

BASEBAND 5212 INTEGRATION

PRE-REQUISITES



› Tools:

1. Laptop with browser Internet Explorer/Mozilla Firefox
2. LAN Straight Cable
3. MoShell minimum MoShell16
4. SFTP Application
5. USB SL (for SL integration)

› Software:

- Upgrade Package W16A CP2 or later

PRE-REQUISITES



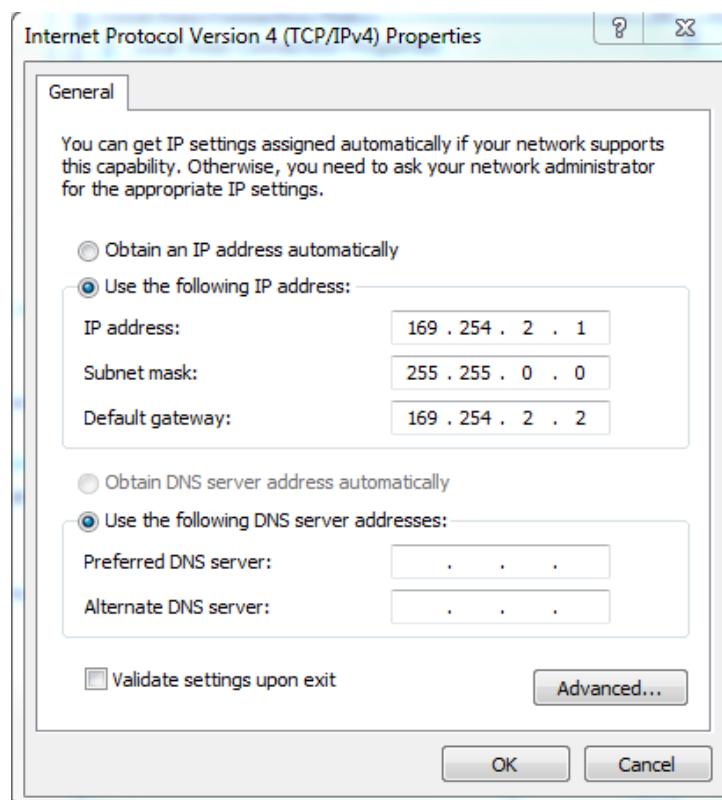
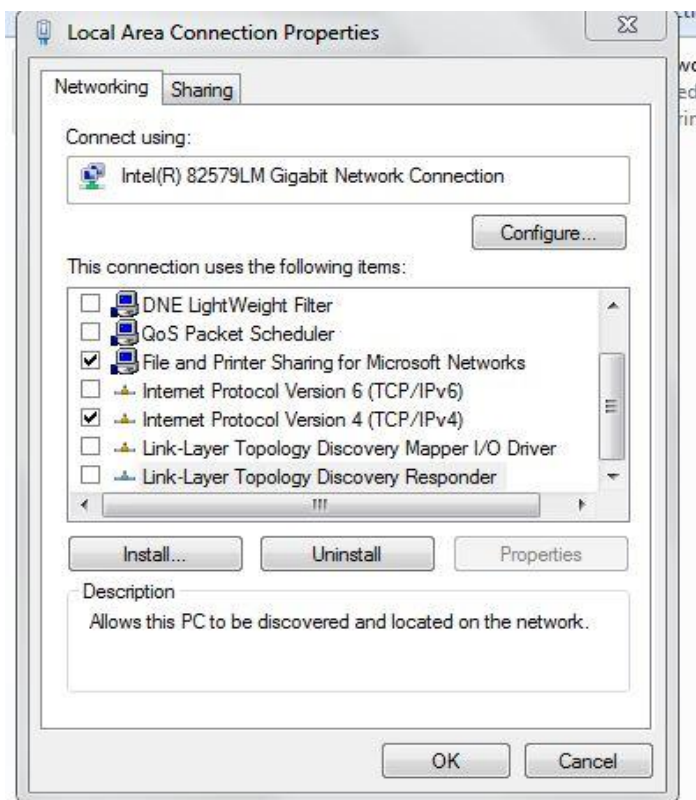
› Configuration Files

1. RBS Summary Script
2. Site Basic Script
3. Site Equipment Script
4. License Key File (LKF)
5. Upgrade Package
6. Transport Network Script
7. Radio Network Script

