

## NOKIA M1122

Rebuilding Nokia M1122 firmware using HyperTerminal and TFTP Server.

### Setup HyperTerminal

Hardware required;

RJ45 to Serial Adapter (For PC COM Port)

UTP CAT5 X-Over Cable (For Serial Adapter and **CLi Port**)

UTP CAT5 Patch Cable (For M1122 **Ethernet Port** to PC Network Interface Card)

### Configure HyperTerminal with the following com port settings:

Bits per second: 9600

Data bits: 8

Parity None

Stop Bits: 1

Flow Control: None

*NOTE: Press the enter key to activate the M1122> or MON> prompt. If you receive the MON> prompt skip to Step 4.*

### TFTP Application using TFTP32

- o Extract TFTP32E.zip file to C:\tftpd32
- o TFTP32 has no setup program.
- o Copy **startup.cfg** and **Gx1x2220.r0x** files to C:\tftpd32.
- o To run TFTP32 just launch the executable file tftpd32.exe.

#### **IMPORTANT**

**Ensure M1122 is switched ON.**

**TFTP Server enabled.**

**M1122> or MON> Prompt is showing on HyperTerminal Screen.**

**startup.cfg and Gx1x2220.r0x files are copied to TFTP Server Directory.**

## NOKIA M1122 REBUILD

### 1. M1122>restart

in progress ...local MAC=00:40:43:04:07:fc; Using M512/850 eth conf

### 2. Type 'm' (fast) followed by 'o' (in 10 sec) to activate Monitor

### 3. MON>dir

(Lists files currently in RAMBUF Memory)

TFFS v0.01: 30 phy.segments, 128 bl/segment, block size=512 seg sz=65536

?ppCHECK-REPAIR start

CHECK-REPAIR complete

Name	Size	Fno
------	------	-----

=====

.pwd.cfg	121	31055
----------	-----	-------

.pwd.bak	121	31056
----------	-----	-------

startup.cfg	337	31053
-------------	-----	-------

image.exe	840422	31054
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=====

used = 852348 b (1668 bl)

garb = 53655 b ( 105 bl)

clean= 990829 b (1939 bl)

### 4. MON>format

(this wipes everything from RAMBUF)

Starting file system format ...

TFFS v0.01: 30 phy.segments, 128 bl/segment, block size=512 seg sz=65536

? 0TFFS v0.01: 30 phy.segments, 128 bl/segment, block size=512 seg sz=65536

?ppFile system format complete

### 5. MON>dir

(Confirm that all files have been wiped)

Name	Size	Fno
------	------	-----

=====

=====

used = 0 b ( 0 bl)

garb = 0 b ( 0 bl)

clean=1896832 b (3712 bl)

### 6. MON>ipa 192.168.1.1

(Specify IP Address of M1122)

ip=192.168.1.1

ipserver=0.0.0.0

ipgw=0.0.0.0

serverfile=

### 7. MON>ips 192.168.1.2

(Specify IP Address of TFTP Server)

ip=192.168.1.1

ipserver=192.168.1.2

ipgw=0.0.0.0

serverfile=

### 8. MON>file startup.cfg

(List file to copy from TFTP Server)

ip=192.168.1.1

ipserver=192.168.1.2

ipgw=0.0.0.0

serverfile=startup.cfg

**9. MON>eget** (Uploads file from TFTP Server to M1122)

```
tftp loader  
  
ip=192.168.1.1  
ipserver=192.168.1.2  
ipgw=0.0.0.0  
serverfile=startup.cfg  
loading file.....  
file size=337
```

**10. MON>wri startup.cfg** (Writes/Stores file to RAMBUF)

Writing successful

**11. MON>file gx1x2220.r08** (List firmware to copy from TFTP Server)

```
ip=192.168.1.1  
ipserver=192.168.1.2  
ipgw=0.0.0.0  
serverfile=gx1x2220.r08
```

**12. MON>eget** (Uploads file from TFTP Server to M1122)

```
tftp loader  
  
ip=192.168.1.1  
ipserver=192.168.1.2  
ipgw=0.0.0.0  
serverfile=gx1x2220.r08  
loading file.....  
file size=840422
```

