OPM - SCRD Windows Integrated Security - PoC Assembly v1.0
Deployment Guide

Revision History

Author	Revision Number	Date
TCSASSEMBLER	1.0	09/19/2013

Deployment Instructions

1. Organization of Submission

The content of submission follows directory structure provided below:

> ***conf*** – *contains the configuration files for the application*
> ***docs*** – *contains the deployment guide (this document)*
> ***src/java/main*** – *contains the classes for this assembly*
> ***src/sql*** – *contains the schema definition and utility sql files used*
> ***test_files*** - *contains the jboss configuration files and etc used during verification*
> ***build.xml*** –*the Ant build file.*
> ***build.properties*** – *the build properties file*

2. Application Setup

2.1 build.properties File

build.properties, the properties introduced in this assembly.

Property Name	Description
jboss_home	jboss home directory
war.dist.name	war file name

2.2 Build Scripts Setup

- clean – cleans the build
- compile – compiles all the java files
- war - package all sources as war
- deploy- deploy war to jboss

2.3 Environment:

Java 1.6 http://www.oracle.com/technetwork/java/javasebusiness/downloads/java-archive-downloads-javase6-419409.html#jdk-6u45-oth-JPR(You can not use openJDK)

J2EE 1.6
Ant 1.8+
JPA2
Hibernate 4.2.3: http://www.hibernate.org/
PostgreSQL 9.2.4: http://www.postgresql.org/(use H2 database in this poc assembly)
RedHat Enterprise Linux Server 6.4: http://www.redhat.com/products/enterprise-linux/server/(use Centos 6.4 instead in this poc assembly)
JBoss Enterprise Application Platform 6.1:
http://www.redhat.com/products/jbossenterprisemiddleware/application-platform/
Windows Server 2008 R2 SP1
Active Directory
VMware or VirtualBox

3. Setup Instruction

There will be totally three computers to verify,I list OS and important softwares in below tables
I will use
AD Server to represent the computer that install active directory
JBOSS Server to represent the computer that install JBOSS eap 6.1
Windows Client to represent the computer that verify page
if you test page directly in AD Server it will not work because it will use **NTLM** not **Kerberos/SPNEGO**

so you should prepare at least three computer to verify this assembly

1

AD Server

OS	windows Server 2008 R2 SP1
Software	DNS Service,Active Directory
ip	192.168.11.162
dns	192.168.11.162
hostname	WIN-JCQFIBC8D2I.tctest.com

2

JBOSS Server

OS	Centos 6.4
Software	Oracle JDK 1.6,JBOSS EAP 6.1
ip	192.168.11.18
dns	192.168.11.162(same as AD Server)
hostname	rhel.tctest.com

3

Windows Client

OS	windows 7
Software	IE8,Firefox 23
ip	192.168.11.12
dns	192.168.11.162(same as AD Server)

I use VMware to prepare these computers you can also use VirtualBox

4. AD Server Setup

I start with clean computer with windows server 2008 R2 sp1 installed

login as **Administrator**

Start Menu->right click **Computer**->click **Manage**->click **Configuration->Local Users and Groups**

choose **Administrator** and right click **Properties** and check **Password never expires**
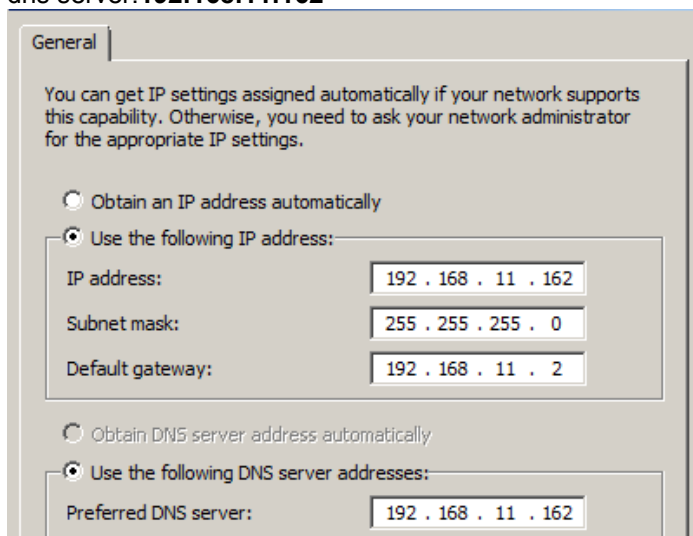
4.1 install DNS Service

configure static ip and make sure dns server **same** as current computer ip

for example this is the address of my AD Server

ip:**192.168.11.162**

subnet mask:**255.255.255.0**

gateway:**192.168.11.2**

dns server:**192.168.11.162**

Start Menu->Administrative Tools->Server Manager->Roles->**Add roles->DNS Server**
it will not succeed if you not configure static ip and dns

4.2 Install Active Directory

Start Menu->Administrative Tools->Server Manager->Roles->**Add roles->Active Directory Domain Services**
Click **Start**, click **Run**, type **dcpromo** in the text box, and then click **OK**
Create a new domain in a new forest
FQDN of the forest root domain name(tctest.com)
Forest functional level choose Windows Server 2003
Domain functional level choose Windows Server 2003

4.3 Create Groups

Start -> Administrative Tools -> Active Directory Users and Computers
Create a new group object:
select New-> Group
Group name: Batch Process
This is list of group names

Group Number	Group Name
1	Batch Process
2	Service Credit Reviewer
3	Receivables Supervisor
4	Service Credit Specialist
5	Receivables Technician
6	Service Credit Data Entry Technician
7	Financial Technician
8	Financial Supervisor
9	Information Technician
10	System Administrator
11	FACES User
12	RIO User
13	View Only User