FULL MANUAL INTEGRATION



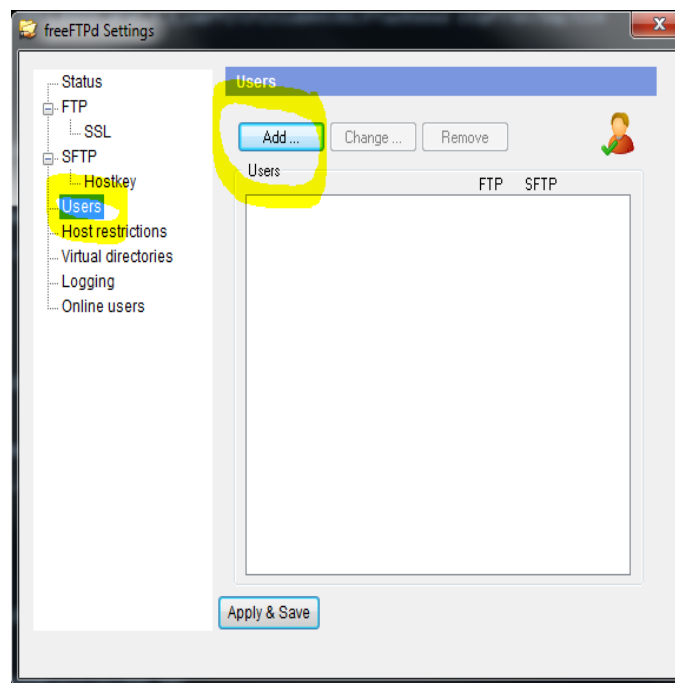
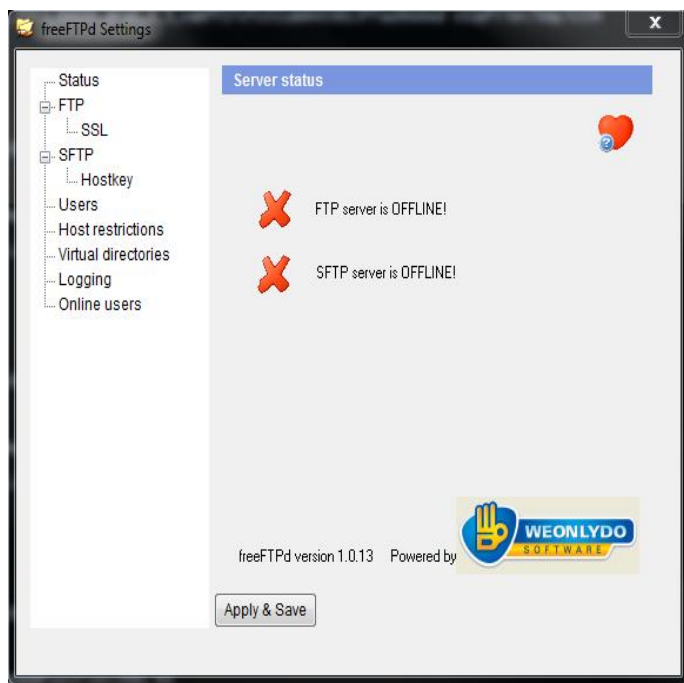
- › Power Up Baseband 5212
- › Connect Laptop to port LMT Baseband using RJ45 cable
- › IP Laptop Setting



FULL MANUAL INTEGRATION



- › Firewall and antivirus should be disabled in the local PC
- › Setting SFTP Server (Recommendation FreeFTPd)
 - IpAddress : 169.254.2.1
 - User : ftp
 - Password : ftp



FULL MANUAL INTEGRATION



› Setting SFTP Server (Continue..)

The screenshot shows the 'freeFTPd Settings' window with the 'User properties' tab selected. The left sidebar contains a tree view with 'Status', 'FTP', 'SSL', 'SFTP', 'Hostkey', 'Users', 'Host restrictions', 'Virtual directories', 'Logging', and 'Online users'. The 'SFTP' item is highlighted. The main area contains the following fields and options:

- Login: ftp
- Authorization: Password stored as SHA1 hash
- Password: [masked]
- Password (again): [masked]
- Domain: [empty]
- Home directory: C:\Users\emocar\Desktop\UM5
- Max transfer rate: 0 kbps
- User can access: ☒ FTP server, ☒ SFTP server

At the bottom, there are 'Apply' and 'Cancel' buttons, with the 'Apply' button highlighted in yellow. An 'Apply & Save' button is also present at the bottom left.

The screenshot shows the 'freeFTPd Settings' window with the 'SFTP server general options' tab selected. The left sidebar is the same as the previous screenshot, with 'SFTP' highlighted. The main area contains the following fields and options:

- Listen address: 169.254.2.1
- Port: 22
- Max number of connections: 0 (0 = unlimited)
- Idle timeout: 0 seconds (0 = unlimited)
- Greeting message file: [empty]
- Goodbye message file: [empty]
- SFTP root directory: C:\Program Files (x86)\freeFTPd\sftproot
- Server status: Running...

At the bottom, there is an 'Apply & Save' button. A 'Stop' button is also present next to the 'Server status' field.

FULL MANUAL INTEGRATION



› Open IE, Log in to AutoIntegration Web GUI :

<https://169.254.2.2>

- Host : 169.254.2.1 (IP Laptop)
- Username : ftp
- Password: ftp
- Site Installation File: /<RBS_Summary>.xml

The screenshot shows a web browser window with the address bar set to <https://169.254.2.2>. The page title is "AutoIntegration". Below the title, there is a section labeled "Integrate or cancel" containing a form with the following fields:

- Host: 169.254.2.1
- Username: ftp
- Password: (masked with dots)
- Site Installation file: /RbsSummaryFile_Local.xml

Below the form are three buttons: "Download files", "Integrate", and "Cancel".

Below the form is a section labeled "AutoIntegration log" containing a text area with the following log entries:

```
1970/01/01 00:00:28 Setting system time to software build time "2016-01-05 18:02:12"  
2016/01/05 18:02:12 Networkloader type3 booted from partition /dev/sda2  
2016/01/05 18:02:12 Running version: "CNX9012629-RAAND1"  
2016/01/05 18:02:22 AutoIntegration waiting for user input
```

Below the log area is a button labeled "Export AutoIntegration log".

FULL MANUAL INTEGRATION



- › Press button 'Download Files' until download complete. Proses download will appear in AutoIntegration log

 AutoIntegration



Integrate or cancel

Host*

169.254.2.1

Username*

ftp

Password*

...

