

## Design Document for RTC Driver



## 1 Outline

This document describes the RTC driver in Linux kernel of MVF TOWER BOARD (XTWR-VF600) with MVF SoC.

## 2 Existing code to be changed

### 2.1 Source

- Secure Real Time Clock

Based on the driver below.

Drivers/rtc/rtc-snvs.c

### 2.2 Modifications

- Add definition of Platform resource

For arch/arm/plat-mxc/devices/platform-imx\_snvs\_rtc.c, the following definition is added.

```
const struct imx_snvs_rtc_data vf6xx_imx_snvs_rtc_data __initconst =  
    imx_snvs_rtc_data_entry_single(VF6XX);
```

Define RTC base address and IRQ, and made adjustment so that RTC driver can prove.

- Register Platform resource

In order to register this RTC driver for initialization process of mach-mvf/board-twr\_vf600.c, add function call vf6xx\_add\_imx\_snvs\_rtc(); and register resource.

## 3 API of new functions

None

## 4 Expected register settings

None

## 5 Expected functionality and usage

Since the Real Time clock framework (`rts_ops_class`) is utilized for this RTC driver, the operation complies with it,

## 6 Any other pertinent information

To use this RTC driver, enable `CONFIG_RTC_DRV_SNVS`.