
Subject: [patch 1/5][RFC - ipv4/udp checkpoint/restart] : add lookup for unhashed inode

Posted by [Daniel Lezcano](#) on Wed, 06 Jun 2007 12:18:07 GMT

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The socket relies on the sockfs. In some cases, the socket are orphans and it is not possible to access them via a file descriptor, this is the case for example for timewait sockets. Hopefully, an inode is still usable to specify a socket. This one can be retrieved from /proc/net/tcp for orphan sockets or from a fstat.

When a socket is created the socket inode is added to the sockfs. Unfortunately, this one is not stored into the hashed inode list, so I need a helper to browse the inode list contained in the superblock of the sockfs.

This is one solution, another solution is to stored the inode into the hashed list when socket is created.

Signed-off-by: Daniel Lezcano <dlezcano@fr.ibm.com>

```
fs/inode.c      | 29 ++++++
include/linux/fs.h | 1 +
2 files changed, 30 insertions(+)
```

Index: 2.6.20-cr/fs/inode.c

=====

--- 2.6.20-cr.orig/fs/inode.c

+++ 2.6.20-cr/fs/inode.c

@ @ -877,6 +877,35 @ @

```
EXPORT_SYMBOL(ilookup);
```

```
+
+/**
+ * ilookup_unhashed - search for an inode in the superblock
+ * @sb: super block of file system to search
+ * @ino: inode number to search for
+ *
+ * The ilookup_unhashed browse the superblock inode list to find the inode.
+ *
+ * If the inode is found in the inode list stored in the superblock, the inode is
+ * with an incremented reference count.
+ *
+ * Otherwise NULL is returned.
+ */
+struct inode *ilookup_unhashed(struct super_block *sb, unsigned long ino)
+{
```

```

+ struct inode *inode = NULL;
+
+ spin_lock(&inode_lock);
+ list_for_each_entry(inode, &sb->s_inodes, i_sb_list)
+ if (inode->i_ino == ino) {
+   __iget(inode);
+   break;
+ }
+ spin_unlock(&inode_lock);
+ return inode;
+
+}
+EXPORT_SYMBOL(lookup_unhashed);
+
+/**
+ * iget5_locked - obtain an inode from a mounted file system
+ * @sb: super block of file system
Index: 2.6.20-cr/include/linux/fs.h
=====
--- 2.6.20-cr.orig/include/linux/fs.h
+++ 2.6.20-cr/include/linux/fs.h
@@ -1657,6 +1657,7 @@ @@
extern struct inode *lookup5(struct super_block *sb, unsigned long hashval,
    int (*test)(struct inode *, void *), void *data);
extern struct inode *lookup(struct super_block *sb, unsigned long ino);
+extern struct inode *lookup_unhashed(struct super_block *sb, unsigned long ino);

extern struct inode * iget5_locked(struct super_block *, unsigned long, int (*test)(struct inode *,
void *), int (*set)(struct inode *, void *), void *);
extern struct inode * iget_locked(struct super_block *, unsigned long);

--

```

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