Site Installation file*

/0_4TP06180_RbsSummaryFile.xml

Download files

Integrate

Cancel

AutoIntegration log

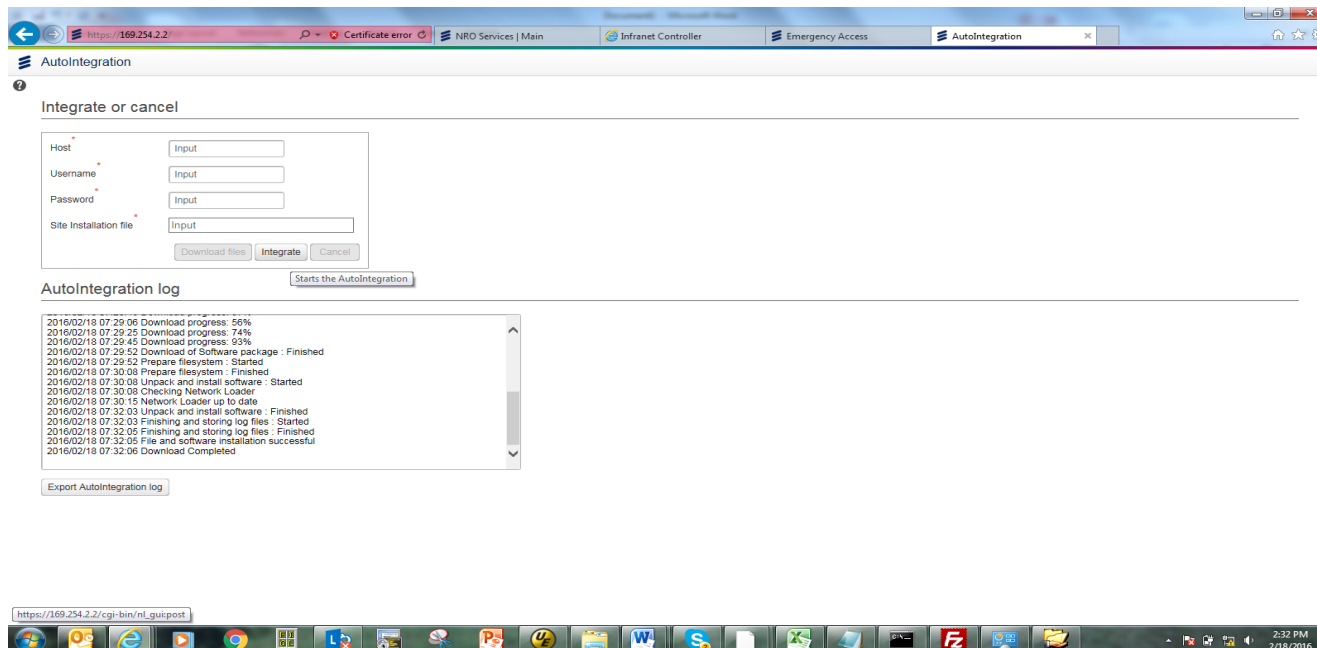
```
1970/01/01 00:00:29 Setting system time to software build time: "2015-04-13 17:36:00"
2015/04/13 17:36:00 Networkloader type3 booted from partition /dev/sda2
2015/04/13 17:36:00 Running version: "CNX9012629-R3F02"
2015/04/13 17:36:10 Autointegration waiting for user input
```

Export AutoIntegration log

FULL MANUAL INTEGRATION



- › After download files complete, press button “Integrate” for starting integration. Baseband will restart before integration process started (estimation 15 minutes)
- › **Make sure transmission cable already connect to TRM Equipment (mandatory)**



FULL MANUAL INTEGRATION



- › After Auto Integration complete, in AutoIntegration Web GUI will appear “Welcome to RBS”. Open Moshell, log in to RBS using default IP 169.254.2.2.
- › Type “lt all”, then fill user & password : rbs

```
[~]$ moshell 169.254.2.2
#####
Welcome to Moshell 16.0b (LP108514/1_R16b)
#
# Finn Magnusson, Jan Pettersson
# http://utran01.au.ao.ericsson.se/moshell
# Contact: Finn.Magnusson@ericsson.com
# Joakim.Xo.Ostlund@ericsson.com
#####
WARNING: the current moshell version is not up to date. Current version: 16.0b, latest version: 16.0c
Checking ip contact...OK
HELP MENU      : h
BASIC MO COMMANDS : m
OTHER MO COMMANDS : n
OTHER COMMANDS   : o
PM COMMANDS      : p
QUIT            : q

169.254.2.2> lt all

160218-14:36:59 169.254.2.2 16.0b stopfile=/tmp/40392
Please enter Username: rbs
Please enter rbs's Node Password:

$ssh_pid = 39960
Connected to 169.254.2.2 (ManagedElement=BBS212)

Checking MOM version...MSRBS_NODE_MODEL_280.28412.1110_8ae4
Parsing MOM (cached): /home/enurnug/moshell_logfiles/logs_moshell/tmpfiles/20160218-143639_36452/MSRBS_NODE_MODEL_280.28412.1110_8ae4.xml.cache.gz .....
Done.
Connected to 169.254.2.2 (ManagedElement=BBS212)
Last MO: 4562. Loaded 4562 MOS. Total: 4563 MOS.

BBS212>
```

- › If Integration process failed/error, Baseband will automatically restore to factory setting. Details error check in Emergency Access <https://169.254.2.2/ea.html>

FULL MANUAL INTEGRATION



- › Running Transport Network & Radio Network script via Netconf with command below.
- › `!ssh -o PubKeyAuthentication=no -o UserKnownHostsFile=/dev/null -o ForwardX11=no -p <port_netconfssh> rbs@169.254.2.2 -s netconf < filename.xml`
- › Example : `!ssh -o PubKeyAuthentication=no -o UserKnownHostsFile=/dev/null -o ForwardX11=no -p 830 rbs@169.254.2.2 -s netconf < /home/enurnug/BBS212/Test/Transport_Local.xml`

```
BB5212> !ssh -o PubKeyAuthentication=no -o UserKnownHostsFile=/dev/null -o ForwardX11=no -p 830 rbs@169.254.2.2 -s netconf < /home/enurnug/BBS212/Test/Transport_Local.xml
The authenticity of host '[169.254.2.2]:830 ([169.254.2.2]:830)' can't be established.
RSA key fingerprint is SHA256:I/t2eQD4QJF1dPQwz1j2r7SdoLdmXKLO49di31zXFyY.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '[169.254.2.2]:830' (RSA) to the list of known hosts.
SSH server
Enter password for "rbs"
password:
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
    <capability>urn:com:ericsson:ebase:0.1.0</capability>
    <capability>urn:com:ericsson:ebase:1.1.0</capability>
    <capability>urn:com:ericsson:ebase:1.2.0</capability>
    <capability>urn:ietf:params:netconf:capability:writable-running:1.0</capability>
    <capability>urn:ietf:params:netconf:capability:rollback-on-error:1.0</capability>
    <capability>urn:ietf:params:netconf:capability:notification:1.0</capability>
    <capability>urn:ericsson:com:netconf:action:1.0</capability>
    <capability>urn:ericsson:com:netconf:heartbeat:1.0</capability>
    <capability>urn:com:ericsson:netconf:operation:1.0</capability>
  </capabilities>
  <session-id>6</session-id>
</hello>
]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
  <ok/>
</rpc-reply>
]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="Closing">
  <ok/>
</rpc-reply>
]]>]]>
BB5212>
```

