```
=>
=> boot
Booting from network ...
link up on port 0, speed 1000, full duplex
BOOTP broadcast 1
BOOTP broadcast 2
BOOTP broadcast 3
DHCP client bound to address 158.218.107.175 (1039 ms)
link up on port 0, speed 1000, full duplex
Using cpsw device
TFTP from server 158.218.107.226; our IP address is 158.218.107.175
Filename '/tftpboot/images/bc/zImage'.
Load address: 0x82000000
###############
      4.1 \text{ MiB/s}
done
Bytes transferred = 3735040 (38fe00 hex)
link up on port 0, speed 1000, full duplex
Using cpsw device
TFTP from server 158.218.107.226; our IP address is 158.218.107.175
Filename '/tftpboot/images/bc/am571x-idk.dtb'.
Load address: 0x88000000
3.4 \text{ MiB/s}
done
Bytes transferred = 102883 (191e3 hex)
## Flattened Device Tree blob at 88000000
  Booting using the fdt blob at 0x88000000
  Loading Device Tree to 8ffe3000, end 8ffff1e2 ... OK
Starting kernel ...
   0.000000] Booting Linux on physical CPU 0x0
   0.000000] Linux version 4.9.59-01251-q2e751fb-dirty (a0216549local@udb0216549) (q
cc version 6.2.1 20161016 (Linaro GCC 6.2-2016.11) ) #5 SMP PREEMPT Tue Jan 9 20:55:23
EST 2018
   0.000000] CPU: ARMv7 Processor [412fc0f2] revision 2 (ARMv7), cr=30c5387d
   0.000000] CPU: div instructions available: patching division code
   0.000000] CPU: PIPT / VIPT nonaliasing data cache, PIPT instruction cache
   0.000000] OF: fdt:Machine model: TI AM5718 IDK
   0.000000] efi: Getting EFI parameters from FDT:
   0.000000] efi: UEFI not found.
   0.000000] Reserved memory: created CMA memory pool at 0x0000000095800000, size 56
MiB
   0.000000] OF: reserved mem: initialized node ipu2 cma@95800000, compatible id sha
red-dma-pool
   0.000000] Reserved memory: created CMA memory pool at 0x000000099000000, size 64
MiB
   0.000000] OF: reserved mem: initialized node dsp1 cma@99000000, compatible id sha
red-dma-pool
   0.000000] Reserved memory: created CMA memory pool at 0x00000009d000000, size 32
MiB
   0.000000] OF: reserved mem: initialized node ipu1 cma@9d000000, compatible id sha
red-dma-pool
```

```
0.000000] cma: Reserved 24 MiB at 0x00000000be400000
    0.000000] Memory policy: Data cache writealloc
    0.000000] OMAP4: Map 0x00000000bfd00000 to fe600000 for dram barrier
     0.000000] DRA722 ES2.0
     0.000000] percpu: Embedded 13 pages/cpu @ef645000 s22156 r8192 d22900 u53248
     0.000000] Built 1 zonelists in Zone order, mobility grouping on. Total pages: 25
     0.000000] Kernel command line: console=tty02,115200n8 root=/dev/nfs nfsroot=158.2
18.107.226:/exports/rel4209/01, rw ip=:::::eth0:dhcp:: ti prueth.pruss1 ethtype=2 ti p
rueth.pruss2 ethtype=2
     0.00000\overline{0}] PID hash table entries: 4096 (order: 2, 16384 bytes)
     0.000000] Dentry cache hash table entries: 131072 (order: 7, 524288 bytes)
     0.000000] Inode-cache hash table entries: 65536 (order: 6, 262144 bytes)
     0.000000] Memory: 839448K/1045504K available (8192K kernel code, 316K rwdata, 242
4K rodata, 2048K init, 304K bss, 25832K reserved, 180224K cma-reserved, 234496K highme
     0.000000] Virtual kernel memory layout:
[
                   vector : 0xffff0000 - 0xffff1000
    0.0000001
                  fixmap : 0xffc00000 - 0xfff00000 (3072 kB)
    0.0000001
                 vmalloc: 0xf0800000 - 0xff800000 (240 MB)
                lowmem : 0xc0000000 - 0xf0000000 pkmap : 0xbfe00000 - 0xc0000000 modules : 0xbf000000 - 0xbfe00000
    0.0000001
                                                      (768 MB)
    0.0000001
                                                      ( 2 MB)
                                                      ( 14 MB)
    0.000000]
    0.000000]
                    .text : 0xc0008000 - 0xc0a00000
                                                      (10208 kB)
    0.000000]
                     .init : 0xc0e00000 - 0xc1000000
                     .data : 0xc1000000 - 0xc104f080
                                                        ( 317 kB)
                      .bss : 0xc1051000 - 0xc109d0f0
                                                      ( 305 kB)
    0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1, Nodes=1
    0.000000] Preemptible hierarchical RCU implementation.
    0.000000] Build-time adjustment of leaf fanout to 32.
    0.000000] RCU restricting CPUs from NR CPUS=2 to nr cpu ids=1.
    0.000000] RCU: Adjusting geometry for rcu fanout leaf=32, nr cpu ids=1
    0.000000] NR IRQS:16 nr irqs:16 16
     0.000000] OMAP clockevent source: timer1 at 32786 Hz
     0.000000] arm arch timer: Architected cp15 timer(s) running at 6.14MHz (phys).
     0.000000] clocksource: arch sys counter: mask: 0xffffffffffffff max cycles: 0x16a
f5adb9, max idle ns: 440795202250 ns
     0.000004] sched clock: 56 bits at 6MHz, resolution 162ns, wraps every 43980465110
23ns
     0.000015] Switching to timer-based delay loop, resolution 162ns
     0.000323] clocksource: 32k counter: mask: 0xffffffff max cycles: 0xffffffff, max
idle ns: 58327039986419 ns
     0.000331] OMAP clocksource: 32k counter at 32768 Hz
     0.000734] Console: colour dummy device 80x30
    0.000751] WARNING: Your 'console=tty02' has been replaced by 'ttyS2'
     0.000757] This ensures that you still see kernel messages. Please
     0.000763] update your kernel commandline.
    0.000779] Calibrating delay loop (skipped), value calculated using timer frequenc
y.. 12.29 BogoMIPS (lpj=61475)
    0.000792] pid max: default: 32768 minimum: 301
    0.000893] Mount-cache hash table entries: 2048 (order: 1, 8192 bytes)
    0.000903] Mountpoint-cache hash table entries: 2048 (order: 1, 8192 bytes)
    0.001527] CPU: Testing write buffer coherency: ok
    0.001739] /cpus/cpu@0 missing clock-frequency property
    0.001753] CPU0: thread -1, cpu 0, socket 0, mpidr 80000000
    0.001767] Setting up static identity map for 0x80200000 - 0x80200060
    0.080035] EFI services will not be available.
    0.099922] Brought up 1 CPUs
    0.099932] SMP: Total of 1 processors activated (12.29 BogoMIPS).
    0.099938] CPU: All CPU(s) started in HYP mode.
    0.099944] CPU: Virtualization extensions available.
    0.100343] devtmpfs: initialized
     0.130107] VFP support v0.3: implementor 41 architecture 4 part 30 variant f rev 0
     0.130360] clocksource: jiffies: mask: 0xffffffff max cycles: 0xffffffff, max idle
_ns: 19112604462750000 ns
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0.130377] futex hash table entries: 256 (order: 2, 16384 bytes)
     0.133660] pinctrl core: initialized pinctrl subsystem
     0.134519] NET: Registered protocol family 16
     0.135433] DMA: preallocated 256 KiB pool for atomic coherent allocations
     0.136450] omap hwmod: 13 main 2 using broken dt data from ocp
     0.370283] cpuidle: using governor ladder
     0.400309] cpuidle: using governor menu
     0.410612] OMAP GPIO hardware version 0.1
     0.425391] irq: no irq domain found for /ocp/14@4a000000/scm@2000/pinmux@1400 !
     0.450091] No ATAGS?
     0.450111] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4 watchpoint regist
ers.
     0.450120] hw-breakpoint: maximum watchpoint size is 8 bytes.
     0.450530] omap4 sram init: Unable to allocate sram needed to handle errata I688
     0.450541] omap4 sram init: Unable to get sram pool needed to handle errata I688
     0.451097] OMAP DMA hardware revision 0.0
     0.531247] omap-dma-engine 4a056000.dma-controller: OMAP DMA engine driver (Linked
List1/2/3 supported)
     0.532570] edma 43300000.edma: memcpy is disabled
     0.537413] edma 43300000.edma: TI EDMA DMA engine driver
     0.541262] omap-iommu 40d01000.mmu: 40d01000.mmu registered
     0.541446] omap-iommu 40d02000.mmu: 40d02000.mmu registered
     0.541609] omap-iommu 58882000.mmu: 58882000.mmu registered
     0.541769] omap-iommu 55082000.mmu: 55082000.mmu registered
     0.544637] palmas 0-0058: Irq flag is 0x00000004
     0.572542] palmas 0-0058: Muxing GPIO 2f, PWM 0, LED 0
     0.575763] SMPS3: supplied by VMAIN
     0.579093] SMPS6: supplied by VMAIN
     0.580868] SMPS7: supplied by VMAIN
     0.582773] SMPS8: supplied by VMAIN
     0.584113] SMPS9: supplied by VMAIN
     0.585055] V3 3D: supplied by smps9
     0.585287] vt\overline{t} fixed: supplied by V3 3D
     0.585390] LDO\overline{1}: supplied by VMAIN
     0.591521] random: fast init done
     0.591585] LDO2: supplied by VMAIN
     0.601437] LDO3: supplied by VMAIN
     0.611457] LDO4: supplied by VMAIN
     0.623574] LDO9: supplied by VMAIN
     0.631860] LDOLN: supplied by VMAIN
     0.641565] LDOUSB: supplied by VMAIN
     0.654550] omap i2c 48070000.i2c: bus 0 rev0.12 at 400 kHz
     0.654749] media: Linux media interface: v0.10
     0.654796] Linux video capture interface: v2.00
     0.654831] pps core: LinuxPPS API ver. 1 registered
     0.654838] pps core: Software ver. 5.3.6 - Copyright 2005-2007 Rodolfo Giometti <g
iometti@linux.it>
     0.654858] PTP clock support registered
     0.654891] EDAC MC: Ver: 3.0.0
     0.661448] omap-mailbox 4883c000.mailbox: omap mailbox rev 0x400
     0.661750] omap-mailbox 4883e000.mailbox: omap mailbox rev 0x400
     0.662043] omap-mailbox 48840000.mailbox: omap mailbox rev 0x400
     0.662237] omap-mailbox 48842000.mailbox: omap mailbox rev 0x400
     0.662568] Advanced Linux Sound Architecture Driver Initialized.
     0.671116] clocksource: Switched to clocksource arch sys counter
     0.680819] NET: Registered protocol family 2
     0.681374] TCP established hash table entries: 8192 (order: 3, 32768 bytes)
     0.681438] TCP bind hash table entries: 8192 (order: 4, 65536 bytes)
     0.681563] TCP: Hash tables configured (established 8192 bind 8192)
     0.681614] UDP hash table entries: 512 (order: 2, 16384 bytes)
     0.681645] UDP-Lite hash table entries: 512 (order: 2, 16384 bytes)
     0.681829] NET: Registered protocol family 1
     0.702193] RPC: Registered named UNIX socket transport module.
     0.702203] RPC: Registered udp transport module.
     0.702209] RPC: Registered tcp transport module.
```

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0.702216] RPC: Registered tcp NFSv4.1 backchannel transport module.
     0.703212] hw perfevents: enabled with armv7 cortex a15 PMU driver, 7 counters ava
     0.715915] workingset: timestamp bits=14 max order=18 bucket order=4
     0.723452] squashfs: version 4.0 (2009/01/31) Phillip Lougher
     0.734194] NFS: Registering the id resolver key type
     0.734217] Key type id resolver registered
     0.734225] Key type id legacy registered
     0.734263] ntfs: driver 2.1.32 [Flags: R/O].
