This release note describes new features and enhancements that are available in the ZCS 8.0 Network Edition 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:

- Major New Feature Enhancements for 8.0 on page 1
- General Enhancements by Bug Number on page 6
- System Updates for 8.0 on page 10
- Major Issues Fixed for 8.0 on page 12
- Security Fixes for 8.0 on page 16
- Beta Features in ZCS 8.0 on page 16
- Changes to ZCS 8.0 on page 17
- Upgrade Process on page 18
- Before You Upgrade on page 18
- Status of Your Customization to ZCS after Upgrade on page 26
- Known Issues on page 26
- Product Documentation on page 30
- Bug Reporting on page 30
- Appendix A Using DKIM to Authenticate Email Messages
- 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.
Conversations 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.

**Zimbra Mobile for Active Sync 12.1 devices**

Zimbra offers server side implementation of Microsoft’s Active Sync 12.1 protocol providing end users access to their Zimbra mail on any mobile device that supports Active Sync 12.1.

- **Auto-discover** support enables seamless linkage between the user’s account on the Zimbra server and the email client on the mobile device when valid credentials (email and password) are supplied from the device.

- **Device wipe** In the event that the security of the mobile device is compromised administrators can perform a remote device wipe from the admin console, thus safeguarding against any loss of sensitive corporate data.

- **Bandwidth Reduction** Since most mobile devices are often on high latency, low bandwidth (reduced connectivity) networks, Zimbra’s Active Sync implementation has been designed to operate at a reduced bandwidth.

- **Battery Optimization** Active Sync protocol implementation has been optimized to conserve battery life for push enabled devices.

- **Persona/Alias support** ActiveSync implementation provides push synchronization of email, contacts, calendars, tasks as well as the Persona/Alias profile configurations associated with the user’s email address.

- **Advanced Administration Policies** The introduction of 30 new configuration policies provides administrators more fine-grained control over user accounts and approved applications – allowing them to enable/disable device software and hardware capabilities as necessary.

**Unified Communication (UC)**

With unified communication multiple modes of business communications are seamlessly integrated, allowing users to receive a communication from one service, such as Voice Mail and respond using another service, such as Click-To-Call.
Zimbra 8 is designed so that real-time communication services such as voice, telephony and presence inter-operate with non-real-time services such as email and voicemail – allowing users to benefit from faster response times and companies to benefit from higher group productivity.

**Voice Service**

The new Voice Service feature provides out of the box integration with leading UC providers such as Cisco and Mitel.

- **Click-to-Call** offers immediate voice connectivity with call-routing to device or soft-phone. This lets users take office calls at their office numbers on their mobile devices. Zimbra 8 supports the configuration of multiple numbers.

- **Presence** provides real-time notification of user’s current availability and ability to communicate.

- **Visual Voicemail** lets users view caller and voicemail information and supports inline playback and management features. It also supports MWI (Message Waiting Indicator) status updates, allowing users to customize the way they want to be notified about new voicemail messages. These voice messages can be saved in either .wav or .mp3 format.

- **Call record history** includes information about voice mails received, placed calls, received calls, missed calls as well as details about date, time, and call duration.

- **Extensible SDK** Zimbra’s flexible and extensible SDK allows for smooth and rapid integration with third-party APIs released by leading real-time UC solution providers

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**Note:** The VLC media player Firefox plug must be disabled to play voicemail messages. (Bug75994)

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**Voice Service Licensing**

The Voice Service feature is a licensed feature. If you have an existing Professional Edition license, you will need to request a new license key from VMware Zimbra Support or Sales to enable this feature.

**IT as a Service**

**Multi-node appliance**

- Single or multimode deployment from vSphere Client or via CLI for automation

- Feature parity with ZCS including scaling, multi-tenancy, and CLI access

- Migration from 6.x ZCA to ZCA 8.0 appliance

**Rolling upgrades**

- Minimal service disruption to perform upgrades
Multi-master directory replication

Mailbox moves forward between versions of Zimbra with less than 60 seconds of downtime for a single mailbox

Self service collaboration

End user distribution list (DL) management from the web client. A delegated DL manager can create and manage subscriptions to distribution lists based on IT defined policies

End users can search and recover deleted items across mail, calendar, contacts, and tasks based on IT defined recovery retention policies

