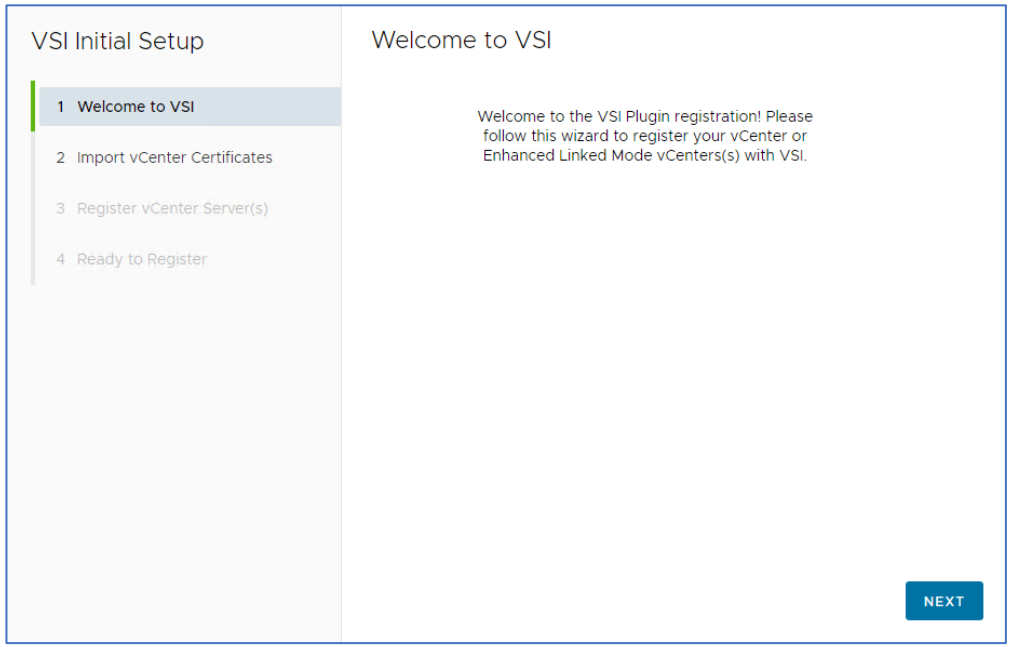
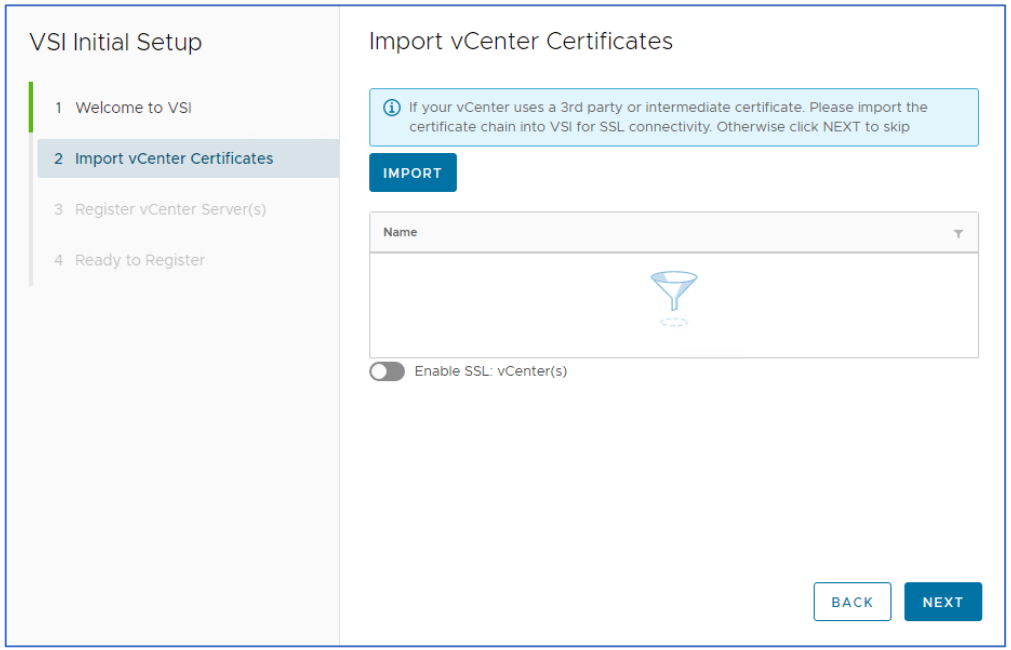
Dell Virtual Storage Integrator (VSI) v8.6 – Import certificates via CLI with keytool.

