

**NAME**

`ldap_first_reference`, `ldap_next_reference`, `ldap_count_references` - Stepping through continuation references in a result chain

**LIBRARY**

OpenLDAP LDAP (libldap, -lldap)

**SYNOPSIS**

```
#include <ldap.h>
```

```
int ldap_count_references( LDAP *ld, LDAPMessage *result )
```

```
LDAPMessage *ldap_first_reference( LDAP *ld, LDAPMessage *result )
```

```
LDAPMessage *ldap_next_reference( LDAP *ld, LDAPMessage *reference )
```

**DESCRIPTION**

These routines are used to step through the continuation references in a result chain received from `ldap_result(3)` or the synchronous LDAP search operation routines.

The `ldap_first_reference()` routine is used to retrieve the first reference message in a result chain. It takes the *result* as returned by a call to `ldap_result(3)`, `ldap_search_s(3)` or `ldap_search_st(3)` and returns a pointer to the first reference message in the result chain.

This pointer should be supplied on a subsequent call to `ldap_next_reference()` to get the next reference message, the result of which should be supplied to the next call to `ldap_next_reference()`, etc. `ldap_next_reference()` will return NULL when there are no more reference messages. The reference messages returned from these calls are used by `ldap_parse_reference(3)` to extract referrals and controls.

A count of the number of reference messages in the search result can be obtained by calling `ldap_count_references()`. It can also be used to count the number of reference messages remaining in a result chain.

**ERRORS**

If an error occurs in `ldap_first_reference()` or `ldap_next_reference()`, NULL is returned. If an error occurs in `ldap_count_references()`, -1 is returned.

**SEE ALSO**

`ldap(3)`, `ldap_result(3)`, `ldap_search(3)`, `ldap_parse_reference(3)`

## ACKNOWLEDGEMENTS

**OpenLDAP Software** is developed and maintained by The OpenLDAP Project

<<http://www.openldap.org/>>. **OpenLDAP Software** is derived from the University of Michigan LDAP 3.3 Release.