**13. MON>wri gx1x2220.r08** (Writes/Stores file to RAMBUF)

Writing successful

**14. MON>ren gx1x2220.r08 image.exe** (Rename GX.. file to Image.exe)

renaming gx1x2220.r08 to image.exe

15. MON>dir (Confirm that files have been stored in RAMBUF)

```
Name          Size   Fno
=====
startup.cfg      337    1
image.exe      840422  2
=====
used = 850304 b (1664 bl)
garb = 52633 b ( 103 bl)
clean= 993895 b (1945 bl)
```

16. MON>restart (Reboot M1122)

```
in progress ...
local MAC=00:40:43:04:07:fc; Using M512/850 eth conf
```

Type 'm' (fast) followed by 'o' (in 10 sec) to activate Monitor

```
normal start
search for temporary files..
TFFS v0.01: 30 phy.segments, 128 bl/segment, block size=512 seg sz=65536
?pÀCHECK-REPAIR start
CHECK-REPAIR complete
no temporary files found
```

```
loading executable image from file image.exe:
intermediate-load-addr 0x270000
entry-in-self-extr    0x270104
final-load-addr       0x100
packed-appl-length    808742
unpacked-appl-length  2541508
compression-ratio     69%
run-start-addr        0x2000
```

```
Nokia Inc. (C) 1999-2001
Nokia Mrouter
```

rel-Gx1x2220.R08 built on Jun 7 2001 @ 11:08:37 by krol

17. login-id: (leave blank)  
password: \*\*\*\*\* (Telecom)

## Additional M1122 Commands

```
M1122>show ip if          (Shows Internal/External IP Address of M1122)
ETH      (up)             net-address    net-mask      mtu  phys-address
                        192.168.1.1   255.255.255.0 1500 00:40:43:04:07:fc
                        as ETHERNET
VCC1     (up)             net-address    net-mask      mtu  phys-address
                        210.54.110.105 0.0.0.0       1500 00:40:43:04:07:fc
                        as PPP
```

```
M1122>show dsl           (Shows ADSL Speed Rate)
hardware-type            ALCATEL / DMT
hardware-rev             99111601 / POTS / CP
firmware-rev             3.6.70
activity-status          OPER / FULL
                        near-end                               far-end
maximum-bitrate          9088 kbits                               896 kbits
actual-bitrate (Downstream) 8064 kbits                               (Upstream) 832 kbits
noise-margin             7.5 dB                               9.0 dB
output-power            12.0 dBm                               19.5 dBm
attenuation             28.0 dB                               17.0 dB
corr-fast-fec           0                                       0
corr-intl-fec           0                                       5
fail-fast-crc           0                                       0
fail-intl-crc           0                                       1
fail-fast-hec           0                                       0
fail-intl-hec           0                                       0
flaged-alarms           NONE                               NONE
```

### M1122 Web Browser Interface

1. Start your web browser
2. Enter the IP Address of your M1122 in the address bar of your web browser and press enter.
3. Type in username/password and click ok to proceed.
4. Username: *leave blank*
5. Password: Telecom
6. The Nokia M1122 Main Page appears.

### Copying files from M1122 to Local Hard Drive

With TFTP Server enabled, type the following command from HyperTerminal;  
M1122>copy startup.cfg tftp://192.168.1.2/windows/startup.cfg  
M1122>

This will copy startup.cfg to c:\windows directory.  
You can specify an alternative destination folder on your local drive.  
You can upload files from M1122 RAMBUF to your local drive.

### Uploading New Firmware

Upload new firmware to M1122 using TFTP Server

```
M1122>install tftp://192.168.1.2/tftpd32e/gxlx2220.r0x
Blocks received
Transfer status SUCCESSFUL
M1122>restart
```

This will install gxlx2220.r0x file from TFTP Server located in c:\tftpd32e to M1122.  
If TFTP Server is located in another directory on local drive then you will need to specify location accordingly.