Zimbra Collaboration Server 8.0.1
Open Source Edition Release Notes

This release note describes new features and enhancements that are available in the ZCS 8.0.1 Open Source release. Review the Known Issues section for a list of outstanding issues in this release before installing or upgrading.

The following sections are included in the release notes:

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- Appendix B Auto-Provision New Accounts from External LDAP Directory

Major New Feature Enhancements for 8.0

Zimbra Web Client Serenity User Experience

- Streamlined User Interface. The user interface has been completely redesigned with simplicity and accessibility being the key improvements. The Zimbra 8 interface is more streamlined so that common actions are easily discoverable and highly intuitive to use.
- **Conversation View.** In Zimbra 8 email is presented to users in a “natural” conversation view that makes reading and replying to messages convenient and intuitive. Quoted text is hidden and messages are laid out in a way that is easy for users to understand the “in-reply-to” relationship between different messages in the same email thread. Discreet links to Reply, Forward and More Actions (presented just below the email) let users respond to messages quickly and efficiently.

- **Rich Composition.** Improved composition editor allows users to craft rich text emails, with features such as paste-style support from desktop applications and the ability to include inline images bring the power of desktop word processors to email.

- **Shared Tagging.** In Zimbra 8 tagging functionality has been improved so that when items are shared users cannot only use tags to organize their data but also share these tags across applications as well as mailboxes.

### Activity Stream

Activity Stream allows users extensive control over the messages that go to their Inbox. Users can easily set up activity stream filters that direct incoming messages to various folders (or are deleted from) based on different criteria that they can specify. For example, emails to distribution lists, feed and notifications that are not directly addressed to the user can be archived in folders that can be read when convenient.

“Graymail” filtering prevents user’s Inbox from being cluttered by legitimate but unwanted emails.

### Dedicated Search Tab

A dedicated search tab is created whenever a user enters a new query in the header search box. This allows users to perform a search, navigate away from the search tab to perform another action such as compose an email, or schedule an event and then come back to the search tab to continue with the query.

Zimbra 8 provides users with a simple yet powerful search interface allowing users to perform simple actions such as quickly filter on common attributes or perform complex search queries making use of complex logical operators.

### Enterprise Calendaring

Zimbra 8 provides an intuitive and sophisticated enterprise calendaring system that enables users to manage multiple calendars and provides support for advanced scheduling activities.

- **Experience improvements to time and resource suggestions.** Zimbra 8 has significantly improved the user’s experience when working with the appointment scheduling feature. Once users select attendees, Zimbra 8 can compare calendar availability and provide users with a list of suggested
meeting times. Similarly, based on meeting requirements such as the size of the room and location, Zimbra’s scheduler can provide users with a list of conference facilities that fit meeting requirements.

- **Merge and split views of “Day” view** gives users the flexibility to view their different calendars (e.g. personal and work-related) either individually or overlaid on top of each other. (In other words, see a “merged” view of appointments from several different calendars in one calendar.)

- **Landscape and date range printing** provides users greater control over how calendars are printed.

- **Wizard to add external calendars** when users right-click to create new calendars. Zimbra 8 supports importing several popular calendar formats including Google and Yahoo! Calendars.

(DL) **Automatic provisioning of accounts**

- Accounts in Zimbra can be provisioned with attributes populated from Active Directory or another LDAP directory. Accounts can be provisioned ad hoc automatically polling for new accounts

- Dynamic distribution list support to automatically populate DL membership accounts based on account attributes

**Compliance**

- Litigation hold without forking the mailbox or needing to deploy additional infrastructure

- Custom folder retention and disposal policies can be enabled by IT or end user

- Administrative roles linked to Active Directory groups to enhance federated identity access and authorizations

**Migration**

- Multi-threaded for parallel mailbox migrations and improved scalability

- Stage and schedule migrations with improved visibility into real-time statistics and error-logging

- Migrate out of office settings to reduce migration scheduling conflicts

**Redesigned Administration Console**

The ZCS administration console was redesigned to make administration of ZCS easier. It starts with a Home page that has links to common tasks. The Navigation pane now separates functions into the following sections:

- **Home**. The Home page has links to many of the common tasks. Also the Help Desk link is on this page.
- **Monitor.** Server Status to view the status for all installed servers and services and server statistics, message count and volume, anti-spam and anti-virus activity, mobile sync statistics, mail queues pages can be accessed.

- **Manage.** Accounts, aliases, distribution lists, and resources pages can be accessed.

- **Configure.** Class of Service (COS), domain, servers, Zimlets, admin console extensions, certificates, global settings, and voice/chat services pages can be accessed.

- **Tools and Migration.** Zimbra Utilities downloads page for the migration tools and Zimbra Connector for Outlook msi files, software updates, backup, and cross mailbox search pages can be accessed.

- **Searches.** You can create and save searches that you run frequently. A new Search page lets you create complex search queries.

### General Enhancements by Bug Number

<table>
<thead>
<tr>
<th>Bug Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1108</td>
<td>ZWC. Users can now sort from any column in the Content pane.</td>
</tr>
<tr>
<td>1810</td>
<td>ZWC. Up to 63 tags can be created.</td>
</tr>
<tr>
<td>3884, 61118</td>
<td>Dynamic distribution lists can be created.</td>
</tr>
<tr>
<td>5935</td>
<td>In conversation view, by default messages are now grouped by reference instead of by subject. When a message is replied to, it is added to a conversation thread if the reference in the header matches. If there is no reference ID in the header, the conversation is grouped by subject.</td>
</tr>
<tr>
<td>6229</td>
<td>Per folder message retention policy can be set. Users can right-click on a folder and in the Folder Properties dialog box set their retention policy.</td>
</tr>
<tr>
<td>58041</td>
<td>The admin can set new retention policies from the admin console. Users can select the retention policy or create their own.</td>
</tr>
<tr>
<td>6111</td>
<td>The ability to bind mailbox services to a specific bind address. As part of this enhancement, the following attributes are added to server configuration. When these are set, the specific services bind to these specific addresses. If these are not set, the services binds to all interfaces.</td>
</tr>
<tr>
<td></td>
<td><code>zimbraMailBindAddress</code></td>
</tr>
<tr>
<td></td>
<td><code>zimbraMailSSLBindAddress</code></td>
</tr>
<tr>
<td></td>
<td><code>zimbraMailSSLClientCertBindAddress</code></td>
</tr>
<tr>
<td></td>
<td><code>zimbraAdminBindAddress</code></td>
</tr>
<tr>
<td>Bug Number</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
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</tr>
<tr>
<td>6380</td>
<td>You can set a maximum mailbox quota for a domain. The default for the domain mailbox quota is unlimited. The domain quota is the maximum amount of storage that can be used by all mailboxes within the domain.</td>
</tr>
<tr>
<td>7235</td>
<td>New users objects created in an external LDAP directory can automatically be provisioned as new mailboxes in ZCS. See Appendix B Auto-Provision New Accounts from External LDAP Directory</td>
</tr>
<tr>
<td>11524</td>
<td>Zimbra supports DKIM signing for outgoing email. See Appendix A Using DKIM to Authenticate Email Messages this release note to configure DKIM.</td>
</tr>
<tr>
<td>18815</td>
<td>When archiving is installed, archiving can be configured from the administration console, Configure&gt;Class of Service, Archiving page or account’s Archiving page.</td>
</tr>
<tr>
<td>23191</td>
<td>Support for right-to-left languages in ZWC compose.</td>
</tr>
<tr>
<td>26398</td>
<td>Zimbra to Zimbra free/busy interop is supported.</td>
</tr>
<tr>
<td>26645</td>
<td>Message deduping is enabled by default, with the COS/Account attribute zimbraPrefMessageIdDedupingEnabled=TRUE.</td>
</tr>
<tr>
<td>27211</td>
<td>ZWC. Calendars can be nested.</td>
</tr>
<tr>
<td>27575</td>
<td>ZWC. Users can enable the preference to include shared items when they do a search query. (Preferences&gt;General, Searches section)</td>
</tr>
<tr>
<td>28648</td>
<td>To enable SASL mechanisms with Postfix, you can do the following. This example uses GSSAPI as the SASL mechanism: zmlocalconfig -e sasl_smtpd_mech_list=&quot;PLAIN LOGIN GSSAPI&quot; zmlocalconfig -e postfix_smtpd_sasl_security_options=&quot;noanonymous, noplaintext&quot; zmlocalconfig -e postfix_smtpd_sasl_tls_security_options=nonanonymous</td>
</tr>
<tr>
<td></td>
<td>Allow SASL auth on port 25: zmprov ms MTAHOST.somewhere.com zimbraMtaTlsAuthOnly FALSE</td>
</tr>
<tr>
<td>39402</td>
<td>ZWC. Ability to access and mount external calendars via CalDAV.</td>
</tr>
</tbody>
</table>
Bug Number | Description
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46222 | ZWC. Conversation view has been updated. Viewing from the reading pane, changes include
• Inline Reply to individual messages in the conversation.
• Selecting a conversation shows all messages in the conversation.
• Forwarding a conversation, send the individual messages as attachments to the forwarded message.
• Action footer per message.
• Draft messages are saved as part of the conversation. Draft messages display with a dotted line around them.

