Subject: [PATCH 1/4] Container Freezer: Add TIF_FREEZE flag to all architectures
Posted by Matt Helsley on Mon, 07 Jul 2008 22:58:24 GMT
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From: Cedric Le Goater <clg@fr.ibm.com>
Subject: [PATCH 1/4] Container Freezer: Add TIF_FREEZE flag to all architectures

This patch is the first step in making the refrigerator() available
to all architectures, even for those without power management.

The purpose of such a change is to be able to use the refrigerator()
in a new control group subsystem which will implement a control group
freezer.

Signed-off-by: Cedric Le Goater <clg@fr.ibm.com>
Signed-off-by: Matt Helsley <matthltc@us.ibm.com>
Tested-by: Matt Helsley <matthltc@us.ibm.com>
---
 include/asm-alpha/thread_info.h | 2 ++
 include/asm-avr32/thread_info.h | 2 ++
 include/asm-cris/thread_info.h | 2 ++
 include/asm-h8300/thread_info.h | 2 ++
 include/asm-m68k/thread_info.h | 1 +
 include/asm-m68knommu/thread_info.h | 2 ++
 include/asm-parisc/thread_info.h | 2 ++
 include/asm-s390/thread_info.h | 2 ++
 include/asm-sparc/thread_info.h | 2 ++
 include/asm-sparc64/thread_info.h | 2 ++
 include/asm-um/thread_info.h | 2 ++
 include/asm-xtensa/thread_info.h | 2 ++
 12 files changed, 23 insertions(+)

Index: linux-2.6.26-rc5-mm2/include/asm-alpha/thread_info.h
===
--- linux-2.6.26-rc5-mm2.orig/include/asm-alpha/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-alpha/thread_info.h
@@ -72,16 +72,18 @@ register struct thread_info *__current_t
 #define TIF_UAC_NOPRINT 5 /* see sysinfo.h */
 #define TIF_UAC_NOFIX 6
 #define TIF_UAC_SIGBUS 7
 #define TIF_MEMDIE 8
 #define TIF_RESTORE_SIGMASK 9 /* restore signal mask in do_signal */
+#define TIF_FREEZE 19 /* is freezing for suspend */

 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)

```
 #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)

 /* Work to do on interrupt/exception return.  */
 #define _TIF_WORK_MASK  (_TIF_SIGPENDING | _TIF_NEED_RESCHED)

 /* Work to do on any return to userspace.  */
Index: linux-2.6.26-rc5-mm2/include/asm-avr32/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-avr32/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-avr32/thread_info.h
@@ -82,10 +82,11 @@ static inline struct thread_info *curren
 #define TIF_BREAKPOINT  4 /* enter monitor mode on return */
 #define TIF_SINGLE_STEP  5 /* single step in progress */
 #define TIF_MEMDIE  6
 #define TIF_RESTORE_SIGMASK 7 /* restore signal mask in do_signal */
 #define TIF_CPU_GOING_TO_SLEEP 8 /* CPU is entering sleep 0 mode */
+#define TIF_FREEZE  19 /* is freezing for suspend */
 #define TIF_DEBUG  30 /* debugging enabled */
 #define TIF_USERSPACE  31      /* true if FS sets userspace */

 #define _TIF_SYSCALL_TRACE (1 << TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1 << TIF_SIGPENDING)
@@ -93,10 +94,11 @@ static inline struct thread_info *curren
 #define _TIF_POLLING_NRFLAG (1 << TIF_POLLING_NRFLAG)
 #define _TIF_SINGLE_STEP (1 << TIF_SINGLE_STEP)
 #define _TIF_MEMDIE  (1 << TIF_MEMDIE)
 #define _TIF_RESTORE_SIGMASK (1 << TIF_RESTORE_SIGMASK)
 #define _TIF_CPU_GOING_TO_SLEEP (1 << TIF_CPU_GOING_TO_SLEEP)
+#define _TIF_FREEZE  (1 << TIF_FREEZE)

 /* Note: The masks below must never span more than 16 bits! */

 /* work to do on interrupt/exception return */
 #define _TIF_WORK_MASK    \
Index: linux-2.6.26-rc5-mm2/include/asm-cris/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-cris/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-cris/thread_info.h
@@ -86,17 +86,19 @@ struct thread_info {
 #define TIF_SIGPENDING  2 /* signal pending */
 #define TIF_NEED_RESCHED 3 /* rescheduling necessary */
 #define TIF_RESTORE_SIGMASK 9 /* restore signal mask in do_signal() */
 #define TIF_POLLING_NRFLAG 16 /* true if poll_idle() is polling TIF_NEED_RESCHED */
 #define TIF_MEMDIE  17
+#define TIF_FREEZE  19 /* is freezing for suspend */

 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
```

```
 #define _TIF_NOTIFY_RESUME (1<<TIF_NOTIFY_RESUME)
 #define _TIF_SIGPENDING  (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
 #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)

 #define _TIF_WORK_MASK  0x0000FFFE /* work to do on interrupt/exception return */
 #define _TIF_ALLWORK_MASK 0x0000FFFF /* work to do on any return to u-space */

 #endif /* __KERNEL__ */
Index: linux-2.6.26-rc5-mm2/include/asm-h8300/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-h8300/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-h8300/thread_info.h
@@ -87,17 +87,19 @@ static inline struct thread_info *curren
 #define TIF_NEED_RESCHED 2 /* rescheduling necessary */
 #define TIF_POLLING_NRFLAG 3 /* true if poll_idle() is polling
        TIF_NEED_RESCHED */
 #define TIF_MEMDIE  4
 #define TIF_RESTORE_SIGMASK 5 /* restore signal mask in do_signal() */
+#define TIF_FREEZE  19 /* is freezing for suspend */

 /* as above, but as bit values */
 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
 #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)

 #define _TIF_WORK_MASK  0x0000FFFE /* work to do on interrupt/exception return */

 #endif /* __KERNEL__ */

Index: linux-2.6.26-rc5-mm2/include/asm-m68k/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-m68k/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-m68k/thread_info.h
@@ -50,7 +50,8 @@ struct thread_info {
 #define TIF_SIGPENDING  6 /* signal pending */
 #define TIF_NEED_RESCHED 7 /* rescheduling necessary */
 #define TIF_DELAYED_TRACE 14 /* single step a syscall */
 #define TIF_SYSCALL_TRACE 15 /* syscall trace active */
 #define TIF_MEMDIE  16
+#define TIF_FREEZE  19 /* thread is freezing for suspend */

 #endif /* _ASM_M68K_THREAD_INFO_H */
```