FULL MANUAL INTEGRATION



- › Create Backup Configuration with command below.
- › “acc BrM=1, BrmBackupManager=1 createBackup”

```
BB5212> cvms TN_RN
160218-14:43:41 169.254.2.2 16.0b MSRBS_NODE_MODEL_280.28412.1110_8ae4 stopfile=/tmp/40392
$ssh_pid = 40016
Connected to 169.254.2.2 (ManagedElement=BB5212)
.....
=====
Proxy MO                                     Action                                     Nr of Params
=====
37 BrM=1,BrmBackupManager=1                 createBackup                               1
>>> Return value = 0
=====
Total: 1 MOS attempted, 1 MOS actioned
Waiting 5 seconds before starting to poll...
MO ElapsedTime state progressCount progressHeader
BrmBackupManager=1 0s RUNNING 0/100 (0%) Creating database backup
BrmBackupManager=1 6s RUNNING 100/100 (100%) Creating database backup
BrmBackupManager=1 13s FINISHED 100/100 (100%) Creating database backup
Waiting 5 seconds before checking result...
MO ElapsedTime $polp_result $polp_info
BrmBackupManager=1 13s SUCCESS Brm=1,BrmBackupManager=1,BrmBackup=2
.....
Last MO: 4592. Loaded 4592 MOS. Total: 4593 MOS.
BB5212> cvls
160218-14:44:28 169.254.2.2 16.0b MSRBS_NODE_MODEL_280.28412.1110_8ae4 stopfile=/tmp/40392
.....
Getting MO data from node (10 MOS). Please wait...
0% ~50% ~100%
.....
=====
160218-14:44 BackupName SwVersion
=====
LastCreatedBackup: TN_RN CXP9024418/2_R14JT
LastRestoredBackup:
=====
Current SwVersion: CXP9024418/2_R14JT (16A)
BrmHouseKeeping: ENABLED (max: 20 backups)
BrmFailSafe: IDLE
RestoreEscalationList: s[0] =
=====
=====
SwVersion ProductData ProdDate Rel LMS InstallationDate ActivationDate DeactivationDate
=====
CXP9024418/2-R14JT CXP9024418/2_R14JT 20160112 16A 44 2016-02-18 07:33:46 2016-02-18 07:35:16
=====
UpgradePackage ProductData ProdDate Rel CreationDate State
=====
CXP9024418/2-R14JT CXP9024418/2_R14JT 20160112 16A 2016-02-18 07:33:46 COMMIT_COMPLETED
=====
Id BackupName CreationTime SwVersion Type Stat MO
=====
1 Auto integration backup - SITE_CONFIG_COMPLETE 2016-02-18 07:36:01 CXP9024418/2_R14JT SYSCR OK BrmBackup=1
2 TN_RN 2016-02-18 07:43:45 CXP9024418/2_R14JT MANUAL OK BrmBackup=2
=====
>>> Total: 2 CV's, 1 UP's
BB5212> □
```

TROUBLESHOOTING



- › If integration failed, error message will appear in AutoIntegration log <https://169.254.2.2>

›  AutoIntegration



Integrate or cancel

Host*

Input

Username*

Input

Password*

Input

Site Installation file*

Input

Download files

Integrate

Cancel

AutoIntegration log

```
1970/01/01 00:00:29 Setting system time to software build time: "2015-04-13 17:36:00"
2015/04/13 17:36:00 Networkloader type3 booted from partition /dev/sda2
2015/04/13 17:36:00 Running version: "CNX9012629-R3F02"
2015/04/13 17:36:10 Autointegration waiting for user input
2015/04/13 17:42:13 Download files started
2015/04/13 17:42:14 Download files failed (fetching /0_4TP06180_RbsSummaryFile.xml failed - no such
file)
```

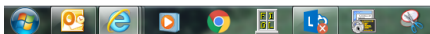
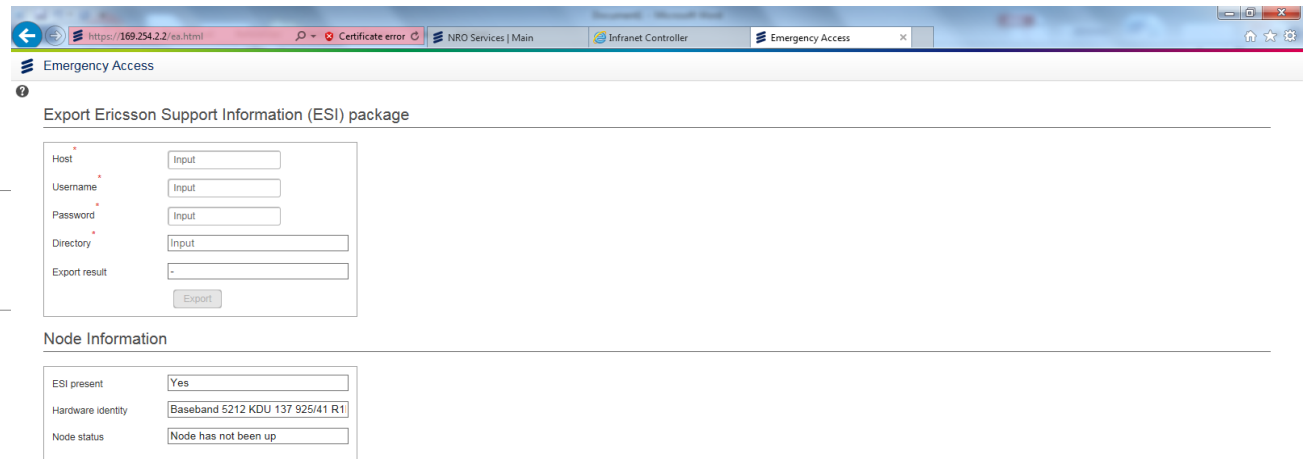
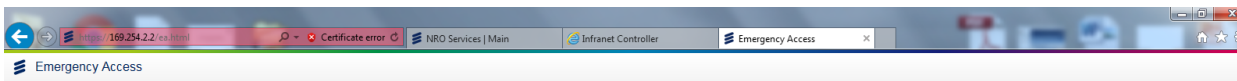
Export AutoIntegration log