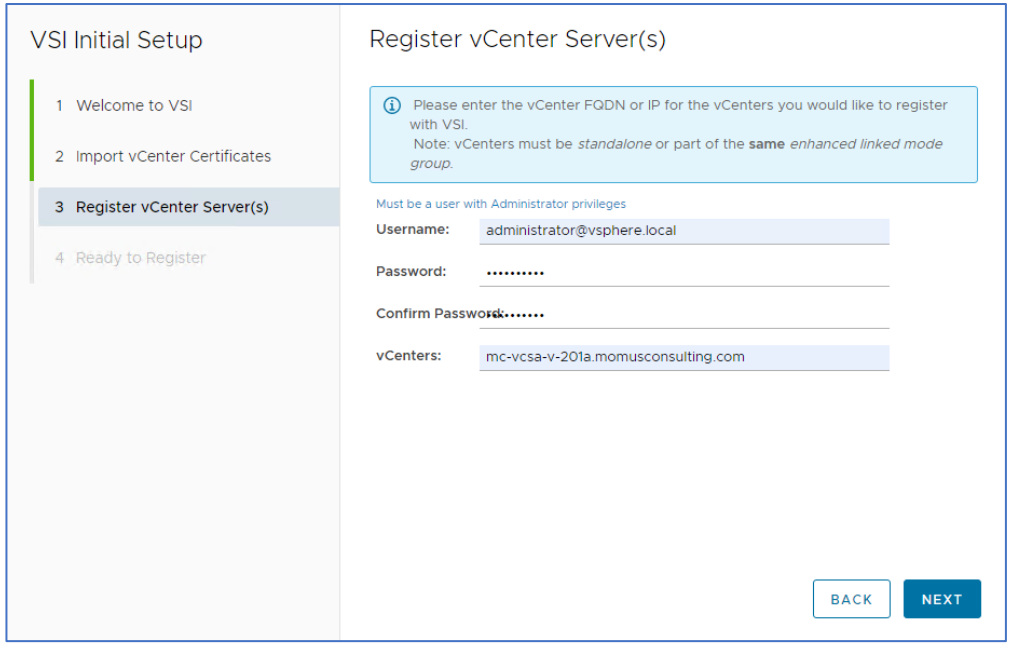
NOTE: This was tested on a fresh deployment of VSI and the target vCenter Server had the previous VSI plugin removed.

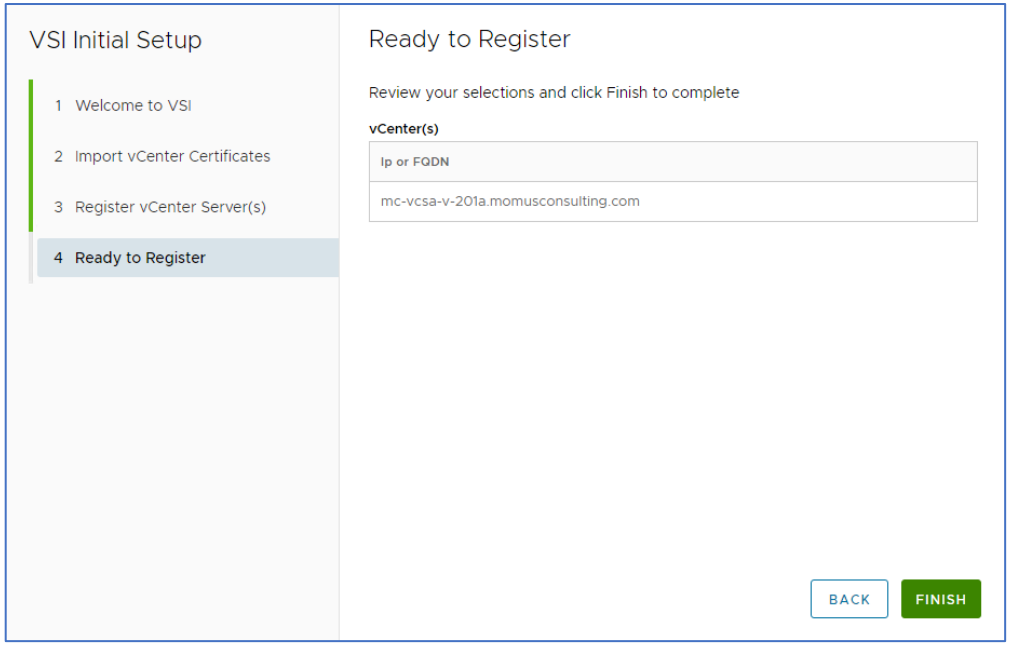
The vCenter Server was initially added via the VSI Initial Setup without importing any certificates or switching on or SSL, to confirm connectivity was OK.

