



**Trending&Aggregation Huawei RAN 5.2**  
**INSTALLATION MANUAL**  
**January 2013**

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## CONTENT

<b>1. GENERAL INTRODUCTION .....</b>	<b>4</b>
<b>2. INSTALLATION CONDITIONS .....</b>	<b>4</b>
<b>3. QUICK INSTALLATION .....</b>	<b>5</b>
3.1. SUMMARY .....	5
3.2. STEP 1: CREATION OF INSTALLATION DIRECTORY ON T&A SERVER.....	5
3.3. STEP 2: CHECKING PHP AND POSTGRES VERSIONS .....	6
3.4. STEP 3: COPY OF NEEDED FILES AND DIRECTORIES .....	6
3.5. STEPS [4-5]: QUICK INSTALLATION SCRIPT EXECUTION .....	6
3.6. STEP 6: HOMEPAGE CONFIGURATION .....	7
3.7. STEP 7: MULTIPRODUCT MANAGEMENT (OPTIONAL) .....	7
3.8. STEP 8: MODIFICATION OF ASTELLIA_ADMIN PASSWORD.....	8
<b>4. BACKUP .....</b>	<b>9</b>
<b>5. QUICK START.....</b>	<b>9</b>
<b>6. UNINSTALLING APPLICATION .....</b>	<b>10</b>
<b>7. APPENDIX A : MAIL SERVER CONFIGURATION .....</b>	<b>11</b>
<b>8. APPENDIX B : SSL CERTIFICATE UPDATE.....</b>	<b>12</b>

Revisions			
Revision	Date	Writer	Object
A	03/05/2012	FRR1	Creation from V5.1 template

### Reference documents

- User manual: Trending&AggregationOMC\_UserManual.pdf
- Administrator manual: Trending&AggregationOMC\_AdminManual.pdf
- Release description: RH

## 1. GENERAL INTRODUCTION

This document describes Trending&Aggregation Huawei RAN 5.2 application installation for both REDHAT with PHP 5.2 and POSTGRES 8.2 or 9.1.

It can be used either for a very first installation of the product, or for a migration/patch of a previous version of the product. In that last case, previous version of the product to migrate/patch must be at least 5.0.

Before launching T&A HUARAN installation, you need to install OpenOffice and SSH2 available in the "kernel" directory of the CD.

Final application version will be T&A HUARAN 5.2.1.01 with base component, HUAWEI RAN 5.2.1.01 parser versions and 5.2.1.00 context.

After the installation change the password of user astellia\_admin and save the new password in engineering documents.

## 2. INSTALLATION CONDITIONS

Before launching T&A HUARAN installation, you need to gather following client elements:

- Logo picture
- Topology files

**Warning:** In case of migration, verify there is not any process running. You can check this by logging in admin account on the application to update and verify process activity in the trace log. It is also recommended to backup database before proceeding to migration (for more details refer to Trending&Aggregation\_AdminManual.pdf chapter "T&A Database Backup/Restoration").

Information about this installation:

Final base component version	5.2.0.33
Final parser version	HUAWEI RAN 5.2.1.01
Base components list (« Sources\cb » directory)	cb_v5.2.0.33
Parser list (« Sources\parser » directory)	p_TAU50_HUARAN_v5.2.1.01
Quick installation script	quick_install_huaran_5.2.1.01.sh
Topology	« .csv » client files (not on CD-ROM)
Context (Context directory)	TA_HUARAN_5.2.1.00.tar.bz2
Verified the software version for apache and postgres database	PHP version 5.2 Postgres version 8.2 or 9.1
Minimum previous version in case of migration/patch	5.0

### 3. QUICK INSTALLATION

#### 3.1. SUMMARY

N°	Step	Necessary files/directories	Description
1	Creation of installation directory on T&A server	NA	NA
2	Checking PHP and Postgres versions	NA	PHP 5.2 Postgres 8.2 or 9.1
3	Quick installation script and archive copy on T&A server	quick_install_huaran_5.2.1.01.sh ta_huaran_5.2.1.01.tar.gz	Copy files in below directory : <b>/home/ta_install</b>
4	Change rights on quick installation script	In /home/ta_install directory	Launch following commands: <b>chmod 777 quick_install_huaran_5.2.1.01.sh</b> and <b>dos2unix quick_install_huaran_5.2.1.01.sh</b>
5	Quick installation script execution	quick_install_huaran_5.2.1.01.sh	<b>sh quick_install_huaran_5.2.1.01.sh</b> Follow script instructions.
6	Homepage configuration	Edit /home/<TA_APP>/homepage/config.xml	Follow step 6 instructions described below.
7	Multiproduct management (optional)	Edit /usr/local/pgsql/data/pg_hba.conf	Follow step 7 instructions described below. This step is required only for multiproduct configuration.
8	Change astellia_admin password	NA	After the installation change the password of astellia_admin user and save the new password in engineering documents.