46359 | Contact Groups sync via CardDav.

47673 | Users can now use the Find Shares folder to find all items that can be shared with them. Previously a users could find only items that were shared with them by distribution lists or from specific users.

53822 | Multiple GAL sync accounts can be created for the same domain. Also see Bug 64123 on page 11.

53985 | Searching for a contact now supports prefix matching for any terms in a multi-phrase query. For example, searching for Jon Smith will show results for Jonathan Smith as well.

56494 | When an invitation is forwarded by an invitee, the originator receives a notification.

56827 | System accounts cannot be deleted and are not displayed in the accounts list on the admin console. To see a list of system accounts go to Search>Basic Attributes and select **Search system accounts only**.

58418 | One step migration wizard has been removed from the administration console. Users can use the migration tools to run a migration. These tools are available from the admin console download page.

59780, 54035 | Administrator can click on any of the text labels in the administration console to see which Zimbra attribute is associated with the field.

61467, 61425 | In the standard client, new calendar printing options were added.

61667 | When an item is shared, the information is automatically published. Manual publishing of shared items is no longer required.

62230 | When using the New Account Wizard, you can search an external source directory and lists to select users to provision.

62325 | When a domain is renamed, the dynamic groups are correctly moved to the renamed domain.
### Bug Number | Description
--- | ---
50294, 64347, 64889 | External virtual accounts are created when users share Calendar or Briefcase items with an external user. A new defaultExternal COS has been added to Class of Service. The external virtual account is assigned to this COS. Admins can manage these accounts from the administration console.
65429 | Additional auth options for zmmailbox and zmsoap CLIs. zmmailbox now supports sending requests to a mailbox using admin auth token.
42916, 66362 | End users can provision, manage and view distribution lists from their Address Book. If users have the ability to create distribution lists, the Address Book drop-down menu includes a Distribution List link.
  
To enable the ability to create and manage distribution lists for all users on a domain, type
zmprov grr domain <domainname.com> dom <domainname.com> createDistList

To enable the ability to create and manage distribution lists for individual users on a domain, type
zmprov grr domain <domainname.com> usr <user@domainname.com> createDistList

68505 | In ZCS 8.0, IPv6 is a beta release. IPv6 option can be configured during ZCS installation.
  
The default is to use IPv4, unless IPv6 is configured.
  
The expected way to change IP mode is by changing zimbraIPMode first, and then running libexec/zmiptool tool, e.g.:

```bash
$ zmprov ms `zmhostname` zimbraIPMode ipv4 ; libexec/zmiptool ; zmcontrol restart
$ ps aux | grep java | grep preferIPv4Stack | wc -l
3

$ zmprov ms `zmhostname` zimbraIPMode both ; libexec/zmiptool ; zmcontrol restart
$ ps aux | grep java | grep preferIPv4Stack | wc -l
0
```
68841 | Provide warning message when -l options is specified or if running the command on a non-mailbox server.
5210, 11124 | Shared items can be tagged and the tags displays in the shared users’ lists as well.
58160, 67090, 67091, 67094 | Users can set their account preferences to delegate authority to another user to send messages as if came from them (Send As) or send messages on behalf of the user. When a delegated user composes a message for the user, they select the user’s name in the From address drop-down menu.
### System Updates for 8.0

#### Network Edition supported platforms

(Bug 71339)

Platform: 64-bit is supported; 32-bit is EOL

- Red Hat Enterprise Linux 6  **ACTIVE**
- Red Hat Enterprise Linux 5  **EOL**
- Red Hat Enterprise Linux 4  **EOL**  **EOL**
- Ubuntu 12.04 LTS  **ACTIVE**  **NEW**
- Ubuntu 10.04 LTS  **DEPRECATED**
- Ubuntu 8.04 LTS  **EOL**  **EOL**
- SUSE Linux Enterprise Server 11  **ACTIVE**
- SUSE Linux Enterprise Server 10  **EOL**  **EOL**

#### Open Source supported platforms

(Bug 71341)

Platform: 64-bit is supported; 32-bit is EOL

- Red Hat Enterprise Linux 6  **ACTIVE**
- Red Hat Enterprise Linux 5  **EOL**
- Red Hat Enterprise Linux 4  **EOL**  **EOL**
- Ubuntu 12.04 LTS  **ACTIVE**  **NEW**
- Ubuntu 10.04 LTS  **DEPRECATED**
• Ubuntu 8.04 LTS EOL EOL
• SUSE Linux Enterprise Server 11 ACTIVE
• SUSE Linux Enterprise Server 10 EOL EOL
• Debian 5 EOL EOL
• Fedora 13 EOL
• Fedora 11 EOL EOL

Operating Systems and Browsers supported with the Administration Console
(Bug 71346)
■ Window 7 and Windows XP
  • Internet Explorer 9
  • Firefox 12
  • Safari 5.1.4
  • Chrome 19.0.1084.56 m
■ Mac "Leopard", "Snow Leopard"
  • Firefox 12
  • Safari 5.1.4
  • Chrome 19.0.1084.52
■ RHEL, Ubuntu, SUSE
  • Firefox - 3.6.17.
  • Chrome - 19.0.1084.52

Zimbra Web Client (Advanced)
■ Window XP SP3, Vista and Windows 7
  • IE 8.0 and higher (IE 8 for XP, 9+ for Vista/Win7)
  • Firefox (latest stable version on 5/4)
  • Safari (latest stable version on 5/4)
  • Chrome (Latest stable version on 5/4)
■ Mac OS X 10.5 "Leopard", 10.6 "Snow Leopard", 10.7 "Lion"
  • Firefox (latest stable version on 5/4)
  • Safari (latest stable version on 5/4)
  • Chrome (Latest stable version on 5/4)
■ Linux (RHAT, Ubuntu, Debian, Fedora, SUSE)
• Firefox (latest stable version on 5/4)
• Chrome (Latest stable version on 5/4)

Zimbra Web Client (Standard)

■ Window XP SP3, Vista and Windows 7
  • IE 7.0 and higher (IE 7,8 for XP, 9+ for Vista/Win7)
  • Firefox (latest stable version on 5/4)
  • Safari (latest stable version on 5/4)
  • Chrome (Latest stable version on 5/4)

■ Mac OS X 10.5 "Leopard", 10.6 "Snow Leopard", 10.7 "Lion"
  • Firefox (latest stable version on 5/4)
  • Safari (latest stable version on 5/4)
  • Chrome (Latest stable version on 5/4)

■ Linux (RHAT, Ubuntu, Debian, Fedora, SUSE)
  • Firefox (latest stable version on 5/4)
  • Chrome (Latest stable version on 5/4)

Major Issues Fixed for 8.0

To see a list of all the changes for this release, see the Zimbra Product Portal, (http://pm.zimbra.com/pm_release.php?rel=8.0&prod=zcs)

Major Issues Fixed for 8.0.1

<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>77389</td>
<td>Fixed potential database corruption issue with upgrade to OpenLDAP 2.4.33 or later.</td>
</tr>
<tr>
<td>77953</td>
<td>When upgrading from 8.0.0 to 8.0.1, an LDAP database reload is automatically performed.</td>
</tr>
</tbody>
</table>

Major Issues Fixed for 8.0

<table>
<thead>
<tr>
<th>Issue</th>
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</tr>
</thead>
<tbody>
<tr>
<td>6830</td>
<td>Sorting by To works in the Sent folder, message view and in conversation view.</td>
</tr>
<tr>
<td>26573</td>
<td>Inline attachments are now included in reply/ forwarded messages.</td>
</tr>
<tr>
<td>50123</td>
<td>The zimlets-extras folder has been removed from ZCS. Sample Zimlets are available from the Gallery.</td>
</tr>
</tbody>
</table>
51875  HSM jobs can be configured to be a specific batch size. The `zimbraHsmBatchSize` attribute can be configured either as a global setting or per server to specify the maximum number of items to move during a single HSM operation. The default value is 10000.

