

# Oracle9iAS Email

Integration with Oracle Internet Directory

Release 5.2

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This presentation explains how Oracle9iAS Email 5.2 uses Oracle Internet Directory. Directory support for Oracle9iAS Email is still evolving and will be better defined in version 6.0, when the product will be fully integrated with the directory.

The presentation covers the following topics:

- [Product Overview](#)
- [How Oracle9iAS Email Uses Oracle Internet Directory](#)
- [Directory Entries for Oracle9iAS Email](#)
- [Security Measures for Oracle9iAS Email](#)
- [Oracle-Specific LDAP Schema Extensions for Oracle9iAS Email](#)

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## Product Overview

Oracle9iAS Email uses mail servers based on standards defined by the Internet Engineering Task Force (IETF) to access, manipulate, route, and deliver electronic mail messages stored in Oracle databases. Two of these servers, IMAP and POP3, perform the first two functions. A third, SMTP, performs the latter two functions. These servers are built on a multithreaded architecture provided by the Oracle InterOffice Scalable Protocol Server. This feature enables support for thousands of users who are logged on simultaneously.

Both IMAP4 and POP3 are Internet mail standards widely used and accepted in the Internet community. Some of the better-known IMAP4 and POP3 clients are Netscape Communicator, Outlook Express, Eudora, and Pine.

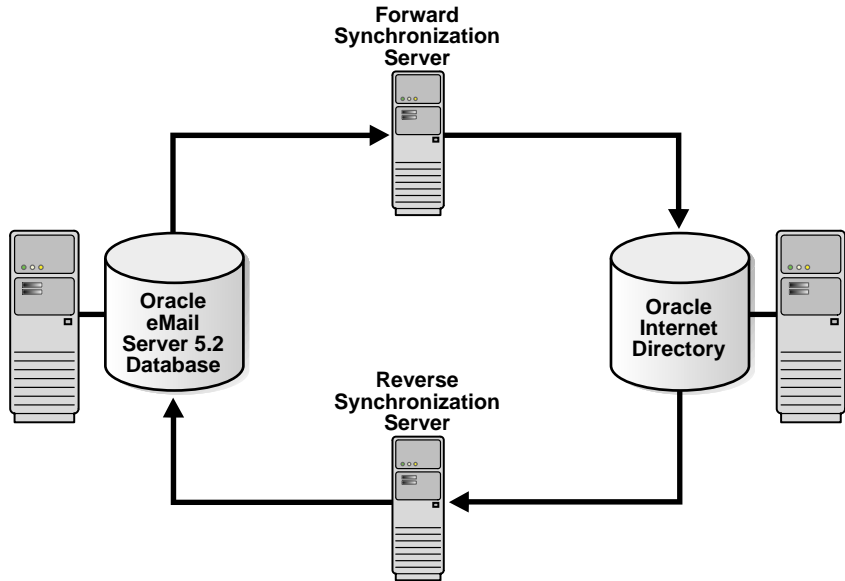
## How Oracle9iAS Email Uses Oracle Internet Directory

Oracle9iAS Email currently uses only the public namespace of Oracle Internet Directory. Here it stores data pertaining to public address books. This data consists of user names, distribution lists, and aliases for distribution lists. Clients of Oracle Web Mail, a thin client mail application, have their own, private address book container in the directory. This container holds subcontainers for aliases, preferences, and private distribution lists.

Oracle9iAS Email currently manages all of its directory data in a proprietary database directory schema. To enable IETF standards-based messaging clients such as Netscape to access this information, a forward synchronization engine updates Oracle Internet Directory whenever a user, distribution list, or alias is created in the messaging database. Similarly, when an entry is created in Oracle Internet Directory, a reverse synchronization engine creates the same entry in the messaging database. This forward/reverse synchronization enables e-mail accounts to be created and user data to be administered either in the messaging database or in Oracle Internet Directory. In any event, the delivery of messages and the authentication of users is performed using tables located in the Oracle9iAS Email database.

[Figure 1](#) on page 3 illustrates the synchronization process.