4.4 Create Domain User

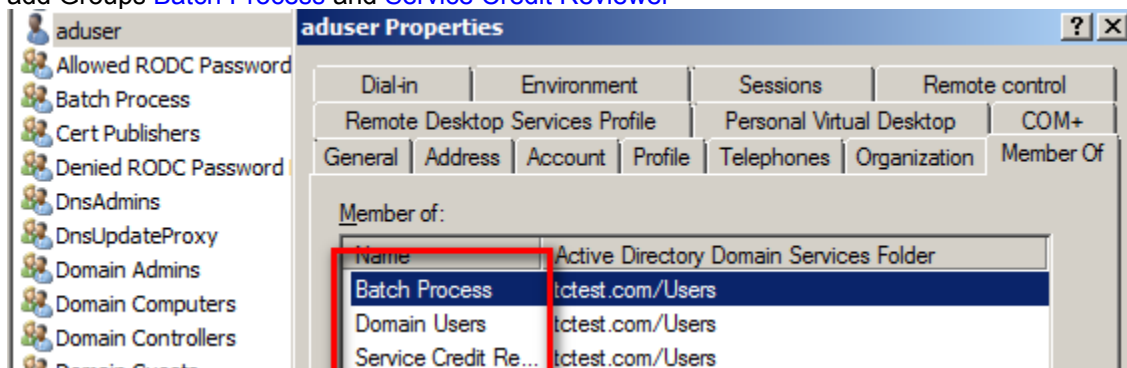Start -> Administrative Tools -> Active Directory Users and Computers
Create a new user object:
select New-> User
User name: aduser
After created right click Properties
move to **Member Of** tab
add Groups Batch Process and Service Credit Reviewer

4.5 Configure Kerberos Service Principal (keytab)

Start -> Administrative Tools -> Active Directory Users and Computers
Create a new computer object:
select New-> User
User name: **adtest**
Password:**tc0pc0AD**
only check **Password never expires**

Open **Command Prompt** with **Run as administrator**
Use the setspn utility to create the Service Principal Names (SPNs).
setspn -a HTTP/rhel.tctest.com@TCTEST.COM adtest
Registering ServicePrincipalNames for CN=adtest,CN=Users,DC=tctest,DC=com
  HTTP/rhel.tctest.com@TCTEST.COM
Updated object
ktpass /princ HTTP/rhel.tctest.com@TCTEST.COM /pass "tc0pc0AD" /mapuser adtest /out
krb5.keytab /ptype KRB5_NT_PRINCIPAL /kvno 0 /crypto RC4-HMAC-NT
Targeting domain controller: WIN-JCQFIBC8D2I.tctest.com
Successfully mapped HTTP/rhel.tctest.com to adtest.
Password successfully set!
Key created.
Output keytab to krb5.keytab:
Keytab version: 0x502
keysize 66 HTTP/rhel.tctest.com@TCTEST.COM ptype 1 (KRB5_NT_PRINCIPAL) vno 0 ety
pe 0x17 (RC4-HMAC) keylength 16 (0x305d1bf5ba53b1cd11df0cdee21de519)

you can copy this file to JBOSS Server later and test by
running
root$kdestroy
root$kinit -k -t /home/adtest/Desktop/krb5.keytab HTTP/rhel.tctest.com@TCTEST.COM
root$klist

5. JBOSS Server Setup

I start with clean computer with Centos 6.4 x64 installed with normal user **adtest**
login as **adtest**

5.1 Install softwares

change to root user first by run **su**
install Kerberos Client
root$ yum install krb5- workstation

install ldap support with Kerberos
root$ yum install openldap- clients nss-pam-ldapd pam_krb5

5.2 Configure static ip and host name

root$vi /etc/sysconfig/network-scripts/ifcfg-eth0

DEVICE="eth0"
BOOTPROTO="static"
HWADDR="00:0C:29:25:6F:62"
IPV6INIT="yes"
NM_CONTROLLED="yes"
ONBOOT="yes"
IPADDR=**192.168.11.18**
NETMASK=**255.255.255.0**
NETWORK=**192.168.11.2**
BROADCAST=**192.168.11.255**
DNS1=**192.168.11.162**
TYPE="Ethernet"
UUID="47eccc72-e9cb-41c2-9165-e549c0880cbe"

you should configure almost same as AD Server
make sure you configure **DNS** as the ip of AD Server

root$ hostname **rhel.tctest.com**
root$ vi /etc/sysconfig/network
NETWORKING=yes
HOSTNAME=**rhel.tctest.com**
root$ service network restart
add AD server ip to host if you occur error when ping tctest.com
root$ vi /etc/hosts
192.168.11.162 tctest.com
192.168.11.162 WIN-JCQFIBC8D2l
192.168.11.162 WIN-JCQFIBC8D2l.tctest.com

you can verify by running root$ ping tctest.com
it should return successful message
Stop Firewall
root$ service iptables stop

5.3 Configure Kerberos Client

root$ vi /etc/krb5.conf

[logging]
 default = FILE:/var/log/krb5libs.log
 kdc = FILE:/var/log/krb5kdc.log

admin_server = FILE:/var/log/kadmind.log

[libdefaults]
 default_realm = **TCTEST.COM**
 dns_lookup_realm = false
 dns_lookup_kdc = false
 ticket_lifetime = 24h
 renew_lifetime = 7d
 forwardable = true

[realms]
 TCTEST.COM = {
  kdc = **WIN-JCQFIBC8D2I.tctest.com:88**
 }

[domain_realm]
 .TCTEST.COM = TCTEST.COM
 TCTEST.COM = TCTEST.COM

make sure the **time in AD Server and JBOSS Server same**
Kerberos may fail when time different more than **5** minutes between client and server
see
http://blogs.msdn.com/b/asiatech/archive/2009/04/27/kerberos-authentication-failed-due-to-time-skew.aspx
you can verify by using kinit and klist command
init for domain tctest.com
root$ kinit administrator@TCTEST.COM
Password for administrator@TCTEST.COM:
list the Ticket
root$ klist
Ticket cache: FILE:/tmp/krb5cc_0
Default principal: administrator@TCTEST.COM

Valid starting   Expires   Service principal
09/17/13 15:55:42 09/18/13 01:55:52 krbtgt/TCTEST.COM@TCTEST.COM
        renew until 09/24/13 15:55:42

5.4 Install JDK6

Please remove openjdk first
root$ rpm -qa | grep java
if found try to run command the rpm package name may change
root$rpm -e --nodeps java-1.6.0-openjdk-1.6.0.0-1.7.b09.el5
install jdk at
http://www.oracle.com/technetwork/java/javasebusiness/downloads/java-archive-downloads-javase6-419409.html#jdk-6u45-oth-JPR
if you using x64 please use **jdk-6u45-linux-x64-rpm.bin**
otherwise please use **jdk-6u45-linux-i586-rpm.bin**
I am using x64 so use **jdk-6u45-linux-x64-rpm.bin**
root$ chmod +x jdk-6u45-linux-x64-rpm.bin
root$ ./jdk-6u45-linux-x64-rpm.bin