51990  ZWC. If out of office is on, users are prompted to turn it off when they sign in to their account.

52647  ZCO. Outlook's Work Offline option is now fully supported.
   OL2003/7: File->Work Offline
   OL2010: Send/Receive ribbon-> Work Offline
   Work Offline can be used in conjunction with Send/Receive Groups to control when connections are made to the server, and when syncs are done. This is useful for connections that are bandwidth/cost-sensitive.

53533  Autocomplete matches now work correctly for Contact Groups.

60205  zmprov. Introduced a new CLI option -r. Using this allows replacement of multi-valued attribute value. If -r is not specified, and neither +/- is provided, than the command fails.

60444  The Zimbra user objectClass has been changed to inetOrgPerson starting with ZCS 8.0. When you provision new members starting with ZCS 8.0, the object class will be inet.OrgPerson. When you upgrade from ZCS 8.0 to 8.0.x, user data will be updated to reflect this change.

60640  The Reading Pane displays on the right by default.

60880  Changed the CA time period from 365d to 1825d (5 years).

60880  Default hard coded time out for self-signed certificates is now set to five years (1825 days).

61088  The Zimbra Assistant feature is no longer available in the Zimbra Web Client.

63722  When you upgrade to ZCS 8.0, the value for `zimbraPrefGalAutoCompleteEnabled` in the default COS is changed from FALSE to TRUE.
   The value for `zimbraPrefGalAutoCompleteEnabled` in other cos's are not changed.
   The default value of `zimbraPrefGalAutoCompleteEnabled` in newly created COS's will be TRUE.

64030  Now if dynamic lists are used, the default is to allow lists of up to 10,000 members. This can be controlled via the localconfig key `postfix_virtual_alias_expansion_limit`.

64123  During the initial installation of ZCS, a GAL sync account is automatically created for the default domain.

67237  Show selection checkbox for selecting email, contract, voicemail items in a list view is now disabled by default. Users will have to go to `Preferences>General` and select `Settings` to display checkboxes.
<table>
<thead>
<tr>
<th>Issue Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>67880</td>
<td>If the zimbra-mta service is installed, Swatch will use it for delivering messages. If it is not installed, Swatch will attempt to use the system sendmail binary for delivering messages. On multi-node servers that do not have zimbra-mta installed, it is necessary to ensure that there is a system sendmail binary that is correctly configured to deliver email if admins expect swatch notifications to work.</td>
</tr>
</tbody>
</table>
| 68263        | Created generic protocol throttle for POP3 and IMAP4 servers. The throttle will limit requests/second from a given IP and from a given account ID. The limit is enforced per-protocol; i.e. requests from POP and IMAP clients are handled separately. The limits are configurable in LC, with the following keys and default values:  

* `imap_throttle_ip_limit` - default 250  
* `imap_throttle_acct_limit` - default 250  
* `imap_throttle_command_limit` - default 25  
* `pop3_throttle_ip_limit` - default 200  
* `pop3_throttle_acct_limit` - default 200 |
| 68749        | When a domain is deleted, ZCS now deletes all its alias domains (i.e. alias domains with `zimbraDomainAliasTargetId` pointing to the domain being deleted.) |
| 68849        | On upgrade the ZCS installer automatically renames the existing admin extension `com_zimbra_smime` to `com_zimbra_smime_cert_admin` to avoid naming conflicts with the new `com_zimbra_smime end user client zimlet`. |
| 69494        | Implement throttle for requests from an IP for LMTP service. By default, no throttling applied because the requests mostly come from internal MTAs. To enable, throttling for LMTP service add the hostname/IP of MTA to `zimbraThrottleSafeHosts` and set the LC key `lmtp_throttle_ip_limit`. |
| 69638        | Windows only issue. See the MSDN link on setting up winHTTP proxy, http://msdn.microsoft.com/en-us/library/windows/desktop/ms761351(v=vs.85).aspx |
| 70758        | Auto provisioned related attributes description and usage have been documented. The text doc is in `/opt/zimbra/doc/autoprov.txt`. |
| 73559        | Free/Busy setting now are displayed correctly on domains. |
| 74430        | The `com_zimbra_linkedin` and `com_zimbra_social` zimlets will be undeployed and removed when you upgrade to ZCS 8.0. These zimlets are available from the Gallery at http://gallery.zimbra.com/.
74521  Customers currently on ZCS 7.x upgrading to latest version of ZCS will require full re-indexing mailboxes for sort-by recipients feature to work properly.

Without full re-indexing the mailbox, sorting by “To” field in the “Sent” folder message view will skip all the messages from the sorted results added before the upgrade.

Note: re-indexing mailbox is an expensive operation and if this feature is NOT so required then, its NOT recommended to do mailbox re-indexing.

75012  Deployments with Firefox do not update the log until the configuration is completed in some cases.

75053  HTTPS by default for logon.

This bug is marked as WORKSFORME.

75152  LDAP based GALsync performance improvements.

75505  In 7.x and earlier releases, the server side logging controlled in log4j.properties was automatically scanned and reloaded even when the server is running.

In 8.0 it is now necessary to invoke zmprov rlog from the command line in order to cause log4j.properties to be reloaded while server is running.

76414  Index data for mailboxes is never deleted so a mailbox index can become very large over time and might be consuming excess disk space because of the large index data.

In 8.0, a new zmprov CLI, compactIndexMailbox (cim) was created to compact index data. This command can be used to reclaim disk space when the index volume starts to become full.

To compact a mailbox's index, type

\[ zmprov cim <name@domain|id> start \]

Note: Depending on the size of the mailbox and the number of deletes this might take awhile. This might require additional free space on the index directory.

You can run this command concurrently. It is recommended to run this command during off peak hours. You cannot cancel the command once it is started.

To see the status of index compaction on a mailbox, type

\[ zmprov getIndexStats <name@domain|id> \]

76427/74430  All non-default and non-certified Zimlets are disabled when upgrading to 8.0.

The com_zimbra_linkedin and com_zimbra_social zimlets will be undeployed and removed when you upgrade to ZCS 8.0.

These zimlets are available from the Gallery at http://gallery.zimbra.com/.

## Security Fixes for 8.0

ZCS release 8.0 includes security fixes.
Beta Features in ZCS 8.0

IPv6 support is beta for 8.0.

When installing ZCS, the installation menu now includes the ability to configure zimbraIPMode to either IPv4 or IPv6. (Bug 72715)

Changes to ZCS 8.0

This section documents major changes to this release of ZCS.

- zimbra_posixaccount and zimbra_samba extensions are removed from ZCS installation. They will be available from the Zimbra Gallery, http://gallery.zimbra.com and be supported and maintained by the Zimbra Community. (Bug 72160)

- Zimbra Desktop will EOL in a future release of Zimbra but ZD 7.2 will be supported with Zimbra 8.0. The technology choices to provide offline access to Zimbra have expanded since the release of Zimbra Desktop 1.0.

- Extra and experimental Zimlets in /opt/zimbra/zimlets-experimental and opt/zimbra/zimlets-extra are removed from ZCS installation. The core Zimlets that ship with ZCS include the following.

  | com_zimbra_phone | com_zimbra_url |
  | com_zimbra_email | com_zimbra_date |
  | com_zimbra_ymemoticons | com_zimbra_dnd |
  | com_zimbra_attachmail | com_zimbra_attachcontacts |
  | com_zimbra_srchhighlighter | com_zimbra_webex |

  Note: When you upgrade to ZCS 8, other Zimlets that you have enabled are disabled. (Bug 50123)

  Zimlets will be available from the Zimbra Gallery, http://gallery.zimbra.com. (Bug 52813)

  The Social and LinkedIn Zimlets were moved to the Zimbra Gallery to be supported and maintained by the Zimbra Community.

