

Re: [PATCH 2/2] mv643xx\_eth: Place explicit port number in mv643xx\_eth\_platform\_data

## Re: [PATCH 2/2] mv643xx\_eth: Place explicit port number in mv643xx\_eth\_platform\_data

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*Source:* <http://linux.derkeiler.com/Mailing-Lists/Kernel/2007-02/msg10272.html>

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- *From:* "Dale Farnsworth" <dale@xxxxxxxxxxxxxxxx>
  - *Date:* Wed, 28 Feb 2007 15:47:10 -0700
- 

We had been using the platform\_device.id field to identify which ethernet port is used for mv643xx\_eth device. This is not correct in general. It will be incorrect, for example, if a hardware platform uses a single port but not the first port. Here, we add an explicit port\_number field to struct mv643xx\_eth\_platform\_data.

This makes the mv643xx\_eth\_platform\_data structure required, but that isn't an issue since all users currently provide it already.

Signed-off-by: Dale Farnsworth <dale@xxxxxxxxxxxxxxxx>

diff --git a/arch/mips/momentum/jaguar\_atx/platform.c b/arch/mips/momentum/jaguar\_atx/platform.c  
Index: b/arch/mips/momentum/jaguar\_atx/platform.c

```
=====
--- a/arch/mips/momentum/jaguar_atx/platform.c
+++ b/arch/mips/momentum/jaguar_atx/platform.c
@@ -48,6 +48,8 @@ static struct resource mv64x60_eth0_reso
};
```

```
static struct mv643xx_eth_platform_data eth0_pd = {
+ .port_number = 0,
+
+ .tx_sram_addr = MV_SRAM_BASE_ETH0,
+ .tx_sram_size = MV_SRAM_TXRING_SIZE,
+ .tx_queue_size = MV_SRAM_TXRING_SIZE / 16,
@@ -77,6 +79,8 @@ static struct resource mv64x60_eth1_reso
};
```

```
static struct mv643xx_eth_platform_data eth1_pd = {
+ .port_number = 1,
+
+ .tx_sram_addr = MV_SRAM_BASE_ETH1,
+ .tx_sram_size = MV_SRAM_TXRING_SIZE,
+ .tx_queue_size = MV_SRAM_TXRING_SIZE / 16,
@@ -105,7 +109,9 @@ static struct resource mv64x60_eth2_reso
},
};
```

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```
-static struct mv643xx_eth_platform_data eth2_pd;
+static struct mv643xx_eth_platform_data eth2_pd = {
+ .port_number = 2,
+};

static struct platform_device eth2_device = {
.name = MV643XX_ETH_NAME,
Index: b/arch/mips/momentum/ocelot_3/platform.c
=====
--- a/arch/mips/momentum/ocelot_3/platform.c
+++ b/arch/mips/momentum/ocelot_3/platform.c
@@ -48,6 +48,8 @@ static struct resource mv64x60_eth0_reso
};

static struct mv643xx_eth_platform_data eth0_pd = {
+ .port_number = 0,
+
.tx_sram_addr = MV_SRAM_BASE_ETH0,
.tx_sram_size = MV_SRAM_TXRING_SIZE,
.tx_queue_size = MV_SRAM_TXRING_SIZE / 16,
@@ -77,6 +79,8 @@ static struct resource mv64x60_eth1_reso
};

static struct mv643xx_eth_platform_data eth1_pd = {
+ .port_number = 1,
+
.tx_sram_addr = MV_SRAM_BASE_ETH1,
.tx_sram_size = MV_SRAM_TXRING_SIZE,
.tx_queue_size = MV_SRAM_TXRING_SIZE / 16,
@@ -105,7 +109,9 @@ static struct resource mv64x60_eth2_reso
},
};

