



10

Universal Messaging - Basic Authentication

Configuration

Objectives

At the end of this chapter you ...

- will understand how to configure Universal Messaging Basic Authentication
 - On the UM server (realm)
 - On the Integration Server (client)

UM realm configuration for Basic Authentication

1. Create UM Internal User Repository

- Create an internal repository file, by opening a command prompt and change directory to <install>/common/bin

- This directory contains: `internaluserrepo.bat | .sh`

- To see usage help type: `internaluserrepo -h`

```
usage: internaluserrepo.bat/sh [-f filename] [-c] [-p password] [-d|-e] UserId
-h help, -h print this message
-f file, -f user repository file
-c create, -c create this user repository file
-p password, -p user password
-d delete, -d delete from user repository file
-e exists, -e check if UserId exists in the user repository file
UserId user to be added or deleted in user repository file
```

- For example, enter the following command (on one line) to create an internal user repository file called `users.txt` and a first user called `isdev1` with the password `m@n@g3`:

```
internaluserrepo.bat -f ../../nirvana/server/umserver/users.txt -c -p
m@n@g3 isdev1
```

- UserId is case insensitive (make sure UM 9.6 Fix 1 has been applied to UM 9.6 GA).
- `umserver` is an example realm name. Change as required.
- Use the same command, omitting the `-c` option when adding additional users to an existing user store or changing the user's password.

UM realm configuration for Basic Authentication - continued...

2. Edit the UM realm config file:

<install>/nirvana/server/umserver/bin/nserver.conf:

- If you run UM as a Windows service, then update nserverdaemon.conf instead

a. Enable UM basic authentication

`Nirvana.auth.enabled=Y|N`

b. Set mandatory authentication or optional:

`Nirvana.auth.mandatory=Y|N`

(To enable mandatory authentication set to Y otherwise set to N)

c. If using an internal user repository file for basic authentication, set:

`Nirvana.directory.provider=`

`com.pcbsys.foundation.security.auth.fSAGInternalUserRepositoryAdapter`

(the internal user repository is the default if you do not set this)

`Nirvana.auth.sagrepo.path=<path to user repository file>`

■ Note: Prefix each property with: `wrapper.java.additional.nn=-D`

- Replace **nn** with sequential numbers

UM realm configuration for Basic Authentication - continued...

- 2 c. (LDAP) - If using LDAP for basic authentication, set:

```
Nirvana.directory.provider=com.pcbsys.foundation.security.auth.fLDAPAdapter
```

```
Nirvana.ldap.provider=<LDAP provider class>
(LDAP client class. If not set, defaults to the JDK's built-in provider:
com.sun.jndi.ldap.LdapCtxFactory)
```

```
Nirvana.ldap.url=ldap://<LDAP server host>:<port>/base_dn
(This is the address of the LDAP server. There is no default so it must be set.
base_dn is the distinguished name that you are searching. For example:
ldap://localhost:389/dc=sag,dc=com )
```

```
Nirvana.ldap.suffix=<LDAP suffix>
(The suffix to apply to LDAP queries. This has no default and may be null, but if
non-null it qualifies the URL above. E.g.
```

```
Nirvana.ldap.url=ldap://localhost:389/dc=sag and
Nirvana.ldap.suffix=dc=com
will result in the same effective query root as
```

```
Nirvana.ldap.url=ldap://localhost:389/dc=sag,dc=com and
Nirvana.ldap.suffix not being set)
```

UM realm configuration for Basic Authentication - continued...

■ 2 c. (LDAP) - continued...

```
Nirvana.ldap.rootcreds=username:password
```

(The privileged-admin login credentials to use on the LDAP server, in order to perform user queries. There is no default and if not set it means there is no need to specify any such credentials, but if present the format must be username:password)

- The following system properties for LDAP do not have to be explicitly added to the config file unless you want to override the default values (shown):

```
Nirvana.ldap.attribute.username=cn
```

(This specifies the LDAP attribute which represents the username, and defaults to the standard schema convention of "cn")

```
Nirvana.ldap.attribute.password=userPassword
```

(This specifies the LDAP attribute which represents the password, and defaults to the standard schema convention of "userPassword")

```
Nirvana.ldap.search.username=cn=%U%
```

(This specifies the search expression to use for a given username, and defaults to cn=%U%, where %U% gets substituted by the username)

UM realm configuration for Basic Authentication - Miscellaneous notes

- UM Internal User Repository notes:
 - The location of the internal repository file is determined by the system property `Nirvana.auth.sagrepo.path` in `nserver.conf` (`nserverdaemon.conf` if running as a Windows service).
 - The `nserver.conf` file may be edited to move the `users.txt` file into a location that is shared by all the realms of an installed UM instance.
- After updating the UM realm config file (`nserver.conf` and/or `nserverdaemon.conf`), restart the realm.
- UM Enterprise Manager does not support basic authentication. If basic authentication is configured, the only way to use Enterprise Manager is on the same machine/user as the UM realm.

UM realm configuration for Basic Authentication - Miscellaneous notes - continued...

■ Superuser

- UM will always allow unauthenticated connections (i.e. without explicit credentials) from the “superuser”, which is the OS user that installed UM server on localhost, e.g. <OS username>@localhost.
 - This allows Enterprise Manager to connect, as well as any other client running as the same OS user on the same machine.
 - Therefore, the superuser ACL should always be left in place in the realm ACL to prevent shutting out Enterprise Manager.

■ Setting ACLs

- Set up realm and channel ACLs as normal using Enterprise Manager in the format <username>@*
- Everyone and *@* both now refer to “any authenticated user”. You can remove the Everyone and *@* ACLs if required.

UM basic authentication from Integration Server

1. Configure JNDI Connection

- For JMS, you can provide credentials in the JNDI connection if you want to secure the connection to the JNDI provider.
 - This is optional.
- Enter a user and password that exist in the internal user repository OR in LDAP.
- *Note: Make sure you have UM 9.6 Fix 1 installed.*

Settings > Messaging > JNDI Settings > JNDI Provider Alias > Edit

- [Return to JNDI Provider Alias Detail](#)

JNDI Provider Alias	
JNDI Alias Name	UMjndiAlias1
Description	UM JNDI Alias 1
Predefined JNDI Templates	Current Settings ▼
Initial Context Factory	com.pcbsys.nirvana.nspace.NirvanaContextFactory
Provider URL	nsp://sagbase:9000/
Provider URL Failover List	
Security Principal	wleishman
Security Credentials	•••••
Other Properties	
<input type="button" value="Save Changes"/>	

UM basic authentication from Integration Server - continued...

2. Provide credentials in the JMS alias:

Settings > Messaging > JMS Settings > JMS Connection Alias > Edit

- [Return to JMS Connection Alias Detail](#)

General Settings

Connection Alias Name	UMjmsConnWithBasicAuth
Description	UM JMS Connection Alias with Basic Auth
Transaction Mode	NO_TRANSACTION ▼
Connection Client ID	UMjmsConnWithBasicAuthclient
User (optional)	isdev1
Password (optional)	*****

Connection Protocol Settings

Create Connection Using	JNDI LOOKUP ▼
JNDI Provider Alias Name	UMjndiAlias1 ▼
Connection Factory Lookup Name	TestSDconnFactory
Monitor webMethods Connection Factory	No ▼

Advanced Settings

Class Loader	INTEGRATION_SERVER ▼
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Enter a User and Password that exist in the internal user repository OR in LDAP.