- ZCS no longer caches content when using the proxy servlet. The attribute, zimbraProxyCacheableContentTypeTypes, is deprecated. (Bug74769)

- HTTPStoreManager is EOL in ZCS 8. ZCS 8.0 include a new StoreManager SDK for integrations with third party storage solutions.

- Zimbra Instant Messaging (IM) capabilities was removed in ZCS 8.0.

- Family Mailbox feature is removed in ZCS 8.0. See Known Issues, bug 77519 on page 22.

Zimbra Web Client UI Changes

- The default value to view the Mail tab content is Reading Pane on the right.
Get Mail button is removed and refresh is now on the right end of the feature bar.

- The Print option is under the Actions menu.
- For advanced searches, click the magnifying glass in the Search field.
- People Search field was removed.
- Themes default has changed to Serenity.
- Briefcase is disabled by default.
- **Show selection checkbox** for selecting email, contract, voicemail items in a list view is now disabled by default.

**Upgrade Process**

To upgrade from 6.0.x or 7.0.x to 8.0.x, download the latest ZCS 8.0.x software and run the upgrade.

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**Note:** Database reloads are performed on 7.x to any 8.x upgrade.

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**Before You Upgrade**

The following might need to be done before you upgrade.

**Zimbra Database Integrity Check**

Some customers have had corrupted databases prior to upgrade, and the upgrade has in some of those cases exacerbated the problem. In order to detect any corrupted databases as early as possible, we have added an optional step to check the MySQL database with `zmdbintegrityreport` prior to making any system changes. You are prompted to decide if you would like to run the `zmdbintegrityreport`.

The `zmdbintegrityreport` can take minutes to an hour to run, depending on your system size and disk bandwidth.

---

**Note:** The `zmdbintegrityreport` is run on a weekly basis from cron on all zimbra-store nodes. Large sites can opt to disable this by setting `zmlocalconfig -e zmdbintegrityreport_disabled=TRUE`. If you choose to disable this, it is recommended that the integrity reports be run by hand during the your normal maintenance windows and prior to running any ZCS upgrades.

---

**Preparing Your OS**

Before you upgrade ZCS, Zimbra recommends that the operating system is updated with the latest patches that have been tested with ZCS.
SLES 11 OS only.

The upgrade to ZCS 8.0 will fail unless the following steps are taken before upgrading ZCS. (Bug 77112)

To `/etc/profile` add the following

```
ulimit -v unlimited
ulimit -m unlimited
```

**Important:** If your OS is SUSE Linux Enterprise Server 11, we recommend you have SP2 installed. (Bug 52031)

**Verify Certificates Expiration Date**

ZCS 8.0.x requires a valid self-signed or commercial SSL certificate for communication between some components. The self-signed certificates that are automatically created by the ZCS install have a default expiration in ZCS 7.2 or earlier of 365 days, beginning with ZCS 8.0 default expiration is 1825 days (5 years).

If you have an ZCS installation that is over one year old and are using self-signed certificates, your certificates will need to be updated either prior to the upgrade or immediately following the upgrade.

After you upgrade, the following commands run as the zimbra user will regenerate the self-signed SSL certificates:

- `sudo zmcertmgr createca -new`
- `sudo zmcertmgr deployca`
- `sudo zmcertmgr deploycrt self -new`

**ZCS**

**Important:**

If you use Zimbra Clustering

Zimbra Clustering is no longer available for ZCS 8.0. VMware provides integrated high availability between VMware Zimbra and VMware HA for automated recovery of critical Zimbra application services and server components in the event of an application or infrastructure failure. Third party solutions such as network load balancers, storage mirroring, or OS clustering solutions like Red Hat Cluster Suite may be used in your deployment, but are not specifically tested or certified by VMware. (Bug75821)

**Upgrade Instructions**

Go to www.zimbra.com Open Source Edition Download page for the latest version of the software.
Important: Even though the upgrade process does not delete accounts on the mailbox server, you should back up the mailbox server before you begin the upgrade. After you upgrade, you should back up your server again.

When you run the install script, if ZCS is already installed, you will be asked if you want to upgrade. Follow the instructions in this release note to perform the upgrade. For additional information, refer to the installation guide.

Important: VMware recommends that an install or upgrade session be run with a UNIX command such as “screen” to help prevent an install or upgrade session from terminating before it is completed. This is important when the upgrade includes restoring a configuration that has a large number of accounts.

Example command usage: screen ./install.sh

Note: You cannot revert to a previous ZCS release after you upgrade.

Single-Server Upgrade Steps

Read the release notes before you begin.

You do not need to stop the services before upgrading. The upgrade process automatically stops and starts the services as required for the upgrade.

Process

1. Log in as root to the Zimbra server and cd to the directory where the ZCS Open Source Edition 8.0 Draft archive tar file is saved (cd /var/tmp). Type the following commands:

   tar xzvf zcs.tgz, to unpack the file
   cd [zcsversionfullname], to change to the correct directory
   ./install.sh, to begin the upgrade installation

   The upgrade script begins by checking for an existing installation.

2. The Zimbra software agreement is displayed. Read this software license agreement and type Y.

3. The installer checks for prerequisites. If any are missing, the upgrade stops. Next, Do you want to verify message store database integrity (Y) is displayed. The default is Yes. This step runs zmdbintegrityreport to verify that the MySQL database is not corrupt before upgrading to the latest ZCS.

   The zmdbintegrityreport can take minutes to an hour to run, depending on your system size and disk bandwidth. It is preferable that you run zmdbintegrityreport at the time of the ZCS upgrade. If you choose to skip this now, the zmdbintegrityreport will run during a regular scheduled interval after the upgrade is finished.
4. When **Do you wish to upgrade? [Y]** is displayed, press **Enter** to continue. The upgrade packages are unpacked.

5. The packages are listed. The installer also lists packages that are not installed. If you want to install the packages at this time, type **Y**; otherwise press **Enter**. The upgrade checks that there is enough space to perform the upgrade. If there is not enough space, the upgrade stops.

6. When **The system will be modified. Continue? [N]** is displayed, type **Y** and press **Enter**. The Zimbra server is stopped, and the older packages are removed. The upgrade process verifies which version of ZCS is being run and proceeds to upgrade the services, restores the existing configuration files, and restarts the server. If you have a configuration with a large number of accounts created, this can take a while.

7. If you have not set the time zone, you will be asked to set it. This sets the time zone in the default COS. The time zone that should be entered is the time zone that the majority of users in the COS will be located in.

8. When **Configuration complete – press return to exit** displays, press **Enter**. The upgrade is complete.

**Multi-Server Environment Upgrade Steps**

Upgrade the servers in the following order. Update each server one at a time.

- LDAP master server. The LDAP master server must be running as you upgrade the other servers.
- LDAP replicas
- MTA servers
- Proxy servers
- Mail store servers

**IMPORTANT: Certificates.** If self-signed certificates are used, after the LDAP master is upgraded, the self-signed certificates must be redeployed on all remaining nodes **BEFORE** they are upgraded. If you do not do this, the upgrade will fail. Use CLI zmcertmgr to add the certificates. As root, type

```
/opt/zimbra/bin/zmcertmgr deploycrt self
```

**Process**

1. Log in as **root** to the Zimbra server and **cd** to the directory where the ZCS upgrade archive tar file is saved (cd /var/tmp). Type the following commands:

   - `tar xzvf zcs.tgz`, to unpack the file
   - `cd [zcsversionfullname]`, to change to the correct directory
   - `./install.sh`, to begin the upgrade installation

   The upgrade script begins by checking for an existing installation.
2. Three software license agreements are displayed. Read these license agreements and enter Y for each.

3. The installer checks for prerequisites. If any are missing, the upgrade stops.

4. When you upgrade the mail store server, the installer displays **Do you want to verify message store database integrity (Y)** is displayed. The default is **Yes**. This step runs **zmdbintegrityreport** to verify that the MySQL® database is not corrupt before upgrading to the latest ZCS.