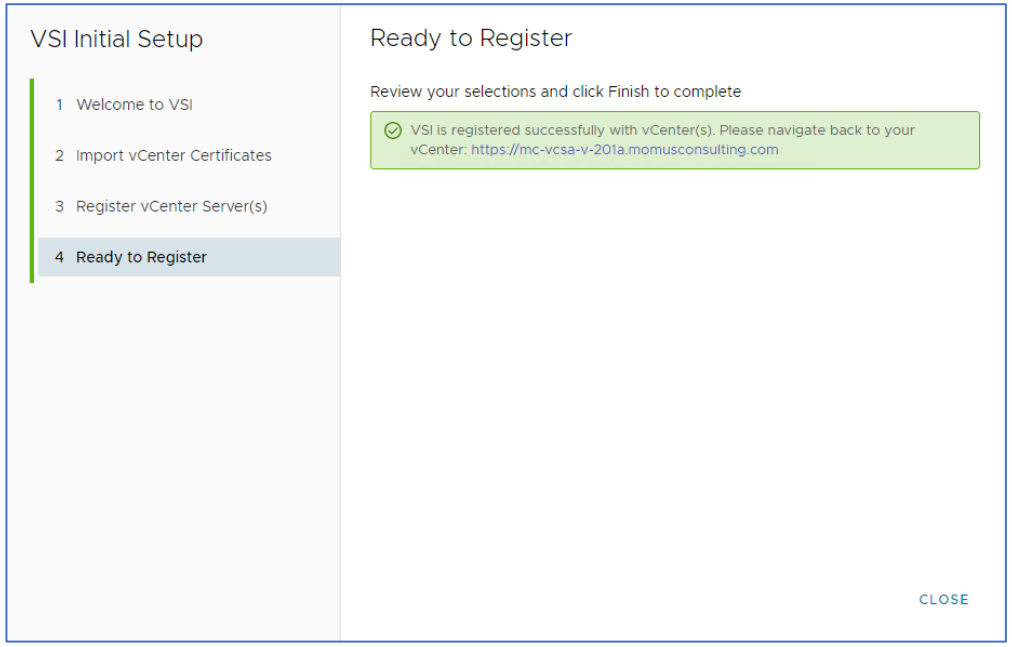
The logging level was set to DEBUG

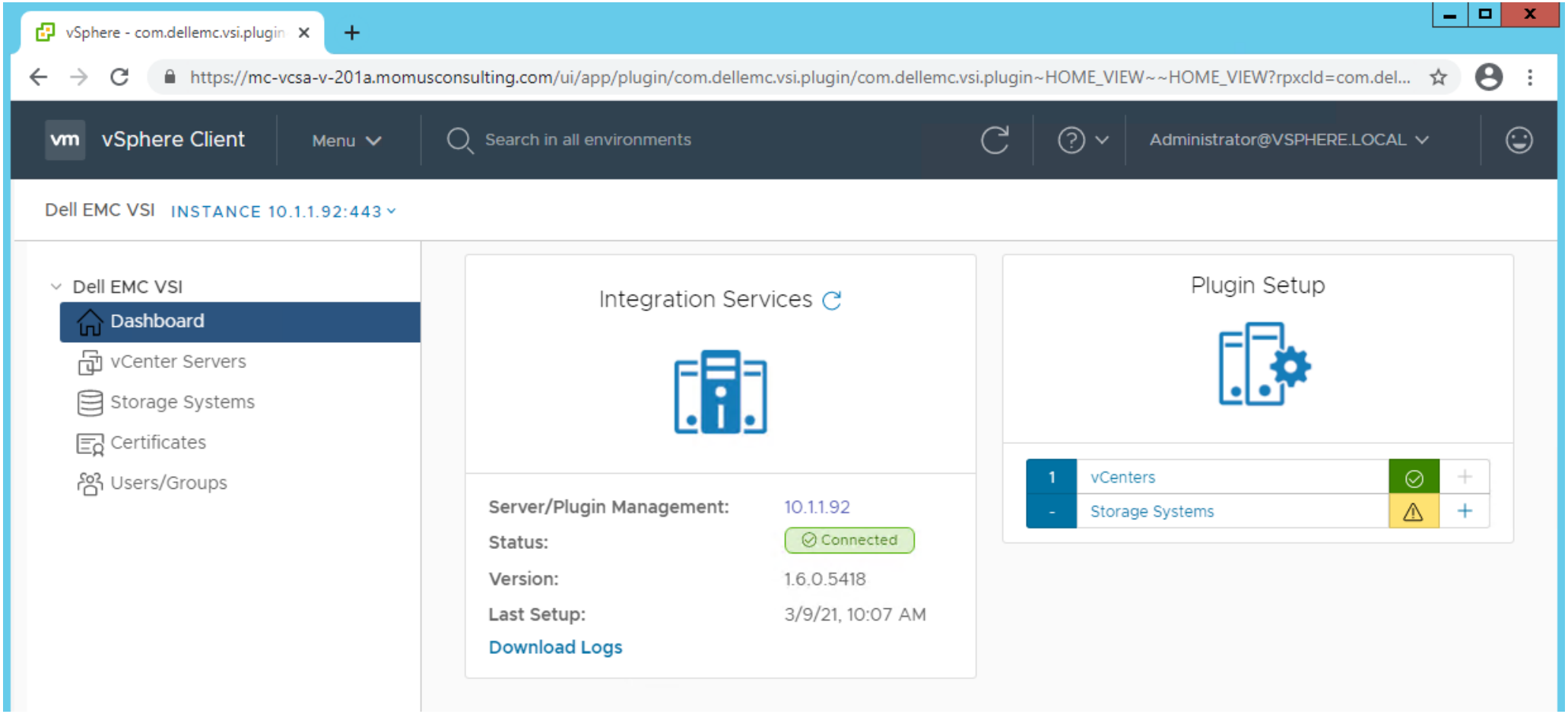


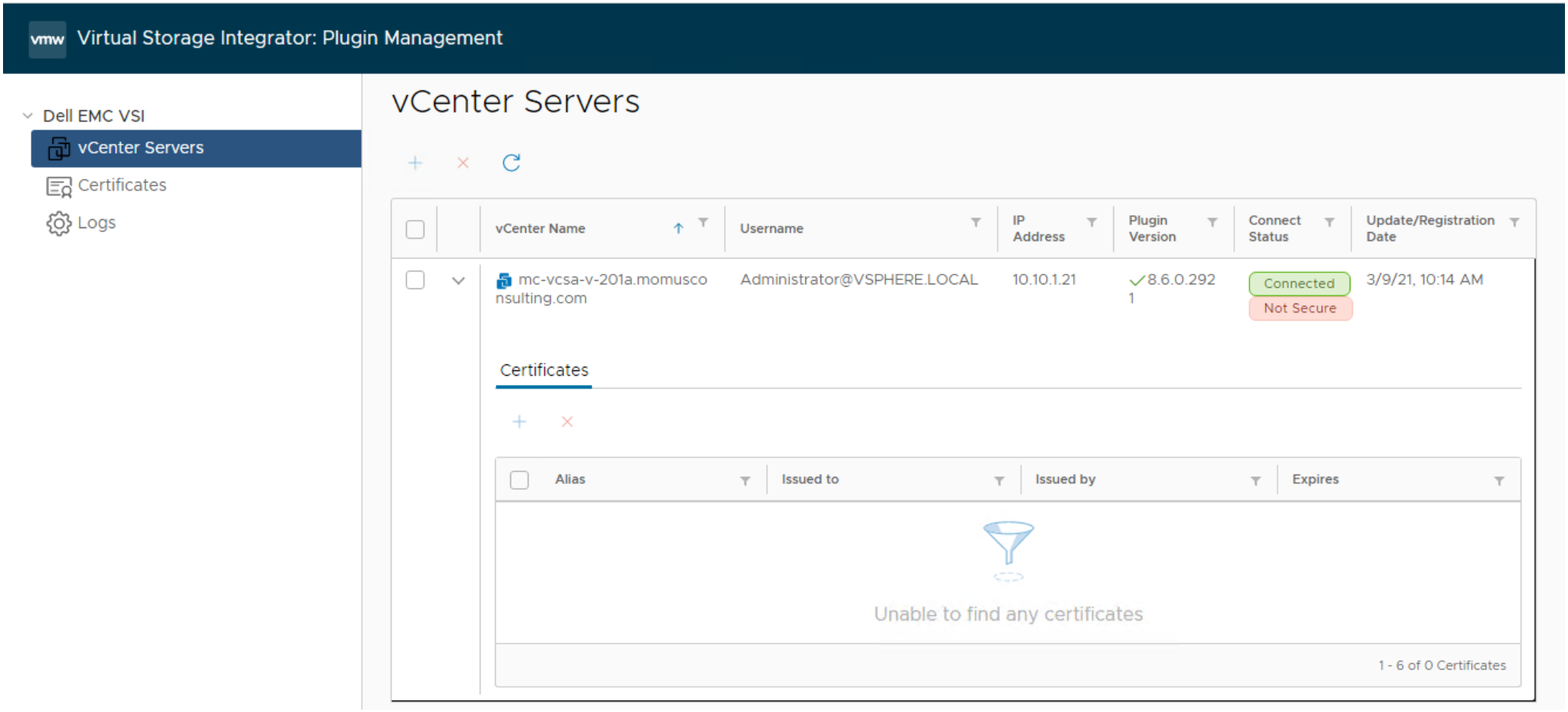



VSI Initial Setup
1 Welcome to VSI
2 Import vCenter Certificates
3 Register vCenter Server(s)
4 Ready to Register
Register vCenter Server(s)
Please enter the vCenter FQDN or IP for the vCenters you would like to register with VSI.
Note: vCenters must be standalone or part of the same enhanced linked mode group.
