http://aob01.aob.net:5150/auth/realms/sampler-realm/account

in keycloak federation settings:
#SEE the drive folders.
!!! hardcoded-attribute-mapper type is not available in the current version, for email-verified=true for all new users.
- reasons for -probable- ldap authentication fails => settings in dc
- minimum admin account permissions for keycloak federation user.
- kerberos auth (learn)
- minimum dc settings

#NOTICE can NET-NAT commands be also used ?
NOTE: does not respond, sometimes.. remove/reset and add again..

to forward physical port to local virtualboz port:
netsh interface portproxy add v4tov4 listenaddress=192.168.1.101 listenport=5150 connectaddress=aob01.aob.net connectport=5150

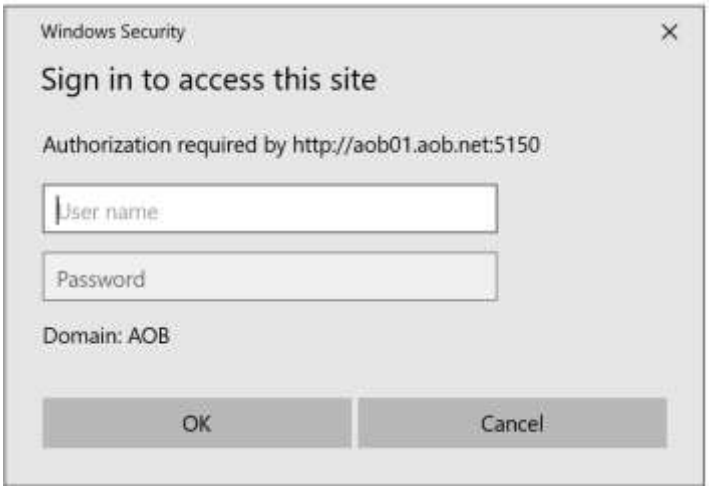
to list all:
netsh interface portproxy show all

to remove:
netsh interface portproxy delete v4tov4 listenport=5150 listenaddress=192.168.1.101

to remove all:
netsh interface portproxy reset

on dc server, add a user and run the following commands:
acc to http://matthewcasperson.blogspot.com/2015/07/authenticating-via-kerberos-with.html :
ktpass -out keycloak.keytab -princ HTTP/virtual.local@VIRTUAL.LOCAL -mapUser Keycloak@VIRTUAL.LOCAL -pass password1! -kvno 0 -ptype KRB5_NT_PRINCIPAL -crypto RC4-HMAC-NT
setspn -l Keycloak

on the client computerL
Internet Options -> Local intranet > Sites , add the site..



KEYCLOAK_IDENTITY => token
KEYCLOAK_SESSION => url path including uuid/AUTH_SESSION_ID
AUTH_SESSION_ID => uuid
-- can join a k8s pod to a windows domain ??
-- what clients (may) need ldap/kerberos ...etc
Firefox automatically logs in the current user, via applying:
https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/system-level_authentication_guide/configuring_applications_for_sso
about:config => network.negotiate-auth.trusted-uris
Fixes domain user automatic (passwordless) login in chrome:
https://specopssoft.com/blog/configuring-chrome-and-firefox-for-windows-integrated-authentication/
C:\Users\domainuser1\AppData\Local\Google\Chrome\Application\chrome.exe –auth-server-whitelist=".AOB.NET" –auth-schemes="negotiate"
or, use registry settings:
Software\Policies\Google\Chrome\AuthSchemes
(negotiate) and Software\Policies\Google\Chrome\AuthServerWhitelist
IE and Edge:
site should be added to trusted zones, trusted zone settings may need to be customized.. (allow with current uname passwd)

secure ldap (ldaps):
##TODO copy from sublime

group/role mapping from ldap:
##TODO copy from sublime

========== LDAP Düzenlenecek ==========

Authorization: Negotiate 'spnego-token'

Browser needs to have SPNEGO enabled. Different browsers do that differently. You enable a specific URL for SPNEGO

-pass password1!
ktpass -out sampler-keycloak.keytab -princ HTTP/aob01.aob.net@AOB.LOCAL -mapUser sampler-keycloak@AOB.LOCAL -kvno 0 -ptype KRB5_NT_PRINCIPAL -crypto RC4-HMAC-NT

ldifde /f sampler_keycloak_keytab_principal.ldf /d "CN=sampler keycloak,CN=Users,DC=aob,DC=local" /p base /l samaccountname,userprincipalname

kerberos udp 88 by default

Keycloak renders HTML login screen together with status 401 and HTTP header WWW-Authenticate: Negotiate

In case that the browser has Kerberos ticket from desktop login, it transfers the desktop sign on information to the Keycloak in header Authorization: Negotiate 'spnego-token' . Otherwise it just displays the login screen.

the name:
Windows Integrated Authentication
enabled for IE ??

