java-services
git status
```

You should see output like this for both directories:

```
On branch release/stable-3.27
Your branch is up to date with 'origin/release/stable-3.27'.

nothing to commit, working tree clean
```

Files which have been changed or are not tracked

Example

The following shows an example of this:

```
On branch release/stable-3.27
Your branch is up to date with 'origin/release/stable-3.27'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   AppServer/jtel.Portal.Daemon.FTP.CheckUploads.j5

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        DB/NetworkIVR/MyNewScript.sql

no changes added to commit (use "git add" and/or "git commit -a")
```

Backup Changes and Untracked Files

Now, backup any files which have been changed, and any files which are not included in the repository.

Also, make a note of the exact commit, in which the repository was in.

The following script will do this for you:

```
# Directory Name in /srv/jtel/shared/backup
JT_DATE_TIME=$(date +%F-%H%M%S)

# JTEL Directory
cd /srv/jtel/shared/JTEL
mkdir -p ../backup/${JT_DATE_TIME}/JTEL
git rev-parse HEAD > ../backup/${JT_DATE_TIME}/JTEL/README_git_commit_hash.txt
git status > ../backup/${JT_DATE_TIME}/JTEL/README_git_status.txt
rsync -R $(git ls-files --modified --others --exclude-standard) ../backup/${JT_DATE_TIME}/JTEL

# JTELCarrierPortal Directory
cd /srv/jtel/shared/JTELCarrierPortal
mkdir -p ../backup/${JT_DATE_TIME}/JTELCarrierPortal
git rev-parse HEAD > ../backup/${JT_DATE_TIME}/JTELCarrierPortal/README_git_commit_hash.txt
git status > ../backup/${JT_DATE_TIME}/JTELCarrierPortal/README_git_status.txt
rsync -R $(git ls-files --modified --others --exclude-standard) ../backup/${JT_DATE_TIME}/JTELCarrierPortal

# jtel-system-java-services Directory
cd /srv/jtel/shared/jtel-system-java-services
mkdir -p ../backup/${JT_DATE_TIME}/jtel-system-java-services
git rev-parse HEAD > ../backup/${JT_DATE_TIME}/jtel-system-java-services/README_git_commit_hash.txt
git status > ../backup/${JT_DATE_TIME}/jtel-system-java-services/README_git_status.txt
rsync -R $(git ls-files --modified --others --exclude-standard) ../backup/${JT_DATE_TIME}/jtel-system-java-services
```

Revert or Delete Files

Now, the files must be deleted or reverted.

The following script will do this for you:

```
# JTEL Directory
cd /srv/jtel/shared/JTEL
git checkout -- .
git clean -fd

# JTELCarrierPortal Directory
cd /srv/jtel/shared/JTELCarrierPortal
git checkout -- .
git clean -fd

# jtel-system-java-services Directory
cd /srv/jtel/shared/jtel-system-java-services
git checkout -- .
git clean -fd

cd /srv/jtel/shared/
```

Update

Stop Services

Stop the following services:

Machine(s)	Stop what	It is installed if you are using	How to stop
Telephony Servers	8-Server	ACD / IVR	X the cmd file starter window. Down 8-Server via GUI. For service installations, stop the robot5 service.
	Platform UDP Listener	ACD / IVR	X the cmd file starter window. For service installations, stop the jtel Platform UDP Listener service.
	REST API	REST	X the cmd file starter window. For service installations, stop the jtel jrest service.
	Presence Aggregator	A PBX or presence connector which uses the presence aggregator: <ul style="list-style-type: none"> • Cisco • NFON • Teams 	X the cmd file starter window. For service installations, stop the jtel Presence Aggregator service.
	Telephony Connector	A PBX which uses a custom connector: <ul style="list-style-type: none"> • Avaya JTAPI • Innovaphone • TAPI (all) 	X the cmd file starter window. For service installations, stop the service, for example the jtel TAPI service or jtel Innovaphone Service.

	Exchange Connector	E-Mail with an Exchange or Office 365 Server	Stop the jtelEWSMailService service.
	IMAP Connector	E-Mail with an IMAP(S) Server	Stop the jtelIMAPMailService service.
Web Servers	Wildfly	Anything	sudo systemctl stop wildfly For installations not using systemctl: sudo service wildfly stop
Chat Servers	Chat Server	CHAT	sudo systemctl stop jtel-clientmessenger For installations not using systemctl: sudo service jtel-clientmessenger stop
DB Servers	Platform UDP Listener	SOAP	sudo systemctl stop jtel-listener For installations not using systemctl: sudo service jtel-listener stop

Pull the Updates

Pull the updates as follows:

JTEL