Must be a user with Administrator privileges
Username: administrator@vsphere.local
Password: ••••••••••
Confirm Password: ••••••••••
vCenters: mc-vcsa-v-201a.momusconsulting.com
BACK
NEXT

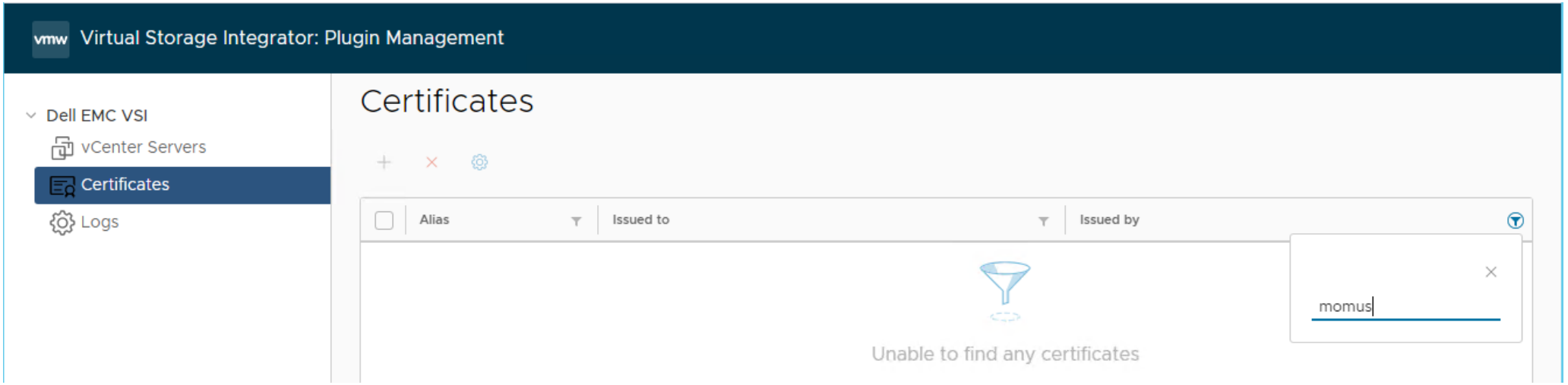

VSI Initial Setup
1 Welcome to VSI
2 Import vCenter Certificates
3 Register vCenter Server(s)
4 Ready to Register
Ready to Register
Review your selections and click Finish to complete
vCenter(s)
Ip or FQDN
mc-vcsa-v-201a.momusconsulting.com
BACK
FINISH


