

watchdog

系统stability检测工具

Agenda

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watchdog总体流程



解析设备树中watchdog参数

msm_wdog_dt_to_pdata

```
wdog: qcom,wdt@17c10000{
    compatible = "qcom,msm-watchdog";
    reg = <0x17c10000 0x1000>;    →wdog_data.phys_base = 0x17c10000, wdog_data.size = 0x1000
    reg-names = "wdt-base";
    interrupts = <0 0 0>, <0 1 0>;    →bark irq hwirq = 0x20, bite irq hwirq = 0x21(wdog_data中的bark_irq和bite_irq是
虚拟中断号)
    qcom,bark-time = <11000>;    →wdog_data.bark_time = 11s
    qcom,pet-time = <9360>;    →wdog_data.pet_time = 9.36s
    qcom,ipi-ping;    →wdog_data.do_ipi_ping = true
    qcom,wakeup-enable;    →wdog_data.wakeup_irq_enable = true
    qcom,scandump-size = <0x10100 0x10100 0x10100 0x10100
0x18100 0x18100 0x18100 0x18100>;
};
```

设置pet_timer

init_watchdog_data

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devm_request_irq

注册bark irq中断处理函数wdog_bark_handler

set bark_time

write bark_time to register WDT0_BARK_TIME

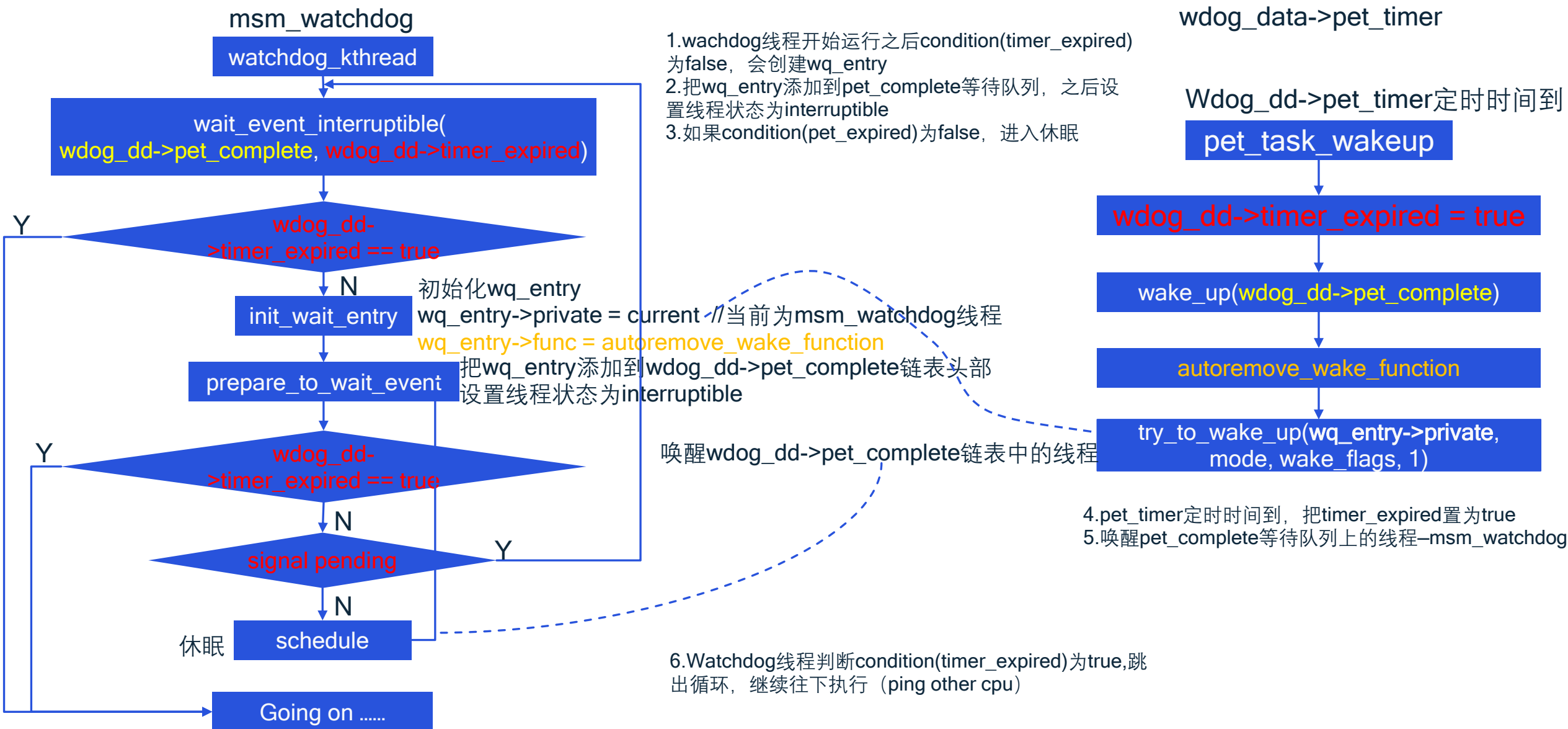
set pet_timer

wdog_data->pet_timer.data = wdog_data
wdog_data->pet_timer.function = pet_task_wakeup
wdog_data->pet_timer.expires = jiffies+msecs_to_jiffies(wdog_data->pet_time)