**Figure 1 Synchronization Between Oracle9iAS Email and Oracle Internet Directory**



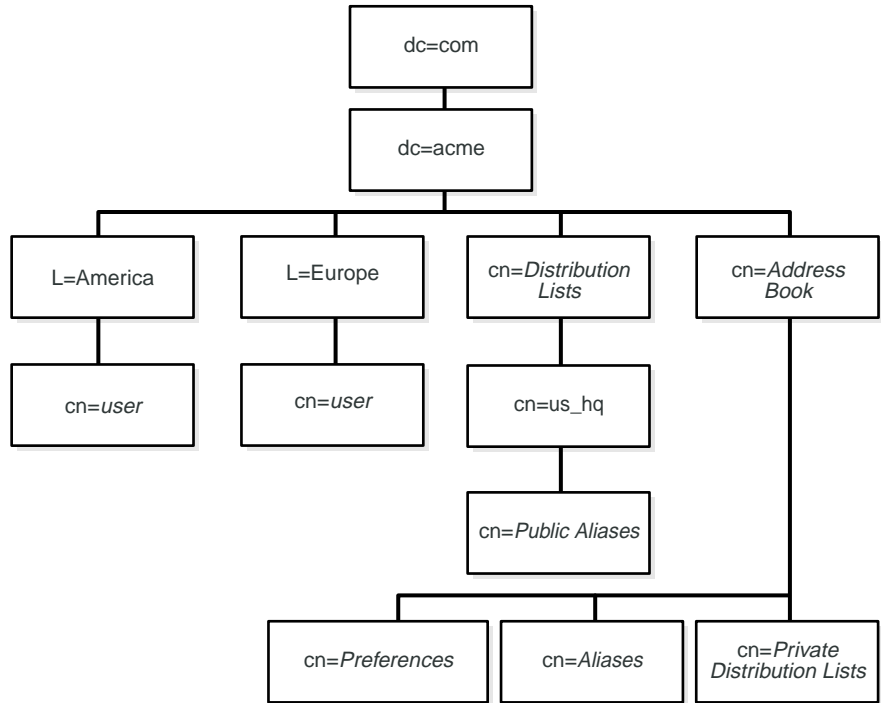
In version 6.0 of Oracle9iAS Email, product metadata as well as public address books will be managed in Oracle Internet Directory. This means that Oracle9iAS Email will receive its own product container under the Oracle Context, the directory repository for all Oracle product-related information.

## Directory Entries for Oracle9iAS Email

As [Figure 2](#) on page 4 illustrates, an enterprise—in this case, the hypothetical company acme—that uses Oracle9iAS Email 5.2 requires directory entries for the following data categories:

- Users
- Public distribution lists
- Public aliases
- User preferences for Oracle Web Mail
- Distribution lists for Oracle Web Mail
- Aliases for Oracle Web Mail
- Private address books, which are containers for Oracle Web Mail entries

**Figure 2 Directory Information Tree for Oracle9iAS Email**



## Security Measures for Oracle9iAS Email

Oracle9iAS Email places no restriction on public data, but the entry for the private address book has an access control list (ACL) that grants the Web server administrator, and no one else, access to the container.

# Oracle-Specific LDAP Schema Extensions for Oracle9iAS Email

This section lists and describes the object classes and attributes that Oracle9iAS Email uses to define directory entries. Note that the object classes are all auxiliary classes.

The section contains the following topics:

- [Schema for Public Entries](#)
- [Schema for Oracle Web Mail](#)

## Schema for Public Entries

The following object classes and attributes define user entries, public distribution lists, and aliases for these lists.

### Auxiliary Object Classes

- orclperson  
Defines a user
- orclalias  
Identifies a public alias
- orcldomain  
Identifies the domain within which an entry is located
- orcllocation  
Identifies the geographical domain within which a user entry is located
- orclorganization  
Identifies the organizational unit within which a user entry is located
- orclrole  
Identifies a user's job title
- orclroom  
Identifies the location of a conference room

## Attributes

- `orclbirthday`  
Identifies a user's birthday
- `orclconfignode`  
Identifies the node name for a user's mail store

## Schema for Oracle Web Mail

The following object classes and attributes define user preferences, aliases, and private distribution lists.

### Auxiliary Object Classes

- `orclMailApplicationPreferences`  
Identifies various parameters in a user's mail display, such as background and foreground colors, headers, and action buttons

## Attributes

- `orclMailActionColor`  
Identifies colors for action buttons
- `orclMailBGColor`  
Identifies the background color for the mail display
- `orclMailCopytoSent`  
Identifies whether copies of e-mail are placed in a Sent folder
- `orclMailDisplayDeleted`  
Determines whether deleted mail can be displayed
- `orclMailDisplayXHeaders`  
Determines whether extended headers can be displayed
- `orclMailExternalAccess`  
Determines whether mail can be accessed from an external network
- `orclMailFGColor`  
Identifies the foreground color for a mail display
- `orclMailForwardFormat`  
Determines whether mail can be forwarded

- orclMailName  
Identifies an alternative name for a mail user
- orclMailNumDisplay  
Identifies how many lines of mail are displayed
- orclMailOffColor  
Identifies the color of unselected mail
- orclMailOnColor  
Identifies the color of selected mail
- orclMailPOPAccount  
Identifies the post office account from which messages are downloaded
- orclMailReplyFormat  
Identifies the format for mail replies—indents or carets, for instance
- orclMailSignature  
Identifies a user's mail signature
- orclMailTimeZone  
Identifies a mail user's time zone