VSI Initial Setup
1 Welcome to VSI
2 Import vCenter Certificates
3 Register vCenter Server(s)
4 Ready to Register
Ready to Register
Review your selections and click Finish to complete
VSI is registered successfully with vCenter(s). Please navigate back to your vCenter: https://mc-vcsa-v-201a.momusconsulting.com
CLOSE


vSphere - com.dellemc.vsi.plugin
https://mc-vcsa-v-201a.momusconsulting.com/ui/app/plugin/com.dellemc.vsi.plugin/com.dellemc.vsi.plugin~HOME_VIEW~~HOME_VIEW?rpxcld=com.del...
vSphere Client
Menu
Search in all environments
Administrator@VSPHERE.LOCAL
Dell EMC VSI
INSTANCE 10.1.1.92:443
Dell EMC VSI
Dashboard
vCenter Servers
Storage Systems
Certificates
Users/Groups
Integration Services
Server/Plugin Management:
10.1.1.92
Status:
Connected
Version:
1.6.0.5418
Last Setup:
3/9/21, 10:07 AM
Download Logs
Plugin Setup
1
vCenters
-
Storage Systems

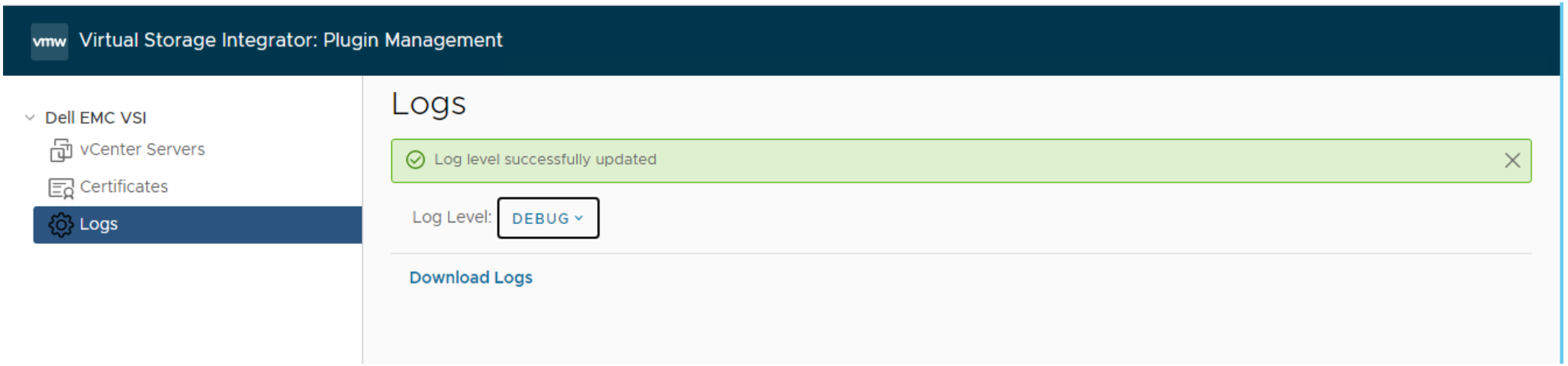

Virtual Storage Integrator: Plugin Management
Dell EMC VSI
vCenter Servers
Certificates
Logs
vCenter Servers
vCenter Name
Username
IP Address
Plugin Version
Connect Status
Update/Registration Date
mc-vcsa-v-201a.momusconsulting.com
Administrator@VSPHERE.LOCAL
10.10.1.21
8.6.0.2921
Connected
Not Secure
3/9/21, 10:14 AM
Certificates
Alias
Issued to
Issued by
Expires
Unable to find any certificates
1 - 6 of 0 Certificates

Confirmed none of my certs are pre-existing.



The logging level was set to DEBUG

NOTE: The logging level displayed is reset back to INFO when the page is refreshed. The logs still seem to contain DEBUG detail, so I assume this is UI a bug 😊