TROUBLESHOOTING



› Check status board in Emergency Access

<https://169.254.2.2/ea.html>



SMARTLAPTOP INTEGRATION



- › Plugin USB SmartLaptop
- › Restart Client laptop, booting to USB SL

A screenshot of a laptop's BIOS boot menu. The text is white on a black background. It lists several function keys and their corresponding actions: F1 for System Information, F2 for System Diagnostics, F3 for Initiate Intel CIRA, F7 for HP SpareKey, F9 for Boot Device Options, F10 for BIOS Setup, and F12 for Network Boot. Below these, it says 'ENTER - Continue Startup' and provides a URL for more information: 'www.hp.com/go/techcenter/startup'.

```
F1 System Information
F2 System Diagnostics
F3 Initiate Intel CIRA
F7 HP SpareKey
F9 Boot Device Options
F10 BIOS Setup

F12 Network Boot

ENTER - Continue Startup

For more information, please visit: www.hp.com/go/techcenter/startup
```

SMARTLAPTOP INTEGRATION



- › Login to smart laptop with password “laptop”



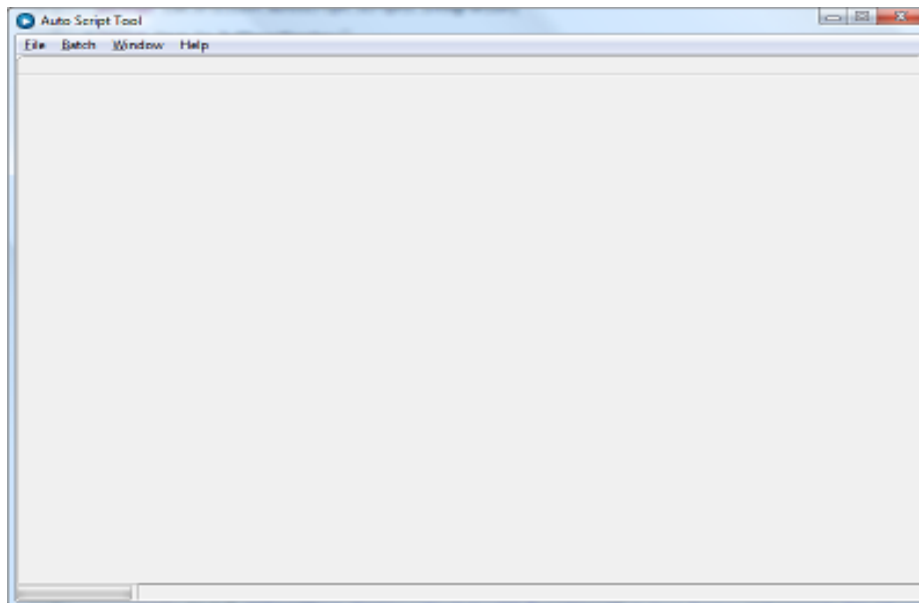
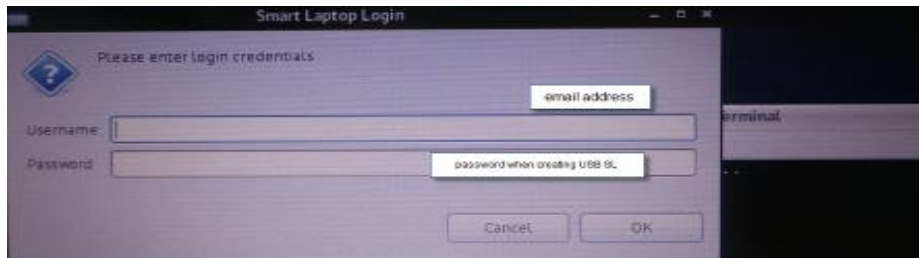
- › Screen desktop SL will appear