#### 3.2. STEP 1: CREATION OF INSTALLATION DIRECTORY ON T&A SERVER

Verify if "ta\_install" directory dedicated to installation components exists:

```
su – root
```

```
cd /home
```

```
ls -lrt
```

If not existing, create "ta\_install" directory:

```
mkdir ta_install
```

### 3.3. STEP 2: CHECKING PHP AND POSTGRES VERSIONS

The versions should be: PHP 5.2 and postgres 8.2 or 9.1.

Postgres :

```
psql -U postgres template1
```

PHP :

```
php -v
```

T&A has been designed to work with PHP v5.2.13. Some features (GIS) will not be available when using earlier versions.

It is therefore recommended to upgrade PHP to version 5.2.13. PHP update can be done at any time, before or after T&A has been installed.

### 3.4. STEP 3: COPY OF NEEDED FILES AND DIRECTORIES

From Windows (with Winscp or other tool), with root connection, copy following files:

- /media/cdrecorder /install/ta\_huaran\_5.2.1.01.tar.gz
- /media/cdrecorder/install/quick\_install\_huaran\_5.2.1.01.sh

from your PC directory to T&A server installation directory:

- /home/ta\_install

### 3.5. STEPS [4-5]: QUICK INSTALLATION SCRIPT EXECUTION

Connected as "root" on T&A server, execute following commands:

- Go in T&A server installation directory:

```
cd /home/ta_install
```

- For solving Linux / Windows compatibility issues, launch "dos2unix" tool (only for .sh extensions):

```
dos2unix quick_install_huaran_5.2.1.01.sh
```

- Change quick installation script rights:

```
chmod +x quick_install_huaran_5.2.1.01.sh
```

- Launch quick installation script execution:

```
sh quick_install_huaran_5.2.1.01.sh
```

- Answer quick installation script questions with copying displayed comments. Advanced feature have been added to help user during installation process :
  - avoid installation if postgresql server port is different from 5432

- select existing server IP address if several are available
- select compatible application to patch or create a new one

Refer to administrator manual to know how to:

- upload context
- mount context
- update product key
- upload topology
- update logo
- update connection

### 3.6. STEP 6: HOMEPAGE CONFIGURATION

The Homepage is configured for the network aggregation Network with default id expected 'network'

But customer Network id can be different so you have 2 solutions:

- Modify /home/<TA INSTALL>/homepage/config.xml file

Example: If your Network agregation id is MyNetW

You need to replace in /home/<TA INSTALL>/homepage/config.xml file

```
<Nelement element="network">network</Nelement>
```

By

```
<Nelement element="network">MyNetW</Nelement>
```

or

- Update customer topology : replace network in topology by 'network' (without quotes)

Disconnect and reconnect as client\_user

### 3.7. STEP 7: MULTIPRODUCT MANAGEMENT (OPTIONAL)

This step is required only for multiproduct configuration.

From version 5.0, you can use the multiple products functionality. The connection on the database from a remote server must be authorized. You should modify PostgreSQL configuration file of each server.

- Connect on each server and modify the file /usr/local/pgsql/data/pg\_hba.conf :

```
vi /usr/local/pgsql/data/pg_hba.conf
```

➤ After the line :

```
host all all 127.0.0.1/32 trust
```

add the line\* :

```
host all all IP_ADDRESS /NETWORKMASK trust
```

➤ On the server of master product, add the IP address of the local server (not localhost).

After the modification, restart PostgreSQL to apply the changes with following command.

```
/etc/init.d/postgresql restart
```

➤ Test modification: connect on the server via putty and launch this command:

```
/usr/local/pgsql/bin/psql -U postgres -h IP_ADDRESS
```

If pg\_hba.conf contains some errors, following message should be displayed:

```
psql: FATAL: no pg_hba.conf entry for host "IP_ADDRESS", user "postgres", database "template1".
```

Otherwise file is ok and you're connected on template1 database.