     0.735693] bounce: pool size: 64 pages
     0.735843] Block layer SCSI generic (bsg) driver version 0.4 loaded (major 247)
     0.735853] io scheduler noop registered
     0.735860] io scheduler deadline registered
     0.735994] io scheduler cfq registered (default)
     0.741426] pinctrl-single 4a003400.pinmux: 282 pins at pa fc003400 size 1128
     0.741499] pinctrl-single 4a002e8c.pinmux: please update dts to use #pinctrl-cells
 = <1>
[
     0.741578] pinctrl-single 4a002e8c.pinmux: initialized with no interrupts
     0.741589] pinctrl-single 4a002e8c.pinmux: 1 pins at pa fc002e8c size 4
     0.754308] dra7-pcie 51000000.pcie: Linked as a consumer to phy-4a094000.pciephy.3
     0.754637] OF: PCI: host bridge /ocp/axi@0/pcie@51000000 ranges:
     0.754649] OF: PCI: No bus range found for /ocp/axi@0/pcie@51000000, using [bus
00-ff]
                          IO 0x20003000..0x20012fff -> 0x00000000
     0.754682] OF: PCI:
     0.754703] OF: PCI: MEM 0x20013000..0x2ffffffff -> 0x20013000
     1.751176] dra7-pcie 51000000.pcie: phy link never came up
     1.751353] dra7-pcie 51000000.pcie: PCI host bridge to bus 0000:00
     1.751366] pci bus 0000:00: root bus resource [bus 00-ff]
     1.751377] pci bus 0000:00: root bus resource [io 0x0000-0xffff]
     1.751387] pci bus 0000:00: root bus resource [mem 0x20013000-0x2fffffff]
     1.751759] PCI: bus0: Fast back to back transfers disabled
     1.751878] PCI: bus1: Fast back to back transfers enabled
     1.752006] pci 0000:00:00.0: BAR 0: assigned [mem 0x20100000-0x201fffff]
    1.752022] pci 0000:00:00:00: BAR 1: assigned [mem 0x20020000-0x2002ffff]
    1.752035] pci 0000:00:00.0: PCI bridge to [bus 01]
     1.752265] pcieport 0000:00:00.0: Signaling PME through PCIe PME interrupt
     1.808682] Serial: 8250/16550 driver, 10 ports, IRQ sharing disabled
     1.812097] 48020000.serial: ttyS2 at MMIO <math>0x48020000 (irq = 301, base baud = 30000)
00) is a 8250
     2.800361] console [ttyS2] enabled
     2.805750] omap rng 48090000.rng: OMAP Random Number Generator ver. 20
     2.812524] [drm] Initialized
     2.817274] OMAP DSS rev 6.1
     2.820613] omapdss dss 58000000.dss: bound 58001000.dispc (ops dispc component ops
     2.829142] omapdss dss 58000000.dss: bound 58040000.encoder (ops hdmi5 component o
Γ
ps)
     3.010009] brd: module loaded
     3.098506] loop: module loaded
     3.105853] m25p80 spi0.0: s25f1256s1 (32768 Kbytes)
     3.110898] 7 ofpart partitions found on MTD device spi0.0
     3.116452] Creating 7 MTD partitions on "spi0.0":
     3.137461] 0x000000040000-0x000000140000 : "QSPI.u-boot"
     3.153851] 0x000000140000-0x0000001c00000 : "QSPI.u-boot-spl-os"
     3.170820] 0x0000001c0000-0x0000001d00000 : "QSPI.u-boot-env"
     3.187556] 0x0000001d0000-0x0000001e0000 : "QSPI.u-boot-env.backup1"
     3.204992] 0x0000001e0000-0x0000009e0000 : "QSPI.kernel"
     3.221345] 0x0000009e0000-0x000002000000 : "QSPI.file-system"
     3.238756] libphy: Fixed MDIO Bus: probed
     3.301154] davinci mdio 48485000.mdio: davinci mdio revision 1.6
     3.307279] davinci mdio 48485000.mdio: detected phy mask fffffffc
     3.327842] libphy: 48485000.mdio: probed
     3.331926] davinci mdio 48485000.mdio: phy[0]: device 48485000.mdio:00, driver Mic
rel KSZ9031 Gigabit PHY
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3.341660] davinci mdio 48485000.mdio: phy[1]: device 48485000.mdio:01, driver Mic
rel KSZ9031 Gigabit PHY
     3.352124] cpsw 48484000.ethernet: Detected MACID = 5c:f8:21:5d:f1:94
     3.359290] cpsw 48484000.ethernet: cpts: overflow check period 500 (jiffies)
     3.368774] cpsw 48484000.ethernet: cpsw: Detected MACID = 5c:f8:21:5d:f1:95
    3.377421] mousedev: PS/2 mouse device common for all mice
    3.383354] i2c /dev entries driver
    3.393677] omap hsmmc 4809c000.mmc: Got CD GPIO
    3.471574] omap hsmmc 480b4000.mmc: no pinctrl state for sdr25 mode
    3.477955] omap hsmmc 480b4000.mmc: no pinctrl state for sdr12 mode
    3.552193] ledtrig-cpu: registered to indicate activity on CPUs
    3.572182] NET: Registered protocol family 10
    3.587299] sit: IPv6, IPv4 and MPLS over IPv4 tunneling driver
    3.601514] NET: Registered protocol family 17
    3.606120] Key type dns resolver registered
    3.610523] omap voltage late init: Voltage driver support not added
    3.631197] Power Management for TI OMAP4+ devices.
    3.636282] Registering SWP/SWPB emulation handler
    3.659794] dmm 4e000000.dmm: workaround for errata i878 in use
    3.682203] dmm 4e000000.dmm: initialized all PAT entries
    3.693021] [drm] Supports vblank timestamp caching Rev 2 (21.10.2013).
    3.700737] [drm] No driver support for vblank timestamp query.
    3.708764] omapdrm omapdrm.0: No connectors reported connected with modes
    3.715810] [drm] Cannot find any crtc or sizes - going 1024x768
     3.730752] [drm] Enabling DMM ywrap scrolling
     3.739549] Console: switching to colour frame buffer device 128x48
     3.749525] omapdrm omapdrm.0: fb0: omapdrm frame buffer device
    3.776984] mmc1: new DDR MMC card at address 0001
    3.783180] hctosys: unable to open rtc device (rtc0)
    3.788917] net eth0: initializing cpsw version 1.15 (0)
    3.794295] cpsw 48484000.ethernet: initialized cpsw ale version 1.4
    3.800784] cpsw 48484000.ethernet: ALE Table size 1024
     3.806073] mmcblk1: mmc1:0001 R1J56L 13.8 GiB
     3.816261 mmcblk1boot0: mmc1:0001 R1J56L partition 1 4.00 MiB
    3.825650] mmc0: host does not support reading read-only switch, assuming write-en
able
    3.833803] mmcblk1boot1: mmc1:0001 R1J56L partition 2 4.00 MiB
     3.839816] mmc0: new high speed SDHC card at address aaaa
     3.850147] mmcblk0: mmc0:aaaa SL08G 7.40 GiB
     3.855646] mmcblk0: p1 p2
     3.931879] Micrel KSZ9031 Gigabit PHY 48485000.mdio:00: attached PHY driver [Micre
1 KSZ9031 Gigabit PHY] (mii bus:phy addr=48485000.mdio:00, irq=-1)
     3.953455] pps pps0: new PPS source ptp0
     3.957483] cpts ptp bc clkid 0
     3.965245] IPv6: ADDRCONF(NETDEV UP): eth0: link is not ready
    7.049749] cpsw 48484000.ethernet eth0: Link is Up - 1Gbps/Full - flow control rx/
Γ
tx
    7.061152] IPv6: ADDRCONF(NETDEV CHANGE): eth0: link becomes ready
    7.091141] Sending DHCP requests ., OK
    7.181147] IP-Config: Got DHCP answer from 158.218.106.3, my address is 158.218.10
7.175
    7.189273] IP-Config: Complete:
                   device=eth0, hwaddr=5c:f8:21:5d:f1:94, ipaddr=158.218.107.175, mas
k=255.255.254.0, gw=158.218.106.1
    7.203150]
                  host=dhcp-158-218-107-175, domain=am.dhcp.ti.com, nis-domain=(none
                   bootserver=0.0.0.0, rootserver=158.218.107.226, rootpath=
server0=192.0.2.2, nameserver1=192.0.2.3
    7.223080] ALSA device list:
               No soundcards found.
    7.243858] VFS: Mounted root (nfs filesystem) on device 0:15.
    7.250030] devtmpfs: mounted
    7.254400] Freeing unused kernel memory: 2048K
    7.377781] systemd[1]: System time before build time, advancing clock.
    7.408315] systemd[1]: systemd 230 running in system mode. (+PAM -AUDIT -SELINUX +
```

```
IMA -APPARMOR +SMACK +SYSVINIT +UTMP -LIBCRYPTSETUP -GCRYPT -GNUTLS +ACL +XZ -LZ4 -SEC
COMP +BLKID -ELFUTILS +KMOD -IDN)
     7.426943] systemd[1]: Detected architecture arm.
Welcome to Arago 2017.10!
     7.462756] systemd[1]: Set hostname to <am57xx-evm>.
     7.769853] systemd[1]: Started Forward Password Requests to Wall Directory Watch.
   OK | Started Forward Password Requests to Wall Directory Watch.
     7.811273] systemd[1]: Listening on udev Kernel Socket.
   OK ] Listening on udev Kernel Socket.
     7.841194] systemd[1]: Reached target Remote File Systems.
   OK ] Reached target Remote File Systems.
     7.871339] systemd[1]: Listening on Network Service Netlink Socket.
   OK ] Listening on Network Service Netlink Socket.
[
     7.911348] systemd[1]: Started Dispatch Password Requests to Console Directory Wat
ch.
   OK ] Started Dispatch Password Requests to Console Directory Watch.
     7.951184] systemd[1]: Reached target Swap.
   OK | Reached target Swap.
     7.982478] systemd[1]: Created slice System Slice.
   OK | Created slice System Slice.
   OK ] Created slice system-getty.slice.
Γ
   OK ] Listening on Journal Socket (/dev/log).
[
   OK ] Listening on Syslog Socket.
ſ
   OK ] Created slice User and Session Slice.
[
[
   OK ] Reached target Slices.
   OK ] Created slice system-serial\x2dgetty.slice.
[
  OK ] Listening on Process Core Dump Socket.
[
      ] Listening on Journal Socket.
         Mounting POSIX Message Queue File System...
         Mounting Debug File System...
         Starting alignment.service...
         Starting Create Static Device Nodes in /dev...
         Starting Journal Service...
         Starting Remount Root and Kernel File Systems...
         Mounting Temporary Directory...
         Starting Load Kernel Modules...
         Starting Setup Virtual Console...
[ OK ] Listening on /dev/initctl Compatibility Named Pipe.
  OK ] Reached target Paths.
  OK ] Listening on udev Control Socket.
[
  OK ] Mounted POSIX Message Queue File System.
Γ
  OK | Mounted Debug File System.
   OK | Mounted Temporary Directory.
Γ
   OK | Started Journal Service.
Γ
   OK | Started alignment.service.
   OK ] Started Create Static Device Nodes in /dev.
   OK ] Started Remount Root and Kernel File Systems.
[FAILED] Failed to start Load Kernel Modules.
See 'systemctl status systemd-modules-load.service' for details.
  OK ] Started Setup Virtual Console.
         Starting Apply Kernel Variables...
         Mounting Configuration File System...
         Starting udev Coldplug all Devices...
     8.993546] random: crng init done
   OK ] Reached target Local File Systems (Pre).
         Mounting /media/ram...
         Mounting /var/volatile...