Running `zmdbintegrityreport` can take minutes to an hour to run, depending on your system size and disk bandwidth. It is preferable that you run zmdbintegrityreport at the time of the ZCS upgrade. If you choose to skip this now, the zmdbintegrityreport will run during a regular scheduled interval after the upgrade is finished.

When the MySQL software versions are changed during upgrades, the underlying database tables need to be upgraded. The zmdbintegrityreport does this automatically during it’s first run and will report the changes. These are normal and should not cause alarm when upgrading.

5. When **Do you wish to upgrade? [Y]** is displayed, press **Enter** to continue. The upgrade packages are unpacked.

6. The packages you want to install on the server should be marked **Y**. All other packages should be marked **N**.

   The upgrade checks that there is enough space to perform the upgrade. If there is not enough space, the upgrade stops.

7. When **The system will be modified. Continue?** is displayed, type **Y** and press **Enter**. The server is stopped and the older packages are removed. The upgrade process verifies which version of ZCS is being run and proceeds to upgrade the services, restores the existing configuration files, and restarts the system. If you have a configuration with a large number of accounts created, this can take a while.

8. When **Configuration complete – press return to exit** displays, press **Enter**. The upgrade is complete. Continue to upgrade each server.

**After the Upgrade is Complete**

After you completed the upgrade to ZCS 8.0, the following bullet items might need to be addressed.

- **You should run `zmldapupgrade -b 66387` after upgrading.**

  Beginning with 8.0, **zimbraAllowFromAddress** attribute cannot be set for internal accounts or distribution lists. Running this script will change **zimbraAllowFromAddress** values to grants.

  This step was not included into the installer-driven upgrade due to potentially long delay for sites that set **zimbraAllowFromAddress** on many accounts.
The migration command reports how many accounts had `zimbraAllowFromAddress` attribute set and how many of them needed migration. One way to verify all accounts got migrated is to run the command again. The total won't change, and the number migrated should be 0. (Bug 66387)

- If your self-signed SSL certificates have expired, update them. See Verify Certificates Expiration Date on page 16.
- If you have configured the following keys, you will need to replace them as described here.

  The following keys are deprecated:
  ```
  httpclient_client_connection_timeout
  httpclient_connmgr_connection_timeout
  httpclient_connmgr_idle_reaper_connection_timeout
  httpclient_connmgr_idle_reaper_sleep_interval
  httpclient_connmgr_keepalive_connections
  httpclient_connmgr_max_host_connections
  httpclient_connmgr_max_total_connections
  httpclient_connmgr_so_timeout
  httpclient_connmgr_tcp_nodelay
  ```

  and are replaced by the following keys:
  ```
  httpclient_internal_client_connection_timeout
  httpclient_internal_connmgr_connection_timeout
  httpclient_internal_connmgr_idle_reaper_connection_timeout
  httpclient_internal_connmgr_idle_reaper_sleep_interval
  httpclient_internal_connmgr_keepalive_connections
  httpclient_internal_connmgr_max_host_connections
  httpclient_internal_connmgr_max_total_connections
  httpclient_internal_connmgr_so_timeout
  httpclient_internal_connmgr_tcp_nodelay
  httpclient_external_client_connection_timeout
  httpclient_external_connmgr_connection_timeout
  httpclient_external_connmgr_idle_reaper_connection_timeout
  httpclient_external_connmgr_idle_reaper_sleep_interval
  httpclient_external_connmgr_keepalive_connections
  httpclient_external_connmgr_max_host_connections
  httpclient_external_connmgr_max_total_connections
  httpclient_external_connmgr_so_timeout
  httpclient_external_connmgr_tcp_nodelay
  ```
Updating your MySQL table

If you upgrading from 6.X to ZCS 8.0 or later, MySQL table upgrade is required after upgrading. If you do not upgrade MySQL, regular reports from zmdbintegritreport are going to flag warnings in your MySQL table. Customers can avoid these errors in the zmdbintegritreport output by executing `/opt/zimbra/libexec/scripts/migrate20100913-Mysql51.pl.
(Bug 24329, 50557)

MySQL upgrades are not automatically run during the upgrade to 8.0.x, because of the time that it takes this process to run. There is no known performance impact when running in production without doing this MySQL table upgrade.

Applying the Mysql51.pl script requires all Zimbra services except mysql.server to be stopped.

This script should be executed on all the mailstore servers where the mailboxd process is running. For a 4000 mailbox, 250 MB mailbox size, the script could take about 70 minutes to run. Customers should schedule their maintenance window accordingly.

To run the script:
1. Switch to zimbra user.
   `su - zimbra`
2. Stop mailboxd services to avoid email communications that might cause an interruption.
   `zmmailboxdctl stop`
3. Execute the perl script to upgrade the database tables.
   `/opt/zimbra/libexec/scripts/migrate20100913-Mysql51.pl`
4. Start the mailboxd service.
   `zmmailboxdctl start`

Remove Current Version and Perform Clean Install of ZCS

If you do not want to upgrade, but prefer to install ZCS Open Source Edition 8.0 Draft as a new installation, when you run the ZCS install script, enter N (no) when asked Do you wish to upgrade?

A warning displays asking if you want to delete all existing users and mail. If you enter Yes, all users, mail, and previous files are removed before proceeding with the new installation. Refer to the installation guides for installation instructions.

Status of Your Customization to ZCS after Upgrade

Upgrading to the newest release does not delete your accounts or change your configuration.
Configuration settings stored in LDAP and localconfig are preserved during upgrades. Any files installed by ZCS might be deprecated and/or overwritten during upgrades, removing any customizations. This includes customized themes, logo branding changes, and crontab changes.

Only the core Zimlets are enabled after the upgrade. Zimlets that you customized and/or deployed are preserved during the upgrade but will be disabled. As upgrading of customized Zimlets cannot be tested before the release, Zimbra recommends that you verify that your customized Zimlets work correctly before re-enabling them for your end-users after the upgrade. The core Zimlet list is on page 14.

All entries between the designated comments in the Zimbra crontab file are overwritten with new defaults upon upgrade.

**Known Issues**

Zimbra engineering has identified a number of issues with the software, and we are actively working to resolve them. Following are the issues that are most likely to occur. All known bugs are listed in Zimbra's Bugzilla database, available on the Zimbra web site, at [www.zimbra.com](http://www.zimbra.com).

**Known Issues for 8.0**

<table>
<thead>
<tr>
<th>Issue #</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>77519</td>
<td>If you are using family accounts, wait for 8.0.2 to upgrade, unless you feel confident enough to manually fix your LDAP data. Note that family accounts are not supported in ZCS 8.0, and the upgrade or workaround will make the former “child” accounts a normal account. See bug 77519, Comment 24 for the workaround steps and a sample shell script. (<a href="http://bugzilla.zimbra.com/">http://bugzilla.zimbra.com/</a>)</td>
</tr>
<tr>
<td>78046</td>
<td>It is not possible to rename accounts when the LDAP servers are running 8.x and the mail store are still on 7.x without special workarounds as noted in the bug, comment 14. Bugzilla, (<a href="http://bugzilla.zimbra.com/">http://bugzilla.zimbra.com/</a>)</td>
</tr>
<tr>
<td>75254</td>
<td>Multinode configuration with self-signed certificates will not function in a rolling upgrade. Commercial certificates are required in order to do rolling upgrades.</td>
</tr>
<tr>
<td>75280</td>
<td>When using the new quick reply feature to reply to a message, the original message is not added as an attachment, even if the user's preferences are set to include the original message. This is the correct behavior.</td>
</tr>
<tr>
<td>74941</td>
<td>Wont fix. Sender missing in mime content (REST) for on-behalf-of messages when ZCS 7.2 user sends message on behalf of ZCS 8.0 user</td>
</tr>
<tr>
<td>75386</td>
<td>Won't Fix. LinkedIn and Twitter Search Zimlets do not work for ZCS 8.0.</td>
</tr>
</tbody>
</table>
### Previous General Known Issues