SMARTLAPTOP INTEGRATION



- › Click smartlaptop icon, fill username & password for USB smart laptop



SMARTLAPTOP INTEGRATION



- › Before running smartlaptop, fill Cabinet Data RBS.
- › Open Terminal, go to folder where the script will be running as command below.
 - cd /home/smart/Shared/smartlaptop/scripts
 - list file : ls -ltr
 - cd <folder script name>
 - list file : ls -ltr
 - File CabinetData.sh must available

```
smart@localhost:~/Shared/smartlaptop/scripts/BTM108WD_Final
File Edit Tabs Help
[smart@localhost ~]$ cd /home/smart/Shared/smartlaptop/scripts
[smart@localhost scripts]$ ls -ltr
total 96
drwxr-xr-x 2 smart root 8192 Mar 8 16:51 BTM056WD_4
drwxr-xr-x 3 smart root 8192 Mar 15 11:23 BTM056WD
drwxr-xr-x 3 smart root 8192 Mar 15 17:09 BTM044WD
drwxr-xr-x 3 smart root 8192 Mar 16 17:29 BTM108WD
drwxr-xr-x 2 smart root 8192 Mar 17 13:18 2G_Test
-rwxr-xr-x 1 smart root 26086 Mar 17 13:34 logs.zip
drwxr-xr-x 2 smart root 8192 Mar 17 13:35 2G_Test_2
drwxr-xr-x 2 smart root 8192 Mar 17 15:10 BTM429W
drwxr-xr-x 2 smart root 8192 Mar 18 22:35 BTM108WD_Final
[smart@localhost scripts]$ cd BTM108WD_Final
[smart@localhost BTM108WD_Final]$ ls -ltr
total 176
-rwxr-xr-x 1 smart root 5996 Mar 16 20:25 Transport_E_BTMI08WX_Punggur_Harbour_Relok_TSEL_SFOA_SIX_SITES_Telkomsel_2016_03_16T14_54_43Z_netconf.xml
-rwxr-xr-x 1 smart root 9507 Mar 16 20:25 SiteBasic_E_BTMI08WX_Punggur_Harbour_Relok_TSEL_SFOA_SIX_SITES_Telkomsel_2016_03_16T14_54_43Z.xml
-rwxr-xr-x 1 smart root 765 Mar 16 20:25 RBSSummary_E_BTMI08WX_Punggur_Harbour_Relok_TSEL_SFOA_SIX_SITES_Telkomsel_2016_03_16T14_54_43Z.xml
-rwxr-xr-x 1 smart root 7456 Mar 16 20:25 Radio_E_BTMI08WX_Punggur_Harbour_Relok_TSEL_SFOA_SIX_SITES_Telkomsel_2016_03_16T14_54_43Z_netconf.xml
-rwxr-xr-x 1 smart root 68633 Mar 17 03:37 Bb52xxIntegration.java
-rwxr-xr-x 1 smart root 45135 Mar 17 15:24 SiteEquipment_E_BTMI08WX_Punggur_Harbour_Relok_TSEL_SFOA_SIX_SITES_Telkomsel_2016_03_16T14_54_43Z.xml
-rwxr-xr-x 1 smart root 154 Mar 17 16:29 Bb52xxIntegration.properties
-rwxr-xr-x 1 smart root 736 Mar 17 16:36 CabinetData.sh
```

SMARTLAPTOP INTEGRATION



- › Running command: [./CabinetData.sh](#), then fill Cabinet Data RBS description. This step will generate script CabinetData.mos

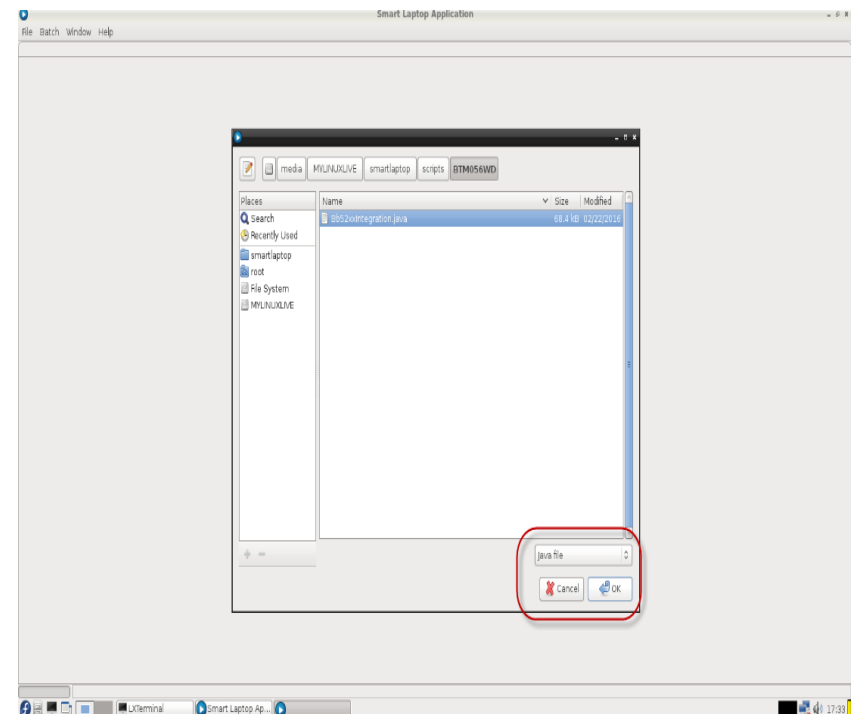
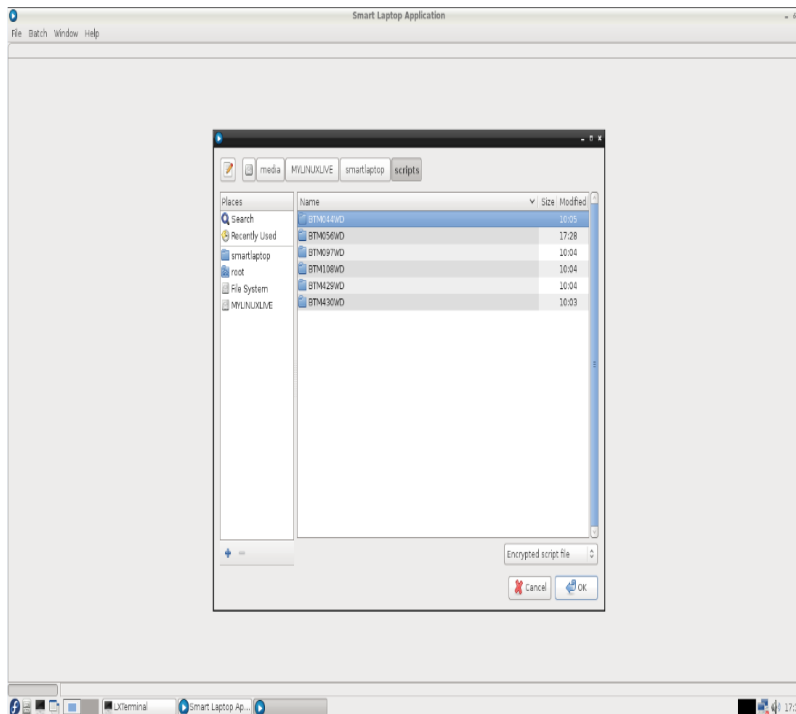
```
[smart@localhost BTM108WD_Final]$ ./CabinetData.sh
Enter Cabinet productionDate:
20160318
Enter Cabinet productName:
RBS 6120
Enter Cabinet productNumber:
BFM901/41
Enter Cabinet productRevision:
R3F
Enter Cabinet serialNumber:
DB8213566

      Cabinet Data
=====
confb+
gs+
set Equipment=1,Cabinet=1 productData productionDate=20160318,productName=RBS 6120,productNumber=BFM901/41,productRevision=R3F,serialNumber=DB8213566
gs-
confb-
[smart@localhost BTM108WD_Final]$
```