```
cd /srv/jtel/shared/JTEL
git pull
```

JTELCarrierPortal

```
cd /srv/jtel/shared/JTELCarrierPortal
git pull
```

jtel-system-java-services

```
cd /srv/jtel/shared/jtel-system-java-services
git pull
```

Checkout the Release

Checkout the required release as follows:

```
cd /srv/jtel/shared/JTEL
git checkout release/stable-3.34
cd /srv/jtel/shared/JTELCarrierPortal
git checkout release/stable-3.34
cd /srv/jtel/shared/jtel-system-java-services
git checkout release/stable-3.34
```

Check for a Customer Directory

Check if there is a customer directory with customised software.

This will be in **/srv/jtel/shared** and will resemble the customer name. For example, for jtel it might be cjtel-software.

Remember the directory name - you will need it in the next step.

Note: recommend you do not mess with this directory, unless you are the author of the directory contents.

Get the new Binaries and Run the Update Script

Run as follows:

```
cd /srv/jtel/shared/JTELCarrierPortal/Update
bash ./get_binaries.sh
sudo bash ./update_release.sh
```

You will be asked for the following:

Question	Answer
[sudo] password for jtel:	The jtel user password
mysql host address:	acd-dbm For redundant installations only: acd-dbm1 or acd-dbm2, depending on which is active
mysql user name:	root
mysql password:	The MySQL root password
customer directory:	The customer directory from above, or just ENTER if none is present.

Check the Output

This is an example of a successful update (shortened):

```
-----
```

JTELCarrierPortal - full update script

mysql host address: acd-dbm
mysql user name: root
mysql password: xxxxxx
customer directory:

Settings

MYSQLHOST: acd-dbm
MYSQLUSER: root
MYSQLPASS: xxxxxx
CUSTOMERDIR:

Phase 1 - files, directories, permissions

Copying Data/system/help from JTELCarrierPortal ... done!
Copying Data/system/gui from JTEL ... done!
Removing no longer needed .xls.jrxml files ... done!
Copying Data/system/jasper from JTELCarrierPortal ... done!
Ensure correct file permissions in JTELCarrierPortal ... done!
Ensure correct file permissions in Data ... done!
Ensure correct file permissions in JTEL ... done!
Phase 1 - files, directories, permissions - DONE.

Phase 2 - DB Updates

Call update_all.sh in JTELCarrierPortal ...
Updating database ...
mysql_execute: portal Update_JTELDatabases.sql ... done!
mysql_execute: portal Update_JTELWeb_Utills.sql ... done!
mysql_execute: delete Delete_JTELLog.sql ... done!
mysql_execute: delete Delete_JTELWeb.sql ... done!
mysql_execute: delete Delete_JTELStats.sql ... done!
mysql_execute: delete Delete_ResourcesParams.sql ... done!
mysql_execute: fixes CSTUTT-278_JTELStats.FixStatistics_UsersLogin.sql ... done!
mysql_execute: fixes CSTUTT-278_JTELStats.FixStatistics_UsersGroupsLogin.sql ... done!
mysql_execute: fixes JTELWeb.RemoveTranslators.sql ... done!
mysql_execute: init AreaCodes_AT.sql ... done!
mysql_execute: cleaners Cleaners.sql ... done!
mysql_execute: portal Update_JTELLog.sql ... done!
mysql_execute: portal Update_JTELWeb.sql ... done!
mysql_execute: portal Update_JTELStats.sql ... edone!
mysql_execute: importexport2 Update_JTELWeb_ImportExport2.sql ... done!
mysql_execute: hardstyle Update_JTELWeb_Hardstyle.sql ... done!
mysql_execute: acd Update_JTELWeb_Acd.sql ... done!
mysql_execute: acd Update_JTELStats_Acd.sql ... done!
mysql_execute: cache Update_JTELWeb_Cache.sql ... done!
mysql_execute: cache Update_JTELStats_Cache.sql ... done!