         Starting udev Kernel Device Manager...
         Starting Flush Journal to Persistent Storage...
  OK ] Mounted Configuration File System.
  OK ] Mounted /var/volatile.
   OK ] Mounted /media/ram.
      ] Started udev Kernel Device Manager.
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[ OK ] Started Apply Kernel Variables.
     9.395417] systemd-journald[111]: Received request to flush runtime journal from P
ID 1
        Starting Load/Save Random Seed...
 OK ] Reached target Local File Systems.
  OK | Started Flush Journal to Persistent Storage.
        Starting Create Volatile Files and Directories...
      ] Started Load/Save Random Seed.
Γ
      | Started Create Volatile Files and Directories.
        Starting Update UTMP about System Boot/Shutdown...
        Starting Network Time Synchronization...
      ] Started Update UTMP about System Boot/Shutdown.
      ] Started Network Time Synchronization.
  OK ] Reached target System Time Synchronized.
   10.036076] omap-rproc 58820000.ipu: assigned reserved memory node ipu1 cma@9d00000
   10.142381] remoteproc remoteproc0: 58820000.ipu is available
[
   10.200079] omap-rproc 55020000.ipu: assigned reserved memory node ipu2 cma@9580000
   10.250863] remoteproc remoteproc1: 55020000.ipu is available
   OK | Started udev Coldplug all Devices.
   10.329271] omap-rproc 40800000.dsp: assigned reserved memory node dsp1 cma@9900000
   10.413572] remoteproc remoteproc2: 40800000.dsp is available
[
   OK ] Found device /dev/ttyS2.
   OK ] Reached target System Initialization.
   OK ] Listening on Avahi mDNS/DNS-SD Stack Activation Socket.
   11.075943] remoteproc remoteproc0: powering up 58820000.ipu
   11.081794] remoteproc remoteproc0: Booting fw image dra7-ipu1-fw.xem4, size 468735
   11.089668] omap-iommu 58882000.mmu: 58882000.mmu: version 2.1
   11.118172] virtio rpmsg bus virtio0: rpmsg host is online
   11.141154] remoteproc remoteproc0: registered virtio0 (type 7)
    11.147098] remoteproc remoteproc0: remote processor 58820000.ipu is now up
    11.171193] virtio rpmsg bus virtio0: creating channel rpmsg-client-sample addr 0x3
2
   11.179094] virtio rpmsg bus virtio0: creating channel rpmsg-client-sample addr 0x3
   11.201226] virtio rpmsg bus virtio0: creating channel rpmsg-omx addr 0x3c
   11.208210] virtio rpmsg bus virtio0: creating channel rpmsg-rpc addr 0x65
   OK ] Listening on dropbear.socket.
   OK ] Listening on D-Bus System Message Bus Socket.
   OK ] Listening on RPCbind Server Activation Socket.
   11.343236] remoteproc remoteproc1: powering up 55020000.ipu
   11.359054] remoteproc remoteproc1: Booting fw image dra7-ipu2-fw.xem4, size 373898
   11.381600 omap-iommu 55082000.mmu: 55082000.mmu: version 2.1
  OK ] Reached target Sockets.
  OK ] Reached target Basic System.
         Starting TI MultiCore Tools Daemon...
         Starting Telephony service...
         Starting Print notice about GPLv3 packages...
   11.505981] virtio rpmsg bus virtio1: rpmsg host is online
    11.515390] remoteproc remoteproc1: registered virtio1 (type 7)
         Starting uim-sysfs.service...
   11.537032] remoteproc remoteproc1: remote processor 55020000.ipu is now up
   OK ] Started D-Bus System Message Bus.
   11.570501] virtio rpmsg bus virtiol: creating channel rpmsg-rpc addr 0x65
   11.581275] virtio rpmsg bus virtiol: creating channel rpmsg-rpc addr 0x66
    11.633066] omap-des 480a5000.des: OMAP DES hw accel rev: 2.2
    11.669098] omap-des 480a5000.des: will run requests pump with realtime priority
    11.676903] ov2659 0-0030: Sensor detection failed (3030, 0)
    11.878246] palmas-rtc 48070000.i2c:tps659038@58:tps659038_rtc: rtc core: registere
d 48070000.i2c:tps659 as rtc0
    11.960081] omap gpio 4805b000.gpio: Could not set line 7 debounce to 20000 microse
```

```
conds (-22)
   12.349066] omap rtc 48838000.rtc: rtc core: registered 48838000.rtc as rtc1
    [12.950792] vpe [489d0000.vpe: loading firmware vpdma-1b8.bin
   13.001334] vpe 489d0000.vpe: Device registered as /dev/video0
   13.144055] vip 48970000.vip: loading firmware vpdma-1b8.bin
[ OK ] Started Telephony service.
         Starting Network Service...
   13.191189] vip 48970000.vip: VPDMA firmware loaded
   OK | Started System Logging Service.
      ] Started Kernel Logging Service.
         Starting Avahi mDNS/DNS-SD Stack...
         Starting Login Service...
      ] Started Daily Cleanup of Temporary Directories.
      ] Reached target Timers.
[FAILED] Failed to start TI MultiCore Tools Daemon.
See 'systemctl status ti-mct-daemon.service' for details.
   13.489316] EXT4-fs (mmcblk0p2): mounting ext3 file system using the ext4 subsystem
   13.513880] Bluetooth: Core ver 2.22
   13.513919] NET: Registered protocol family 31
   13.513921 Bluetooth: HCI device and connection manager initialized
   13.513931| Bluetooth: HCI socket layer initialized
   13.513937] Bluetooth: L2CAP socket layer initialized
    13.513957] Bluetooth: SCO socket layer initialized
    13.815434] EXT4-fs (mmcblk0p2): mounted filesystem with ordered data mode. Opts: (
[
null)
    13.953893] SCSI subsystem initialized
   14.116747] FAT-fs (mmcblk0p1): Volume was not properly unmounted. Some data may be
 corrupt. Please run fsck.
    14.170154] omap wdt: OMAP Watchdog Timer Rev 0x01: initial timeout 60 sec
    14.270584] omap-sham 4b101000.sham: hw accel on OMAP rev 4.3
    14.284483] CAN device driver interface
    14.464203] c can platform 4ae3c000.can: c can platform device registered (regs=fce
3c000, irq=352)
   OK | Started Network Service.
   14.578710] omap-aes 4b500000.aes: OMAP AES hw accel rev: 3.3
  OK ] Started Avahi mDNS/DNS-SD Stack.
[
  OK ] Started Login Service.
[
      ] Reached target Network.
         Starting Network Name Resoluti[ 14.678510] omap-aes 4b500000.aes: will run
requests pump with realtime priority
on...
         Starting Enable and configure wl18xx bluetooth stack...
         Starting Permit User Sessions...
      | Started strongSwan IPsec IKEv1/IKEv2 daemon using ipsec.conf.
         Starting Lightning Fast Webserver With Light System Requirements...
    14.901346] omap-aes 4b700000.aes: OMAP AES hw accel rev: 3.3
         Starting Simple Network Management Protocol (SNMP) Daemon....
    14.969793] omap-aes 4b700000.aes: will run requests pump with realtime priority
    15.099114] ahci 4a140000.sata: SSS flag set, parallel bus scan disabled
   15.152834] ahci 4a140000.sata: AHCI 0001.0300 32 slots 1 ports 3 Gbps 0x1 impl pla
tform mode
   15.279174] ahci 4a140000.sata: flags: 64bit ncq sntf stag pm led clo only pmp pio
slum part ccc apst
  OK ] Started Enable and configure wl18xx bluetooth stack.
  OK ] Started Permit User Sessions.
   15.443482] scsi host0: ahci
   15.446634] ata1: SATA max UDMA/133 mmio [mem 0x4a140000-0x4a1410ff] port 0x100 irg
 344
  OK | Started Network Name Resolution.
   15.831516] atal: SATA link down (SStatus 0 SControl 300)
   OK ] Started Lightning Fast Webserver With Light System Requirements.
   16.137253] omap-hdmi-audio omap-hdmi-audio.0.auto: snd-soc-dummy-dai <-> 58040000.
encoder mapping ok
    16.266834] remoteproc remoteproc2: powering up 40800000.dsp
    16.296614] remoteproc remoteproc2: Booting fw image dra7-dsp1-fw.xe66, size 194677
```

```
16.362399] omap hwmod: mmu0 dsp1: wait target disable failed
    16.368292] omap-iommu 40d01\overline{0}00.mmu: 40d\overline{0}1000.mmu: version 3.0
   16.374222] omap-iommu 40d02000.mmu: 40d02000.mmu: version 3.0
  OK ] Started Getty on tty1.
   OK ] Started Serial Getty on ttyS2.
      Reached target Login Prompts.
         Starting Synchronize System and HW clocks...
   16.616212] virtio rpmsg bus virtio2: rpmsg host is online
  OK ] Started Synchronize System and HW clocks.
   16.653321] remoteproc remoteproc2: registered virtio2 (type 7)
   16.733862] remoteproc remoteproc2: remote processor 40800000.dsp is now up
   16.837179] virtio rpmsg bus virtio2: creating channel rpmsg-proto addr 0x3d
   16.935571] ti-pruss 4b200000.pruss: creating PRU cores and other child platform de
vices
    17.091209] davinci mdio 4b232400.mdio: davinci mdio revision 1.6
    17.097334] libphy: 4b232400.mdio: probed
    17.416380] davinci mdio 4b232400.mdio: phy[0]: device 4b232400.mdio:00, driver TI
TLK10X 10/100 Mbps PHY
    17.464494] NET: Registered protocol family 15
    17.568493] davinci mdio 4b232400.mdio: phy[1]: device 4b232400.mdio:01, driver TI
TLK10X 10/100 Mbps PHY
   17.794274] ti-pruss 4b280000.pruss: creating PRU cores and other child platform de
vices
    18.001164] davinci mdio 4b2b2400.mdio: davinci mdio revision 1.6
    18.007289] libphy: 4b2b2400.mdio: probed
   OK ] Listening on Load/Save RF Kill Switch Status [ 18.191595] davinci mdio 4b2b
2400.mdio: phy[0]: device 4b2b2400.mdio:00, driver TI TLK10X 10/100 Mbps PHY
/dev/rfkill Watch.
    18.248373] Initializing XFRM netlink socket
    18.339906] davinci mdio 4b2b2400.mdio: phy[1]: device 4b2b2400.mdio:01, driver TI
TLK10X 10/100 Mbps PHY
    18.495260] remoteproc remoteproc3: 4b234000.pru0 is available
    18.548103] pru-rproc 4b234000.pru0: PRU rproc node /ocp/pruss soc bus@4b226000/pru
ss@4b200000/pru@4b234000 probed successfully
    18.792275] remoteproc remoteproc4: 4b238000.pru1 is available
    18.798175] pru-rproc 4b238000.pru1: PRU rproc node /ocp/pruss soc bus@4b226000/pru
ss@4b200000/pru@4b238000 probed successfully
   OK ] Started Simple Network Management Protocol (SNMP) Daemon..