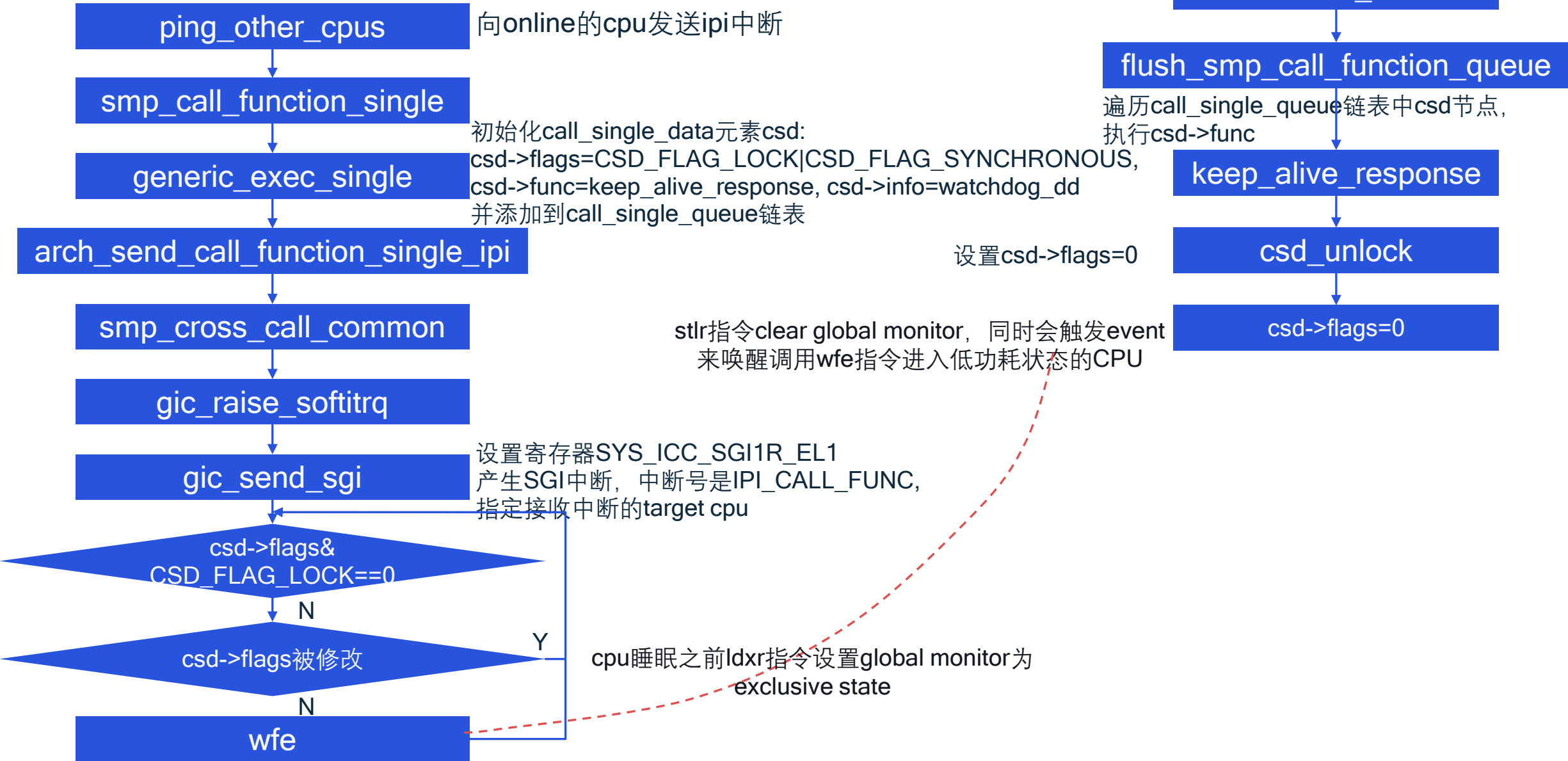
first time to pet wdog

write 1 to register WDT0_RST

唤醒msm_watchdog线程



向其他cpu发送ipi中断



watchdog bark

wdog_bark_handler