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, 6118</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>zimbraMailBindAddress</td>
</tr>
<tr>
<td></td>
<td>zimbraMailSSLLBindAddress</td>
</tr>
<tr>
<td></td>
<td>zimbraMailSSLCClientCertBindAddress</td>
</tr>
<tr>
<td></td>
<td>zimbraAdminBindAddress</td>
</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>
</tbody>
</table>
## Zimbra Collaboration Server 8.0 Network Edition Release Notes

### Bug Number | Description
---|---
11524 | Zimbra supports DKIM signing for outgoing email. See Appendix A Using DKIM to Authenticate Email Messages this release note to configure DKIM.
18815 | When archiving is installed, archiving can be configured from the administration console, Configure>Class of Service, Archiving page or account’s Archiving page.
23191 | Support for right-to-left languages in ZWC compose.
26398 | Zimbra to Zimbra free/busy interop is supported.
26645 | Message deduping is enabled by default, with the COS/Account attribute `zimbraPrefMessageIdDedupingEnabled=TRUE`.
27211 | ZWC. Calendars can be nested.
27575 | ZWC. Users can enable the preference to include shared items when they do a search query. (Preferences>General, Searches section)
28648 | 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="PLAIN LOGIN GSSAPI"
zmlocalconfig -e postfix_smtpd_sasl_security_options="noanonymous, noplaintext"
zmlocalconfig -e postfix_smtpd_sasl_tls_security_options="noanonymous"
```
Allow SASL auth on port 25:
```
zmprov ms MTAHOST.somewhere.com zimbraMtaTlsAuthOnly FALSE
```
39402 | ZWC. Ability to access and mount external calendars via CalDAV.
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.
<table>
<thead>
<tr>
<th>Bug Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>53822</td>
<td>Multiple GAL sync accounts can be created for the same domain. Also see Bug 64123 on page 13.</td>
</tr>
<tr>
<td>53985</td>
<td>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.</td>
</tr>
<tr>
<td>56494</td>
<td>When an invitation is forwarded by an invitee, the originator receives a notification.</td>
</tr>
<tr>
<td>56827</td>
<td>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&gt;Basic Attributes and select Search system accounts only.</td>
</tr>
<tr>
<td>58418</td>
<td>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.</td>
</tr>
<tr>
<td>59780, 54035</td>
<td>Administrator can click on any of the text labels in the administration console to see which Zimbra attribute is associated with the field.</td>
</tr>
<tr>
<td>61467, 61425</td>
<td>In the standard client, new calendar printing options were added.</td>
</tr>
<tr>
<td>61667</td>
<td>When an item is shared, the information is automatically published. Manual publishing of shared items is no longer required.</td>
</tr>
<tr>
<td>62230</td>
<td>When using the New Account Wizard, you can search an external source directory and lists to select users to provision.</td>
</tr>
<tr>
<td>62325</td>
<td>When a domain is renamed, the dynamic groups are correctly moved to the renamed domain.</td>
</tr>
<tr>
<td>50294, 64347, 64889</td>
<td>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.</td>
</tr>
<tr>
<td>65429</td>
<td>Additional auth options for zmmailbox and zmsoap CLIs. zmmailbox now supports sending requests to a mailbox using admin auth token.</td>
</tr>
</tbody>
</table>
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> ussr <user@domainname.com> createDistList
```

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.:

```
$ 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
```

Provide warning message when `-l` options is specified or if running the command on a non-mailbox server.

Shared items can be tagged and the tags displays in the shared users' lists as well.

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.

In the advanced client, added printing options to Calendar.

ZCO. In calendar invites, the delegated user can accept or decline invitations for Calendars they manage.

Ability to configure antispam settings to bypass messages originating from internal ZWC users.