   19.077286] remoteproc remoteproc5: 4b2b4000.pru0 is available
    19.150570] pru-rproc 4b2b4000.pru0: PRU rproc node /ocp/pruss soc bus@4b2a6000/pru
ss@4b280000/pru@4b2b4000 probed successfully
    19.276072] remoteproc remoteproc6: 4b2b8000.prul is available
    19.393206] pru-rproc 4b2b8000.pru1: PRU rproc node /ocp/pruss soc bus@4b2a6000/pru
ss@4b280000/pru@4b2b8000 probed successfully
    19.764862 prueth pruss2 eth: TI PRU ethernet (type 2) driver initialized
    19.908976] rpmsg rpc virtio0.rpmsg-rpc.-1.101: probing service rpc example 2 with
src 1024 dst 101
   20.016969] rpmsg rpc virtiol.rpmsg-rpc.-1.101: probing service dce-callback with s
    20.027909] rpmsg rpc virtio0.rpmsg-rpc.-1.101: published functions = 8
    20.044020] prueth pruss1 eth: TI PRU ethernet (type 2) driver initialized
    20.292792] NET: Registered protocol family 43
    20.414920] rpmsg rpc virtio1.rpmsg-rpc.-1.102: probing service rpmsg-dce with src
1025 dst 102
    20.433677] rpmsg rpc virtio1.rpmsg-rpc.-1.101: published functions = 4
    20.507244] usbcore: registered new interface driver usbfs
    20.507819] usbcore: registered new interface driver hub
    20.508403] usbcore: registered new device driver usb
    20.562305] xhci-hcd xhci-hcd.1.auto: xHCI Host Controller
    20.562327] xhci-hcd xhci-hcd.1.auto: new USB bus registered, assigned bus number 1
   20.563313] xhci-hcd xhci-hcd.1.auto: hcc params 0x0220f04c hci version 0x100 quirk
s 0x02010010
    20.563354] xhci-hcd xhci-hcd.1.auto: irq 467, io mem 0x48890000
    20.564527] hub 1-0:1.0: USB hub found
```

```
20.564553] hub 1-0:1.0: 1 port detected
   20.564831] xhci-hcd xhci-hcd.1.auto: xHCI Host Controller
   20.564841] xhci-hcd xhci-hcd.1.auto: new USB bus registered, assigned bus number 2
   20.565042] usb usb2: We don't know the algorithms for LPM for this host, disabling
LPM.
   20.580104] hub 2-0:1.0: USB hub found
   20.580132| hub 2-0:1.0: 1 port detected
   21.163265] rpmsg rpc virtio1.rpmsg-rpc.-1.102: published functions = 9
  OK ] Started uim-sysfs.service.
***************
************
NOTICE: This file system contains the following GPLv3 packages:
      autoconf
      binutils-dev
      binutils
      bison-dev
      bison
      cifs-utils
      cpp-symlinks
      срр
      dosfstools
      q++-symlinks
      g++
      gawk-dev
      gawk
      gcc-symlinks
      gcc
      qdb
      gdbc6x
      gdbserver
      glmark2
      gstreamer1.0-libav
      hidapi
      libcairo-perf-utils
      libgmp10
      libidn11
      libmpc3
      libmpfr4
      libreadline-dev
      libreadline6
      m4-dev
      m4
      make
      nettle
      parted
      swig-dev
      swig
If you do not wish to distribute GPLv3 components please remove
the above packages prior to distribution. This can be done using
the opkg remove command.
   opkg remove <package>
Where <package> is the name printed in the list above
NOTE: If the package is a dependency of another package you
     will be notified of the dependent packages. You should
     use the --force-removal-of-dependent-packages option to
     also remove the dependent packages as well
*****************
*****************
```

```
I___I
                                       Arago Project http://arago-project.org am57xx-evm ttyS2
Arago 2017.10 am57xx-evm ttyS2
am57xx-evm login: root
    27.368590] omap hwmod: mmul dsp1: wait target disable failed
    27.383901] omap hwmod: mmu0 dsp1: wait target disable failed
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# cat prep.sh
#!/bin/bash
echo "echo 1 > /sys/kernel/debug/prueth-eth2/prp emac mode"
echo 1 > /sys/kernel/debug/prueth-eth2/prp emac mode
echo "echo 1 > /sys/kernel/debug/prueth-eth3/prp emac mode"
echo 1 > /sys/kernel/debug/prueth-eth3/prp emac mode
echo "echo 1 > /sys/kernel/debug/prueth-eth4/prp emac mode"
echo 1 > /sys/kernel/debug/prueth-eth4/prp emac mode
echo "echo 1 > /sys/kernel/debug/prueth-eth5/prp emac mode"
echo 1 > /sys/kernel/debug/prueth-eth5/prp emac mode
root@am57xx-evm:~# cat if1.sh
#!/bin/bash
echo "ifup eth1"
ifup eth1
ifconfig eth1 | grep addr | grep -v inet6
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# cat if2.sh
#!/bin/bash
echo "ifconfig eth2 192.168.2.1"
ifconfig eth2 192.168.2.1
ifconfig eth2 | grep eth2 | grep -v inet6
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# cat if4.sh
#!/bin/bash
ETH=eth4
IP=192.168.4.1
echo "ifconfig $ETH $IP"
ifconfig $ETH $IP
ifconfig $ETH | grep addr | grep -v inet6
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# cat ptpinfo.sh
#!/bin/bash
echo
echo "ls /sys/devices/platform/44000000.ocp/48484000.ethernet/net/"
ls /sys/devices/platform/44000000.ocp/48484000.ethernet/net/
```

```
echo "ls /sys/devices/platform/pruss1 eth/net"
ls /sys/devices/platform/pruss1 eth/net
echo "ls /sys/devices/platform/pruss2 eth/net"
ls /sys/devices/platform/pruss2 eth/net
ls -l /sys/class/ptp/
echo
echo "ptp clock names:"
echo -n "/sys/class/ptp/ptp0 : "
cat /sys/class/ptp/ptp0/clock name
echo -n "/sys/class/ptp/ptp1 : "
cat /sys/class/ptp/ptp1/clock name
echo -n "/sys/class/ptp/ptp2 : "
cat /sys/class/ptp/ptp2/clock name
echo
echo "pps's ptp device:"
echo -n "/sys/class/pps/pps0 : "
cat /sys/class/pps/pps0/name
echo -n "/sys/class/pps/pps1 : "
cat /sys/class/pps/pps1/name
echo -n "/sys/class/pps/pps2 : "
cat /sys/class/pps/pps2/name
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# cat bc.cfg
[global]
tx timestamp timeout 10
logMinPdelayRegInterval -3
logSyncInterval -3
twoStepFlag 1
summary interval 0
[eth1]
boundary_clock_jbod 1
[eth2]
boundary clock jbod 1
egressLatency 726
ingressLatency 186
[eth4]
boundary clock jbod 1
egressLatency 726
ingressLatency 186
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# ./prep.sh
echo 1 > /sys/kernel/debug/prueth-eth2/prp emac mode
echo 1 > /sys/kernel/debug/prueth-eth3/prp emac mode
echo 1 > /sys/kernel/debug/prueth-eth4/prp emac mode
echo 1 > /sys/kernel/debug/prueth-eth5/prp emac mode
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# if1.sh
ifup eth1
  235.564519] net eth1: initializing cpsw version 1.15 (0)
  235.721837 Micrel KSZ9031 Gigabit PHY 48485000.mdio:01: attached PHY driver [Micre
1 KSZ9031 Gigabit PHY] (mii bus:phy addr=48485000.mdio:01, irq=-1)
[ 235.752967] IPv6: ADDRCONF(NETDEV UP): eth1: link is not ready
udhcpc (v1.24.1) started
Sending discover...
   238.889824] cpsw 48484000.ethernet eth1: Link is Up - 1Gbps/Full - flow control rx/
tx
```

```
[ 238.897751] IPv6: ADDRCONF(NETDEV CHANGE): eth1: link becomes ready
Sending discover...
Sending select for 10.218.107.230...
Lease of 10.218.107.230 obtained, lease time 28800
/etc/udhcpc.d/50default: Adding DNS 192.0.2.2
/etc/udhcpc.d/50default: Adding DNS 192.0.2.3
          Link encap: Ethernet HWaddr 5C:F8:21:5D:F1:95
          inet addr:10.218.107.230 Bcast:10.218.107.255 Mask:255.255.255.0
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# if2.sh
ifconfig eth2 192.168.2.1
   242.735492] pps pps1: new PPS source ptp1
  242.739744] iep ptp bc clkid 1
  242.745153] remoteproc remoteproc5: powering up 4b2b4000.pru0
  242.755641] remoteproc remoteproc5: Booting fw image ti-pruss/am57xx-pru0-pruprp-fw
.elf, size 7972
  242.770844] ti-pruss 4b280000.pruss: configured system events = 0x0000060000900000
intr channels = 0x00000095 host intr = 0x00000115
  242.785474] remoteproc remoteproc5: remote processor 4b2b4000.pru0 is now up
  242.793872] remoteproc remoteproc6: powering up 4b2b8000.prul
  242.800670] remoteproc remoteproc6: Booting fw image ti-pruss/am57xx-pru1-pruprp-fw
.elf, size 8636
  242.812593] ti-pruss 4b280000.pruss: configured system events = 0x0060000001200000
intr channels = 0x0000012a host intr = 0x0000022a
   242.825884] remoteproc remoteproc6: remote processor 4b2b8000.prul is now up
   242.834290] net eth2: started
  242.835444] prueth pruss2 eth eth2: Link is Up - 100Mbps/Full - flow control off
eth2
          Link encap: Ethernet HWaddr 70:FF:76:1C:0D:77
root@am57xx-evm:~# [ 242.929511] NOHZ: local softirg pending 08
 243.054551] NOHZ: local softirg pending 08
  243.179597] NOHZ: local softirg pending 08
  243.304640] NOHZ: local softirg pending 08
  243.429685] NOHZ: local softing pending 08
  243.554734] NOHZ: local softirg pending 08
  243.679780] NOHZ: local softirg pending 08
  243.804839] NOHZ: local softirg pending 08
  243.929897] NOHZ: local softirg pending 08
  244.054930] NOHZ: local softirg pending 08
root@am57xx-evm:~#
root@am57xx-evm:~# if4.sh
ifconfig eth4 192.168.4.1
   255.817935] pps pps2: new PPS source ptp2
  255.822165] iep ptp bc clkid 2
  255.825461] remoteproc remoteproc3: powering up 4b234000.pru0
  255.836907] remoteproc remoteproc3: Booting fw image ti-pruss/am57xx-pru0-pruprp-fw
.elf, size 7972
[ 255.853720] ti-pruss 4b200000.pruss: configured system events = 0x00000600009900000
intr channels = 0x00000095 host intr = 0x00000115
   255.867197] remoteproc remoteproc3: remote processor 4b234000.pru0 is now up
  255.876033] remoteproc remoteproc4: powering up 4b238000.pru1
  255.883588] remoteproc remoteproc4: Booting fw image ti-pruss/am57xx-pru1-pruprp-fw
.elf, size 8636
[ 255.894087] ti-pruss 4b200000.pruss: configured system events = 0x0060000001200000
intr channels = 0x0000012a host intr = 0x0000022a
  255.907357] remoteproc remoteproc4: remote processor 4b238000.prul is now up
  255.915995] net eth4: started
  255.917142| prueth pruss1 eth eth4: Link is Up - 100Mbps/Full - flow control off
          Link encap: Ethernet HWaddr 70:FF:76:1C:0D:79
          inet addr:192.168.4.1 Bcast:192.168.4.255 Mask:255.255.255.0
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# ptpinfo.sh
```

```
ls /sys/devices/platform/44000000.ocp/48484000.ethernet/net/
eth0 eth1
ls /sys/devices/platform/pruss1 eth/net
eth4 eth5
ls /sys/devices/platform/pruss2 eth/net
eth2 eth3
lrwxrwxrwx
              1 root
                                          0 Dec 23 13:59 ptp0 -> ../../devices/platfor
                         root
m/44000000.ocp/48484000.ethernet/ptp/ptp0
                                          0 Dec 23 14:03 ptp1 -> ../../devices/platfor
lrwxrwxrwx
              1 root
                         root
m/pruss2 eth/ptp/ptp1
                                          0 Dec 23 14:03 ptp2 -> ../../devices/platfor
lrwxrwxrwx
                         root
              1 root
m/pruss1 eth/ptp/ptp2
ptp clock names:
/sys/class/ptp/ptp0 : CTPS timer
/sys/class/ptp/ptp1 : PRUSS2 timer
/sys/class/ptp/ptp2 : PRUSS1 timer
pps's ptp device:
/sys/class/pps/pps0 : ptp0
/sys/class/pps/pps1 : ptp1
/sys/class/pps/pps2 : ptp2
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# ./clks.sh
ptp0: phc ct1[270.766]: clock time is 270.766132817 or Thu Jan 1 00:04:30 1970
ptp1: phc ct1[270.774]: clock time is 1514037828.397272907 or Sat Dec 23 14:03:48 2017
ptp2: phc ctl[270.781]: clock time is 1514037828.404125505 or Sat Dec 23 14:03:48 2017
              1 root
                                          0 Dec 23 13:59 ptp0 -> ../../devices/platfor
lrwxrwxrwx
                         root
m/44000000.ocp/48484000.ethernet/ptp/ptp0
                                          0 Dec 23 14:03 ptp1 -> ../../devices/platfor
lrwxrwxrwx
              1 root
                         root
m/pruss2 eth/ptp/ptp1
lrwxrwxrwx
              1 root
                         root
                                          0 Dec 23 14:03 ptp2 -> ../../devices/platfor
m/pruss1 eth/ptp/ptp2
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# ./ptp41 -2 -P -f bc.cfg -m &
ptp41[296.903]: selected /dev/ptp0 as PTP clock
ptp41[296.908]: port 2: just a bunch of devices
ptp41[296.909]: port 3: just a bunch of devices
root@am57xx-evm:~# ptp41[296.990]: port 1: INITIALIZING to LISTENING on INIT COMPLETE
ptp41[297.050]: port 2: INITIALIZING to LISTENING on INIT COMPLETE
ptp41[297.110]: port 3: INITIALIZING to LISTENING on INIT COMPLETE
ptp41[297.111]: port 0: INITIALIZING to LISTENING on INIT COMPLETE
ptp41[297.111]: port 1: received PDELAY REQ without times tamp
ptp41[298.750]: port 2: new foreign master 70ff76.fffe.1c0fab-1
ptp41[302.750]: selected best master clock 70ff76.fffe.1c0fab
ptp41[302.750]: port 2: LISTENING to UNCALIBRATED on RS SLAVE
ptp41[303.088]: port 2: UNCALIBRATED to SLAVE on MASTER CLOCK SELECTED
ptp41[303.361]: port 1: LISTENING to MASTER on ANNOUNCE RECEIPT TIMEOUT EXPIRES
ptp41[303.362]: selected best master clock 70ff76.fffe.1c0fab
ptp41[303.541]: port 3: LISTENING to MASTER on ANNOUNCE RECEIPT TIMEOUT EXPIRES
ptp41[303.542]: selected best master clock 70ff76.fffe.1c0fab
ptp41[303.713]: rms 1590477316938 max 3180954634390 (-3180954634390,
 +/- 2727 delay
                   -7 +/-
                                                                              7 +/-
ptp41[304.713]: rms
                       7 max
                               12 ( -12,
                                            1) freq -8253 +/-
                                                                  4 delay
                                                                                      1
ptp41[305.714]: rms
                       2 max
                                4 ( -4,
                                            2) freq
                                                     -8248 +/-
                                                                  3 delay
                                                                              8 +/-
                                                                                      0
ptp41[306.714]: rms
                       2 max
                                3 (
                                     -3,
                                            3) freq -8248 +/-
                                                                  3 delay