SMARTLAPTOP INTEGRATION



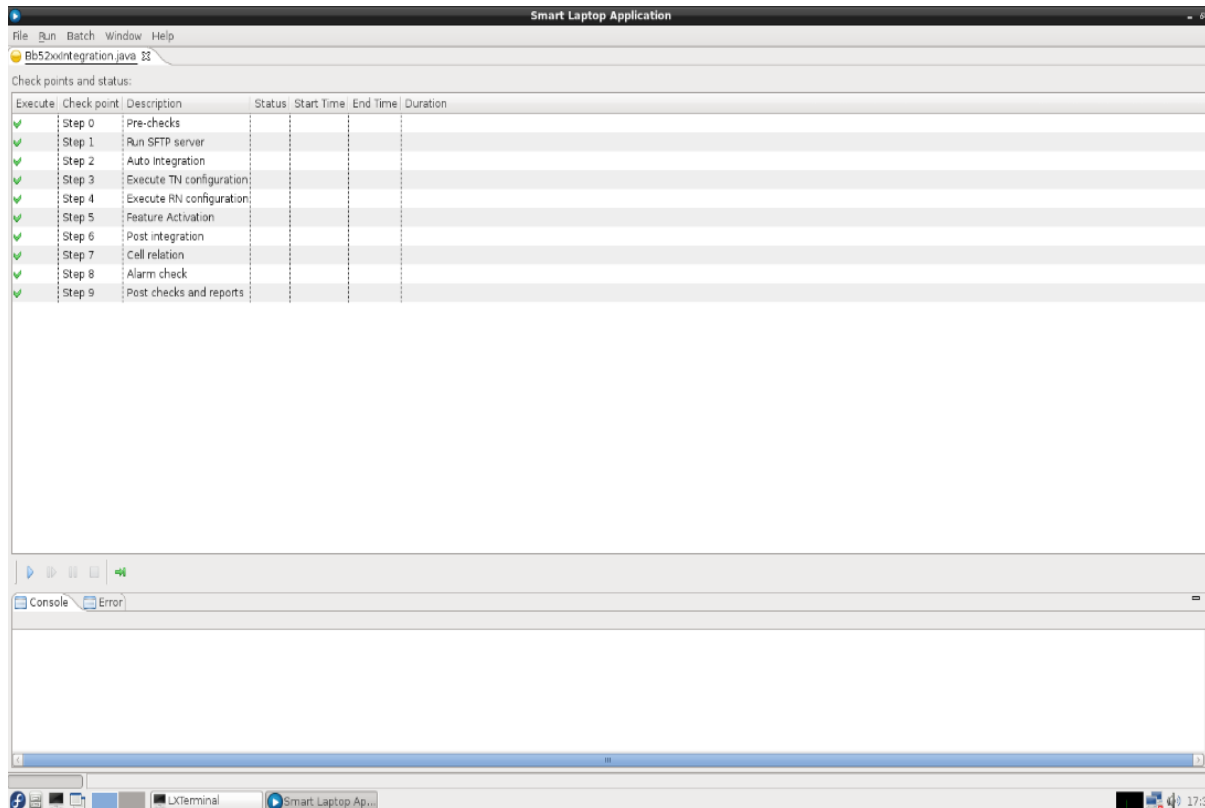
- › Go to smartlaptop window, Click : File > open Scripts > Chose script folder > chose “Java file” then OK



SMARTLAPTOP INTEGRATION



- › **Make sure transmission cable already connect to the TRM Equipment (mandatory)**
- › Press tombol Play to run integration process



SMARTLAPTOP INTEGRATION



- › Please follow display smartlaptop environments during integration process until finish

The screenshot displays the 'Smart Laptop Application' window. At the top, there's a menu bar with 'File', 'Run', 'Batch', 'Window', and 'Help'. Below it, the file 'Bb52xxIntegration.java' is open. A section titled 'Check points and status:' contains a table with the following data:

Execute	Check point	Description	Status	Start Time	End Time	Duration
✓	Step 0	Pre-checks	Passed	2016.03.10 17:33:46	2016.03.10 17:35:13	00:01:27
✓	Step 1	Run SFTP server	Passed	2016.03.10 17:35:13	2016.03.10 17:35:14	00:00:01
✓	Step 2	Auto Integration	Passed	2016.03.10 17:35:14	2016.03.10 17:47:34	00:12:20
✓	Step 3	Ext				
✓	Step 4	Ext				
✓	Step 5	Ext				
✓	Step 6	Pos				
✓	Step 7	Cell				
✓	Step 8	Ala				
✓	Step 9	Pos				

A modal dialog box titled 'Finished' is overlaid on the table, displaying a lightbulb icon and the message 'This activity has completed!' with an 'OK' button.