-static struct mv643xx_eth_platform_data eth2_pd;
+static struct mv643xx_eth_platform_data eth2_pd = {
+ .port_number = 2,
+};

static struct platform_device eth2_device = {
.name = MV643XX_ETH_NAME,
Index: b/arch/mips/momentum/ocelot_c/platform.c
=====
--- a/arch/mips/momentum/ocelot_c/platform.c
+++ b/arch/mips/momentum/ocelot_c/platform.c
@@ -47,6 +47,8 @@ static struct resource mv64x60_eth0_reso
};

static struct mv643xx_eth_platform_data eth0_pd = {
+ .port_number = 0,
+
.tx_sram_addr = MV_SRAM_BASE_ETH0,
```

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```
.tx_sram_size = MV_SRAM_TXRING_SIZE,  
.tx_queue_size = MV_SRAM_TXRING_SIZE / 16,  
@@ -76,6 +78,8 @@ static struct resource mv64x60_eth1_reso  
};
```

```
static struct mv643xx_eth_platform_data eth1_pd = {  
+ .port_number = 1,  
+  
.tx_sram_addr = MV_SRAM_BASE_ETH1,  
.tx_sram_size = MV_SRAM_TXRING_SIZE,  
.tx_queue_size = MV_SRAM_TXRING_SIZE / 16,  
Index: b/arch/powerpc/platforms/chrp/pegasos_eth.c
```

```
-----  
--- a/arch/powerpc/platforms/chrp/pegasos_eth.c  
+++ b/arch/powerpc/platforms/chrp/pegasos_eth.c  
@@ -58,6 +58,7 @@ static struct resource mv643xx_eth0_reso
```

```
static struct mv643xx_eth_platform_data eth0_pd = {  
+ .port_number = 0,  
.tx_sram_addr = PEGASOS2_SRAM_BASE_ETH0,  
.tx_sram_size = PEGASOS2_SRAM_TXRING_SIZE,  
.tx_queue_size = PEGASOS2_SRAM_TXRING_SIZE/16,  
@@ -87,6 +88,7 @@ static struct resource mv643xx_eth1_reso  
};
```

```
static struct mv643xx_eth_platform_data eth1_pd = {  
+ .port_number = 1,  
.tx_sram_addr = PEGASOS2_SRAM_BASE_ETH1,  
.tx_sram_size = PEGASOS2_SRAM_TXRING_SIZE,  
.tx_queue_size = PEGASOS2_SRAM_TXRING_SIZE/16,  
Index: b/arch/ppc/syslib/mv64x60.c
```

```
-----  
--- a/arch/ppc/syslib/mv64x60.c  
+++ b/arch/ppc/syslib/mv64x60.c  
@@ -339,7 +339,9 @@ static struct resource mv64x60_eth0_reso  
},  
};
```

```
-static struct mv643xx_eth_platform_data eth0_pd;  
+static struct mv643xx_eth_platform_data eth0_pd = {  
+ .port_number = 0,  
+};
```

```
static struct platform_device eth0_device = {  
.name = MV643XX_ETH_NAME,  
@@ -362,7 +364,9 @@ static struct resource mv64x60_eth1_reso  
},  
};
```

```
-static struct mv643xx_eth_platform_data eth1_pd;
```

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```
+static struct mv643xx_eth_platform_data eth1_pd = {
+ .port_number = 1,
+};

static struct platform_device eth1_device = {
.name = MV643XX_ETH_NAME,
@@ -385,7 +389,9 @@ static struct resource mv64x60_eth2_reso
},
};

-static struct mv643xx_eth_platform_data eth2_pd;
+static struct mv643xx_eth_platform_data eth2_pd = {
+ .port_number = 2,
+};

static struct platform_device eth2_device = {
.name = MV643XX_ETH_NAME,
Index: b/drivers/net/mv643xx_eth.c
=====
--- a/drivers/net/mv643xx_eth.c
+++ b/drivers/net/mv643xx_eth.c
@@ -1309,7 +1309,7 @@ static void mv643xx_init_ethtool_cmd(str
static int mv643xx_eth_probe(struct platform_device *pdev)
{
struct mv643xx_eth_platform_data *pd;
- int port_num = pdev->id;
+ int port_num;
struct mv643xx_private *mp;
struct net_device *dev;
u8 *p;
@@ -1318,6 +1318,13 @@ static int mv643xx_eth_probe(struct plat
struct ethtool_cmd cmd;
int duplex = DUPLEX_HALF;
int speed = 0; /* default to auto-negotiation */
+ static u8 zero_mac_addr[6] = { 0 };
+
+ pd = pdev->dev.platform_data;
+ if (pd == NULL) {
+ printk(KERN_ERR "No mv643xx_eth_platform_data\n");
+ return -ENODEV;
+ }

