用户名不同的计算机之间的调用 dcom

DCOM 是依赖于 RPC 服务的,是一种分布式远程过程(进程)调用,调用代码在远程主机上执行,使用远程主机的系统资源,因此要有远程主机所属的访问权限,一般来说访问用户应是远程主机本地用户或主机所属的域用户,所以

第一步是在远程主机或其域上注册(获得)一个有足够权限的用户,

第二步是使用此用户令牌激活远程 COM 服务器,方法是使用CoInitializeSecurity & CoCreateInstanceEx函数(见文后例子),成功激活后就得到相关请求接口的代理,此时代理并没有对远程服务器访问的权限,

第三步是为接口代理设置访问权限,方法是使用 CoSetProxyBlanket 函数, 此后就可以使用代理指针进行方法调用了。见文后例子

以上是客户端要做的处理,至于服务器端,只要使用 CoInitializeSecurity 函数设置一下访问许可权限就可以了(有时客户端也要进行这一处理,比如使用了连接点),对于即存的服务器程序使用 dcomcfg 工具在注册表里设置也可以。

CoSetProxyBlanket 函数调用例子:

原例子:

IRecordServerLink* pRSL=(IRecordServerLink*)mq[0].pItf;

pRSL->Methods();

修改后的例子:

hr = CoSetProxyBlanket(pAccount, RPC_C_AUTHN_WINNT, RPC_C_AUTHZ_NONE,
NULL,

 $\label{eq:rpc_c_authn_level_default} \mbox{RPC_C_IMP_LEVEL_IMPERSONATE, \&caid, } \mbox{EOAC_NONE)} \; ;$

pAccount->Deposit(x);

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CoInitializeSecurity & CoCreateInstanceEx 函数调用例子:
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例子 1:
HRESULT hr;
hr = CoInitialize(NULL);
ASSERT (SUCCEEDED (hr)):
MULTI_QI qi;
qi.pIID = &IID_ICRemoteTime;
qi.hr = NULL;
qi.pItf = NULL;
COAUTHIDENTITY authidentity;
authidentity. User = L"administrator"; ///你机子的帐号
authidentity.UserLength = wcslen(authidentity.User);
authidentity.Domain = NULL;
authidentity.DomainLength = 0;
authidentity.Password = L"";
                                     ///密码
authidentity. PasswordLength = wcslen(authidentity.User);
authidentity.Flags = SEC_WINNT_AUTH_IDENTITY_UNICODE;
COAUTHINFO authinfo = {-1, 0, 0, RPC C AUTHN LEVEL DEFAULT,
     RPC C IMP LEVEL IMPERSONATE, & authidentity, 0};
COSERVERINFO servInf;
servInf.dwReserved1 = NULL:
servInf.dwReserved2 = NULL;
// servInf. pAuthInfo = NULL;
servInf.pAuthInfo = &authinfo;
USES CONVERSION;
servInf. pwszName = L"127. 0. 0. 1";
hr = CoInitializeSecurity(NULL, -1, NULL, NULL,
 RPC_C_AUTHN_LEVEL_NONE,
                               RPC C IMP LEVEL IDENTIFY,
                                                               NULL,
EOAC ACCESS CONTROL, NULL);
ASSERT (SUCCEEDED (hr));
hr = CoCreateInstanceEx(CLSID_CRemoteTime, NULL, CLSCTX_REMOTE_SERVER,
&servInf, 1, &qi);
if (FAILED(hr))
TRACE( T("CoCreateInstanceEx failed"));
return false;;
```