<table>
<thead>
<tr>
<th>Issue #</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>75459</strong></td>
<td>Make cross version sharing does not work. Users on ZCS 7.x cannot access shares on ZCS 8.0.</td>
</tr>
<tr>
<td><strong>75474</strong></td>
<td>Make sure all users sending mail on behalf of (OBO) are on ZCS 8.0</td>
</tr>
<tr>
<td><strong>75527</strong></td>
<td>Make sure all Briefcase users that are sharing with each other are on the same version of ZCS.</td>
</tr>
<tr>
<td><strong>50272</strong></td>
<td>Harmless errors are reported by the zmdbintegrityreport.</td>
</tr>
<tr>
<td><strong>76803</strong></td>
<td>Proxy does not honor <code>zimbraReverseProxyMailMode</code>. You must manually restart the server with <code>zmcontrol restart</code>.</td>
</tr>
<tr>
<td><strong>75523</strong></td>
<td>Rolling Upgrade: Contact Group members not displayed when 7.x user shares AB with 8.x user</td>
</tr>
<tr>
<td><strong>77112</strong></td>
<td><strong>SLES 11 OS only.</strong> The upgrade to ZCS 8.0 will fail unless the following steps are taken before upgrading ZCS. To <code>/etc/profile</code> add the following ulimit -v unlimited ulimit -m unlimited</td>
</tr>
<tr>
<td><strong>77310</strong></td>
<td>Deleting and then recreating the GAL sync account can lead to inconsistent data for all clients. Those clients must resync the GAL.</td>
</tr>
</tbody>
</table>

## Known third-party browser issues

Some browser issues can affect how the Zimbra administration console and Zimbra Web Client work.

When you get a browser error, try reloading the browser to continue.

- If you use the Firefox browser, the cursor position may not be visible in the text boxes, and you have no visual feedback to continue to enter text. Even though you cannot see the cursor, type in the boxes as normal.
- If mail is displayed in HTML format, you cannot select the text with the mouse.

---

**Issue 48997**

Customers currently on ZCS 6.0.8 and using a non-default password change listener should make sure that the zimbraPasswordChangeListener attribute is set up correctly at the domain level, before upgrading to ZCS 7.x.

To check the value of the attribute, run

```
$ zmprov gd YOUR_DOMAIN zimbraPasswordChangeListener
```

To change the value, say, to the samba password listener, run

```
$ zmprov md YOUR_DOMAIN zimbraPasswordChangeListener sambapassword
```

**Issue 55174**

Calendar Week Numbers displayed in the mini-calendar must be set to Monday to display the correct European week numbers.
If the Short Cut Trainer Zimlet is enabled, when a message is deleted a script error is displayed. To avoid this, disable this Zimlet. This is not a supported Zimlet.

Family Mailbox was not supported in ZCS 7.X. See Changes to ZCS 8.0 on page 14 for more information.

A forwarded recurring appointment instance will not update the organizer’s attendee list. Therefore, if the organizer modifies the appointment, the user with the forwarded appointment will not get updated.

After activating or updating a license, the administrator can run `zmprov fc -a license` to immediately flush the license cache on all mailbox nodes.

Third-party issue. iPhone calendar might not sync correctly when declining or accepting an appointment in ZWC after the appointment has already been accepted/declined from iPhone.

The Undo Send Zimlet might cause messages to be sent with no content in the body. To avoid this, disable the Zimlet.

The ability to completely disable SSL Renegotiation might be desirable for some environments, but due to the performance degradation it is not optimal to use as a default setting.

The SslSelectChannelConnector can be forced to disable client renegotiate requests via the "allowRenegotiate" attribute, for said connector, in jetty.xml.in/jetty.xml.

The default setting is allowRenegotiate=TRUE. Explicitly setting to "FALSE" will configure ZCS to always disallow SSL renegotiation for the SSL connector in question. A mailboxd restart is required for this change.

For instance:

```xml
<New id="ssl" class="org.eclipse.jetty.server.ssl.SslSelectChannelConnector">
    <Set name="Port">%%zimbraMailSSLPort%%</Set>
    <Set name="allowRenegotiate">FALSE</Set>
    <Set name="useDirectBuffers">%%zimbraMailUseDirectBuffers%%</Set>
    <Set name="maxIdleTime">30000</Set>
    <Set name="lowResourcesMaxIdleTime">10000</Set>
    <Set name="Acceptors">2</Set>
    <Set name="keystore"><SystemProperty name="jetty.home" default=".="/etc/keystore</Set>
    <Set name="password">@@mailboxd_keystore_password@@</Set>
    <Set name="KeyPassword">@@mailboxd_keystore_password@@</Set>
    <Set name="ExcludeCipherSuites">
        <Array type="java.lang.String">
            %%zimbraSSLExcludeCipherSuitesXML%%
        </Array>
    </Set>
    <Set name="Forwarded">true</Set>
</New>
```
<table>
<thead>
<tr>
<th>Bug ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>69940</td>
<td>When receiving an encrypted message with attachments, the Download, Briefcase and Remove links are not displayed, and the size of the attachment is not available.</td>
</tr>
<tr>
<td>71141</td>
<td>Zimbra logger is not directly supported in mixed syslog (rsyslog, syslogd, sysklogd) environments due to formatting differences between the varying systems.</td>
</tr>
</tbody>
</table>

**Product Documentation**

Online help and ZCS documents are available on the administration console. Documentation can also be found on the Zimbra web site, and the Zimbra wiki has articles that the support team and the community have written in response to troubleshooting and administration issues.

**Bug Reporting**

If you encounter problems with this software, go to [http://bugzilla.zimbra.com](http://bugzilla.zimbra.com) to submit a bug report. Make sure to provide enough detail so that the bug can be easily duplicated. Also, to discuss issues and this software in general, please visit our community forums at [http://www.zimbra.com/forums](http://www.zimbra.com/forums).

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ZCS 8.0.1

October 2012

Rev 1
Appendix A  Using DKIM to Authenticate Email Messages

Domain Keys Identified Mail (DKIM) defines a domain-level authentication mechanism that lets your organization take responsibility for transmitting an email message in a way that can be verified by a recipient. Your organization can be the originating sending site or an intermediary. Your organization’s reputation is the basis for evaluating whether to trust the message delivery.

You can add a DKIM digital signature to outgoing email messages, associating the message with a domain name of your organization. You can enable DKIM signing for any number of domains that are being hosted by ZCS. It is not required for all domains to have DKIM signing enabled for the feature to work.

DKIM defines an authentication mechanism for email using

- A domain name identifier
- Public-key cryptography
- DNS-based public key publishing service.

The DKIM signature is added to the email message header field. The header information look like this example.

```
DKIM-Signature a=rsa-sha1; q=dns; 
d=example.com; 
i=user@eng.example.com; 
s=jun2005.eng;c=relaxed/simple; 
t=1117574938; x=1118006938; 
h=from:to:subject:date; 
b=dzdVyOfAKCdLXdjOc9G2q8LoXSIEmiSb 
    av+yuU4zGeeruD00lszZVoG4ZHRNiYzR
```

Receivers who successfully validate a DKIM signature can use information about the signer as part of a program to limit spam, spoofing, phising, or other undesirable behavior.

Configure ZCS for DKIM Signing

DKIM signing to outgoing mail is done at the domain level. To set up DKIM you must run the CLI zmdkimkeyutil to generate the DKIM keys and selector. You then update the DNS server with the selector which is the public key.

1. Log in to the ZCS server and as zimbra, type
The public DNS record data that must be added for the domain to your DNS server is displayed. The public key DNS record appears as a DNS TXT-record that must be added for the domain to your DNS server.

```
/opt/zimbra/libexec/zmdkimkeyutil -a -d <example.com>
```

The generated DKIM data is stored in the LDAP server as part of the domain LDAP entry.

2. Work with your service provider to update your DNS for the domain with the DKIM DNS text record. Send the selector name.

For the domain example.com, the selector is B534F5FC-EAF5-11E1-A25D-54A9B1B23156.

3. Reload the DNS and verify that the DNS server is returning the DNS record.

4. To verify that the public key matches the private key, type

```
/opt/zimbra/opendkim/bin/opendkim-testkey -d <example.com> -s <0E9F184A-9577-11E1-AD0E-2A2FBBAC6BCB> -x /opt/zimbra/conf/opendkim.conf
```

- -d is the domain name
- -s is the selector name
- -x is the configuration file

**Update DKIM Data for a Domain**

When the DKIM keys are updated, the DNS server must be reloaded with the new TXT record.