5.5 Install and Configure JBOSS

download JBOSS-EAP 6.1.0 Final
http://www.jboss.org/jbossas/downloads/

You can find full configuration file under test_files
unpack and modify **standalone/configuration/standalone.xml**
1
replace all **127.0.0.1** to **0.0.0.0**
so can connect to jboss server **remotely**
2
Modify Level of console handler to **TRACE**,so can easily find log information

```
      <console-handler name="CONSOLE">
        <level name="TRACE"/>
        <formatter>
          <pattern-formatter pattern="%K{level}%d{HH:mm:ss,SSS} %-5p [%c] (%t) %s%E%n"/>
        </formatter>
      </console-handler>
```

add **org.jboss.security and gov.opm.scrd** logger and set level to **TRACE**

```
  <logger category="org.jboss.security">
        <level name="TRACE"/>
      </logger>
  <logger category="gov.opm.scrd">
        <level name="TRACE"/>
      </logger>
```

3
add security domain **host** and **SPNEGO**
please replace the path of key tab file created in <u>4.5</u>

```
<security-domain name="host" cache-type="default">
            <authentication>
              <login-module code="Kerberos" flag="required">
                <module-option name="storeKey" value="true"/>
                <module-option name="useKeyTab" value="true"/>
                <module-option name="principal" value="HTTP/rhel.tctest.com@TCTEST.COM"/>
                <module-option name="keyTab" value="/home/adtest/Desktop/krb5.keytab"/>
                <module-option name="doNotPrompt" value="true"/>
                <module-option name="debug" value="true"/>
              </login-module>
            </authentication>
        </security-domain>
        <security-domain name="SPNEGO" cache-type="default">
            <authentication>
              <login-module code="org.jboss.security.negotiation.spnego.SPNEGOLoginModule"
flag="requisite">
                  <module-option name="password-stacking" value="useFirstPass"/>
                  <module-option name="serverSecurityDomain" value="host"/>
              </login-module>
              <login-module code="org.jboss.security.negotiation.spnego.AdvancedLdapLoginModule"
flag="required">
                  <module-option name="password-stacking" value="useFirstPass"/>
                  <module-option name="bindAuthentication" value="GSSAPI"/>
                  <module-option name="jaasSecurityDomain" value="host"/>
                  <module-option name="java.naming.provider.url" value="ldap://WIN-
JCQFIBC8D2I:3268"/>
                  <module-option name="baseCtxDN" value="CN=Users,DC=tctest,DC=com"/>
                  <module-option name="baseFilter" value="(userPrincipalName={0})"/>
                  <module-option name="roleAttributeID" value="memberOf"/>
                  <module-option name="roleAttributeIsDN" value="true"/>
                  <module-option name="roleNameAttributeID" value="cn"/>
```

```
                    <module-option name="recurseRoles" value="true"/>
               </login-module>
          </authentication>
     </security-domain>
```

5.6 Install Ant

Download ant 1.9.2 at http://ant.apache.org/bindownload.cgi

root$ vi /etc/profile

add content

export ANT_HOME=/home/adtest/Desktop/apache-ant-1.9.2
export PATH=$PATH:$ANT_HOME/bin

