

Description

This note will describe the flash layout, used in the turnkey solution of RTL8186 Linux system. Besides, it will show you what are application programs adopted in the system.

Flash memory layout for VPN

Virtual Address	Flash sector size	Usage
0xbfc0_0000	16K	Boot code
0xbfc0_6000	8K	H/W setting
	8K	
0xbfc0_8000	32K	Default setting (16k) Current setting (16k)
0xbfc1_0000	128K	Web pages
0xbfc3_0000	64K	LINUX

H/S setting – area stored hardware setting, including MAC address and RF parameters.

Default setting/Current setting – area stored the parameters referred by Linux when booting up (e.g., IP address, SSID, channel number, etc.). “Default setting” stores the parameters used as factory default. “Current setting” saves the parameters used currently.

Flash memory layout for AP-8M (1M flash and 8M SDRAM)

Virtual Address	Flash sector size	Usage
0xbfc0_0000	16K	Boot code
0xbfc0_6000	8K	H/W setting
	8K	
0xbfc0_8000	32K	Default setting (16k) Current setting (16k)
0xbfc1_0000	64K	Web pages
0xbfc2_0000	64K	LINUX

Flash memory layout for GW (2M flash and 8M SDRAM)

Virtual Address	Flash sector size	Usage
0xbfc0_0000	16K	Boot code
0xbfc0_6000	8K	H/W setting
0xbfc0_8000	8K	Default setting (16k) Current setting (16k)
0xbfc1_0000	32K	Web pages
0xbfc2_0000	64K	
0xbfc2_0000	896K	LINUX
0xbfd0_0000	1024K	Squashfs root filesystem

Note: In GW-8M version, root filesystem is not included in LINUX image. Squashfs is a compressed and readonly file system.

Application program components

Execution program	Package	Version	Usage
brctl	Bridge-utils	0.9.5	Configure kernel bridge module
shell commands (e.g., ifconfig, ls, echo...)	Busybox	1.00-pre8	Linux shell
dnrd	Domain name relay daemon	2.10	DNS relay
webs	GoAhead	2.1.1	Web server
iptables	Iptables	1.2.6a	Configure kernel netfilter (used in firewalls and NAT)
udhcpd/udhcpc	udhcp server/client	0.9.9-pre	DHCP client/server
pppd	pppd	2.4.1	PPP daemon
pptp	pptp	1.3.1	pptp client daemon
updatedd	updatedd	2.5	ddns client daemon
ntpcient	ntpcient		NTP client daemon
Awk	Mawk	1.3.3	Awk tool for ipsec script
iwpriv	Wireless tools	2.5	Configure wlan MIB to driver
Script files			Initialize system
Flash			Tool, to set/get flash MIB parameters
Webs pages			Static web pages, referred by web server