
Subject: [PATCH 3/4] SUNRPC: optimize net_ns dereferencing in rpcbind creation calls

Posted by [Stanislav Kinsbursky](#) on Tue, 04 Oct 2011 17:01:29 GMT

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Static rpcbind creation functions can be parametrized by network namespace pointer, calculated only once, instead of using init_net pointer (or taking it from current when virtualization will be completed) in many places.

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```
---
net/sunrpc/rpcb_clnt.c | 35 ++++++-----
1 files changed, 19 insertions(+), 16 deletions(-)

diff --git a/net/sunrpc/rpcb_clnt.c b/net/sunrpc/rpcb_clnt.c
index 18eba8e..ef37c55 100644
--- a/net/sunrpc/rpcb_clnt.c
+++ b/net/sunrpc/rpcb_clnt.c
@@ -161,10 +161,10 @@ static void rpcb_map_release(void *data)
     kfree(map);
 }

-static int rpcb_get_local(void)
+static int rpcb_get_local(struct net *net)
 {
     int cnt;
-    struct sunrpc_net *sn = net_generic(&init_net, sunrpc_net_id);
+    struct sunrpc_net *sn = net_generic(net, sunrpc_net_id);

     spin_lock(&sn->rpcb_clnt_lock);
     if (sn->rpcb_users)
@@ -202,9 +202,10 @@ void rpcb_put_local(void)
     return;
 }

-static void rpcb_set_local(struct rpc_clnt *clnt, struct rpc_clnt *clnt4)
+static void rpcb_set_local(struct net *net, struct rpc_clnt *clnt,
+    struct rpc_clnt *clnt4)
 {
-    struct sunrpc_net *sn = net_generic(&init_net, sunrpc_net_id);
+    struct sunrpc_net *sn = net_generic(net, sunrpc_net_id);

     /* Protected by rpcb_create_local_mutex */
     sn->rpcb_local_clnt = clnt;
@@ -212,22 +212,23 @@ static void rpcb_set_local(struct rpc_clnt *clnt, struct rpc_clnt *clnt4)
     smp_wmb();
     sn->rpcb_users = 1;
 }
```

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    dprintk("RPC:      created new rpcb local clients (rpcb_local_clnt: "
-   "%p, rpcb_local_clnt4: %p)\n", sn->rpcb_local_clnt,
-   sn->rpcb_local_clnt4);
+   "%p, rpcb_local_clnt4: %p) for net %p%s\n",
+   sn->rpcb_local_clnt, sn->rpcb_local_clnt4,
+   net, (net == &init_net) ? " (init_net)" : "");
}

/*
 * Returns zero on success, otherwise a negative errno value
 * is returned.
 */
-static int rpcb_create_local_unix(void)
+static int rpcb_create_local_unix(struct net *net)
{
    static const struct sockaddr_un rpcb_localaddr_rpcbind = {
        .sun_family = AF_LOCAL,
        .sun_path = RPCBIND SOCK_PATHNAME,
    };
    struct rpc_create_args args = {
-   .net = &init_net,
+   .net = net,
        .protocol = XPRT_TRANSPORT_LOCAL,
        .address = (struct sockaddr *)&rpcb_localaddr_rpcbind,
        .addrsz = sizeof(rpcb_localaddr_rpcbind),
@@ -260,7 +262,7 @@ static int rpcb_create_local_unix(void)
        clnt4 = NULL;
    }

-   rpcb_set_local(clnt, clnt4);
+   rpcb_set_local(net, clnt, clnt4);

out:
    return result;
@@ -270,7 +272,7 @@ out:
 * Returns zero on success, otherwise a negative errno value
 * is returned.
 */
-static int rpcb_create_local_net(void)
+static int rpcb_create_local_net(struct net *net)
{
    static const struct sockaddr_in rpcb_inaddr_loopback = {
        .sin_family = AF_INET,
@@ -278,7 +280,7 @@ static int rpcb_create_local_net(void)
        .sin_port = htons(RPCBIND_PORT),
    };
    struct rpc_create_args args = {
-   .net = &init_net,

```

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+ .net = net,
  .protocol = XPRT_TRANSPORT_TCP,
  .address = (struct sockaddr *)&rpcb_inaddr_loopback,
  .addrsz = sizeof(rpcb_inaddr_loopback),
@@ -312,7 +314,7 @@ static int rpcb_create_local_net(void)
  clnt4 = NULL;
}

```

```

- rpcb_set_local(clnt, clnt4);
+ rpcb_set_local(net, clnt, clnt4);

```

```

out:
  return result;
@@ -326,16 +328,17 @@ int rpcb_create_local(void)
{
  static DEFINE_MUTEX(rpcb_create_local_mutex);
  int result = 0;
+ struct net *net = &init_net;

```

```

- if (rpcb_get_local())
+ if (rpcb_get_local(net))
  return result;

```

```

  mutex_lock(&rpcb_create_local_mutex);
- if (rpcb_get_local())
+ if (rpcb_get_local(net))
  goto out;

```

```

- if (rpcb_create_local_unix() != 0)
- result = rpcb_create_local_net();
+ if (rpcb_create_local_unix(net) != 0)
+ result = rpcb_create_local_net(net);

```

```

out:
  mutex_unlock(&rpcb_create_local_mutex);

```