Good practice is to leave the previous TXT record in DNS for a period of time so that email messages that were signed with the previous key can still be verified.

1. Log in to the ZCS server and as zimbra, type

```
/opt/zimbra/libexec/zmdkimkeyutil -u -d <example.com>
```

2. Work with your service provider to update your DNS for the domain with the DKIM DNS text record. Send the selector name.

3. Reload the DNS and verify that the DNS server is returning the DNS record.
4. To verify that the public key matches the private key, type

```
/opt/zimbra/opendkim/bin/opendkim-testkey -d <example.com> -s <0E9F184A-9577-11E1-AD0E-2A2FBBAC6BCB> -x /opt/zimbra/conf/opendkim.conf
```

- `d` is the domain name
- `s` is the selector name
- `x` is the configuration file

**Remove DKIM Signing from ZCS**

Removing DKIM signing deletes the DKIM data from LDAP. New email message no longer are signed for the domain. When you remove DKIM from the domain, good practice is to leave the previous TXT record in DNS for a period of time so that email messages that were signed with the previous key can still be verified.

1. To remove, type

```
/opt/zimbra/libexec/zmdkimkeyutil -r -d example.com
```

**Retrieve DKIM Data for a Domain**

1. To see the stored DKIM information for the domain, selector, private key, public signature and identity, type

```
/opt/zimbra/libexec/zmdkimkeyutil -q -d example.com
```
Appendix B  Auto-Provision New Accounts from External LDAP Directory

When an external LDAP authentication mechanism, such as external LDAP authentication, preauth, or SPNEGO, is configured for a ZCS domain, you can set up ZCS to automatically create users accounts on ZCS. Primary email address and account attributes are mapped from an external directory.

You can configure how and when new accounts should be created from the external directory data.

- **LAZY mode.** When users log into ZWC the first time through one of the authentication mechanisms supported for auto provisioning and when the user does not exist in the ZCS directory, a new account is automatically created in ZCS for the user.

- **EAGER mode.** ZCS polls the external directory for accounts to auto provision. You configure how often the external directory is polled for new users, the maximum number of users to process at each interval, and which domains are scheduled for account auto provision on which servers.

When an account is created, the account name (characters before @) is mapped from a user attribute on the external directory that you define in `zimbraAutoProvAccountNameMap`. Other account information, such as first and last name, phone numbers, address, is populated from the attributes mapped from the external directory based on `zimbraAutoProvAttrMap`. Review the external directory’s attributes to determine which ones should be mapped to a zimbra attribute.

COS assignment for auto-provisioned accounts is exactly the same as how COS is determined for manually provisioned accounts. That is, if a COS is set for the domain, this COS is assigned to the accounts that are created. If a domain COS is not set, the ZCS default COS is assigned.

You can configure a **Welcome** email messages that is sent to the new accounts when it is created. The subject and body of the email can be configured on `AutoProvNotification***` attributes on the domain.

**Auto-Provision Attributes**

The following attributes are used with zmprov to configure auto provisioning of new accounts with an external LDAP directory. Most of the auto-provision attributes are on the domain level.
<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain</strong></td>
<td></td>
</tr>
<tr>
<td><code>zimbraAutoProvMode</code></td>
<td>Enables the auto provision mode to use. Multiple modes can be enabled on a domain. Value: EAGER, LAZY</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td></td>
</tr>
<tr>
<td><code>zimbraAutoProvAuthMech</code></td>
<td>Type of authentication mechanisms enabled for auto provision in LAZY mode. When a user authenticates via one of these external authentication mechanisms, and when the user account does not yet exist in Zimbra directory, an account is automatically created in Zimbra directory. Value: LDAP, PREAUTH, KRB5, SPNEGO</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td></td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapURL</code></td>
<td>LDAP URL of the external LDAP source for auto provision.</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td></td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapStartTlsEnabled</code></td>
<td>Whether to use the StartTLS protocol when accessing the external LDAP server for auto provision. The default is FALSE.</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td></td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapAdminBindDn</code></td>
<td>Defines the LDAP search bind DN for auto provision.</td>
</tr>
<tr>
<td><strong>Admin</strong></td>
<td></td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapAdminBindPassword</code></td>
<td>Sets the LDAP search admin bind password for auto provision</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td></td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapSearchBase</code></td>
<td>Defines the LDAP search base for auto provision, used in conjunction with <code>zimbraAutoProvLdapSearchFilter</code>. If not set, LDAP root DSE will be used.</td>
</tr>
</tbody>
</table>


### Domain

**zimbraAutoProvLdapSearchFilter**  
Defines the LDAP search filter template for account auto provisioning. For LAZY mode, either `zimbraAutoProvLdapSearchFilter` or `zimbraAutoProvLdapBindDn` must be set. If both are set, `zimbraAutoProvLdapSearchFilter` will take precedence.

Supported place holders:

- `%n` = username with @ symbol. Returns user1@domain.com
- `%u` = username with @ removed. Returns user1
- `%d` = domain, returns domain.com
- `%D` = domain as dc=domain,dc=com

### Domain

**zimbraAutoProvLdapBindDn**  
Defines the LDAP external DN template for account auto provisioning. For LAZY mode, either `zimbraAutoProvLdapSearchFilter` or `zimbraAutoProvLdapBindDn` must be set. If both are set, `zimbraAutoProvLdapSearchFilter` will take precedence.

Supported place holders:

- `%n` = username with @
- `%u` = username with @ removed
- `%d` = domain as domain.com
- `%D` = domain as dc=domain,dc=com

### Domain

**zimbraAutoProvAccountNameMap**  
Defines the attribute name in the external directory that contains local part of the account name. This is the name used to create the Zimbra account. If this is not specified, the local part of the account name is the principal user used to authenticated to Zimbra.
<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
</table>
| Domain               | Defines the attribute map for mapping attribute values from the external entry to Zimbra account attributes. Values are in the format of `{external attribute}={zimbra attribute}`. If this is not set, no attributes from the external directory are populated in Zimbra account.  
**Note:** Invalid mapping configuration will cause the account creation to fail.  
Examples of bad mapping:  
- invalid external attribute name.  
- invalid Zimbra attribute name.  
- external attribute has multiple values but the zimbra attribute is single-valued.  
- syntax violation. e.g. Value on the external attribute is a String but the Zimbra attribute is declared an integer |
| Domain               | Defines the email address to put in the From header for the Welcome email sent to the newly created account. If not set, no notification email is sent to the newly created account. |
| **zimbraAutoProvAttrMap** | Template used to construct the subject of the notification message sent to the user when the user’s account is auto provisioned.  
Supported variables:  
${ACCOUNT_ADDRESS}$,  
${ACCOUNT_DISPLAY_NAME}$ |
| Domain               | Template used to construct the subject of the notification message sent to the user when the user’s account is auto provisioned.  
Supported variables  
${ACCOUNT_ADDRESS}$,  
${ACCOUNT_DISPLAY_NAME}$ |
### Attribute Description

<table>
<thead>
<tr>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>zimbraAutoProvListener-Class</strong></td>
</tr>
<tr>
<td>Class name of auto provision listener. The class must implement the <code>com.zimbra.cs.account.Account.AutoProvisionListener</code> interface. The singleton listener instance is invoked after each account is auto created in Zimbra. Listener can be plugged in as a server extension to handle tasks like updating the account auto provision status in the external LDAP directory.</td>
</tr>
</tbody>
</table>

At each eager provision interval, ZCS does an LDAP search based on the value configured in `zimbraAutoProvLdapSearchFilter`. Returned entries from this search are candidates to be auto provisioned in this batch. The `zimbraAutoProvLdapSearchFilter` should include an assertion that will only hit entries in the external directory that have not yet been provisioned in ZCS, otherwise it's likely the same entries will be repeated pulled in to ZCS. After an account is auto provisioned in ZCS, `com.zimbra.cs.account.Account.AutoProvisionListener.postCreate` (Domain domain, Account acct, String external DN) will be called by the auto provisioning framework. Customer can implement the AutoProvisionListener interface in a ZCS server extension and get their `AutoProvisionListener.postCreate()` get called. The implementation of customer's post Create method can be, for example, setting an attribute in the external directory on the account just provisioned in ZCS. The attribute can be included as a condition in the `zimbraAutoProvLdapSearchFilter`, so the entry won’t be returned again by the LDAP search in the next interval.