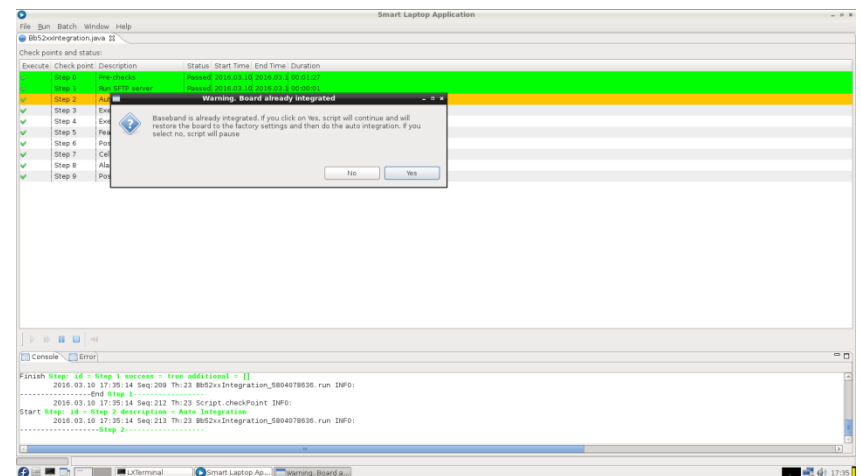
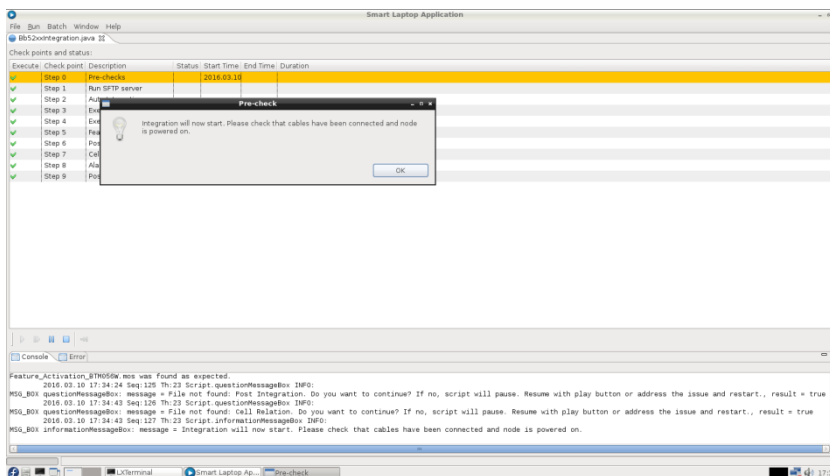
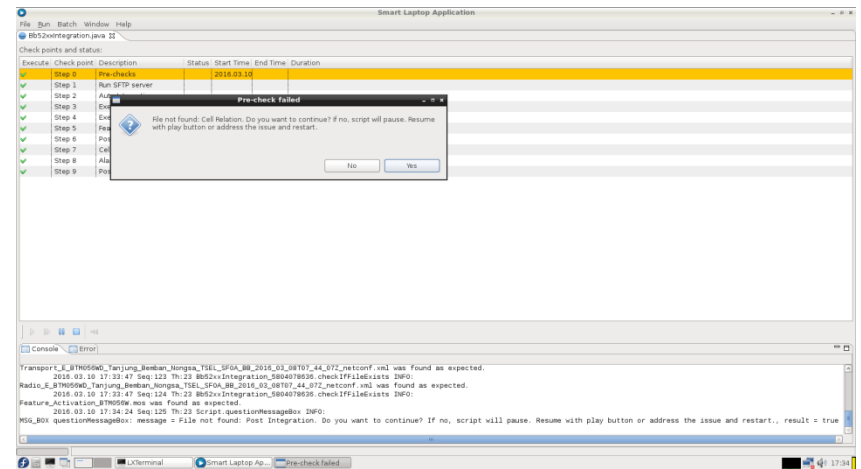
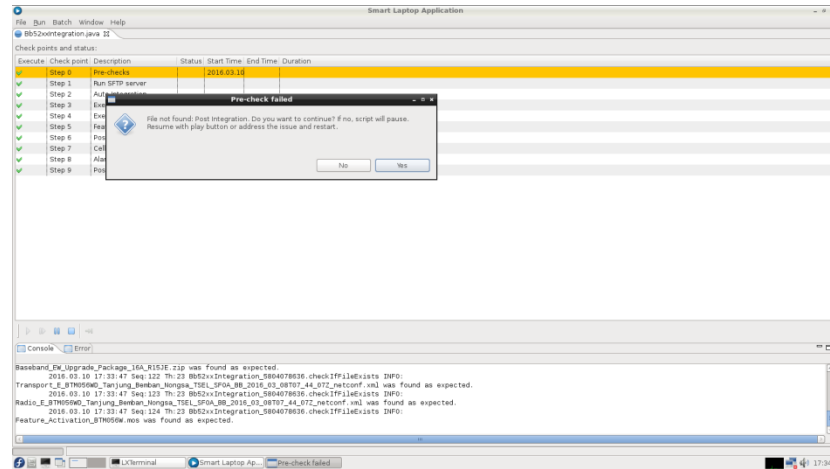
At the bottom, a 'Console' window shows the following log output:

```
===== END REPORT =====
2016.03.10 18:00:58 Seq:907 Th:23 Script.checkPoint INFO:
Finish Step: id = Step 9 success = true additional = []
2016.03.10 18:00:58 Seq:908 Th:23 Bb52xxIntegration_5804078636.run INFO:
-----End Step 9-----
2016.03.10 18:00:58 Seq:909 Th:23 Script.informationMessageBox INFO:
MSG_BOX informationMessageBox: message = This activity has completed!
```

SMARTLAPTOP INTEGRATION



display smartlaptop envirointment



BASIC COMMANDS



- › # Log on node : moshell <Node IP>)
- › #Make CV: acc BrmBackupManager createBackup
- › #Delete CV: acc BrmBackupManager deleteBackup
- › #cvset & node restart on startable CV: acc BrmBackup=XX restore
- › #Restart Node: acc FieldReplaceableUnit=1 restartUnit
- › #Ping test: mcc Router=Traffic ping 10.211.38.86 --count 2 --packetsize 1000
- › #Cek macc address router: mcc Router=vr_Traffic3G show arp-cache

REFERENCES



- [\[1\] Ericsson Radio System Baseband Portfolio Description](#)
- [\[2\] Moshell for COM_PA36.doc](#)
- [\[3\] CPI Baseband Radio Node 16A](#)
- [\[4\] Baseband 5216 Migration Procedure](#)



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