Zimlets can now make GET, POST, PUT AND DELETE HTTP requests via the proxy.
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 (Tried to upgrade firefox but no success).
  - 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)
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)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</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>
<tr>
<td>51875</td>
<td>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.</td>
</tr>
<tr>
<td>51990</td>
<td>ZWC. If out of office is on, users are prompted to turn it off when they sign in to their account.</td>
</tr>
<tr>
<td>52647</td>
<td>ZCO. Outlook’s Work Offline option is now fully supported. OL2003/7: File-&gt;Work Offline OL2010: Send/Receive ribbon-&gt; 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.</td>
</tr>
<tr>
<td>53533</td>
<td>Autocomplete matches now work correctly for Contact Groups.</td>
</tr>
<tr>
<td>60205</td>
<td>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.</td>
</tr>
<tr>
<td>Number</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>60444</td>
<td>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.</td>
</tr>
<tr>
<td>60640</td>
<td>The Reading Pane displays on the right by default.</td>
</tr>
<tr>
<td>60880</td>
<td>Changed the CA time period from 365d to 1825d (5 years).</td>
</tr>
<tr>
<td>60880</td>
<td>Default hard coded time out for self-signed certificates is now set to five years (1825 days).</td>
</tr>
<tr>
<td>61088</td>
<td>The Zimbra Assistant feature is no longer available in the Zimbra Web Client.</td>
</tr>
<tr>
<td>61155</td>
<td>ZCO. ZCO obeys the sync interval configured in Send/Receive Groups dialog. However, new in this release is a feature called &quot;Sync On Change&quot;, enabled by default, and configurable via the checkbox on the Zimbra Advanced Settings dialog. When enabled, Sync On Change detects changes on the server, or to locally held data, and synchronizes them after approximately 30 secs, without waiting for the next Send/Receive interval.</td>
</tr>
<tr>
<td>63722</td>
<td>When you upgrade to ZCS 8.0, the value for <code>zimbraPrefGalAutoCompleteEnabled</code> in the default COS is changed from FALSE to TRUE. The value for <code>zimbraPrefGalAutoCompleteEnabled</code> in other cos's are not changed. The default value of <code>zimbraPrefGalAutoCompleteEnabled</code> in newly created COS's will be TRUE.</td>
</tr>
<tr>
<td>64030</td>
<td>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 <code>postfix_virtual_alias_expansion_limit</code>.</td>
</tr>
<tr>
<td>64123</td>
<td>During the initial installation of ZCS, a GAL sync account is automatically created for the default domain.</td>
</tr>
<tr>
<td>67237</td>
<td>Show selection checkbox for selecting email, contract, voicemail items in a list view is now disabled by default. Users will have to go to <code>Preferences&gt;General</code> and select <code>Settings</code> to display checkboxes.</td>
</tr>
<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>
14 September 2012 VMware Zimbra Collaboration Server

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.

72225 Domain administrators have been deprecated in favor of delegated administrators since ZCS 6.x. The zimbrasDomainAdminAccount attribute will no longer be returned in admin AuthResponse.

72644 S/MIME support for attaching messages, contacts and briefcase files for secured email.

73559 Free/Busy setting now are displayed correctly on domains.

73770 ZCO Delta sync Interval and Full Sync Interval options have been removed from the Advanced Settings dialog. Delta sync is initiated by using F9/send receive action in Outlook.

74389 Apple Address book (CardDAV) only syncs Collected Certificates contact folder. All the contacts collected by S/MIME zimlet will now be stored in the Emailed Contacts folder. Users who already have contacts in Collected Certificate would need to manually move them to the Emailed Contacts folder.
<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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. |
| 74525 | ZCA. Passwords are currently restricted to alphanumerics and hyphen. a-z A-Z, 0-9 and - |
| 74875 | ZCA. The root sign in credentials to the VAMI are user name is root password is vmware |
| 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. |
| 75190 | ZCA deployments to ESXi, Workstation and Fusion products will result in default IP assignment of 127.0.0.1. The following guidelines will help configure a usable network address. The guidance as given by the the Studio Developers Guide. The console window network configuration was removed in Studio 2.6. VMware Studio is configured to get networking settings from a DHCP server. If DHCP service is not available on your network, you might have to configure network parameters yourself. To manually configure network parameters: 1. On the command console below the welcome message, select Login and press Enter. 2. Log in using the root account and the password that you set during deployment. 3. Run the following command at the shell prompt: /opt/vmware/share/vami/vami_config_net A menu with six or more choices appears. Start with IP Address Allocation for a network interface. 4. If you need help with settings, refer to the User’s Guide for Deploying vApps and Virtual Appliances. |
| 75200 | When deploying ZCA against vCenter with multiple network switches, you might need the modify the default switch on the VM prior to power-on. |
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)

- Red Hat Cluster Suite is not available with ZCS 8.0 To streamline support efforts, we will only test and certify in house availability solutions. Today VMware offers clustering failover and automated recovery through VMware HA. Zimbra integrates with the VMware HA cluster infrastructure to heartbeat Zimbra application services and provide automated recover in the event of a service failure. (Bugs 72215/72216)

- 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_zimbraAttachcontacts |
  | com_zimbra_srchhighlighter | com_zimbra_webex |
  | com_zimbra_smime |

  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, `zimbraProxyCacheableContentTypes`, 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 is removed.