You can modify ANT_HOME to match your real path for ant

reload profile

root$ source /etc/profile

6. Windows Client Setup

I start with clean computer with Windows7 installed

6.1 Configure static ip

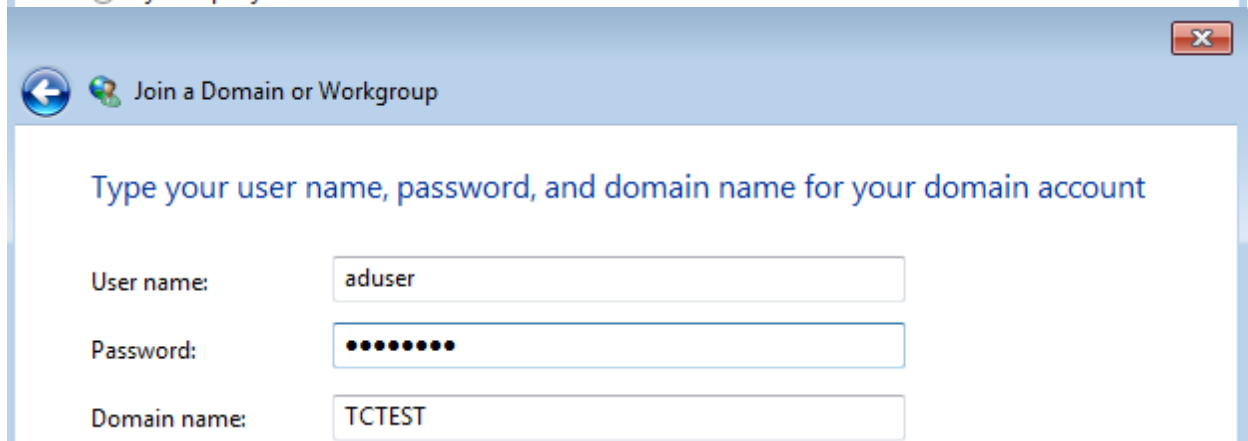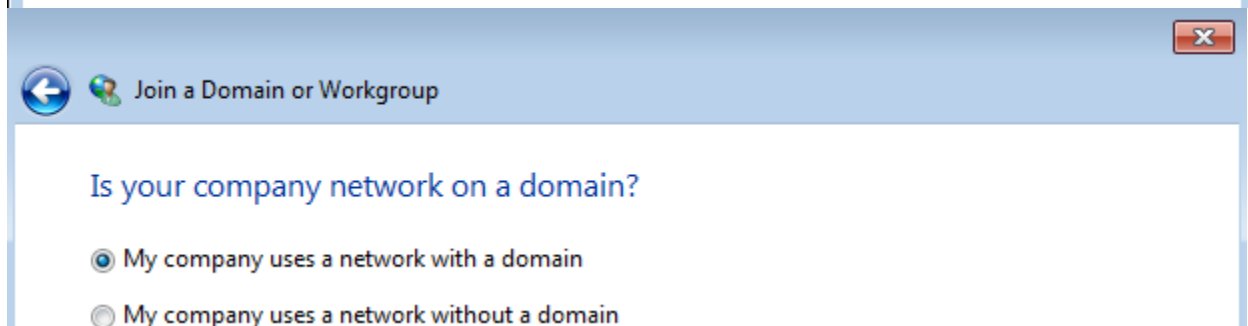ip:**192.168.11.12**
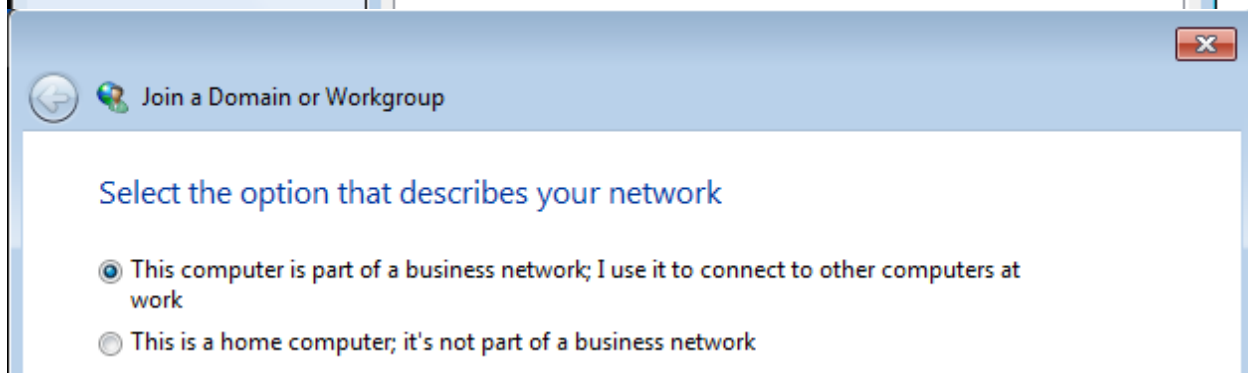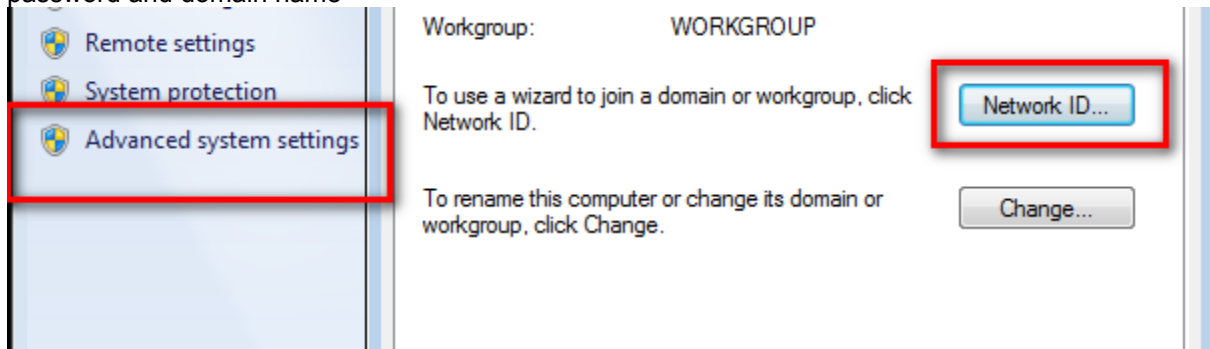subnet mask:**255.255.255.0**
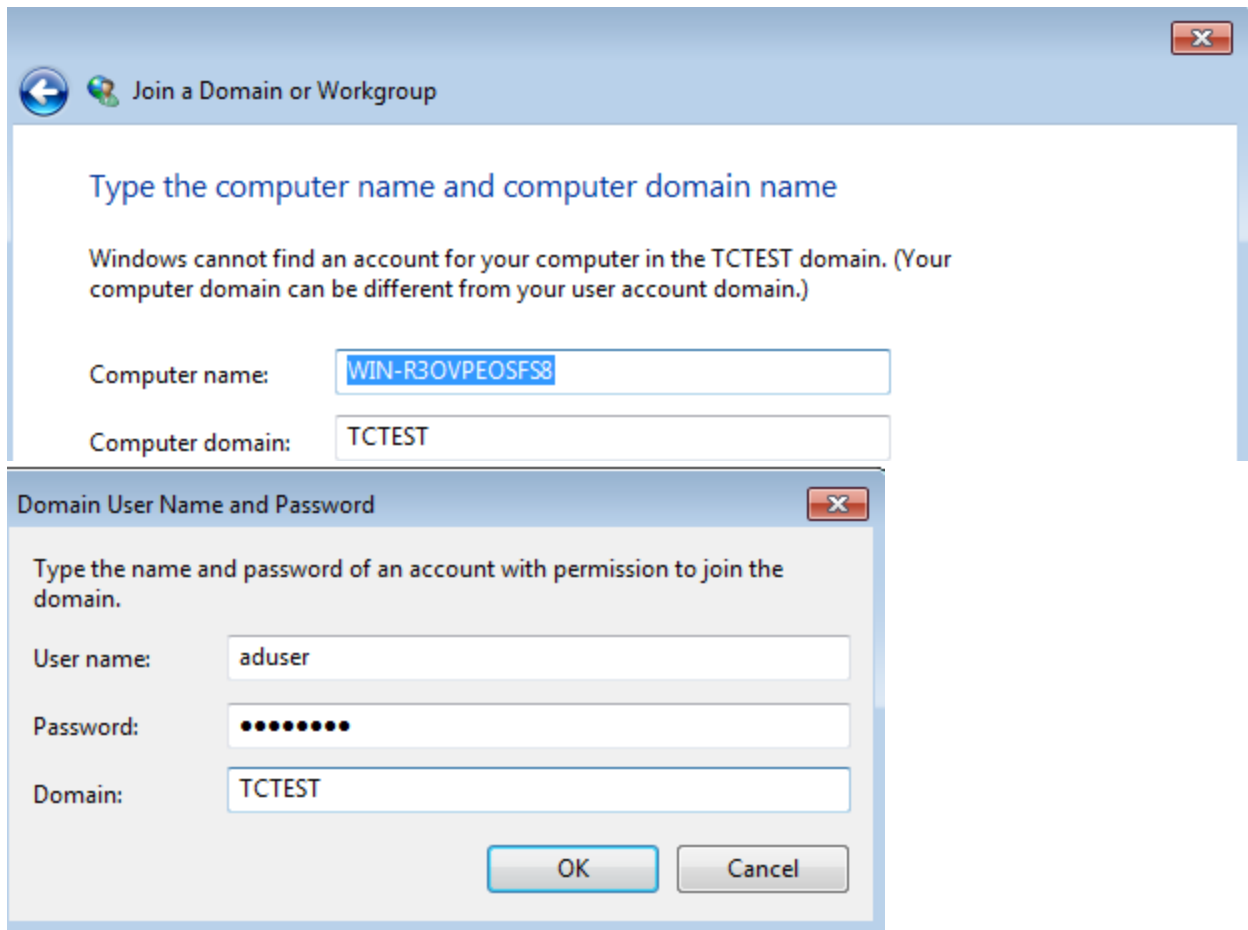gateway:**192.168.11.2**
dns server:**192.168.11.162**
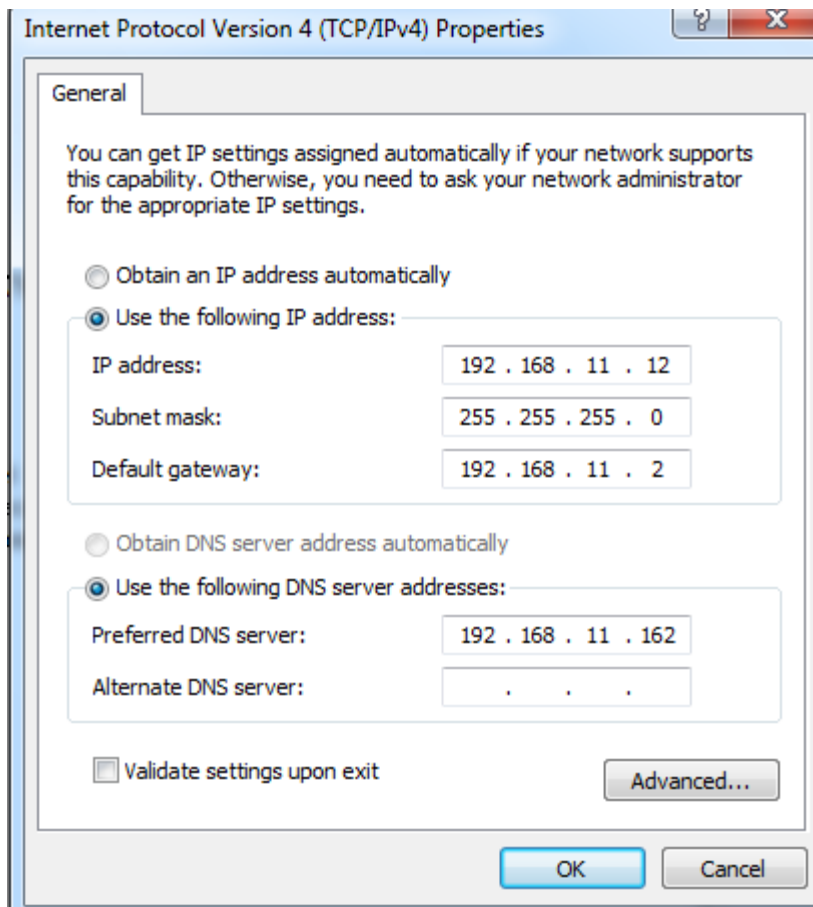
6.2 Join Domain

