4 years of mainlining effort on Marvell SoCs

Grégory CLEMENT – Free Electrons

v3.6
- Armada 370/XP SoCs
- Device Tree
- IRQ controller (MPIC)
- Timer

10 patches

v3.7
- Address decoding
- Pinctrl
- GPIO

35 patches

v3.8
- SATA
- XOR
- Network (NETA)
- L2 cache(Aurora)
- Clocks
- SMP
- Coherency

99 patches

v3.9
- IRQ affinity
- Local timer
- RTC
- SDIO
- SPI
- USB

56 patches

v3.10
- LPAE
- NOR
- thermal
- Address decoding

58 patches

v3.11
- PCIe
- Device Bus

68 patches

v3.12
- MBUS (Address decoding DT conversion)
- NAND (preparatory cleanup)
- I2C (improvement for 370/XP)

100 patches

v3.13
- MSI

30 patches

v3.14
- NAND

61 patches

v3.15
- Armada 38x/375 SoCs including:
  - interrupt
  - GPIO
  - clocks
  - pinctrl
  - serial
  - I2C
  - L2 cache
  - XOR
  - PCIe
  - serial
  - SPI
  - SDIO (375 only)
  - SATA (375 only)
  - network(38x only)
  - MBUS
  - NOR
  - NAND
- Watchdog (370/XP)
- Audio (370)

111 patches

v3.16
- Watchdog (375/38x)
- NAND ECC strength
- TSO (network Improvement)
- SMP(375/38x)
- CPU Idle (XP)
- USB2/USB3 (375/38x)
- Hardware IO coherency (375/38x)
- SDIO (375/38x)
- SATA(375/38x)
- Thermal(375/38x)
- Fixed network link DT support

197 patches

v3.17
- Network (MVPP2)
- CPU Idle (370)

47 patches

v3.18
- XOR (imp.)
- RTC(375)
- SSG (370)
- CPU freq (XP)

34 patches

v3.19
- USB PHY(375)
- CPU Hotplug (38x)
- Suspend to RAM (XP)

52 patches

v4.0
- RTC(38x)

52 patches

v4.1
- Armada 39x SoC including:
  - Basic ARM IPs: SCU, timer, GIC, L2 cache
  - Basic Marvell IPs: pinctrl, clocks, MBUS, MPIC, timer
  - SMP
  - I2C
  - SPI
  - SDHCI
  - XOR
  - NAND
  - UART
  - PCIe
- PMU (370/XP/375/38x)

48 patches

v4.2
- Crypto (new CESA driver)
- Pinctrl (update)

62 patches

v4.3
- Suspend to RAM (38x)
- Standby (370/XP)

16 patches

v4.4
- Network (NETA)
- Crypto (CESA on 370/XP/375/38x)

24 patches

v4.5
- Network (RSS and XPS on NETA)
- XOR

21 patches

v4.6
- Armada 3700 and Armada 7k/8K (ARM64) SoCs including:
  - UART
  - USB(3700)
  - SATA(3700)
- Network (Hardware Buffer management for NETA)
- ODMI (IRQ chip)

43(?) patches

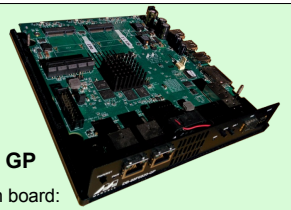
v4.7+
- XOR (Armada 7K/8K)
- XOR (Armada 3700)
- PCIe (7K/8K)
- Network (NETA on 3700)
- PCIe (Armada 3700)
- Clocks (Armada 7K/8K)
- Clocks (Armada 3700)
- SDIO (Armada 3700/7K/8K)
- Network (MVPP2 on 7K/8K)
- Network (NETA full RSS)
- ...

Legend

Kernel release
New SoC
New driver
Driver improvement
Device tree (including new binding and driver support)

Where to find the sources:

- In mainline kernel! http://kernel.org
- MVEBU subsystem: git://git.infradead.org/linux-mvebu.git
- Development repository: https://github.com/MISL-EBU-System-SW/mainline-public



Armada 388 GP

Marvell evaluation board:

- Dual Cortex A9@1.6GHz
- 1 PCIe slot
- 4 SATA ports
- 1 USB3 port
- 2 GbE ports
- 2GB DDR
- 2 mini PCIe slots
- 1 SDIO slot
- 2 USB2 ports
- 2 GPIO/interrupts expander on I2C

Everything supported in mainline kernel

Armada 38x ClearFog A1:

SolidRun SBC:

- Dual Cortex A9@1.6GHz
- 2 miniPCIe/mSATA slots
- 1 USB3 port
- 1 SDIO port
- 6 switched GbE ports
- MikroBUS

Everything supported in mainline kernel

Armada 3700 DB

Marvell evaluation board:

- Dual Cortex A53 (64 bits)
- 1 SATA port
- 1 USB3 port

Already supported in mainline kernel

- 1 PCIe slot
- 2 GbE ports
- A SDIO port

Scheduled for the next kernel releases