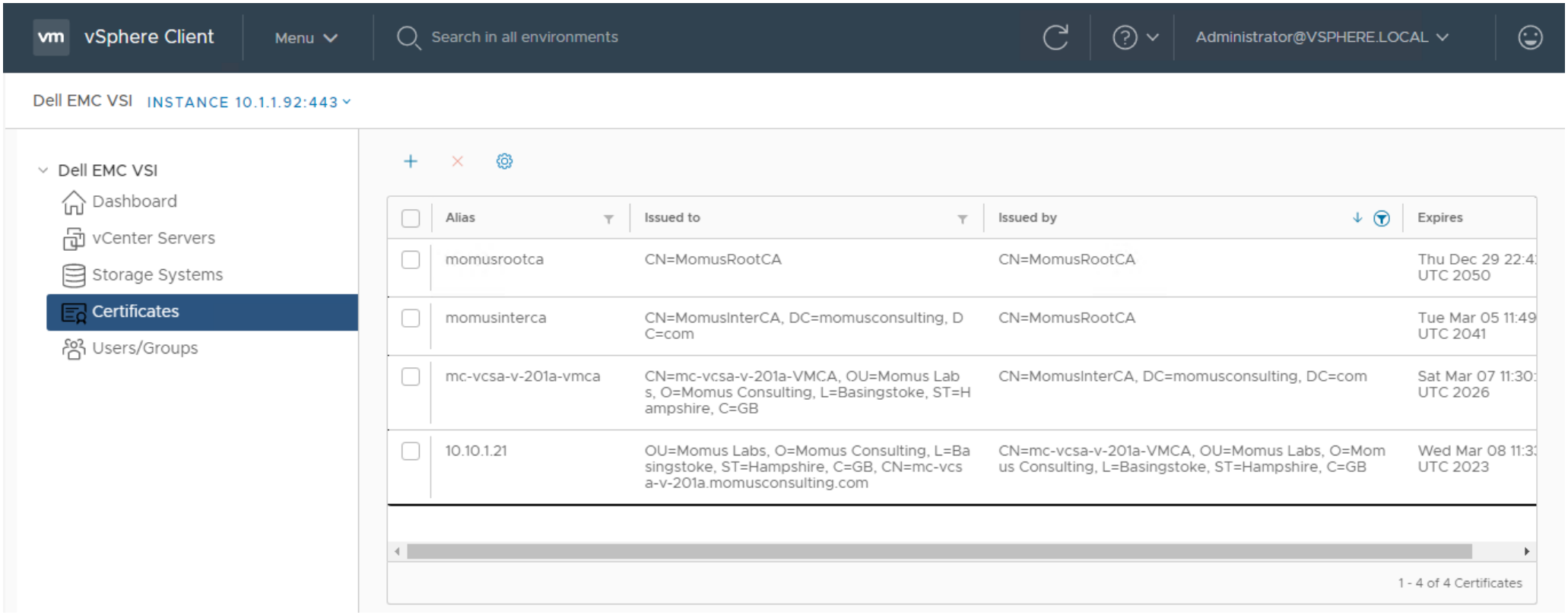


Importing the certificates with Keytool

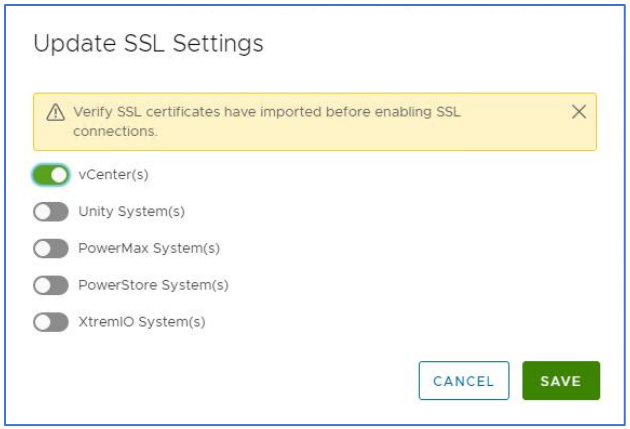
The 4 certificates were placed in `/opt/files` as .pem files.

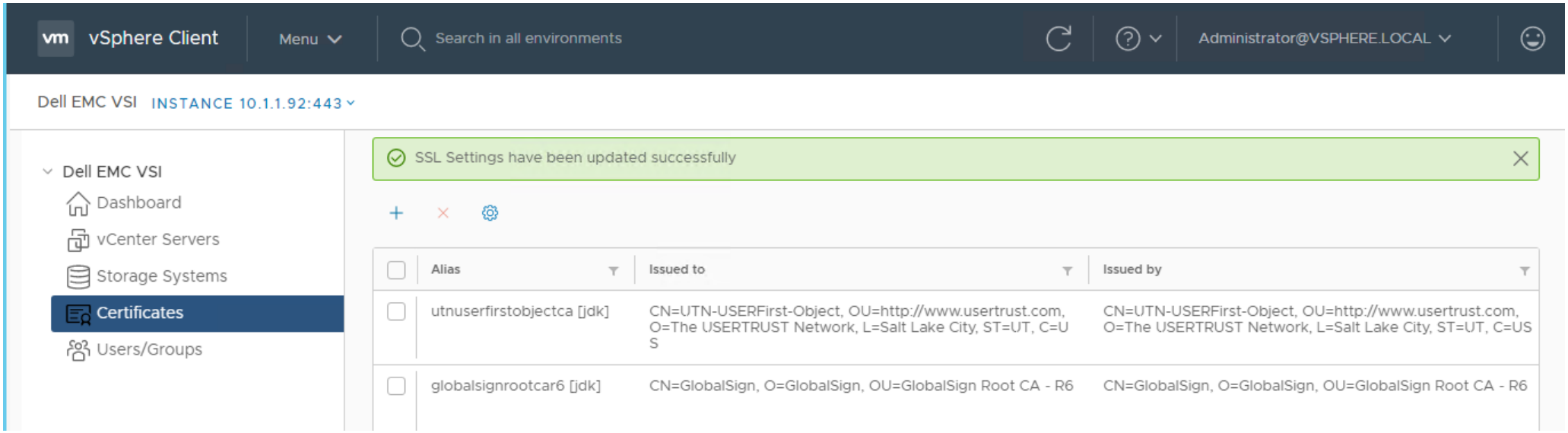
```
root@photon [ ~ ]# docker exec -it iapi bash
bash-4.3# ls -l /opt/files/
total 32
-rw-r--r-- 1 root root 2256 Mar  5 12:38 MomusInterCA_05-03-2021.pem
-rw-r--r-- 1 root root 1888 Mar  5 12:37 MomusRootCA_05-03-2021.pem
-rw-r--r-- 1 root root 2057 Mar  9 10:07 iapi_cert.pem
-rw-r--r-- 1 root root 3272 Mar  9 10:07 iapi_key.pem
-rw-r--r-- 1 root root 1732 Mar  8 13:00 mc-vcsa-v-201a-machine.pem
-rw-r--r-- 1 root root 2746 Mar  8 11:41 mc-vcsa-v-201a-vmca.pem
drwxr-x--- 2 root root 4096 Jan 20 09:04 vsi-plugin
-rw-r----- 1 root root  918 Jan 20 09:02 vsi-plugin.zip
bash-4.3#
bash-4.3# /opt/java/openjdk/jre/bin/keytool -storepass changeit -import -alias momusrootca -file /opt/files/MomusRootCA_05-03-
2021.pem -keystore ${JAVA_HOME}/jre/lib/security/cacerts -noprompt
Certificate was added to keystore
bash-4.3# /opt/java/openjdk/jre/bin/keytool -storepass changeit -import -alias momusinterca -file /opt/files/MomusInterCA_05-
03-2021.pem -keystore ${JAVA_HOME}/jre/lib/security/cacerts -noprompt
Certificate was added to keystore
bash-4.3# /opt/java/openjdk/jre/bin/keytool -storepass changeit -import -alias mc-vcsa-v-201a-vmca -file /opt/files/mc-vcsa-v-
201a-vmca.pem -keystore ${JAVA_HOME}/jre/lib/security/cacerts -noprompt
Certificate was added to keystore
bash-4.3# /opt/java/openjdk/jre/bin/keytool -storepass changeit -import -alias 10.10.1.21 -file /opt/files/mc-vcsa-v-201a-
machine.pem -keystore ${JAVA_HOME}/jre/lib/security/cacerts -noprompt
Certificate was added to keystore
bash-4.3#
bash-4.3# /opt/java/openjdk/jre/bin/keytool -list -storepass changeit -keystore ${JAVA_HOME}/jre/lib/security/cacerts | grep
'momus\|mc-\|10.10.1.'
10.10.1.21, Mar 9, 2021, trustedCertEntry,
mc-vcsa-v-201a-vmca, Mar 9, 2021, trustedCertEntry,
momusinterca, Mar 9, 2021, trustedCertEntry,
momusrootca, Mar 9, 2021, trustedCertEntry,
bash-4.3#
bash-4.3# exit
root@photon [ ~ ]# docker restart iapi
iapi
root@photon [ ~ ]#
```