dev = alloc_etherdev(sizeof(struct mv643xx_private));
if (!dev)
@@ -1331,8 +1338,6 @@ static int mv643xx_eth_probe(struct plat
BUG_ON(!res);
dev->irq = res->start;

- mp->port_num = port_num;
-
dev->open = mv643xx_eth_open;
```

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```
dev->stop = mv643xx_eth_stop;
dev->hard_start_xmit = mv643xx_eth_start_xmit;
@@ -1373,40 +1378,39 @@ static int mv643xx_eth_probe(struct plat

spin_lock_init(&mp->lock);

+ port_num = pd->port_number;
+
/* set default config values */
eth_port_uc_addr_get(dev, dev->dev_addr);
mp->rx_ring_size = MV643XX_ETH_PORT_DEFAULT_RECEIVE_QUEUE_SIZE;
mp->tx_ring_size = MV643XX_ETH_PORT_DEFAULT_TRANSMIT_QUEUE_SIZE;

- pd = pdev->dev.platform_data;
- if (pd) {
- static u8 zero_mac_addr[6] = { 0 };
+ if (memcmp(pd->mac_addr, zero_mac_addr, 6) != 0)
+ memcpy(dev->dev_addr, pd->mac_addr, 6);

- if (memcmp(pd->mac_addr, zero_mac_addr, 6) != 0)
- memcpy(dev->dev_addr, pd->mac_addr, 6);
+ if (pd->phy_addr || pd->force_phy_addr)
+ ethernet_phy_set(port_num, pd->phy_addr);

- if (pd->phy_addr || pd->force_phy_addr)
- ethernet_phy_set(port_num, pd->phy_addr);
+ if (pd->rx_queue_size)
+ mp->rx_ring_size = pd->rx_queue_size;

- if (pd->rx_queue_size)
- mp->rx_ring_size = pd->rx_queue_size;
+ if (pd->tx_queue_size)
+ mp->tx_ring_size = pd->tx_queue_size;

- if (pd->tx_queue_size)
- mp->tx_ring_size = pd->tx_queue_size;
+ if (pd->tx_sram_size) {
+ mp->tx_sram_size = pd->tx_sram_size;
+ mp->tx_sram_addr = pd->tx_sram_addr;
+ }

- if (pd->tx_sram_size) {
- mp->tx_sram_size = pd->tx_sram_size;
- mp->tx_sram_addr = pd->tx_sram_addr;
- }
+ if (pd->rx_sram_size) {
+ mp->rx_sram_size = pd->rx_sram_size;
+ mp->rx_sram_addr = pd->rx_sram_addr;
+ }

- if (pd->rx_sram_size) {
```

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```
- mp->rx_sram_size = pd->rx_sram_size;
- mp->rx_sram_addr = pd->rx_sram_addr;
- }
+ duplex = pd->duplex;
+ speed = pd->speed;
```

```
- duplex = pd->duplex;
- speed = pd->speed;
- }
+ mp->port_num = port_num;
```

```
/* Hook up MII support for ethtool */
```

```
mp->mii.dev = dev;
```

```
Index: b/include/linux/mv643xx.h
```

```
=====
```

```
--- a/include/linux/mv643xx.h
```

```
+++ b/include/linux/mv643xx.h
```

```
@@ -1289,6 +1289,7 @@ struct mv64xxx_i2c_pdata {
```

```
#define MV643XX_ETH_NAME "mv643xx_eth"
```

```
struct mv643xx_eth_platform_data {
```

```
+ int port_number;
```

```
u16 force_phy_addr; /* force override if phy_addr == 0 */
```

```
u16 phy_addr;
```

```
-
```

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