Start Menu->Computer right click Properties->In open System Information window click Advanced system settings
move to computer name tab->click Network ID->keep default value and input domain user name and password and domain name

[T O P **C O D E R**]®
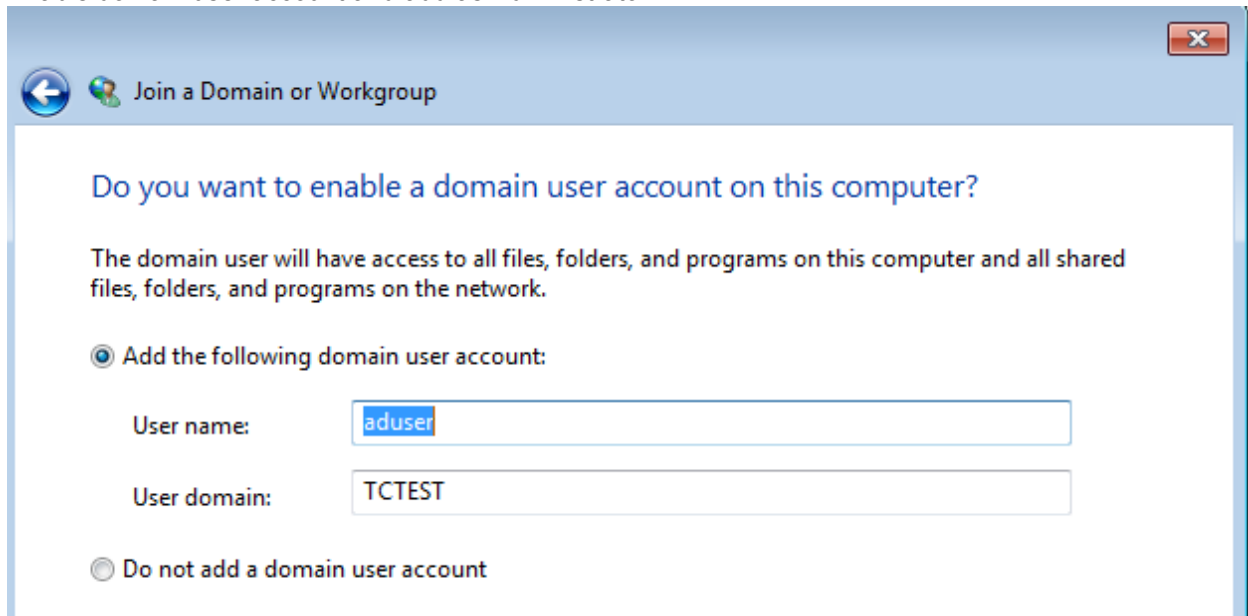
Enable domain user account and add as Administrator
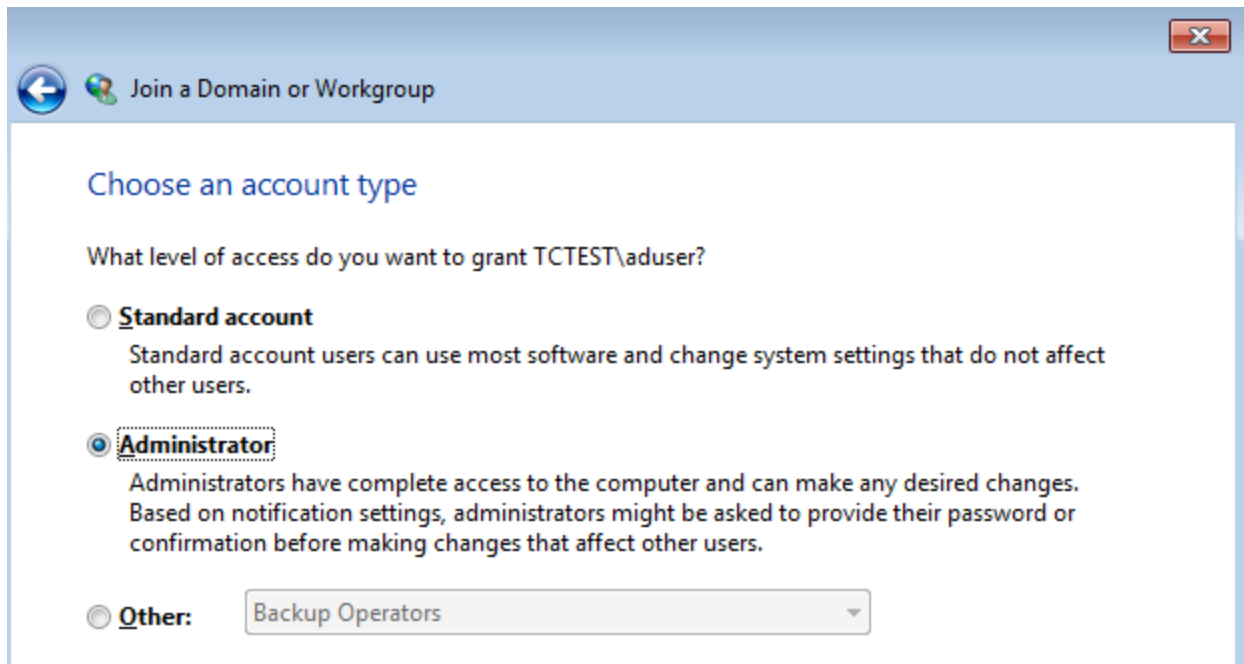
6.3 Configure host for JBOSS Server