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Index: linux-2.6.26-rc5-mm2/include/asm-m68knommu/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-m68knommu/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-m68knommu/thread_info.h
@@ -82,16 +82,18 @@ static inline struct thread_info *curren
 #define TIF_SIGPENDING  1 /* signal pending */
 #define TIF_NEED_RESCHED 2 /* rescheduling necessary */
 #define TIF_POLLING_NRFLAG 3 /* true if poll_idle() is polling
        TIF_NEED_RESCHED */
 #define TIF_MEMDIE  4
+#define TIF_FREEZE  19 /* is freezing for suspend */

 /* as above, but as bit values */
 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)

 #define _TIF_WORK_MASK  0x0000FFFE /* work to do on interrupt/exception return */

 #endif /* __KERNEL__ */

Index: linux-2.6.26-rc5-mm2/include/asm-parisc/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-parisc/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-parisc/thread_info.h
@@ -56,17 +56,19 @@ struct thread_info {
 #define TIF_NEED_RESCHED 2 /* rescheduling necessary */
 #define TIF_POLLING_NRFLAG 3 /* true if poll_idle() is polling TIF_NEED_RESCHED */
 #define TIF_32BIT               4       /* 32 bit binary */
 #define TIF_MEMDIE  5
 #define TIF_RESTORE_SIGMASK 6 /* restore saved signal mask */
+#define TIF_FREEZE  19 /* is freezing for suspend */

 #define _TIF_SYSCALL_TRACE (1 << TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1 << TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1 << TIF_NEED_RESCHED)
 #define _TIF_POLLING_NRFLAG (1 << TIF_POLLING_NRFLAG)
 #define _TIF_32BIT  (1 << TIF_32BIT)
 #define _TIF_RESTORE_SIGMASK (1 << TIF_RESTORE_SIGMASK)
+#define _TIF_FREEZE  (1 << TIF_FREEZE)

 #define _TIF_USER_WORK_MASK     (_TIF_SIGPENDING | \
                                  _TIF_NEED_RESCHED | _TIF_RESTORE_SIGMASK)

 #endif /* __KERNEL__ */
Index: linux-2.6.26-rc5-mm2/include/asm-s390/thread_info.h
```

```
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-s390/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-s390/thread_info.h
@@ -96,10 +96,11 @@ static inline struct thread_info *curren
 #define TIF_POLLING_NRFLAG 17 /* true if poll_idle() is polling
        TIF_NEED_RESCHED */
 #define TIF_31BIT  18 /* 32bit process */
 #define TIF_MEMDIE  19
 #define TIF_RESTORE_SIGMASK 20 /* restore signal mask in do_signal() */
+#define TIF_FREEZE  21 /* thread is freezing for suspend */

 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
 #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
 #define _TIF_SIGPENDING  (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
@@ -108,10 +109,11 @@ static inline struct thread_info *curren
 #define _TIF_SINGLE_STEP (1<<TIF_SINGLE_STEP)
 #define _TIF_MCCK_PENDING (1<<TIF_MCCK_PENDING)
 #define _TIF_USEDFPU  (1<<TIF_USEDFPU)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
 #define _TIF_31BIT  (1<<TIF_31BIT)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)