                                                                              8 +/-
                                                                                      0
ptp41[307.714]: rms
                       2 max
                                3 (
                                     -3,
                                            1) freq -8249 +/-
                                                                  2 delay
                                                                              8 +/-
                                                                                      1
```

```
8 +/-
ptp41[308.715]: rms
                                12 (
                                             12) freq
                                                       -8234 +/-
                                                                    5 delay
                        8 max
                                        4,
ptp41[309.715]: rms
                                11 (
                                        2,
                                                       -8230 +/-
                                                                    3 delay
                                                                                 8 +/-
                                                                                         0
                        6 max
                                             11) freq
ptp41[310.841]: rms
                        3 max
                                 5 (
                                       -5,
                                                       -8236 +/-
                                                                    5 delay
                                                                                8 +/-
                                              4) freq
                        1 max
                                 1
                                      -1,
                                              1) freq
                                                       -8236 +/-
                                                                    1 delay
                                                                                8 +/-
ptp41[311.841]: rms
                                   (
ptp41[312.841]: rms
                        4 max
                                 7 (
                                      -7,
                                              0) freq
                                                       -8240 +/-
                                                                    4 delay
                                                                                8 +/-
ptp41[313.842]: rms
                        6 max
                                11 (
                                     -11,
                                             -1) freq
                                                       -8247 + /-
                                                                    6 delay
                                                                                8 +/-
                        2 max
                                 3 (
ptp41[314.842]: rms
                                      -2,
                                              3) freq
                                                       -8241 +/-
                                                                    2 delay
                                                                                8 +/-
                                 9 (
                                             -3) freq
ptp41[315.847]: rms
                                      -9,
                                                       -8253 +/-
                                                                                8 +/-
                        6 max
                                                                    4 delay
ptp41[316.968]: rms
                        3 max
                                 5 (
                                      -5,
                                              1) freq
                                                       -8252 +/-
                                                                    3 delay
                                                                                8 +/-
                                      -9,
ptp41[317.968]: rms
                                 9 (
                                             -1) freq
                                                       -8261 +/-
                                                                    4 delay
                                                                                8 +/-
                        6 max
                                 3 (
ptp41[318.968]: rms
                        2 max
                                       -3,
                                              3) freq
                                                       -8257 +/-
                                                                    3 delay
                                                                                8 +/-
                                 5 (
                                                                                6 +/-
ptp41[319.969]: rms
                        3 max
                                       -5,
                                              0) freq
                                                       -8262 +/-
                                                                    3 delay
                                                                                         0
ptp41[320.969]: rms
                                 8 (
                                       -5,
                                              8) freq
                                                       -8259 +/-
                                                                                7 +/-
                        4 max
                                                                    6 delay
                                13 (
                                        5,
                                                       -8242 +/-
                                                                                7 +/-
                                                                                         0
ptp41[321.969]: rms
                        9 max
                                             13) freq
                                                                    6 delay
root@am57xx-evm:~#
root@am57xx-evm:~#
ptp41[323.095]: rms
                        8 max
                                11 (
                                        6,
                                             11) freq
                                                       -8235 +/-
                                                                    3 delay
                                                                                 8 +/-
                                                                                         0
./clks.sh
ptp0: phc ctl[323.204]: clock time is 323.204317580 or Thu Jan
                                                                   1 00:05:23 1970
ptp1: phc ctl[323.211]: clock time is 1514041061.789718799 or Sat Dec 23 14:57:41 2017
ptp2: phc ctl[323.218]: clock time is 1514037880.841660865 or Sat Dec 23 14:04:40 2017
                                            0 Dec 23 13:59 ptp0 -> ../../devices/platfor
lrwxrwxrwx
              1 root
                          root
m/44000000.ocp/48484000.ethernet/ptp/ptp0
lrwxrwxrwx
              1 root
                          root.
                                            0 Dec 23 14:03 ptp1 -> ../../devices/platfor
m/pruss2 eth/ptp/ptp1
                                            0 Dec 23 14:03 ptp2 -> ../../devices/platfor
lrwxrwxrwx
              1 root
                          root
m/pruss1 eth/ptp/ptp2
root@am57xx-evm:~#
ptp41[324.096]: rms
                        5 max
                                 9 (
                                        1,
                                              9) freq
                                                       -8234 +/-
                                                                    3 delay
                                                                                7 +/-
                                                                                         0
ptp41[325.097]: rms
                        5 max
                                 8 (
                                      -8,
                                              1) freq
                                                       -8244 +/-
                                                                    5 delay
                                                                                 8 +/-
                                                                                         0
root@am57xx-evm:~#
root@am57xx-evm:~# ptp41[326.097]: rms
                                            5 max
                                                     7 (
                                                          -7,
                                                                 -1) freq
                                                                           -8249 +/-
                                                                                        3
          7 +/-
                                                    10 (-10,
root@am57xx-evm:~# ptp41[327.098]: rms
                                            8 max
                                                                 -2) freq
                                                                           -8259 +/-
                                                                                        6
delay
          8 +/-
ptp41[328.223]: rms
                        6 max
                                12 ( -12,
                                              3) freq
                                                       -8260 +/-
                                                                    6 delay
                                                                                 8 +/-
                                                                                         0
                                 6 (
ptp41[329.223]: rms
                                      -5,
                                                       -8255 +/-
                                                                                8 +/-
                        4 max
                                              6) freq
                                                                    5 delay
ptp41[330.226]: rms
                        3 max
                                 6
                                      -2,
                                                       -8250 +/-
                                                                    3 delay
                                                                                7 +/-
                                   (
                                              6) freq
                                 5 (
ptp41[331.226]: rms
                                      1,
                                              5) freq
                                                       -8245 +/-
                                                                    2 delay
                                                                                8 +/-
                        4 max
ptp41[332.226]: rms
                        8 max
                                11 ( -11,
                                             -1) freq
                                                       -8261 +/-
                                                                    7 delay
                                                                                8 +/-
ptp41[333.227]: rms
                        9 max
                                12 ( -12,
                                             -4) freq
                                                       -8273 +/-
                                                                    2 delay
                                                                                8 +/-
ptp41[334.353]: rms
                        3 max
                                 6 (
                                      -6,
                                              2) freq
                                                       -8270 +/-
                                                                    3 delay
                                                                                7 +/-
ptp41[335.353]: rms
                        3 max
                                 5 (
                                      -5,
                                              2) freq
                                                       -8272 +/-
                                                                    3 delay
                                                                                8 +/-
ptp41[336.354]: rms
                        3 max
                                 4 (
                                      -4,
                                                       -8275 +/-
                                                                    2 delay
                                                                                9 +/-
                                              1) freq
ptp41[337.354]: rms
                        5 max
                                 9 (