After restart and login as Domain User aduser

View your basic network information and set up connections

WIN-R3OVPEOSFS8
(This computer)

tctest.com
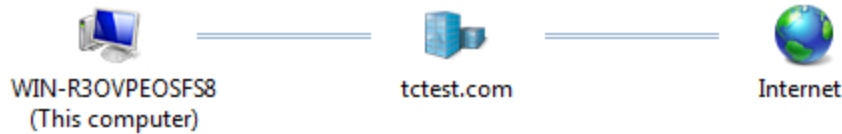
Internet

See full map

add host in C:\Windows\System32\drivers\etc\hosts
192.168.11.18 rhel.tctest.com

6.4 Configure IE

I test IE8
Tools->Internet Options
move to **Security** tab
click **Local intranet** and click Sites and click Advanced
add site **http://rhel.tctest.com**

General | Security | Privacy | Content | Connections | Programs | Advanced

Select a zone to view or change security settings.

Internet   Local intranet   Trusted sites   Restricted sites

Local intranet
This zone is for all websites that are found on your intranet.

Sites

Security level for this zone

Allowed levels for this zone: All

Medium-low
- Appropriate for we
(intranet)

Local intranet

Use the settings below to define w
the local intranet zone.

☑ Automatically detect intranet n

☐ Include all local (intranet) si

Local intranet   ✕

You can add and remove websites from this zone. All websites in this zone will use the zone's security settings.

Add this website to the zone:

[   ]   Add

Websites:

http://rhel.tctest.com   Remove

6.5 Configure Firefox

I test Firefox23
input url **about:config**
modify value
network.negotiate-auth.trusted-uris=http://rhel.tctest.com

| Search: | network.ne | | | |

Preference Name ▲	Status	Type	Value
network.negotiate-auth.allow-non-fqdn	default	boolean	false
network.negotiate-auth.allow-proxies	default	boolean	true
network.negotiate-auth.delegation-uris	default	string	
network.negotiate-auth.gsslib	default	string	
network.negotiate-auth.trusted-uris	user set	string	http://rhel.tctest.com
network.negotiate-auth.using-native-gsslib	default	boolean	true

6.6 Configure Chrome

I test Chrome 29
It will use configuration by IE,so please configure IE actually

7. Deployment Instructions

This should be done in **JBOSS Server** computer
modify **jboss_home** in **build.properties**
run **ant deploy**

8. Verification

When verify by page please test under **windows 7 Client**,when configure jboss please test under **JBOSS Server**

8.1 Browser Configuration verification

below JBOSS_HOME means path where you install JBOSS EAP 6.1
copy **test_files/jboss-negotiation-toolkit.war** to **JBOSS_HOME/standalone/deployments**
move to **JBOSS_HOME/bin** run root$./standalone.sh
open http://rhel.tctest.com:8080/jboss-negotiation-toolkit/

⭐ Favorites | 🔳 Negotiation Toolkit

Negotiation Toolkit

The NegotiationToolkit is a set of servlets that can be used to test SPNEGO.