- Family Mailbox feature is removed ZCS 8.0.

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.

**VMware Heartbeat Service**

ZCS utilizes the VMware application programming interface that allows software providers to deploy application monitoring components inside a VMware guest OS and inform VMware HA when problems arise. The vmware-heartbeat service provides information to the VMware HA components on the health and availability of the ZCS. If you have VMware HA components installed, the VMware HA service is shown as enabled on the Server>Services page.

**General Description of VMware HA**

VMware HA provides a simple, reliable way to increase the availability of virtual machines hosting critical applications. VMware HA is a virtualization-based distributed infrastructure service of VMware vSphere 4.1+, which monitors the health of virtual machines and the VMware ESX® hosts upon which they reside. If a fault is detected, the virtual machine is automatically restarted on another ESX host with adequate capacity to host it. VMware HA is included in all vSphere editions and can be enabled on a VMware cluster with a single check box. As VMware HA utilizes the storage and network connectivity already in place to support vMotion, enabling high availability is as simple as ensuring you have adequate server capacity to handle failure of one or more ESX hosts.

**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.

**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 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:
License Activation for ZCS 8.0

All network edition installs require license activation. New installs will have a 10 day grace period from the license issue date before requiring activation. For upgrade installations, activation is automatic during the install with systems that have external access to the Zimbra license servers. A means of creating manual activations will be provided for systems that do not have external access to the Zimbra license servers. See the ZCS installation guides for more information.

When upgrading to ZCS 7.0.0 or later, the way in which ZCO and archiving licensing is enforced has changed in the server. Older licenses might have `MAPIConnectorAccountsLimit` set to 0 or `ArchivingAccountsLimit` missing in the license. Contact sales for an updated license file prior to upgrading if you have licensed either of these features and your current license does not properly reflect the correct number.

**Important:** Note that an upgrade installation will not proceed without automatic activation or a manually activated license file. Also, license activations are limited to five activations per license file. If you have previously used all activations prior to upgrading your production system, you must contact sales to enable additional license activations.

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 Network Edition Download page for the latest version of the software.

**Important:** Before you begin the upgrade, make sure you have a good backup for all users!

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 September 2012 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 and then checks for the Zimbra license. If the license is found, the number of current users and the number of user licenses is listed.

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. The installer checks for a recent backup. If one is not found, Do you wish to continue without a backup? is displayed. The default is N. If you select N, you exit the upgrade. Run a backup and then restart the upgrade.

4. 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.

5. When Do you wish to upgrade? [Y] is displayed, press Enter to continue. The upgrade packages are unpacked.
6. 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.

7. 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.

8. 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.

9. 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.
   Mail store server - The installer checks for a recent backup. If one is not found, **Do you wish to continue without a backup?** is displayed. The default is **N**. If you select N, you exit the upgrade. Run a backup and then restart the upgrade.

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.

   **Note:** When upgrading the zimbra mail store, the upgrade checks for the Zimbra license. If the license is found it lists the number of current users and the number of user licenses. If it is not found, press **Enter** to continue. You can add the license later from the administrator's console.

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 19.

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 to ZCS 8.0 or later, MySQL table upgrade is required after upgrading. If you do not upgrade MySQL, regular reports from zmdbintegrityreport are going to flag warnings in your MySQL table. Customers can avoid these errors in the zmdbintegrityreport 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 September 2012 as a new installation, when you run the ZCS September 2012 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 17.

All entries between the designated comments in the Zimbra crontab file are overwritten with new defaults upon upgrade. Customized backup schedules stored in the Zimbra crontab and customizations to the crontab entry outside the designated comments are preserved.