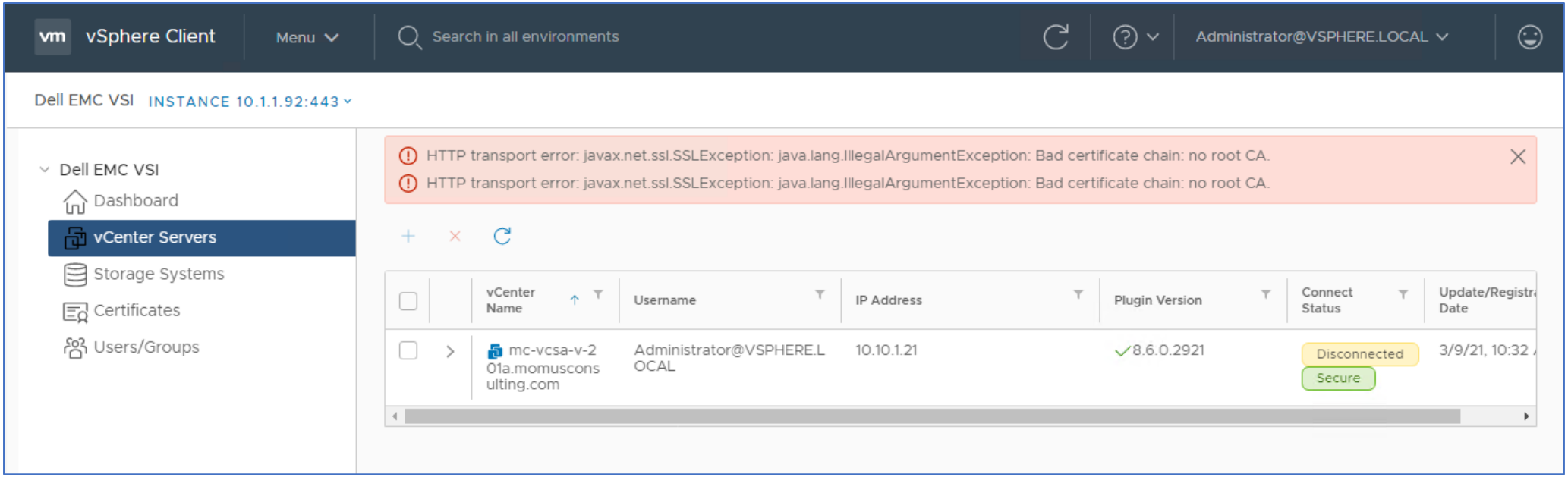
Confirmed my certs are now available.