Basic Negotiation

The Basic Negotiation servlet is a servlet that will attempt the initial stages of negotiatio
The purpose of this servlet is to verify that the client browser does respond with a SPN
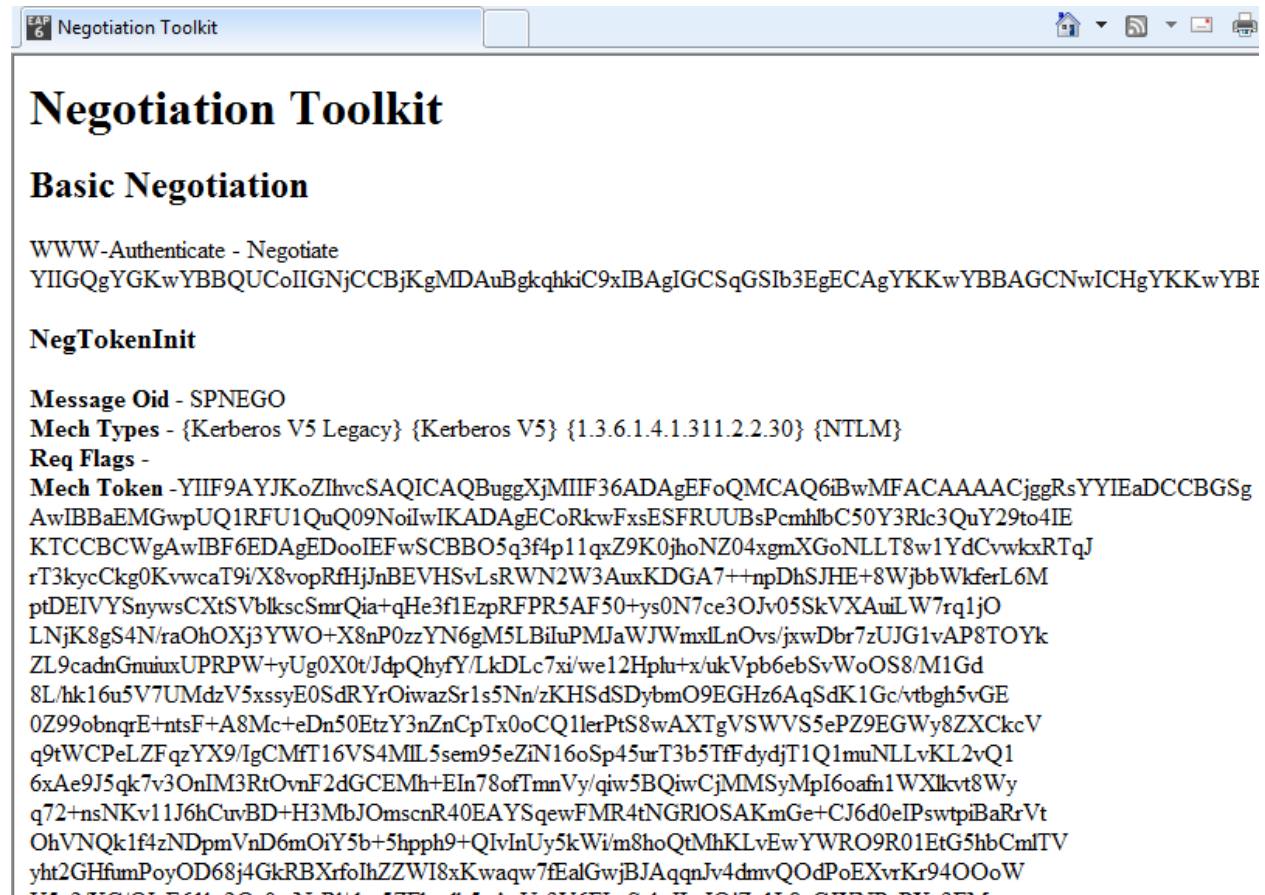Basic Negotiation

Security Domain Test

The Security Domain Test servlet is a servlet that will prompt you for the name of the s
This servlet will display the results of the authentication.
The purpose of this servlet is to verify the server can authenticate without needing a full
SecurityDomainTest

click **Basic Negotiation** link or open
http://rhel.tctest.com:8080/jboss-negotiation-toolkit/BasicNegotiation

Negotiation Toolkit

Basic Negotiation

WWW-Authenticate - Negotiate
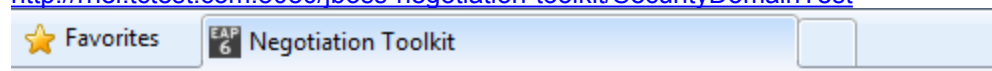YIIGQgYGKwYBBQUCoIIGNjCCBjKgMDAuBgkqhkiC9xIBAgIGCSqGSIb3EgECAgYKKwYBBAGCNwICHgYKKwYBB

NegTokenInit

Message Oid - SPNEGO
Mech Types - {Kerberos V5 Legacy} {Kerberos V5} {1.3.6.1.4.1.311.2.2.30} {NTLM}
Req Flags -
Mech Token -YIIF9AYJKoZIhvcSAQICAQBuggXjMIIF36ADAgEFoQMCAQ6iBwMFACAAAACjggRsYYIEaDCCBGSg
AwIBBaEMMGwpUQ1RFU1QuQ09NoiIwIKADAgECoRkwFxsESFRUUBsPcmhlbC50Y3Rlc3QuY29to4IE
KTCCBCWgAwIBF6EDAgEDooIEFwSCBBO5q3f4p11qxZ9K0jhoNZ04xgmXGoNLLT8w1YdCvwkxRTqJ
rT3kycCkg0KvwcaT9i/X8vopRfHjJnBEVHSvLsRWN2W3AuxKDGA7++npDhSJHE+8WjbbWkferL6M
ptDEIVYSnywsCXtSVblkscSmrQia+qHe3f1EzpRFPR5AF50+ys0N7ce3OJv05SkVXAuiLW7rq1jO
LNjK8gS4N/raOhOXj3YWO+X8nP0zzYN6gM5LBiluPMJaWJWmxlLnOvs/jxwDbr7zUJG1vAP8TOYk
ZL9cadnGnuiuxUPRPW+yUg0X0t/JdpQhyfY/LkDLc7xi/we12Hplu+x/ukVpb6ebSvWoOS8/M1Gd
8L/hk16u5V7UMdzV5xssyE0SdRYrOiwazSr1s5Nn/zKHSdSDybmO9EGHz6AqSdK1Gc/vtbgh5vGE
0Z99obnqrE+ntsF+A8Mc+eDn50EtzY3nZnCpTx0oCQ1lerPtS8wAXTgVSWVS5ePZ9EGWy8ZXCkcV
q9tWCPeLZFqzYX9/IgCMfT16VS4MIL5sem95eZiN16oSp45urT3b5TfFdydjT1Q1muNLLvKL2vQ1
6xAe9J5qk7v3OnlM3RtOvnF2dGCEMh+EIn78ofTmnVy/qiw5BQiwCjMMSyMpI6oafn1WXlkvt8Wy
q72+nsNKv11J6hCuvBD+H3MbJOmscnR40EAYSqewFMR4tNGRlOSAKmGe+CJ6d0eIPswtpiBaRrVt
OhVNQk1f4zNDpmVnD6mOiY5b+5hpph9+QIvInUy5kWi/m8hoQtMhKLvEwYWRO9R01EtG5hbCmITV
yht2GHfumPoyOD68j4GkRBXrfolhZZWI8xKwaqw7fEalGwjBJAqqnJv4dmvQOdPoEXvrKr94OOoW

Negotiation Toolkit

Security Domain Test

Testing security-domain 'host'

Authenticated

```
Subject:
Principal: HTTP/rhel.tctest.com@TCTEST.COM
Private Credential: Ticket (hex) =
0000: 61 82 04 1F 30 82 04 1B A0 03 02 01 05 A1 0C 1B a...0............
0010: 0A 54 43 54 45 53 54 2E 43 4F 4D A2 1F 30 1D A0 .TCTEST.COM..0..
0020: 03 02 01 02 A1 16 30 14 1B 06 6B 72 62 74 67 74 ......0...krbtgt

Client Principal = HTTP/rhel.tctest.com@TCTEST.COM
Server Principal = krbtgt/TCTEST.COM@TCTEST.COM
Session Key = EncryptionKey: keyType=23 keyBytes (hex dump)=
0000: 6D 6A 93 52 7B F1 AB 1E C4 F3 BC 65 38 9E 72 49 mj.R.......e8.rI


Forwardable Ticket true
```

8.3 Test page verification

open http://rhel.tctest.com:8080/opm/
if you succeed you will see below page without input username or password
you can find auth type is SPNEGO,username,roles from Active Directory.