**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>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>Won't 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 TwitterSearch Zimlets do not work for ZCS 8.0.</td>
</tr>
<tr>
<td>75459</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>75474</td>
<td>Make sure all users sending mail on behalf of (OBO) are on ZCS 8.0</td>
</tr>
<tr>
<td>Issue</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>75527</td>
<td>Make sure all Briefcase users that are sharing with each other are on the same version of ZCS.</td>
</tr>
<tr>
<td>50272</td>
<td>Harmless errors are reported by the zmdbintegrityreport.</td>
</tr>
<tr>
<td>76803</td>
<td>Proxy does not honor <code>zimbraReverseProxyMailMode</code>. You must manually restart the server with <code>zmcontrol restart</code>.</td>
</tr>
<tr>
<td>75013</td>
<td>Safari is unsupported browser by VAMI bug appears to work.</td>
</tr>
<tr>
<td>75523</td>
<td>Rolling Upgrade: Contact Group members not displayed when 7.x user shares AB with 8.x user.</td>
</tr>
</tbody>
</table>
| 77112 | **SLES 11 OS only.** The upgrade to ZCS 8.0 will fail unless the following steps are taken before upgrading ZCS.  
To `/etc/profile` add the following  
ulimit -v unlimited  
ulimit -m unlimited |
| 76665 | Large attachments (greater than 1MB) might result in errors due to Java memory limitations when using S/MIME signed or encrypted messages. |
| 77310 | Deleting and then recreating the GAL sync account can lead to inconsistent data for all clients. Those clients must resync the GAL. |
| 76964 | You cannot rename a domain that has the S/Mime feature enabled.  
Work around:  
1) Clear `zimbraDomainRenameInfo` on the domain.  
`zmprov -l md domain.com zimbraDomainRenameInfo """`  
2) Make the domain active.  
`zmprov -l md domain.com zimbraDomainStatus active`  
3) Clear the SMIME config.  
`zmprov rdsc domain.com configName`  
4) Rename the domain.  
Senders will need to get and install new certificates for new email. Other users will have to replace public certificates in their Contacts, in GAL, to be able to send encrypted messages. |
| 76804 | S/MIME. When composing a signed message and attaching a Zimbra document created from Briefcase, the Zimbra document is not attached. |
## Previous General Known Issues

<table>
<thead>
<tr>
<th>Issue #</th>
<th>Summary</th>
</tr>
</thead>
</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. |
| 51775   | ZCO with Outlook 2003. Work around - To add, modify or delete signatures using Outlook 2003, use Tools->Options->Mail Format tab and the associated Signatures button.  
If you have configured Word to be your email editor, using the Tools->Options- >Mail Format tab->"Use Microsoft Word 2003..." checkboxes, you will see a small drop-down arrow next to the Options button in the window you use to compose a new e-mail. This also allows you to edit signatures, but changes made here will not be synced to the server, and might be lost after restarting Outlook. |
| 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 |
| 55174   | Calendar Week Numbers displayed in the mini-calendar must be set to Monday to display the correct European week numbers. |
| 55459   | 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. |
| 50238   | Third-party issue. Windows Mobile 6 removes all occurrences of a recurring meeting when the first instance is deleted. |
| 50239   | Third-party issue. Android SDK 2.2 cannot display inline image content. |
| 20986   | ZCO. (Wontfix) When ZCO is upgraded, if users are prompted that a dll is in use by searchprotocolhost.exe, they should click the Continue button to proceed with the upgrade. |
| 54278   | Family Mailbox was not supported in ZCS 7.X. See Changes to ZCS 8.0 on page 17 for more information. |
| 47889   | ZCO/BES (WontFix). BES adds the appointment to the Calendar. |
| 47823   | 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. |
| 44540   | After activating or updating a license, the administrator can run  
`zmprov fc -a license` to immediately flush the license cache on all mailbox nodes. |
51641 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.

60563 The Undo Send Zimlet might cause messages to be sent with no content in the body. To avoid this, disable the Zimlet.

67171 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:

```
<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>
```

69940 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.

