BMIPS DeviceTree Booting

Some bootloaders only support a single entry point, at the start of the kernel image. Other bootloaders will jump to the ELF start address. Both schemes are supported; CONFIG_BOOT_RAW=y and CONFIG_NO_EXCEPT_FILL=y, so the first instruction immediately jumps to kernel_entry().

Similar to the arch/arm case (b), a DT-aware bootloader is expected to set up the following registers:

a0 : 0

a1 : 0xffffffff

a2 : Physical pointer to the device tree block (defined in chapter II) in RAM. The device tree can be located anywhere in the first 512MB of the physical address space (0x00000000 - 0x1fffffff), aligned on a 64 bit boundary.

Legacy bootloaders do not use this convention, and they do not pass in a DT block. In this case, Linux will look for a builtin DTB, selected via CONFIG_DT_*.

This convention is defined for 32-bit systems only, as there are not currently any 64-bit BMIPS implementations.