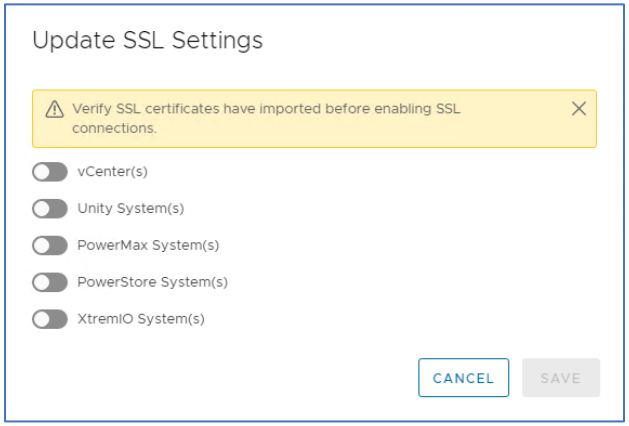
Enabled SSL


Update SSL Settings
Verify SSL certificates have imported before enabling SSL connections.
vCenter(s)
Unity System(s)
PowerMax System(s)
PowerStore System(s)
XtremIO System(s)
CANCEL
SAVE

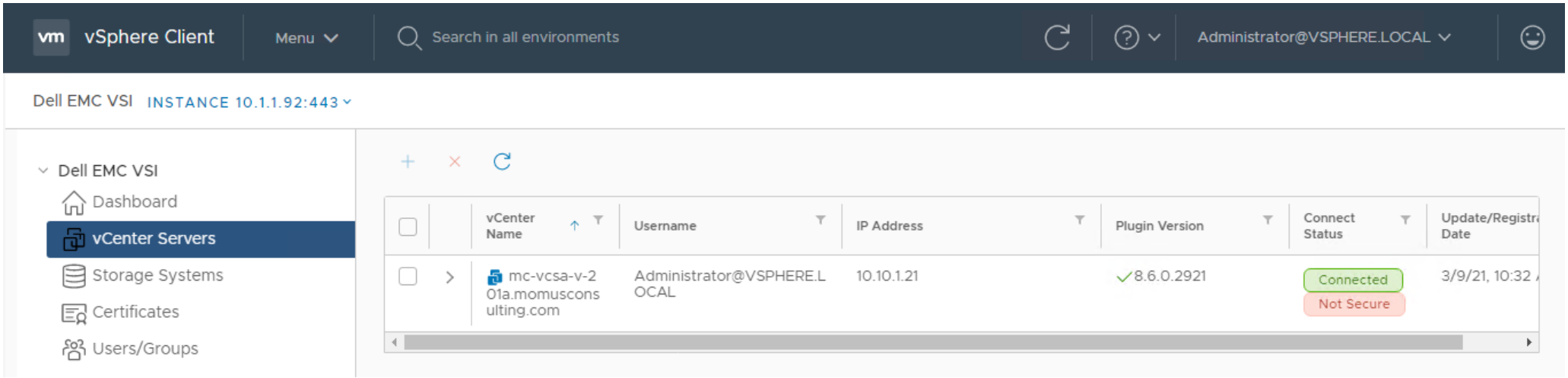

vSphere Client
Menu
Search in all environments
Administrator@VSPHERE.LOCAL
Dell EMC VSI
INSTANCE 10.1.1.92:443
Dell EMC VSI
Dashboard
vCenter Servers
Storage Systems
Certificates
Users/Groups
SSL Settings have been updated successfully
Alias
Issued to
Issued by
utnuserfirstobjectca [jdk]
CN=UTN-USERFirst-Object, OU=http://www.usertrust.com, O=The USERTRUST Network, L=Salt Lake City, ST=UT, C=US
CN=UTN-USERFirst-Object, OU=http://www.usertrust.com, O=The USERTRUST Network, L=Salt Lake City, ST=UT, C=US
globalsignrootcar6 [jdk]
CN=GlobalSign, O=GlobalSign, OU=GlobalSign Root CA - R6
CN=GlobalSign, O=GlobalSign, OU=GlobalSign Root CA - R6



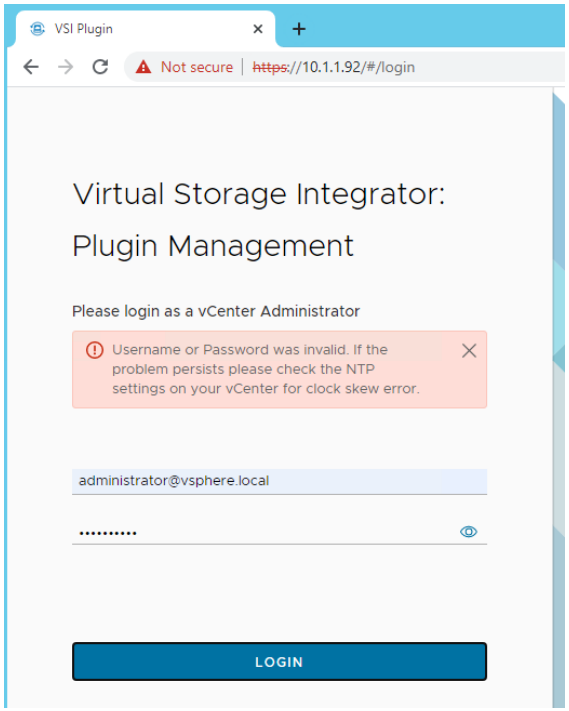
Disabled SSL



Refreshed vCenter Server VSI Page



Now unable to login to the VSI Plugin Management web page



Rebooted the VSI appliance – still unable to login – same error.

iapi-logs were retrieved via SCP.