
Subject: Running IDL RPC on Linux
Posted by [webuser](#) on Thu, 17 Mar 2005 21:33:12 GMT
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Hi,

We run IDL through the RPC interface written in C and are currently porting our application (website) from IRIX to Linux, and upgrading to IDL 6.0. We have IDL as an RPC server and our own programs as clients. Each idlrpc server handles simultaneous requests from multiple clients. A development instance typically runs 4 idlrpc servers/sessions, and a production instance runs 14 idlrpc sessions. Here are some system details:

NEW SYSTEM:

Version: IDL 6.0

OS: Linux, Debian 3.0

OLD SYSTEM:

Version: IDL 5.3

OS: IRIX64, release 6.5

Our commands for starting idlrpc sessions are:

on Linux:

```
/usr/local/rsi/idl_6.0/bin/idlrpc -server=C2500001  
/usr/local/rsi/idl_6.0/bin/idlrpc -server=C2500002  
etc.
```

on IRIX:

```
/usr/local/rsi/idl_5.3/bin/idlrpc -server=C2500001  
etc.
```

On our new system, idlrpc seems to start up correctly with such commands. The current status of porting is that web applications which are supposed to run IDL through idlrpc are not able to connect to an idlrpc server. (Error messages include "Problems acquiring server", "Can't find server", "no host".)

We have conducted these tests:

Start idlrpc without any options, so its main process looks as follows:

```
www1 3132 3121 0 17:52 pts/0 00:00:00  
/usr/local/rsi/idl_6.0/bin/bin.linux.x86/idlrpc
```

Test1 program source code:

```
-----  
#include <stdio.h>  
#include "idl_rpc.h"
```

```

int main(int argc, char **argv)
{
    CLIENT *pClient;
    int i;
    IDL_VPTR v;
    double *d;

    /* Initialize the Client */
    if((pClient = IDL_RPCInit(0, (char*)NULL)) == (CLIENT*)NULL)
    {
        fprintf(stderr, "Can't register with IDL server.\n");
        exit(1);
    }
    /* initialize the data structure */
    IDL_RPCEExecuteStr(pClient, "data=dindgen(10)");

    /* Get the data variable back from IDL */
    v = IDL_RPCGetMainVariable(pClient, "DATA");
    printf("Array is: \n");
    d=(double *) v->value.arr->data;
    for (i=0;i<v->value.arr->n_elts;i++) printf("%lf\n",d[i]);
    IDL_RPCCleanup(pClient, TRUE);
    return 1;
}

```

Output from running test1 program:

```

Array is:
0.000000
1.000000
2.000000
3.000000
4.000000
5.000000
6.000000
7.000000
8.000000
9.000000

```

Now, we try to follow the same pattern, but with a serverid. Start idlrpc with a serverid, so its main process looks as follows:

```

www1 3606 1 0 18:02 ? 00:00:00
/usr/local/rsi/idl_6.0/bin/bin.linux.x86/idlrpc -server=C2500001

```

Test2 program source code:

```

#include <stdio.h>
#include "idl_rpc.h"

int main(int argc, char **argv)
{
    CLIENT *pClient;
    int i;
    IDL_VPTR v;
    double *d;

    /* Initialize the Client */
    if((pClient = IDL_RPCInit((IDL_LONG)"C2500001", (char*)NULL)) ==
(CLIENT*)NULL)
    {
        fprintf(stderr, "Can't register with IDL server.\n");
        exit(1);
    }
    /* initialize the data structure */
    IDL_RPCExecuteStr(pClient, "data=dindgen(10)");

    /* Get the data variable back from IDL */
    v = IDL_RPCGetMainVariable(pClient, "DATA");
    printf("Array is: \n");
    d=(double *) v->value.arr->data;
    for (i=0;i<v->value.arr->n_elts;i++) printf("%lf\n",d[i]);
    IDL_RPCCleanup(pClient, TRUE);
    return 1;
}
-----

```

Output from running test2 program:

```

-----
clnttcp_create: RPC: Program not registered
Can't register with IDL server.
-----

```

Such error messages are similar to those we get from our web applications built from the same source code that worked on IRIX, so fixing this test case may help with our main problem. Do you have any suggestions?

Thanks,
webuser