                                      -6,
                                              9) freq
                                                       -8271 +/-
                                                                    7 delay
                                                                                8 +/-
                                                                                         1
ptp41[338.354]: rms
                        3 max
                                 6 (
                                      -1,
                                              6) freq
                                                       -8266 +/-
                                                                    3 delay
                                                                                7 +/-
                                                                                         0
                                 6 (
ptp41[339.355]: rms
                        4 max
                                       -3,
                                              6) freq
                                                       -8262 +/-
                                                                    4 delay
                                                                                8 +/-
                                                                                         1
root@am57xx-evm:~# ./phc2sys -a -X -g eth1 -m &
phc2sys[340.245]: reconfiguring after port state change
   340.250775] ptp bc clk sync enable: Req clk=2, off, OK. ClkSyncEn(mask): 0x00000000
phc2sys[340.247]: selecting eth4 for synchronization
phc2sys[340.248]: selecting eth1 for synchronization
   340.259420] prueth pruss1 eth: REQ EXTTS: index = 0, off
phc2sys[340.248]: selecting eth2 as the master clock
```

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340.272774] ptp bc clk sync enable: Req clk=1, off, OK. ClkSyncEn(mask): 0x00000000
   340.284779] prueth pruss2 eth: REQ EXTTS: index = 0, off
   340.293391] ptp bc clk sync enable: Req clk=0, off, OK. ClkSyncEn(mask): 0x00000000
   340.301098] cpsw 48484\overline{0}00.ethernet: PTP CLK REQ EXTTS: index = 2, on = 0
root@am57xx-evm:~#
   340.309828] ptp bc clk sync enable: Req clk=1, on, OK. ClkSyncEn(mask): 0x00000002
   340.320127] cpsw 48484000.ethernet: PTP CLK REQ EXTTS: index = 2, on = 1
ptp41[340.480]: rms
                        3 max
                                 5 (
                                      -5,
                                              4) freq -8267 + /-
                                                                                 8 +/-
                                                                    4 delay
                                 7 (
ptp41[341.481]: rms
                        4 max
                                       -2,
                                              7) freq
                                                       -8260 +/-
                                                                    3 delay
                                                                                 7 +/-
                                                                                         0
ptp41[342.481]: rms
                        5 max
                                 7 (
                                       -7,
                                             -2) freq
                                                       -8272 +/-
                                                                    2 delay
                                                                                 7 +/-
                                                                                         0
                                                                    4 delay
ptp41[343.481]: rms
                        3 max
                                 5
                                       -5,
                                              5) freq
                                                       -8268 +/-
                                                                                 8 +/-
                                                                                         0
                                 9
                                                                                 8 +/-
ptp41[344.482]: rms
                        4 max
                                        Ο,
                                              9) freq
                                                       -8261 +/-
                                                                    3 delay
                                                                                         0
                                   (
ptp41[345.482]: rms
                        8 max
                                10 (
                                      -10,
                                             -4) freq
                                                       -8280 +/-
                                                                    5 delay
                                                                                 8 +/-
                                                                                         0
ptp41[346.608]: rms
                        5 max
                                 9 (
                                       -9,
                                             -2) freq
                                                        -8282 +/-
                                                                    2 delay
                                                                                 7 +/-
                                                                                         0
   346.621273] prueth pruss1 eth: REQ EXTTS: index = 0, on
phc2sys[347.440]: eth4 phc offset
                                       -27687 s0 freq
                                                            +0
phc2sys[347.460]: eth1 phc offset
                                       -20393 s0 freq
                                                            +0
                        5 max
                                 9 (
ptp41[347.609]: rms
                                        1,
                                              9) freq
                                                        -8270 + / -
                                                                    3 delay
                                                                                 8 +/-
                                                                                         0
phc2sys[348.460]: eth4 phc offset
                                       -35952 s1 freq
                                                        -8265
                                       -28649 s1 freq
phc2sys[348.510]: eth1 phc offset
                                                        -8256
ptp41[348.610]: rms
                        4 max
                                 7 (
                                                        -8266 +/-
                                                                    3 delay
                                                                                 8 +/-
                                                                                         0
                                              7) freq
   349.422745] cpts 1pps latch interrupt 10
phc2sys[349.480]: eth4 phc offset
                                         -317 s2 freq
                                                         -8582
                                         -746 s2 freq
phc2sys[349.560]: eth1 phc offset
                                                         -9002
ptp41[349.610]: rms
                                 5 (
                                              5) freq
                                                        -8265 +/-
                                                                                 8 +/-
                                                                                         0
                        3 max
                                                                    3 delay
phc2sys[350.440]: eth4 phc offset
                                          -19 s2 freq
                                                         -8379
phc2sys[350.610]: eth1 phc offset
                                         -105 s2 freq
                                                         -8585
                                 5 (
                                              5) freq
                                                        -8263 +/-
                                                                    3 delay
                                                                                 8 +/-
                                                                                         0
ptp41[350.611]: rms
                        3 max
phc2sys[351.460]: eth4 phc offset
                                          103 s2 freq
                                                         -8263
                                          298 s2 freq
phc2sys[351.460]: eth1 phc offset
                                                        -8213
ptp41[351.736]: rms
                                                        -8262 + / -
                                                                    2 delay
                                                                                 8 +/-
                                                                                         1
                        2 max
                                 4 (
                                              4) freq
phc2sys[352.480]: eth4 phc offset
                                          110 s2 freq
                                                        -8225
phc2sys[352.500]: eth1 phc offset
                                          266 s2 freq
                                                        -8156
ptp41[352.736]: rms
                        4 max
                                              6) freq
                                                        -8256 +/-
                                                                    3 delay
                                                                                 8 +/-
                                                                                         0
                                 6 (
phc2sys[353.440]: eth4 phc offset
                                           86 s2 freq
                                                        -8216
phc2sys[353.550]: eth1 phc offset
                                          173 s2 freq
                                                        -8169
ptp41[353.738]: rms
                        4 max
                                 7 (
                                       -6,
                                              7) freq
                                                       -8257 +/-
                                                                    5 delay
                                                                                 8 +/-
                                                                                         0
                                           35 s2 freq
phc2sys[354.460]: eth4 phc offset
                                                        -8241
phc2sys[354.600]: eth1 phc offset
                                           71 s2 freq
                                                        -8219
ptp41[354.738]: rms
                        7 max
                                             -3) freq
                                                        -8271 +/-
                                                                    5 delay
                                                                                 8 +/-
                                                                                         0
                                11 ( -11,
phc2sys[355.480]: eth4 phc offset
                                            0 s2 freq
                                                         -8266
                                                        -8258
phc2sys[355.480]: eth1 phc offset
                                           11 s2 freq
ptp41[355.738]: rms
                        6 max
                                11 ( -11,
                                             -2) freq
                                                        -8276 +/-
                                                                    4 delay
                                                                                 8 +/-
                                                                                         0
phc2sys[356.440]: eth4 phc offset
                                          -12 s2 freq
                                                        -8278
phc2sys[356.490]: eth1 phc offset
                                          -14 s2 freq
                                                         -8280
                                 3 (
ptp41[356.739]: rms
                        1 max
                                              2) freq
                                                        -8272 + / -
                                                                    2 delay
                                                                                 8 +/-
                                                                                         1
phc2sys[357.460]: eth4 phc offset
                                            0 s2 freq
                                                        -8269