```
if (FAILED(qi.hr))
{
 TRACE( T("Failed to connect to server"));
return false;;
//通过 IUnkonwn 指针去查询接口指针, 返回 IAccount 指针
hr = pUnknown->QueryInterface(IID_ICRemoteTime, (void**)&pIRetime)
例子 2:
HRESULT hr = CoInitializeSecurity(NULL, -1, NULL, NULL,
  RPC C AUTHN LEVEL NONE, RPC C IMP LEVEL IDENTIFY, NULL, EOAC NONE,
NULL);
 COAUTHIDENTITY us:
 us. User
                   = m strName. AllocSysString();
 us. UserLength
                   = wcslen(us. User);
 us. Password
                   = m strPassword. AllocSysString();
 us. PasswordLength = wcslen(us. Password);
 us. Domain
                   = m strDomain. AllocSysString();
 us. DomainLength = wcslen(us. Domain);
 us. Flags
                   = SEC WINNT AUTH IDENTITY UNICODE;
 COAUTHINFO auth:
 auth.dwAuthnSvc
                           = RPC C AUTHN WINNT;
 auth.dwAuthzSvc
                           = RPC C AUTHZ NONE;
 auth.pwszServerPrincName = NULL;
                           = RPC_C_AUTHN_LEVEL_CONNECT;
 auth.dwAuthnLevel
 auth. dwImpersonationLevel = RPC C IMP LEVEL IMPERSONATE;
                         = EOAC NONE;
 auth.dwCapabilities
 auth.pAuthIdentityData
                          = &us;
COSERVERINFO si:
MULTI_QI
              qi;
 CComBSTR bstr = strComputer;
 LPWSTR name
              = bstr.m str;
```

```
si.dwReserved1 = 0;
 si.pwszName
              = name:
 si.pAuthInfo = m_bAccess ? &auth : NULL;
 si.dwReserved2 = 0;
 IID iid = __uuidof(m_pIRemoteControl);
 qi.pIID = &iid;
 qi.pItf = NULL;
 do
 {
 hr = CoCreateInstanceEx(__uuidof(RemoteControl), NULL, CLSCTX_SERVER,
&si, 1, &qi);
  if(FAILED(hr) | FAILED(qi.hr))
  break;
 m_pIRemoteControl = (IRemoteControl *)qi.pItf;
 \} while (0);
例子 3:
HRESULT hr = CoInitializeSecurity(NULL, -1, NULL, NULL,
  RPC C AUTHN LEVEL NONE, RPC C IMP LEVEL IDENTIFY, NULL, EOAC NONE,
NULL);
 COAUTHIDENTITY us:
 us. User
                   = m strName. AllocSysString();
 us. UserLength
                   = wcslen(us. User);
                   = m_strPassword. AllocSysString();
 us. Password
 us. PasswordLength = wcslen(us. Password);
                   = m_strDomain.AllocSysString();
 us.Domain
 us. DomainLength = wcslen(us. Domain);
                   = SEC_WINNT_AUTH_IDENTITY_UNICODE;
 us. Flags
 COAUTHINFO auth;
```

```
= RPC_C_AUTHN_WINNT;
auth.dwAuthzSvc
                         = RPC C AUTHZ NONE;
auth.pwszServerPrincName = NULL;
auth.dwAuthnLevel
                      = RPC C AUTHN LEVEL CONNECT;
auth.dwImpersonationLevel = RPC_C_IMP_LEVEL_IMPERSONATE;
auth.dwCapabilities = EOAC_NONE;
auth.pAuthIdentityData
                       = &us;
MULTI_QI MultiQi={&IID_IUnknown, NULL, NOERROR};
COSERVERINFO si;
CComBSTR bstr = strComputer;
LPWSTR name = bstr.m str;
si.dwReserved1 = 0;
si.pwszName
             = name;
si.pAuthInfo = m_bAccess ? &auth : NULL;
si.dwReserved2 = 0;
 hr = CoCreateInstanceEx( uuidof(RemoteControl), NULL, CLSCTX SERVER,
&si, 1, &MultiQi);
if (FAILED(hr))
 MessageBox("创建对象实例失败!");
 return;
 //通过 IUnkonwn 指针去查询接口指针, 返回 IAccount 指针
pUnknown = (IUnknown *) MultiQi.pItf;
hr = pUnknown->QueryInterface(IID IAccount, (void**)&pAccount);
if (FAILED(hr))
 MessageBox("没有查找的接口指针!");
 return false;
```

auth.dwAuthnSvc

```
}
pUnknown->Release();
```