 #endif /* __KERNEL__ */

 #define PREEMPT_ACTIVE  0x4000000

Index: linux-2.6.26-rc5-mm2/include/asm-sparc/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-sparc/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-sparc/thread_info.h
@@ -137,17 +137,19 @@ BTFIXUPDEF_CALL(void, free_thread_info,
 #define TIF_USEDFPU  8 /* FPU was used by this task
      * this quantum (SMP) */
 #define TIF_POLLING_NRFLAG 9 /* true if poll_idle() is polling
      * TIF_NEED_RESCHED */
 #define TIF_MEMDIE  10
+#define TIF_FREEZE  19 /* is freezing for suspend */

 /* as above, but as bit values */
 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
 #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
 #define _TIF_USEDFPU  (1<<TIF_USEDFPU)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)
```

```
 #endif /* __KERNEL__ */

 #endif /* _ASM_THREAD_INFO_H */
Index: linux-2.6.26-rc5-mm2/include/asm-sparc64/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-sparc64/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-sparc64/thread_info.h
@@ -214,10 +214,11 @@ register struct thread_info *current_thr
  *       an immediate value in instructions such as andcc.
  */
 #define TIF_ABI_PENDING  12
 #define TIF_MEMDIE  13
 #define TIF_POLLING_NRFLAG 14
+#define TIF_FREEZE  19 /* is freezing for suspend */

 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
 #define _TIF_PERFCTR  (1<<TIF_PERFCTR)
@@ -225,10 +226,11 @@ register struct thread_info *current_thr
 #define _TIF_32BIT  (1<<TIF_32BIT)
 #define _TIF_SECCOMP  (1<<TIF_SECCOMP)
 #define _TIF_SYSCALL_AUDIT (1<<TIF_SYSCALL_AUDIT)
 #define _TIF_ABI_PENDING (1<<TIF_ABI_PENDING)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)

 #define _TIF_USER_WORK_MASK ((0xff << TI_FLAG_WSAVED_SHIFT) | \
     (_TIF_SIGPENDING | \
      _TIF_NEED_RESCHED | _TIF_PERFCTR))

Index: linux-2.6.26-rc5-mm2/include/asm-um/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-um/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-um/thread_info.h
@@ -67,15 +67,17 @@ static inline struct thread_info *curren
       */
 #define TIF_RESTART_BLOCK  4
 #define TIF_MEMDIE   5
 #define TIF_SYSCALL_AUDIT 6
 #define TIF_RESTORE_SIGMASK 7
+#define TIF_FREEZE  19 /* is freezing for suspend */

 #define _TIF_SYSCALL_TRACE (1 << TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1 << TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1 << TIF_NEED_RESCHED)
 #define _TIF_POLLING_NRFLAG     (1 << TIF_POLLING_NRFLAG)
 #define _TIF_MEMDIE  (1 << TIF_MEMDIE)
```

```
 #define _TIF_SYSCALL_AUDIT (1 << TIF_SYSCALL_AUDIT)
 #define _TIF_RESTORE_SIGMASK (1 << TIF_RESTORE_SIGMASK)
+#define _TIF_FREEZE  (1 << TIF_FREEZE)

 #endif
Index: linux-2.6.26-rc5-mm2/include/asm-xtensa/thread_info.h
===================================================================
--- linux-2.6.26-rc5-mm2.orig/include/asm-xtensa/thread_info.h
+++ linux-2.6.26-rc5-mm2/include/asm-xtensa/thread_info.h
@@ -132,18 +132,20 @@ static inline struct thread_info *curren
 #define TIF_SINGLESTEP  3 /* restore singlestep on return to user mode */
 #define TIF_IRET  4 /* return with iret */
 #define TIF_MEMDIE  5
 #define TIF_RESTORE_SIGMASK 6 /* restore signal mask in do_signal() */
 #define TIF_POLLING_NRFLAG 16 /* true if poll_idle() is polling TIF_NEED_RESCHED */
+#define TIF_FREEZE  19 /* is freezing for suspend */

 #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
 #define _TIF_SIGPENDING  (1<<TIF_SIGPENDING)
 #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
 #define _TIF_SINGLESTEP  (1<<TIF_SINGLESTEP)
 #define _TIF_IRET  (1<<TIF_IRET)
 #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
 #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
+#define _TIF_FREEZE  (1<<TIF_FREEZE)

 #define _TIF_WORK_MASK  0x0000FFFE /* work to do on interrupt/exception return */
 #define _TIF_ALLWORK_MASK 0x0000FFFF /* work to do on any return to u-space */

 /*

--
```