phc2sys[357.540]: eth1 phc offset
                                            4 s2 freq
                                                        -8266
ptp41[357.864]: rms
                        4 max
                                 6 (
                                              6) freq
                                                        -8265 +/-
                                                                    3 delay
                                                                                 8 +/-
                                                                                         1
phc2sys[358.487]: eth4 phc offset
                                            8 s2 freq
                                                        -8261
phc2sys[358.590]: eth1 phc offset
                                                         -8258
                                           11 s2 freq
ptp41[358.865]: rms
                        7 max
                                                        -8256 +/-
                                                                    4 delay
                                                                                 8 +/-
                                                                                         1
                                10 (
                                             10) freq
   359.422665] cpts 1pps latch interrupt 20
phc2sys[359.440]: eth4 phc offset
                                            9 s2 freq
                                                         -8258
                                            8 s2 freq
phc2sys[359.441]: eth1 phc offset
                                                         -8257
ptp41[359.866]: rms
                                                        -8259 + / -
                                                                                 7 +/-
                                                                                         0
                        4 max
                                 8 (
                                              8) freq
                                                                    6 delay
phc2sys[360.460]: eth4 phc offset
                                           11 s2 freq
                                                        -8253
                                            6 s2 freq
phc2sys[360.480]: eth1 phc offset
                                                        -8257
ptp41[360.867]: rms
                                 9 (
                                                        -8258 +/-
                                                                    6 delay
                                                                                 7 +/-
                                                                                         0
                        4 max
                                              6) freq
                                           -2 s2 freq
phc2sys[361.480]: eth4 phc offset
                                                        -8263
                                            2 s2 freq
phc2sys[361.530]: eth1 phc offset
                                                        -8259
ptp41[361.867]: rms
                       13 max
                                16 ( -16,
                                            -10) freq
                                                       -8283 +/-
                                                                    6 delay
                                                                                 8 +/-
                                                                                         0
                                          -30 s2 freq
phc2sys[362.440]: eth4 phc offset
                                                        -8291
phc2sys[362.580]: eth1 phc offset
                                          -28 s2 freq
                                                         -8289
ptp41[362.869]: rms
                        8 max
                                16 ( -16,
                                             -3) freq
                                                        -8288 +/-
                                                                    4 delay
                                                                                 8 +/-
                                                                                         1
```

phc2sys[363.460]: eth4	phc offset		-26 s2 fred	-8296			
phc2sys[363.630]: eth1			-34 s2 fred				
ptp41[363.994]: rms			3) fred		3 delay	7 +/-	0
phc2sys[364.480]: eth4			-10 s2 fred	•	3 delay	, , ,	O
				•			
phc2sys[364.480]: eth1			-15 s2 freq	-		0 . /	_
ptp41[364.994]: rms	$3 \text{ max} \qquad 7 \text{ (}$	(-4,			4 delay	8 +/-	0
phc2sys[365.440]: eth4	phc offset		2 s2 fred	_[-8279			
phc2sys[365.520]: eth1	phc offset		9 s2 fred	_[-8275			
ptp41[365.995]: rms	4 max 6 ((-2,	6) fred	-8276 +/-	4 delay	8 +/-	0
phc2sys[366.460]: eth4		_,	6 s2 fred		1	,	
phc2sys[366.570]: eth1			5 s2 fred	<u>.</u>			
		, 1		•	2 -1 - 1	0 1/	0
ptp41[366.995]: rms	2 max 4 ((- ₁ ,	4) fred		3 delay	8 +/-	0
phc2sys[367.480]: eth4			5 s2 fred				
phc2sys[367.620]: eth1	phc offset		10 s2 fred	_[-8269			
ptp41[367.995]: rms	4 max 7 ((-7,	3) fred	[- 8279 +/-	5 delay	8 +/-	0
phc2sys[368.440]: eth4	phc offset		-13 s2 fred	-8290	_		
phc2sys[368.460]: eth1			-10 s2 fred				
ptp41[368.997]: rms					4 delay	6 +/-	1
				[0230 17	4 delay	0 17	
[369.422583] cpts_1p		errupt		0000			
phc2sys[369.460]: eth4			-9 s2 free				
phc2sys[369.510]: eth1			-14 s2 fred				
ptp41[370.122]: rms	5 max 8 ((-8,	1) fred	[-8293 +/-	4 delay	8 +/-	1
phc2sys[370.480]: eth4	phc offset		-14 s2 fred	-8298			
phc2sys[370.560]: eth1			-12 s2 fred	-			
ptp41[371.123]: rms	6 max 8 (-2) fred	•	2 delay	8 +/-	0
			-13 s2 fred		z aciay	0 17	O
phc2sys[371.440]: eth4							
phc2sys[371.610]: eth1			-16 s2 free	-	- , ,	0 . /	_
ptp41[372.123]: rms				-	5 delay	8 +/-	0
phc2sys[372.460]: eth4	phc offset		-17 s2 fred	_[-8309			
phc2sys[372.461]: eth1	phc offset		-18 s2 fred	_[-8310			
ptp41[373.124]: rms	3 max 7 ((-7,	1) fred	-8304 +/-	3 delay	8 +/-	0
phc2sys[373.480]: eth4			-14 s2 fred		2	·	
phc2sys[373.500]: eth1			-18 s2 fred				
				-	4 delay	7 +/-	0
ptp41[374.124]: rms		(-7,			4 четау	/ +/-	U
phc2sys[374.440]: eth4			-9 s2 fred				
phc2sys[374.550]: eth1	_		-3 s2 fred	•			
ptp41[375.251]: rms	5 max 7 ((-7,	6) fred	[- 8309 +/-	6 delay	7 +/-	0
phc2sys[375.460]: eth4	phc offset		-9 s2 fred	-8313			
phc2sys[375.600]: eth1	phc offset		-7 s2 fred	-8311			
ptp41[376.251]: rms	4 max 7 ((1.	7) fred	•	2 delay	8 +/-	0
phc2sys[376.480]: eth4			8 s2 fred		2 40241	3 . ,	Ū
			3 s2 fred				
phc2sys[376.480]: eth1		, 0			C ala la	0 1/	0
ptp41[377.251]: rms			4) fred		6 delay	8 +/-	0
phc2sys[377.440]: eth4			-3 s2 fred				
phc2sys[377.490]: eth1			-4 s2 fred				
ptp41[378.253]: rms	3 max 5	(- 3,	5) fred	[-8304 +/-	4 delay	7 +/-	0
phc2sys[378.460]: eth4	phc offset		-2 s2 fred	_[-8307			
phc2sys[378.540]: eth1			4 s2 fred	-8302			
ptp41[379.253]: rms		(3.	9) fred		4 delay	8 +/-	0
[379.422497] cpts 1p				0230 17	1 40141	3 . ,	Ū
		ELLUPC		0201			
phc2sys[379.480]: eth4			15 s2 fred	•			
phc2sys[379.590]: eth1			17 s2 fred			- /	_
ptp41[380.253]: rms		(3,	10) fred		5 delay	8 +/-	0
phc2sys[380.440]: eth4	phc offset		20 s2 fred	_[-8281			
phc2sys[380.440]: eth1	phc offset		17 s2 fred	-8283			
ptp41[381.379]: rms		(-3.	7) fred	-8285 +/-	5 delay	8 +/-	0
phc2sys[381.460]: eth4		,	16 s2 fred	-	5 5.5 = 5.7	,	
phc2sys[381.480]: eth1			20 s2 fred	•			
	3 max 4 (_1			2 delay	Q /	0
		- ₁ ,	4) freq	[- 8285 +/-	z deray	0 +/-	U
ptp41[382.379]: rms			11 ~ 7	. 0077			
phc2sys[382.480]: eth4	phc offset		14 s2 fred				
phc2sys[382.480]: eth4 phc2sys[382.530]: eth1	phc offset phc offset		14 s2 fred	-8275			
phc2sys[382.480]: eth4	phc offset phc offset		14 s2 fred 3) fred	-8275 -8285 +/-	2 delay	8 +/-	0
phc2sys[382.480]: eth4 phc2sys[382.530]: eth1	phc offset phc offset 2 max 3 (14 s2 fred	-8275 -8285 +/-	2 delay	8 +/-	0
phc2sys[382.480]: eth4 phc2sys[382.530]: eth1 ptp41[383.381]: rms phc2sys[383.447]: eth4	phc offset phc offset 2 max 3 (phc offset		14 s2 fred 3) fred 5 s2 fred	-8275 -8285 +/- -8281	2 delay	8 +/-	0
phc2sys[382.480]: eth4 phc2sys[382.530]: eth1 ptp41[383.381]: rms	phc offset phc offset 2 max 3 (phc offset phc offset		14 s2 fred 3) fred	-8275 -8285 +/- -8281 -8286	_		0

phc2sys[384.460]: eth4 phc off		0 s2 freq	-8285			
phc2sys[384.630]: eth1 phc off ptp41[385.381]: rms 3 max		2 s2 freq 3) freq	-8283 -8287 +/-	3 delay	7 +/-	0
phc2sys[385.480]: eth4 phc off		3) freq -1 s2 freq	-8286	3 delay	/ +/-	U
phc2sys[385.480]: eth1 phc off		-6 s2 freq	-8290			
ptp41[386.382]: rms 3 max		1) freq	-8290 +/-	3 delay	8 +/-	0
phc2sys[386.440]: eth4 phc off		-2 s2 freq	-8287	0.0=0.7	,	
phc2sys[386.520]: eth1 phc off		3 s2 freq	-8283			
phc2sys[387.460]: eth4 phc off		-6 s2 freq	-8292			
ptp41[387.508]: rms 5 max	9 (-9,	3) freq	-8293 +/-	7 delay	7 +/-	0
phc2sys[387.570]: eth1 phc off		-3 s2 freq	-8288			
phc2sys[388.480]: eth4 phc off		-11 s2 freq	-8299		_ ,	
ptp41[388.508]: rms 3 max	5 (-5,	_	-8294 +/-	3 delay	7 +/-	0
phc2sys[388.620]: eth1 phc off		-16 s2 freq	-8302			
[389.422413] cpts_1pps_latch			0200			
phc2sys[389.440]: eth4 phc off phc2sys[389.460]: eth1 phc off		-8 s2 freq -5 s2 freq	-8299 -8296			
ptp41[389.509]: rms 5 max		1) freq	-8299 +/-	5 delay	7 +/-	0
phc2sys[390.460]: eth4 phc off		-16 s2 freq	-8309	3 dciay	, , ,	O
phc2sys[390.510]: eth1 phc off		-24 s2 freq	-8316			
		-1) freq	-8305 +/-	3 delay	8 +/-	0
phc2sys[391.480]: eth4 phc off		-12 s2 freq	-8310	2	•	
ptp41[391.510]: rms 3 max		1) freq	-8305 +/-	3 delay	7 +/-	0
phc2sys[391.560]: eth1 phc off		-6 s2 freq	-8306			
phc2sys[392.440]: eth4 phc off	set	-13 s2 freq	-8315			
ptp41[392.511]: rms 4 max		1) freq	-8311 +/-	3 delay	7 +/-	0
phc2sys[392.610]: eth1 phc off		-11 s2 freq	-8312			
phc2sys[393.460]: eth4 phc off		-5 s2 freq	-8311			
phc2sys[393.460]: eth1 phc off		-10 s2 freq	-8315	1 -1-1	0 1/	0
ptp41[393.637]: rms 3 max		3) freq	-8309 +/-	4 delay	8 +/-	0
phc2sys[394.480]: eth4 phc off phc2sys[394.500]: eth1 phc off		-10 s2 freq -6 s2 freq	-8317 -8314			
ptp41[394.762]: rms 3 max		4) freq	-8311 +/-	4 delay	8 +/-	0
phc2sys[395.440]: eth4 phc off		6 s2 freq	-8304	1 delay	0 17	O
phc2sys[395.550]: eth1 phc off		8 s2 freq	-8301			
ptp41[395.762]: rms 7 max		10) freq	-8297 +/-	4 delay	7 +/-	1
phc2sys[396.460]: eth4 phc off		15 s2 freq	-8293	-		
phc2sys[396.600]: eth1 phc off	set	11 s2 freq	-8296			
ptp41[396.763]: rms 4 max		9) freq	-8299 +/-	5 delay	6 +/-	0
phc2sys[397.480]: eth4 phc off		3 s2 freq	-8301			
phc2sys[397.480]: eth1 phc off		8 s2 freq	-8296		0 /	•
ptp41[397.763]: rms 4 max				4 delay	8 +/-	O
phc2sys[398.440]: eth4 phc off						
phc2sys[398.490]: eth1 phc off ptp41[398.763]: rms 7 max				2 delay	8 +/-	0
[399.422333] cpts 1pps latch			0313 17	2 dclay	0 17	O
phc2sys[399.460]: eth4 phc off		-19 s2 freq	-8324			
phc2sys[399.540]: eth1 phc off		_				
ptp41[399.764]: rms 3 max				3 delay	8 +/-	0
phc2sys[400.480]: eth4 phc off	set	-10 s2 freq	-8321			
phc2sys[400.590]: eth1 phc off						
ptp41[400.889]: rms 5 max				5 delay	8 +/-	0
phc2sys[401.440]: eth4 phc off		-21 s2 freq				
phc2sys[401.440]: eth1 phc off		-18 s2 freq		4 -1 - 1	0 /	0
ptp41[401.889]: rms 8 max				4 delay	8 +/-	0
phc2sys[402.460]: eth4 phc off phc2sys[402.480]: eth1 phc off		-18 s2 freq -15 s2 freq				
ptp41[402.890]: rms 4 max		-13 \$2 freq -1) freq		2 delay	8 +/-	0
phc2sys[403.480]: eth4 phc off		-15 s2 freq		2 acray	J 1/	J
phc2sys[403.530]: eth1 phc off		-10 s2 freq				
ptp41[403.890]: rms 3 max		5) freq		5 delay	8 +/-	0
phc2sys[404.440]: eth4 phc off		-1 s2 freq	-8331	-		
phc2sys[404.580]: eth1 phc off	set	-7 s2 freq	-8335			
ptp41[404.890]: rms 3 max		4) freq		2 delay	8 +/-	0
phc2sys[405.460]: eth4 phc off	set	10 s2 freq	-8320			

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phc2sys[405.630]: eth1 phc offset
                                           8 s2 freq
                                                       -8322
ptp41[405.891]: rms
                       7 max
                                            10) freq
                                                       -8316 +/-
                                                                   4 delay
                                                                                8 +/-
                                                                                        0
                                10 (
phc2sys[406.480]: eth4 phc offset
                                           9 s2 freq
                                                       -8318
phc2sys[406.480]: eth1 phc offset
                                          13 s2 freq
                                                       -8315
ptp41[407.016]: rms
                       3 max
                                 4 (
                                      -4,
                                             4) freq
                                                      -8320 +/-
                                                                   4 delay
                                                                                8 +/-
                                                                                        0
phc2sys[407.440]: eth4 phc offset
                                          12 s2 freq
                                                       -8313
                                          18 s2 freq
phc2sys[407.520]: eth1 phc offset
                                                       -8306
                                 7 (
ptp41[408.017]: rms
                       3 max
                                       0.