<table>
<thead>
<tr>
<th>Domain, Global Config</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>zimbraAutoProvBatchSize</strong></td>
</tr>
<tr>
<td>Sets the maximum number of accounts to process in each interval for EAGER auto provision.</td>
</tr>
</tbody>
</table>
Configure Eager Mode Auto-Provisioning

ZCS polls the external directory for accounts to auto provision. You configure how often the external directory is polled for new users, the maximum number of users to process at each interval, and which domains are scheduled for account auto provision on which servers.

1. Log in to the ZCS server and as zimbra, type
   
   zmprov

2. Enable the EAGER mode,
md <domain.com> zimbraAutoProvMode EAGER

3. Configure the maximum number of accounts to process in each interval. Type,
   md <domain.com> zimbraAutoProvBatchSize <#>

4. Configure the interval between polling and provisioning of accounts. This must be set to a non-0 value for the auto provisioning thread to start. The default is 15 minutes. Type
   ms <server.com> zimbraAutoProvPollingInterval <x> minutes

5. Select the domains to be scheduled for auto provisioning. Multiple domains can be scheduled on the server. A domain can be scheduled on multiple servers as well.
   ms <server.com> +zimbraAutoProvScheduledDomains <domain1.com>
   +zimbraAutoProvScheduledDomains <domain2.com>

6. Configure the external LDAP settings
   a. LDAP URL:
      md <domain.com> zimbraAutoProvLdapURL "ldap:// xxx.xxx.xxx.xxx:<port>
      The LDAP port is usually 389.
   b. Enable StartTls (optional).
      md <domain.com> zimbraAutoProvLdapStartTlsEnabled TRUE
   c. LDAP Admin bind DN for auto provision in the format
      cn=<LDAPadmin_name>, dc=autoprov, dc=<company_name>,
      dc=com
      md <domain.com> zimbraAutoProvLdapAdminBindDn "cn=admin,
      dc=autoprov, dc=company, dc=com"
   d. Administrator’s LDAP search bind password for auto provision.
      md <example.com> zimbraAutoProvLdapAdminBindPassword <password>
   e. Define the search template to use when searching for users to auto provision. Supported search terms to use include:
      • %n - User name with the @.
      • %u - User name with the @ removed.
      • %d - Domain as domain.com
      • %D - Domain as dc=domain,dc=com
      To use the LDAP search filter, type
      md <domain.com> zimbraAutoProvLdapSearchFilter
      “(uid=%placeholdeer)”
f. Define the LDAP search base for auto provision. This is the location in
the directory from which the LDAP search begins. This is used with
`zimbraAutoProvLdapSearchFilter`. If this is not set, the LDAP directory
root, `rootDSE`, is the starting point. Type

```
md <domain.com> zimbraAutoProvLdapSearchBase <"location">
```

For example, “dc=autoprov,dc=company,dc=com”

g. Define the LDAP external DN template for account provisioning.
   Supported place holders include
   ```
   • %n - User name with the @
   • %u - User name with the @ removed
   • %d - Domain as domain.com
   • %D - Domain as dc=domain,dc=com
   ```
   md <domain.com> zimbraAutoProvLdapBindDn <"placeholder1”>

7. (Optional). Define the attribute name that is mapped to the local part of the
   account name on the external directory. This is used to define the account
   name on ZCS. If this is not specified, the local part of the account name is
   the principal user name used to authenticate to ZCS.

```
md <domain.com> zimbraAutoProvAccountNameMap < value>
```

8. (Optional). Map the attribute values from the external entry to the ZCS
   account attributes. If this is not set up, no attributes from the external
directory are populated in the ZCS directory. The value is mapped in the
form of `{external attribute}={zimbra attribute}`.

**IMPORTANT:** Invalid mapping configuration will cause the account
creating to fail.

To map the “sn” value on the external entry to “displayName” on the
Zimbra account and map description value on the external entry to
description on the ZCS account, type

```
md <domain.com> +zimbraAutoProvAttrMap sn=displayName
+zimbraAutoProvAttrMap description=description
```

9. (Optional) If you want to send a Welcome email to new accounts, enter the
   from address of the originator. Type

```
md <domain.com> zimbraAutoProvNotificationFromAddress
<name@domain.com>
```

10. To exit zmprov, type

```
exit
```
Configure Lazy Mode Auto-Provisioning

Lazy mode auto provisioning automatically creates a new account when a user authenticates from one of the following external authentication mechanisms: LDAP, preauth, Kerberos 5, Spnego.

1. Log in to the ZCS server and as zimbra, type
   `zmprov`

2. Enable the LAZY mode,
   `md <domain.com> zimbraAutoProvMode LAZY`

3. Select the external authentication mechanism for the LAZY mode: LDAP, PREAUTH, KRB5, SPNEGO. You can select more than one.
   `md <example.com> zimbraAutoProvAuthMech <type>
+ zimbraAutoProvAuthMech <type2>`

4. Configure the external LDAP settings
   a. LDAP URL:
      `md <domain.com> zimbraAutoProvLdapUrl "ldap://
xxx.xxx.xxx.xxx:<port>"
      The LDAP port is usually 389.
   b. Enable StartTls (optional).
      `md <domain.com> zimbraAutoProvLdapStartTlsEnabled TRUE`
   c. LDAP Admin bind DN for auto provision in the format
      `cn=<LDAPadmin_name>, dc=autoprov, dc=<company_name>,
dc=<com>`
      `md <domain.com> zimbraAutoProvLdapAdminBinDn <bindDN>
For example, “cn=admin, dc=autoprov, dc=company, dc=com”`
   d. Administrator’s LDAP search bind password for auto provision.
      `md <example.com> zimbraAutoProvLdapAdminBindPassword <password>`
   e. (Optional) Define the search template to use when searching for users to auto provision.
      `Note: Either zimbraAutoProvLdapSearchFilter or
zimbraAutoProvLdapBindDn must be configured for the LAZY mode.`
      Supported search terms to use include:
      - %n - User name with the @.
      - %u - Username with the @ removed.
      - %d - Domain as domain.com
      - %D - Domain as dc=domain,dc=com
      To use the LDAP search filter, type
f. Define the LDAP search base for auto provision. This is the location in the directory from which the LDAP search begins. This is used with \texttt{zimbraAutoProvLdapSearchFilter}. If this is not set, the LDAP directory root, \texttt{rootDSE}, is the starting point. Type

\begin{verbatim}
md <domain.com> zimbraAutoProvLdapSearchBase <"location"
\end{verbatim}

For example, “dc=autoprov,dc=company,dc=com”

g. (Optional) Define the LDAP external DN template for account provisioning. Supported place holders include

- \%\texttt{n} - User name with the @, or without, if no @ was specified.
- \%\texttt{u} - Username with the @ removed
- \%\texttt{d} - Domain as foo.com
- \%\texttt{D} - Domain as dc=foo,dc=com

\begin{verbatim}
md <domain.com> zimbraAutoProvLdapBindDn "uid=%<placeholder1>,%
\texttt{placeholder2}"
\end{verbatim}

5. (Optional). Identify the attribute name on the external entry that contains the local part of the account name to be provisioned in ZCS. If this is not specified, the local part of the account name is the principal user used to authenticate to ZCS.

\begin{verbatim}
md <domain.com> zimbraAutoProvAccountNameMap < value>
\end{verbatim}

6. (Optional). Map the attribute values from the external entry to the ZCS account attributes. If this is not set up, no attributes from the external directory are populated in the ZCS directory. Value is in the form of \{external attribute\}={zimbra attribute}.

To map the \texttt{sn} value on the external entry to \texttt{displayName} on the Zimbra account and map description value on the external entry to description on the ZCS account, type as

\begin{verbatim}
md <domain.com> +zimbraAutoProvAttrMap sn=displayName +zimbraAutoProvAttrMap description=description
\end{verbatim}

7. (Optional) If you want to send a \textbf{Welcome} email to new accounts, enter the from address of the originator. Type

\begin{verbatim}
md <domain.com> zimbraAutoProvNotificationFromAddress <name@domain.com>
\end{verbatim}

8. Exit zmprov, type

\begin{verbatim}
exit.
\end{verbatim}