ATLAS TDAQ SysAdmins
SoC status report

SoC Interest Group Meeting May 24th, 2023

ATLAS TDAQ SysAdmins

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UEFI

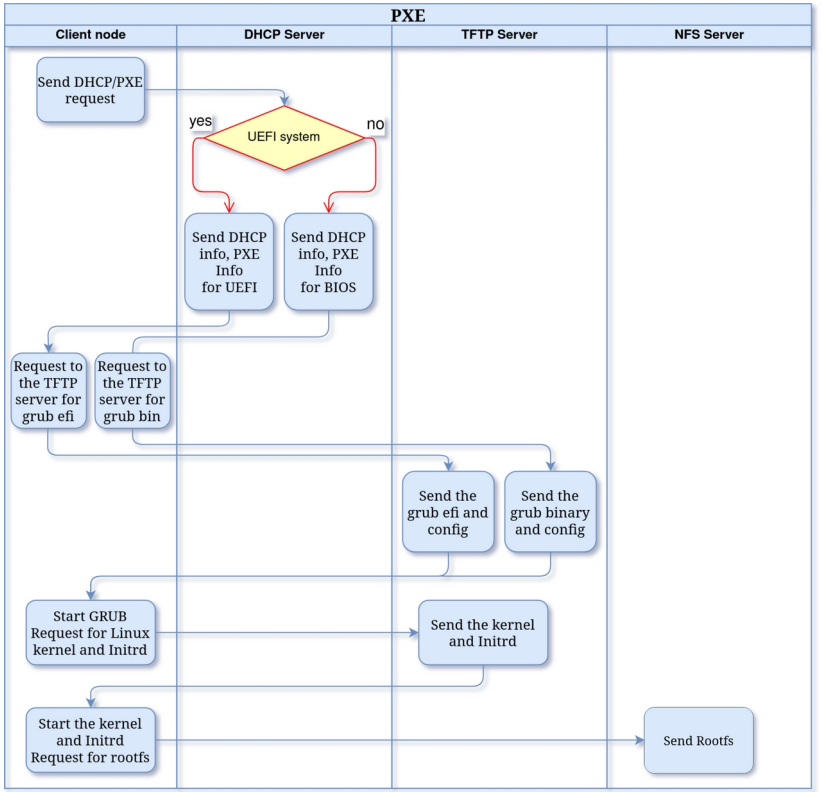
- UEFI (Unified Extensible Firmware Interface) is the replacement for the legacy BIOS (Basic Input/Output System).
- BIOS is not anymore available on the newest hardware and OS.
- UEFI also starts to become the standard for aarch64
  - Especially, for the usage of vanilla and RedHat Linux kernel with Xilinx SoC.

UEFI integration

- option 93:

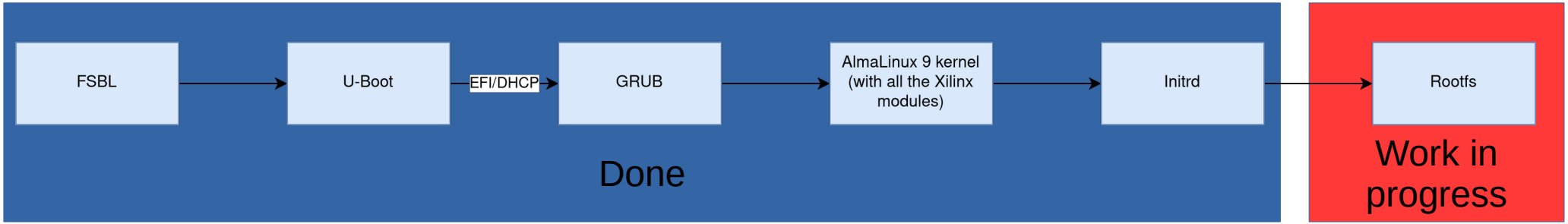
```
if option pxe-system-type = 00:07 {
    filename "grub/grubx64.efi";
} else if option pxe-system-type = 00:08 {
    filename "grub/grubx64.efi";
} else if option pxe-system-type = 00:09 {
    filename "grub/grubx64.efi";
} else if option pxe-system-type = 00:16 {
    filename "grub/grubaa64.efi";
} else {
    option pxelinux.configfile = concat("pxe/",host-decl-name);
    option pxelinux.reboottime 30;
    filename "bwmpxelinux.0";
    # filename "grub/grub.0"
}
```

- UEFI is now supported for x86_64, in TDAQ TestBed and Point 1.
- GRUB configuration generation script is ready and can be used also to boot using aarch64 grub UEFI.



Bootflow

- The base bootflow is completed
- The AlmaLinux 9 kernel is compiled using a Gitlab-CI pipeline, which built the kernel, initrd and rpms
- Next step is to build the rootfs like the one used for the x86 netbooted systems



Status

- UEFI integration is done
- Kernel base configuration and build process is done
- Initrd base configuration and build process is done

- Next step:
  - Build the rootfs following the current build system used for the netbooted x86_64 nodes