                                             7) freq
                                                      -8316 +/-
                                                                   3 delay
                                                                                9 +/-
                                                                                        0
phc2sys[408.460]: eth4 phc offset
                                           9 s2 freq
                                                       -8312
phc2sys[408.570]: eth1 phc offset
                                           5 s2 freq
                                                       -8314
ptp41[409.017]: rms
                       3 max
                                 6 (
                                             6) freq
                                                      -8318 +/-
                                                                   4 delay
                                                                                8 +/-
                                                                                        0
   409.422248] cpts 1pps latch interrupt 70
phc2sys[409.480]: eth4 phc offset
                                           1 s2 freq
                                                       -8317
phc2sys[409.620]: eth1 phc offset
                                          -3 s2 freq
                                                       -8320
ptp41[410.017]: rms
                                                      -8321 +/-
                                                                   3 delay
                                                                                8 +/-
                                                                                        0
                       3 max
                                 4 (
                                             1) freq
                                           2 s2 freq
phc2sys[410.440]: eth4 phc offset
                                                       -8316
phc2sys[410.460]: eth1 phc offset
                                           9 s2 freq
                                                       -8309
                                 3 (
ptp41[411.017]: rms
                       2 max
                                      -3,
                                             3) freq
                                                      -8320 +/-
                                                                   3 delay
                                                                                8 +/-
                                                                                        0
                                          -2 s2 freq
phc2sys[411.460]: eth4 phc offset
                                                       -8320
phc2sys[411.510]: eth1 phc offset
                                          -2 s2 freq
                                                       -8317
ptp41[412.018]: rms
                       4 max
                                       2,
                                             5) freq
                                                      -8313 +/-
                                                                   1 delay
                                                                                8 +/-
                                                                                        0
                                 5 (
phc2sys[412.480]: eth4 phc offset
                                           1 s2 freq
                                                       -8317
phc2sys[412.567]: eth1 phc offset
                                          -5 s2 freq
                                                       -8321
ptp41[413.143]: rms
                       3 max
                                 6 (
                                      -6,
                                             1) freq
                                                      -8320 +/-
                                                                   4 delay
                                                                                8 +/-
                                                                                        0
phc2sys[413.440]: eth4 phc offset
                                          -3 s2 freq
                                                       -8321
phc2sys[413.610]: eth1 phc offset
                                          -6 s2 freq
                                                       -8324
ptp41[414.144]: rms
                       5 max
                                 9 (
                                      -5,
                                             9) freq
                                                      -8315 +/-
                                                                   6 delay
                                                                                9 +/-
                                                                                        1
root@am57xx-evm:~# phc2sys[414.460]: eth4 phc offset
                                                               7 s2 freq
                                                                           -8312
phc2sys[414.461]: eth1 phc offset
                                           7 s2 freq
                                                       -8312
ptp41[415.144]: rms
                                 7 (
                                             7) freq
                                                      -8310 +/-
                                                                   3 delay
                                                                                7 +/-
                                                                                        0
                       4 max
phc2sys[415.480]: eth4 phc offset
                                           7 s2 freq
                                                       -8310
phc2sys[415.500]: eth1 phc offset
                                          10 s2 freq
                                                       -8307
ptp41[416.144]: rms
                       3 max
                                                      -8311 +/-
                                                                   3 delay
                                                                                7 +/-
                                                                                        0
                                 6 (
                                             6) freq
phc2sys[416.440]: eth4 phc offset
                                           6 s2 freq
                                                       -8309
phc2sys[416.550]: eth1 phc offset
                                           7 s2 freq
                                                       -8307
ptp41[417.144]: rms
                       6 max
                                 9 (
                                      -9,
                                             3) freq
                                                      -8318 +/-
                                                                   7 delay
                                                                                7 +/-
                                                                                        0
                                          -7 s2 freq
phc2sys[417.460]: eth4 phc offset
                                                       -8320
phc2sys[417.600]: eth1 phc offset
                                          -5 s2 freq
                                                       -8317
ptp41[418.270]: rms
                                 7 (
                                             5) freq
                                                       -8316 +/-
                                                                                8 +/-
                                                                                        0
                       4 max
                                                                   5 delay
phc2sys[418.480]: eth4 phc offset
                                          -3 s2 freq
                                                        -8318
                                           0 s2 freq
phc2sys[418.480]: eth1 phc offset
                                                        -8314
root@am57xx-evm:~#
root@am57xx-evm:~#
root@am57xx-evm:~# ptp41[419.271]: rms
                                                     9 ( -9,
                                                                 0) freq -8324 + /-
                                           6 max
delay
          8 +/-
root@am57xx-evm:~# [ 419.422166] cpts 1pps latch interrupt 80
phc2sys[419.440]: eth4 phc offset
                                          -7 s2 freq
phc2sys[419.490]: eth1 phc offset
                                          -6 s2 freq
                                                        -8320
root@am57xx-evm:~#
root@am57xx-evm:~# ptp41[420.272]: rms
                                           5 max
                                                    11 ( -11,
                                                                -1) freq -8330 +/-
                                                                                       3
delay
          8 +/-
root@am57xx-evm:~#
phc2sys[420.460]: eth4 phc offset
                                         -16 s2 freq
                                                        -8334
root@am57xx-evm:~# phc2sys[420.540]: eth1 phc offset
                                                             -18 s2 freq
                                                                           -8333
./clks.sh
ptp0: phc ct1[420.875]: clock time is 1514041159.453728897 or Sat Dec 23 14:59:19 2017
ptp1: phc ctl[420.889]: clock time is 1514041159.468696549 or Sat Dec 23 14:59:19 2017
```

ptp2: phc ct1[420.897]: clock time is 1514041159.476670210 or Sat Dec 23 14:59:19 2017 0 Dec 23 13:59 ptp0 -> ../../devices/platfor lrwxrwxrwx 1 root root m/44000000.ocp/48484000.ethernet/ptp/ptp0 lrwxrwxrwx 1 root root 0 Dec 23 14:03 ptp1 -> ../../devices/platfor m/pruss2 eth/ptp/ptp1 0 Dec 23 14:03 ptp2 -> ../../devices/platfor lrwxrwxrwx 1 root root m/pruss1 eth/ptp/ptp2 root@am57xx-evm:~# ptp41[421.272]: rms 3 max 6(-2,6) freq -8324 +/-8 +/-0 phc2sys[421.480]: eth4 phc offset -3 s2 freq -8326 phc2sys[421.590]: eth1 phc offset -6 s2 freq -8327 ptp41[422.273]: rms 7 (7) freq -8313 +/-2 delay 7 +/-0 6 max Ο, 7 s2 freq phc2sys[422.440]: eth4 phc offset -8317 phc2sys[422.440]: eth1 phc offset 1 s2 freq -8322 ptp41[423.274]: rms 4 max 10 (10) freq -8314 +/-6 delay 8 +/-0 -8309 phc2sys[423.460]: eth4 phc offset 12 s2 freq 12 s2 freq phc2sys[423.480]: eth1 phc offset -8310 ptp41[424.400]: rms 7 max 12) freq -8305 +/-8 +/-0 12 (6 delay phc2sys[424.480]: eth4 phc offset 16 s2 freq -8302 phc2sys[424.530]: eth1 phc offset 23 s2 freq -8296 ptp41[425.400]: rms 8 max 12 (12) freq -8300 +/-9 delay 7 +/-0 phc2sys[425.440]: eth4 phc offset 17 s2 freq -8296 phc2sys[425.580]: eth1 phc offset 17 s2 freq -8295 ptp41[426.401]: rms 9) freq -8291 +/-8 +/-0 7 max 9 (4, 4 delay phc2sys[426.460]: eth4 phc offset 18 s2 freq -8290 phc2sys[426.630]: eth1 phc offset 11 s2 freq -8296 ptp41[427.402]: rms 7 (7) freq -8288 +/-3 delay 8 +/-0 5 max phc2sys[427.480]: eth4 phc offset 22 s2 freq -8281 30 s2 freq phc2sys[427.480]: eth1 phc offset -8273ptp41[428.403]: rms -9, -8297 +/-8 +/-1 6 max 9 (4) freq 7 delay phc2sys[428.440]: eth4 phc offset 7 s2 freq -8289 phc2sys[428.520]: eth1 phc offset 1 s2 freq -8293 ptp41[429.403]: rms 11 max 15 (-15, -8316 +/-3 delay 8 +/-0 -6) freq 429.422080] cpts 1pps latch interrupt 90 phc2sys[429.460]: eth4 phc offset -21 s2 freq -8315 phc2sys[429.570]: eth1 phc offset -15 s2 freq -8309 phc2sys[430.480]: eth4 phc offset -23 s2 freq -8323 ptp41[430.529]: rms -8321 +/-5 delay 8 +/-0 8 max 12 (-12, -4) freq phc2sys[430.620]: eth1 phc offset -32 s2 freq -8331 phc2sys[431.440]: eth4 phc offset -27 s2 freq -8334 phc2sys[431.460]: eth1 phc offset -24 s2 freq -8332 ptp41[431.530]: rms 5 max 9 (-9, 1) freq -8321 +/-5 delay 8 +/-0 phc2sys[432.460]: eth4 phc offset 1 s2 freq -8314 phc2sys[432.510]: eth1 phc offset -2 s2 freq -8317 ptp41[432.530]: rms 7 max 10) freq -8306 +/-5 delay 8 +/-0 10 (1, 20 s2 freq phc2sys[433.480]: eth4 phc offset -8295 ptp41[433.531]: rms 10 max 14) freq -8292 +/-4 delay 7 +/-0 26 s2 freq phc2sys[433.560]: eth1 phc offset -8290 phc2sys[434.440]: eth4 phc offset 16 s2 freq -8293 ptp41[434.531]: rms 7 (-8300 +/-8 +/-0 4 max 7) freq 5 delay phc2sys[434.610]: eth1 phc offset 19 s2 freq -8289 phc2sys[435.460]: eth4 phc offset 22 s2 freq -8282 phc2sys[435.460]: eth1 phc offset 18 s2 freq -8285 ptp41[435.531]: rms 9 max 12 (12) freq -8284 +/-6 delay 7 +/-0 phc2sys[436.487]: eth4 phc offset 34 s2 freq -8263 phc2sys[436.500]: eth1 phc offset 32 s2 freq -8265 ptp41[436.532]: rms 13 max 15) freq -8267 +/-8 +/-1 15 (8, 4 delay phc2sys[437.440]: eth4 phc offset 38 s2 freq -8249 ptp41[437.532]: rms 8 max 13 (13) freq -8262 + / -3 delay 8 +/-1 41 s2 freq phc2sys[437.550]: eth1 phc offset -8247 phc2sys[438.460]: eth4 phc offset 22 s2 freq -8254 phc2sys[438.600]: eth1 phc offset -8245 30 s2 freq ptp41[438.658]: rms 3 max 6 (-6, -8269 +/-8 +/-0 4) freq 4 delay [439.421998] cpts_1pps_latch_interrupt 100

_			_
phc2sys[439.480]: eth4]	=	4 s2 freq -8265	
phc2sys[439.480]: eth1	=	1 s2 freq -8265	/
± ± -	4 max 6 (+/- 0
phc2sys[440.440]: eth4		3 s2 freq -8265	
phc2sys[440.490]: eth1]		-5 s2 freq -8271	/
	4 max 8 ((-8, 5) freq -8265 +/- 5 delay 8 -2 s2 freq -8269	+/- 0
phc2sys[441.460]: eth4 phc2sys[441.540]: eth1 phc2sys[441.540]:		-5 s2 freq -8272	
	3 max 7 (<u>-</u>	+/- 1
phc2sys[442.480]: eth4		1 s2 freq -8267	1/ 1
phc2sys[442.590]: eth1		11 s2 freq -8258	
	4 max 6 (+/- 0
phc2sys[443.440]: eth4		-3 s2 freq -8270	•
phc2sys[443.441]: eth1	=	0 s2 freq -8266	
ptp41[443.659]: rms	2 max 3 ((-3, 2) freq $-8269 + / - 2$ delay	+/- 0
phc2sys[444.460]: eth4]	phc offset	6 s2 freq -8262	
phc2sys[444.480]: eth1]	phc offset	1 s2 freq -8265	
	7 max 10 (+/- 0
phc2sys[445.480]: eth4		13 s2 freq -8254	
phc2sys[445.530]: eth1		9 s2 freq -8256	
	4 max 8 (+/- 0
phc2sys[446.440]: eth4		11 s2 freq -8252	
phc2sys[446.580]: eth1]		13 s2 freq -8250	/
	5 max 9 (+/- 0
phc2sys[447.460]: eth4 phc2sys[447.630]: eth1 phc2sys[447.630]: eth1		12 s2 freq -8247 17 s2 freq -8242	
	5 max 9 (+/- 0
phc2sys[448.480]: eth4		-7 s2 freq -8263	17
phc2sys[448.480]: eth1		-10 s2 freq -8264	
	3 max 6 (<u>-</u>	+/- 0
phc2sys[449.440]: eth4		4 s2 freq -8254	,
phc2sys[449.520]: eth1		1 s2 freq -8256	
	8 max 13 ((-1, 13) freq $-8246 +/-$ 6 delay 7	+/- 0
phc2sys[450.460]: eth4]	phc offset	6 s2 freq -8251	
phc2sys[450.570]: eth1]		7 s2 freq -8249	
	3 max 5 (+/- 0
phc2sys[451.480]: eth4		-4 s2 freq -8259	
phc2sys[451.620]: eth1	=	-3 s2 freq -8257	/
	4 max 7 (+/- 0
phc2sys[452.440]: eth4 j		-7 s2 freq -8263 -11 s2 freq -8266	
phc2sys[452.460]: eth1 ptp41[452.913]: rms			+/- 0
phc2sys[453.460]: eth4			17- 0
phc2sys[453.510]: eth1			
<u> </u>			+/- 0
phc2sys[454.480]: eth4		-28 s2 freq -8294	.,
phc2sys[454.560]: eth1		-23 s2 freq -8289	
	5 max 7 (+/- 0
phc2sys[455.440]: eth4]	phc offset	-26 s2 freq -8300	
phc2sys[455.610]: eth1]		-26 s2 freq -8299	
	6 max 9 (+/- 0
phc2sys[456.460]: eth4		-1 s2 freq -8283	
phc2sys[456.460]: eth1		-10 s2 freq -8291	
ptp41[457.039]: rms 1:			+/- 0
phc2sys[457.480]: eth4		26 s2 freq -8256	
phc2sys[457.500]: eth1]	=	31 s2 freq -8253	/
ptp41[458.040]: rms phc2sys[458.440]: eth4]	9 max 14 ((4, 14) freq -8254 +/- 4 delay 8 28 s2 freq -8246	+/- 0
phc2sys[458.550]: eth1 j		26 s2 freq -8248	
	5 max 9 (+/- 0
phc2sys[459.460]: eth4		14 s2 freq -8252	, ,
phc2sys[459.600]: eth1		15 s2 freq -8252	
ptp41[460.040]: rms			+/- 0
phc2sys[460.480]: eth4]		-1 s2 freq -8263	
phc2sys[460.480]: eth1		6 s2 freq -8256	