Distinguished Names

The LDAP API references an LDAP object by its distinguished name (**DN**). A **DN** is a sequence of relative distinguished names (RDN) connected by commas.

An **RDN** is an attribute with an associated value in the form **attribute**=*value*; normally expressed in a UTF-8 string format. The following table lists typical RDN attribute types.

String	Attribute type
DC	domainComponent
CN	commonName
OU	organizationalUnitName
O	organizationName
STREET	streetAddress
L	localityName
ST	stateOrProvinceName
C	countryName
UID	userid

The following are examples of distinguished names.

```
CN=Jeff Smith,OU=Sales,DC=Fabrikam,DC=COM
```

```
CN=Karen Berge,CN=admin,DC=corp,DC=Fabrikam,DC=COM
```

The following table lists reserved characters that cannot be used in an attribute value without being escaped.

Note See the guidance below the table about using the escape character with these reserved characters.

Reserved character	Description	Hex value

	space or # character at the beginning of a string	
	space character at the end of a string	
,	comma	0x2C
+	plus sign	0x2B
"	double quote	0x22
\	backslash	0x5C
<	left angle bracket	0x3C
>	right angle bracket	0x3E
;	semicolon	0x3B
LF	line feed	0x0A
CR	carriage return	0x0D
=	equals sign	0x3D
/	forwards slash	0x2F

If a reserved character is part of an attribute value, it must be escaped by prefixing it with a backslash (\) in the attribute string. If an attribute value contains other reserved characters, such as the equals sign (=) or non-printable characters, it must be encoded in hexadecimal by replacing the character with a backslash followed by two hex digits.

The following are examples of some distinguished names that include escaped characters. The first example is an organizational unit name with an embedded comma; the second example is a value containing a carriage return.

```
CN=Litware,OU=Docs\, Adatum,DC=Fabrikam,DC=COM
```

```
CN=Before\0DAfter,OU=Test,DC=North America,DC=Fabrikam,DC=COM
```