

# F5 APM: Convert attribute values

## Status

The problem with APM LDAP auth is that LDAP-attributes with values of ASCII chars can be used in further scripts without problems.

If you have some UTF8 characters in the value the F5 APM will convert the string to a HEX-string:

Aus dem F5 Manual: [https://support.f5.com/kb/en-us/products/big-ip\\_apm/manuals/product/apm-authentication-single-sign-on-11-5-0/5.html](https://support.f5.com/kb/en-us/products/big-ip_apm/manuals/product/apm-authentication-single-sign-on-11-5-0/5.html)

## About how APM handles binary values in LDAP attributes

For LDAP, Access Policy Manager (APM) converts an attribute value to hex only if the value contains unprintable characters.

If the session variable contains several values, and one or more of those values is unprintable, then APM converts only those particular values to hex.

### Case 1:

Handling of attributes with single value:

```
9302eb80.session.ldap.last.attr.objectGUID 34 / 0xfef232d3039be9409a72bfc60bf2a6d0
```

### Case 2:

Handling of attributes with multiple values (mix of binary and non-binary values):

```
29302eb80.session.ldap.last.attr.memberOf 251 | / CN=printable group,OU=groups,OU=someco,DC=smith, \
/ DC=labt,DC=fp,DC=somelabnet,DC=com | /
0x434e3d756e7072696e7461626c6520c2bdc2a12067726f75702c4f553d67726f7570732c4f553d66352c \
/ 44433d73686572776f6642c44433d6c6162742c44433d66702c44433d66356e65742c44433d636f6d |
```

# Possible solution

Devcentral: <https://devcentral.f5.com/questions/looking-for-irule-to-convert-non-ascii-character-to-ascii>

In 12.0.0

ID 399693:

“ It is now possible to use the `-decode` option for `mcget` command of a branch rule to decode a session variable before using it.

When you create an agent and add a branch rule, the default value of the rule contains an `mcget` command to fetch the session variable. By default, the session variable is HEX encoded if it contains non-ASCII characters.

You need to modify the command in advanced mode and insert the `-decode` option for `mcget` command, for example:

```
expr { [mcget -decode {session.ad.last.attr.memberOf}] contains "non-ASCII-
characters" }
```

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