Welcome aduser@TCTEST.COM

AuthType:SPNEGO

UserName:aduser@TCTEST.COM

Roles:

- Batch Process
- Service Credit Reviewer

only Batch Process can view tab1

only Service Credit Reviewer can view tab2

only Receivables Supervisor can view tab3

Tab 1	Tab 2	Tab 3

This tab with identifier tab1 performed at 2013-09-23 15:27:25.

If you are Batch Process you can view tab1
If you are Service Credit Reviewer you can view tab2
If you are Recivables Supervisor you can view tab3
This the result when you are not authorized to view tab3
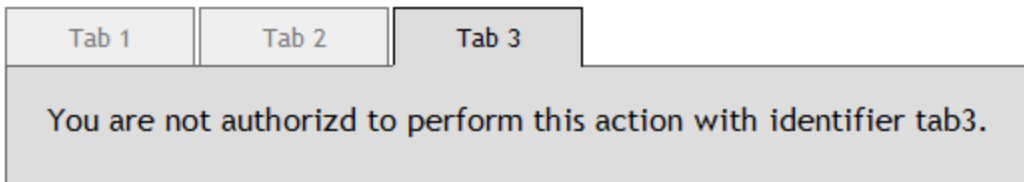
AuthType:SPNEGO

UserName:aduser@TCTEST.COM

Roles:

- Batch Process
- Service Credit Reviewer

only Batch Process can view tab1

only Service Credit Reviewer can view tab2

only Receivables Supervisor can view tab3

Tab 1	Tab 2	Tab 3

You are not authorizd to perform this action with identifier tab3.

8.4 Verify Cache

Please see console result,when move between tabs first time it will output sql but second time it will read from cache,so if you **change role** of test user you have to **restart jboss**.
for example you can add Receivables Supervisor role to **aduser** so can view **tab3** too
First click tab2

```
23:20:12,656 DEBUG [gov.opm.scrd.services.impl.SecurityServiceImpl] (http-/0.0.0.0:8080-1) Entering method gov.opm.scrd.services.impl.SecurityServiceImpl#authorize(String username, List<String> r
action). Input parameters: {username:aduser@TCTEST.COM, roles:[Batch Process, Service Credit Reviewer], action:tab2}.
23:20:12,662 INFO  [stdout] (http-/0.0.0.0:8080-1) Hibernate:
23:20:12,663 INFO  [stdout] (http-/0.0.0.0:8080-1)     select
23:20:12,664 INFO  [stdout] (http-/0.0.0.0:8080-1)         count(p.*) as count
23:20:12,664 INFO  [stdout] (http-/0.0.0.0:8080-1)     from
23:20:12,664 INFO  [stdout] (http-/0.0.0.0:8080-1)         Permissions p
23:20:12,665 INFO  [stdout] (http-/0.0.0.0:8080-1)     where
23:20:12,665 INFO  [stdout] (http-/0.0.0.0:8080-1)         p.userName=?
23:20:12,670 INFO  [stdout] (http-/0.0.0.0:8080-1)         and p.action=?
23:20:12,671 INFO  [stdout] (http-/0.0.0.0:8080-1)         and p.id in (
23:20:12,671 INFO  [stdout] (http-/0.0.0.0:8080-1)             select
23:20:12,671 INFO  [stdout] (http-/0.0.0.0:8080-1)                 pr.Permissions_id
23:20:12,672 INFO  [stdout] (http-/0.0.0.0:8080-1)             from
23:20:12,673 INFO  [stdout] (http-/0.0.0.0:8080-1)                 Permissions_Role pr
23:20:12,673 INFO  [stdout] (http-/0.0.0.0:8080-1)             join
23:20:12,673 INFO  [stdout] (http-/0.0.0.0:8080-1)                 Role r
23:20:12,674 INFO  [stdout] (http-/0.0.0.0:8080-1)                     on pr.roles_id=r.id
23:20:12,675 INFO  [stdout] (http-/0.0.0.0:8080-1)             where
23:20:12,675 INFO  [stdout] (http-/0.0.0.0:8080-1)                 r.name in (
23:20:12,675 INFO  [stdout] (http-/0.0.0.0:8080-1)                     ?, ?
23:20:12,676 INFO  [stdout] (http-/0.0.0.0:8080-1)                 )
23:20:12,676 INFO  [stdout] (http-/0.0.0.0:8080-1)         )
23:20:12,699 DEBUG [gov.opm.scrd.services.impl.SecurityServiceImpl] (http-/0.0.0.0:8080-1) Exiting method gov.opm.scrd.services.impl.SecurityServiceImpl#authorize(String username, List<String> ro
action). Output parameter : true
```

Second time click tab2

```
23:22:15,425 DEBUG [gov.opm.scrd.services.impl.SecurityServiceImpl] (http-/0.0.0.0:8080-1) Entering method gov.opm.scrd.services.impl.SecurityServiceImpl#authorize(String
action). Input parameters: {username:aduser@TCTEST.COM, roles:[Batch Process, Service Credit Reviewer], action:tab2}.
23:22:15,426 DEBUG [gov.opm.scrd.services.impl.SecurityServiceImpl] (http-/0.0.0.0:8080-1) Exiting method gov.opm.scrd.services.impl.SecurityServiceImpl#authorize(String
action). Output parameter : true
```

8.5 Possible issues

If you see this page please make sure **current domain user** is in group defined in 4.3

JBWEB000065: HTTP Status 403 - JBWEB000015: Access to the requested resource has been denied

JBWEB000309: type JBWEB000067: Status report

JBWEB000068: message JBWEB000015: Access to the requested resource has been denied

JBWEB000069: description JBWEB000123: Access to the specified resource has been forbidden.

9. Resource Contact List

Name	Resource Email
TCSASSEMBLER	