```
mysql_execute: conf Update_JTELWeb_Conf.sql ... done!
mysql_execute: conf Update_JTELStats_Conf.sql ... done!
mysql_execute: dialler Update_JTELWeb_Dialler.sql ... done!
mysql_execute: dialler Update_JTELStats_Dialler.sql ... done!
mysql_execute: jts_service JTS_Service.sql ... done!
mysql_execute: presence Update_Presence.sql ... done!
mysql_execute: salesforce Update_SalesForce.sql ... done!
mysql_execute: sap Update_SAP.sql ... done!
mysql_execute: cockpit cockpit.sql ... done!
mysql_execute: jtelstats2 Update_JTELWeb.sql ... done!
mysql_execute: jtelstats2 Update_JTELStats2.sql ... done!
mysql_execute: jrest jrest_ResourcesParams.sql ... done!
mysql_execute: jrest Update_jrest.sql ... done!

Database update done!

Search for errors ...

CONGRATULATIONS: no errors during update.
Call update_all.sh in JTEL ...
Updating database.....
CONGRATULATIONS: no errors during update.
Call update_translations.sh in JTELCarrierPortal ...
Updating translations ...
mysql_execute: translations Update_JTELWeb_Translations.sql ... done!

Database update done!

Search for errors ...

CONGRATULATIONS: no errors during update.
Phase 2 - DB Updates - DONE.

-----
All done. REMEMBER: the error checking in this script is not perfect - SO TEST, TEST, TEST!
-----
```

Wildfly Font Patch

On each of the Wildfly Webservers, run the following script (as root or with sudo):



```
/home/jtel/shared/JTELCarrierPortal/Update/patch_debian_lucida.sh
```

Automatic Updates

Some services will update automatically, when they are restarted further below.

Manual Updates

The following services must currently be updated manually by copying the new binaries from `//acd-store/shared`.

Machine(s)	What	It is installed if you are using	How to update
Telephony Servers	Platform UDP Listener	ACD / IVR	For service installations only: start the listener once, manually using <code>c:\PlatformUDPListener\startListener.bat</code> then stop it again once it is running.
	REST API	REST	Copy all files from <code>\\acd-store\shared\jtel-system-java-services\deploy\jrest\bin</code> to the local installation directory.
	Presence Aggregator	A PBX or presence connector which uses the presence aggregator: <ul style="list-style-type: none">• Cisco• NFON• Teams	Copy all files from <code>\\acd-store\shared\jtel-system-java-services\deploy\presence-aggregator\bin</code> to the local installation directory.
	Telephony Connector	A PBX which uses a custom connector: <ul style="list-style-type: none">• Avaya JTAPI• Innovaphone• TAPI (all)	Copy all files, except for the configuration file, from the relevant directory in <code>\\acd-store\shared\JTELCarrierPortal\WebServices\Install</code>
	Exchange Connector	E-Mail with an Exchange or Office 365 Server	Copy all files, except for <code>jtelEWSMailService.exe.config</code> from <code>\\acd-store\shared\JTELCarrierPortal\WebServices\Install\jtelEWSMailService</code> to the local installation directory. On older installations, the .NET Framework packages might need to be updated.  The configuration file might also have to be changed if an older installation is being updated.
	IMAP Connector	E-Mail with an IMAP(S) Server	Copy all files, except for <code>jtelIMAPMailService.exe.config</code> from <code>\\acd-store\shared\JTELCarrierPortal\WebServices\Install\jtelIMAPMailService</code> to the local installation directory. On older installations, the .NET Framework packages might need to be updated.  The configuration file might also have to be changed if an older installation is being updated.

8-Server Update

8-Server is updated by pulling the git repository, checking out the newest release (for example **release/rc-5.23.27**) and running `copy_keyfile_en_mcp_v67.cmd` from `C:\8Server\deploy\OEM\JTEL\`.