**\* Note:** *IP\_ADDRESS belongs to the IP address of the master product server and NETWORKMASK belongs to the network mask of the master product server.*

Example :

Server	IP address / Network Mask	Modification
Server of master Product	10.0.0.1 / 255.255.255.0	Add the line : <b>host all all 10.0.0.1/32 trust</b>
Server of slave Product	10.0.0.2 / 255.255.255.0	Add the line : <b>host all all 10.0.0.1/32 trust</b>

### 3.8. STEP 8: MODIFICATION OF ASTELLIA\_ADMIN PASSWORD

After the installation, change the password of astellia\_admin user and save the new password in engineering documents.



## 4. BACKUP

An automatic database backup is launched every Sunday provided that a daily compute has been executed.

The generated compressed dump is stored in the directory specified by “Backup Database directory” parameter of “Global Parameters”. By default, backup directory is “/home/backup”.

For more details refer to Trending&Aggregation\_AdminManual.pdf chapter “T&A Database Backup/Restoration”

## 5. QUICK START

Refer to user and administrator manuals.

## 6. UNINSTALLING APPLICATION

Connected as « root », execute following commands:

- stop connections:

```
/etc/init.d/postgresql realstop
```

- delete application directory:

```
rm -rf /home/astellia_huawei_utran
```

- relaunch postgres database:

```
/etc/init.d/postgresql start
```

- delete database:

```
dropdb -U postgres astellia_huawei_utran
```

- delete alias:

```
vi /home/httpd/conf/httpd.conf
```

Delete lines that refer to application:

```
<IfModule mod_alias.c>  
    Alias /astellia_huawei_utran /"home/astellia_huawei_utran "  
        <Directory /home/astellia_huawei_utran ">  
            AllowOverride None  
            Order allow,deny  
            Allow from all  
        </Directory>  
</IfModule>
```

- restart apache:

```
/etc/init.d/apachectl restart
```

- delete lines that refer to application in “root” crontab (use DD command to deleted line then :wq to save and quit):

```
crontab -e
```

Connected as Astellia, delete lines that refer to application in “astellia” crontab:

```
crontab -u astellia -e
```

## 7. APPENDIX A : MAIL SERVER CONFIGURATION

Client domain name must appear in following file:

**/etc/postfix/mailname**

Ex: astellia.com

Client parameter (in **bold**) must appears in following file:

**/etc/postfix/main.cf**

```
smtpd_banner = $myhostname ESMTP $mail_name (Debian/GNU)
biff = no
append_dot_mydomain = no
myhostname = mail.astellia.com (hostname send to mail server)
alias_maps = hash:/etc/aliases
alias_database = hash:/etc/aliases
myorigin = /etc/mailname
mydestination = localhost.localdomain, localhost
relayhost = 192.168.1.241 (SMTP Gateway)
mynetworks = 127.0.0.0/8
mailbox_command = procmail -a "$EXTENSION"
mailbox_size_limit = 0
recipient_delimiter = +
inet_interfaces = loopback-only
```

After files modification, restart mail server:

**/etc/init.d/postfix stop**

**/etc/init.d/postfix start**

Connected as « root », following commands allow to:

- check mails queue: **mailq**
- Purge mails queue: **postsuper -d ALL**

## 8. APPENDIX B : SSL CERTIFICATE UPDATE

Connected as « root », execute following commands

```
openssl genrsa -out server.key 1024
```

```
openssl req -new -key server.key -out server.csr
```

Answer to questions as follows:

```
Q1 : FR
```

```
Q2 : France
```

```
Q3 : Rennes
```

```
Q4 : Astellia
```

```
Q5 : Astellia
```

```
Q6 : Astellia
```

```
Q7 : support@astellia.com
```

```
Q8 : <password>
```

```
Q9 : <enter>
```

```
openssl x509 -req -in server.csr -signkey server.key -out server.crt
```

```
cp server.crt /home/httpd/conf/ssl.crt/server.crt
```

```
cp server.key /home/httpd/conf/ssl.key/server.key
```

```
rm server.key
```

```
rm server.crt
```

```
rm server.key
```

Restart web server: command `/etc/init.d/apachectl restart`