

N720 Upgrade Tool User Guide (Linux)

Version 1.0



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Notice

This document provides guide for users to use the N720.

This document is intended for system engineers (SEs), development engineers, and test engineers.

The information in this document is subject to change without notice due to product version update or other reasons.

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Sales@neoway.com

Support@neoway.com

Website: <http://www.neoway.com>

Revision History			
Issue	Changes	Revised By	Date
V1.0	Initial draft	LiuHui	2018-01

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1 Upgrade Functions

nwy_upgrade.h contains the description of the functions:

Prototype	int send_command(const char *command)
Description	To send upgrade command
Parameter	Command: command command1: oem test, to test if the upgrade mode works properly command2: oem update1, upgrade mode with power-off protection for all modules command3: oem update2, upgrade mode with power-off protection for one module
Return	0: successful -1: Failed

Prototype	int module_enter_normal_mode(void);
Description	To restore the mirror image data backed up in the src partition to the dst partition
Parameter	None
Return	0: Successful -1: Failed

Prototype	int flash_image(const char *partition, const char *img_path);
Description	To upgrade specified partition Before calling this function, invoke module_enter_upgrade_mode to enter upgrade mode.
Parameter	partition: partition name img_path: image file path
Return	0: Successful -1: Failed

Prototype	int flash_data(const char *partition, void *data, int size);
Description	To upgrade specified partition Before calling this function, invoke module_enter_upgrade_mode to enter upgrade mode.
Parameter	partition: partition name data: data pointer of mirror image file size: size of mirror image file
Return	0: Successful -1: Failed

2 Program Case

Executable program: `nwy_upgrade_tool + [usb port] + upgrade version path`

E.g. `nwy_upgrade_tool /dev/ttyUSB2 E:\work\perf_version\`

NOTE

- `Nwy_upgrade_tool` is upgrade program.
The upgrade starts after executing the above command.
- USB port is determined based on the actual conditions.
- Version specified for upgrade: The version directory contains `config.ini` and mirror image files of the version.

`config.ini`: The content of `config.ini` the name of partition to upgrade.

e.g.

full boot modem system

- Indicates that upgrading the partitions of boot modem system respectively.
- System: if upgrade with power-off protection is enabled, system must be upgraded at the end. If power-off protection is not enabled, the system can be upgraded in any sequence.
- With or without "full": indicates different upgrade methods
- The upgrade results are also different.
With "full": Upgrade successfully; upgrade failed
Without "full": upgrade successfully; some mirror images are upgraded successfully (the module powers off during upgrade)

Upgrade mode

oem test: to test if the upgrade mode works properly

oem update1: Upgrade mode with power-off protection for all modules

oem update2: Upgrade mode with power-off protection for one module

3 Upgrade Mirror Image

Partition	Mirror image file	Remarks
sbl	sbl1.mbn	Start mirror image
rpm	rpm.mbn	Start mirror image
tz	tz.mbn	Start mirror image
aboot	appsboot.mbn	Start mirror image
boot	mdm9607-boot.img	None
modem	NON-HLOS.ubi	None
system	mdm9607-sysfs.ubi	None

NOTE

- sbl, rpm, tz, and aboot are start mirror images and they do not support power-off protection. To upgrade these four mirror images, ensure no poweroff during the upgrade. These four mirror images will not be changed in version in general. It is recommended not to upgrade them unless they are changed.
- It is recommended to upgrade boot, modem, system mirror images in version. If any abnormal power-off occurs during the upgrade, the upgrade scheme can continue the upgrade after N720 starts to ensure that the module can work properly. Backup partition is upgraded and updated.
- To use power-off protection, flash the appsboot.mbn mirror image Neoway provided to update the mirror image file of aboot partition.