C:\Users\domainuser1\AppData\Local\Google\Chrome\Application\chrome.exe –auth-server-whitelist=”.AOB.NET” –auth-negotiate-delegatewhitelist=”.AOB.NET” –auth-schemes=”digest,ntlm,negotiate”

minimum working:
C:\Users\domainuser1\AppData\Local\Google\Chrome\Application\chrome.exe –auth-server-whitelist=”.AOB.NET” –auth-schemes=”negotiate”

ldaps:

import root cert to store
$ keytool -import -keystore keycloak.jks -file root.crt -alias root

import certificate (key and cert should have the same alias) :
keytool -import -alias yourdomain -keystore keycloak.jks -file your-certificate.cer

keytool -list -keystore /home/mposolda/tmp/dev1xy.truststore

put custom scripts in keycloak:
/opt/jboss/startup-scripts/

java opts env variable in keycloak:
JAVA_OPTS_APPEND="-Dkeycloak.profile.feature.upload_script=enabled"
-Djavax.net.debug=all ??

##
tls.crt & tls.key in /etc/x509/https/ auto enables https
  => volumemounts may be inappropriate: @see https://hub.docker.com/r/jboss/keycloak/

aob-local-root-ca

389
ldaps 636

asl project management:
sap - primera - bv

DDS:
cilium multicast desteklemiyor, weavenet destekliyor (Bryan Boreham).

hikikomori

https://web.mit.edu/kerberos/krb5-1.12/doc/admin/conf_files/krb5_conf.html

 keytool -import -trustcacerts -alias aob-local-root-ca -file aob-local-root-ca.cer -keystore keycloak.jks


```
<spi name="truststore">
   <provider name="file" enabled="true">
      <properties>
         <property name="file" value="/etc/aob-local.jks"/>
         <property name="password" value="password"/>
         <property name="hostname-verification-policy" value="WILDCARD"/>
         <property name="disabled" value="false"/>
      </properties>
   </provider>
</spi>
```


 /opt/jboss/tools/docker-entrypoint.sh

 /opt/jboss/keycloak/standalone/configuration/standalone.xml
 /opt/jboss/keycloak/standalone/configuration/standalone-ha.xml

 /etc/aob-local.jks

 Keystore /opt/jboss/keycloak/standalone/configuration/application.keystore not found, it will be auto generated on first use with a self signed certificate for host localhost

custom user federtion mapper:

https://github.com/keycloak/keycloak-documentation/blob/master/server_development/topics/user-federation-mapper.adoc
https://github.com/keycloak/keycloak/blob/master/federation/ldap/src/main/java/org/keycloak/storage/ldap/LDAPStorageProvider.java

Roles:
realm vs client roles

Mappers:
MSAD mapper: userAccountControl, pwdLastSet in ldap.
  if pwdLastSet is 0, UPDATE_PASSWORD required action is added.
  userAccountControl = 514, == user is disabled.

dn: CN=Administrators,CN=Builtin,DC=aob,DC=local
objectClass: group
member: CN=Domain Admins,CN=Users,DC=aob,DC=local
member: CN=Enterprise Admins,CN=Users,DC=aob,DC=local
member: CN=Administrator,CN=Users,DC=aob,DC=local

Keycloak does not list users if it cannot reach ldap server..? :
  Note: Users are already in DB.

Caused by: org.keycloak.models.ModelException: Querying of LDAP failed org.keycloak.storage.ldap.idm.query.internal.LDAPQuery@512d78b6
keycloak04_1 | at org.keycloak.storage.ldap.idm.store.ldap.LDAPIdentityStore.fetchQueryResults(LDAPIdentityStore.java:207)
keycloak04_1 | at org.keycloak.storage.ldap.idm.query.internal.LDAPQuery.getResultList(LDAPQuery.java:164)
keycloak04_1 | ... 87 more
keycloak04_1 | Caused by: javax.naming.CommunicationException: windcserver.aob.local:636 [Root exception is java.net.ConnectException: Connection timed out (Connection timed out)]