# Curl SSPI Changes

Certain changes for curl is needed in order to make curl SSPI (required for windows auth to work seamlessly).

In get\_gss\_name function of http\_negotiate\_sspi.c, add the following lines of code:-

if (conn->bits.service\_principal)

{

infof(conn->data, "KRB5\_DATA: Curl SSPI Authentication. \n");

length = strlen(conn->service\_principal);

if(length + 1 > sizeof(neg\_ctx->server\_name))

return EMSGSIZE;

snprintf(neg\_ctx->server\_name, sizeof(neg\_ctx->server\_name), "%s",

conn->service\_principal);

return 0;

}

This would allow arbitrary spns to be passed in curl SSPI mode.

Add ISC\_REQ\_CONFIDENTIALITY | ISC\_REQ\_DELEGATE | ISC\_REQ\_MUTUAL\_AUTH in initializeSecurityContext argument. This forces delegation to be set. Note that conditional delegation requires code changes and since there was no use case, it wasn’t incorporated as a part of the code till now.

Reusal of spn struct internally:-

Inside curl\_input\_negotiate function.

Before:-

if(0 == strlen(neg\_ctx->server\_name)) {

ret = get\_gss\_name(conn, proxy, neg\_ctx);

if(ret)

return ret;

}

After:

/\* Change to allow comm to multiple hosts, earlier one conn object

could connect to only one service principal name \*/

ret = get\_gss\_name(conn, proxy, neg\_ctx);

if(ret)

return ret;

Impact of change: Without this, the same curl object could not be used in connect to different locations (with different spns). This was done as a part of a CR which involved PC Client to connect to different domains during configure domain operation.