```
cd C:\8Server\deploy\OEM\JTEL\  
copy_keyfile_en_mcp_v67.cmd
```

Cygwin Update

Cygwin is updated as follows from a .CMD window.

This also installs any packages which are not already present.

This assumes that cygwin installer .EXE is still in the downloads folder.

```
"%USERPROFILE%\Downloads\setup-x86_64.exe" ^
--site http://ftp-stud.hs-esslingen.de/pub/Mirrors/sources.redhat.com/cygwin/ ^
--no-shortcuts ^
--no-desktop ^
--quiet-mode ^
--root "c:\cygwin" ^
--arch x86_64 ^
--local-package-dir "c:\cygwin\packages" ^
--verbose ^
--prune-install ^
--packages openssh,ncftp,wget,curl,lftp,libiconv
```

Update all of the .NET Packages on the windows machines. Use the following Commands:

.NET Packages on all Windows Machines



```
powershell -command "& { Start-BitsTransfer -Source https://cdn.jtel.de/downloads/DotNET/dotnet-sdk-6.0.403-win-x64.exe -Destination $Env:UserProfile\Downloads }"
powershell -command "& { start-process -FilePath $Env:UserProfile\Downloads\dotnet-sdk-6.0.403-win-x64.exe -ArgumentList '/install /passive /norestart' -Verb RunAs -wait }"
powershell -command "& { Start-BitsTransfer -Source https://cdn.jtel.de/downloads/DotNET/NDP48-x86-x64-AllOS-ENU.exe -Destination $Env:UserProfile\Downloads }"
powershell -command "& { start-process -FilePath $Env:UserProfile\Downloads\NDP48-x86-x64-AllOS-ENU.exe -ArgumentList '/install /passive /norestart' -Verb RunAs -wait }"
```

Install Java on Windows Machines

Download here and install:

<https://adoptium.net/de/temurin/>

Create MySQL User for Customer (If not exist)

And **update the permissions for JTEL* and JTELCustomer DBs:**

[Role DATA - Create MySQL User for Customer Access \(Debian/Win2019\)](#)

Update Backup-Routine

Add "JTELCustomer" to backup routine at acd-dbm.

```
vi /home/jtel/jtel_dailyjobs/jtel_backup.sh
```

Restart Services

Start the following services:

Machine(s)	Start what	It is installed if you are using	How to start
Telephony Servers	8-Server	ACD / IVR	Explorer to shell:startup - start the link to startup_launcher.cmd For service installations, start the robot5 service.
	Platform UDP Listener	ACD / IVR	Explorer to shell:startup - start the link to startListener.bat For service installations, start the jtel Platform UDP Listener service.
	REST API	REST	Explorer to shell:startup - start the link to start-jrest.cmd For service installations, start the jtel jrest service.
	Presence Aggregator	A PBX or presence connector which uses the presence aggregator: <ul style="list-style-type: none">• Cisco• NFON• Teams	Explorer to shell:startup - start the link to start-presence-aggregator.cmd For service installations, start the jtel Presence Aggregator service.
	Telephony Connector	A PBX which uses a custom connector: <ul style="list-style-type: none">• Avaya JTAPI• Innovaphone• TAPI (all)	Explorer to shell:startup - start the link to JTElinnovaphonePBXService.exe or jtelTAPIMonitorService.exe For service installations, start the service, for example the jtel TAPI service or jtel Innovaphone Service.
	Exchange Connector	E-Mail with an Exchange or Office 365 Server	Start the jtelEWSMailService service.
	IMAP Connector	E-Mail with an IMAP(S) Server	Start the jtelIMAPMailService service.
Web Servers	Wildfly	Anything	Update from deploy sudo /usr/local/bin/updatejb.sh Update Core Thread Configuration The following command is only required if a package update HAS ALREADY BEEN DONE - If the package update is being done, the changes that the script makes are already in there ./set_task_core_threads.sh Package Upgrade - If it has not already been done Update wildfly Server
Chat Servers	Chat Server	CHAT	sudo /usr/local/bin/updatesc.sh
DB Servers	Platform UDP Listener	SOAP	sudo /usr/local/bin/updatepl.sh

Test

It goes without saying, that you should now run some tests.