71141 Zimbra logger is not directly supported in mixed syslog (rsyslog, syslogd, sysklogd) environments due to formatting differences between the varying systems.
S/MIME. When users upgrade the S/MIME Zimlet or replaced it with a signed version, they will need to do the following:

1. Undeploy zimlet
2. Delete jetty/webapps/zimbra/public/com_zimbra_smime.jarx
3. Deploy new version of Zimlet
4. Copy jarx from ./zimlets/deployed to jetty/webapps/zimbra/public/

<table>
<thead>
<tr>
<th>Bug ID</th>
<th>Description</th>
</tr>
</thead>
</table>
| 72498  | S/MIME - When users upgrade the S/MIME Zimlet or replaced it with a signed version, they will need to do the following:  
  1. Undeploy zimlet  
  2. Delete jetty/webapps/zimbra/public/com_zimbra_smime.jarx  
  3. Deploy new version of Zimlet  
  4. Copy jarx from ./zimlets/deployed to jetty/webapps/zimbra/public/ |
| 71992  | S/MIME - Script error on sending/viewing inline image messages. |
| 70550  | S/MIME - FIPS mode is supported only for the Firefox browser on the Mac computer and supported on the Windows platform and any supported browser on Windows. |
| 74621  | S/MIME. Users cannot send signed/encrypted share invitation messages. |

**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

September 2012
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=dzdVyOfAKCdLXdjOce9G2q8LoXSIEniSb
        av+yuU4zGeeruD00lszZVoG4ZHRNiYzR
```

Receivers who successfully validate a DKIM signature can use information about the signer as part of a program to limit spam, spoofing, phishing, 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.

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>Domain</td>
<td>Enables the auto provision mode to use. Multiple modes can be enabled on a domain. Value: EAGER, LAZY</td>
</tr>
<tr>
<td><code>zimbraAutoProvMode</code></td>
<td></td>
</tr>
<tr>
<td>Domain</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><code>zimbraAutoProvAuthMech</code></td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>LDAP URL of the external LDAP source for auto provision.</td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapURL</code></td>
<td></td>
</tr>
<tr>
<td>Domain</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><code>zimbraAutoProvLdapStartTlsEnabled</code></td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Defines the LDAP search bind DN for auto provision.</td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapAdminBindDn</code></td>
<td></td>
</tr>
<tr>
<td>Admin</td>
<td>Sets the LDAP search admin bind password for auto provision</td>
</tr>
<tr>
<td><code>zimbraAutoProvLdapAdminBindPassword</code></td>
<td></td>
</tr>
<tr>
<td>Domain</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>
<tr>
<td><code>zimbraAutoProvLdapSearchBase</code></td>
<td></td>
</tr>
<tr>
<td>Attribute</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Domain</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Supported place holders:</td>
</tr>
<tr>
<td></td>
<td>- %n = username with @ symbol. Returns <a href="mailto:user1@domain.com">user1@domain.com</a></td>
</tr>
<tr>
<td></td>
<td>- %u = username with @ removed. Returns user1</td>
</tr>
<tr>
<td></td>
<td>- %d = domain, returns domain.com</td>
</tr>
<tr>
<td></td>
<td>- %D = domain as dc=domain,dc=com</td>
</tr>
<tr>
<td>Domain</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Supported place holders:</td>
</tr>
<tr>
<td></td>
<td>- %n = username with @</td>
</tr>
<tr>
<td></td>
<td>- %u = username with @ removed</td>
</tr>
<tr>
<td></td>
<td>- %d = domain as domain.com</td>
</tr>
<tr>
<td></td>
<td>- %D = domain as dc=domain,dc=com</td>
</tr>
<tr>
<td>Domain</td>
<td>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.</td>
</tr>
</tbody>
</table>
Domain

zimbraAutoProvAttrMap

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

zimbraAutoProvNotificationFromAddress

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.

Domain

zimbraAutoProvNotificationSubject

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

zimbraAutoProvNotificationBody

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

`zimbraAutoProvListener-Class`

Class name of auto provision listener. The class must implement the `com.zimbra.cs.account.Account.AutoProvisionListener` 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.

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 Auto Provision Listener 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>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain</td>
<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>
<tr>
<td><code>zimbraAutoProvListener-Class</code></td>
<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=%placeholder)”
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 `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. (Optional) Define the LDAP external DN template for account provisioning. Supported placeholders include:

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

```
md <domain.com> zimbraAutoProvLdapBindDn "uid=%<placeholder1>,%
```

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.

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

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 `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 as

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

7. (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>
```

8. Exit `zmprov`, type `exit`. 