

# ZIMBRA BSP USAGE REPORTING (ZURT) GUIDE

Date:6/21/22 Version 1.0.6

TABLE OF CONTENTS



_	imbra Usage Reporting Tool Guide	3
	Prerequisites	3
	Installation	4
	Configuring Package Repository for Ubuntu	5
	Configuring Package Repository for RHEL/CentOS	6
	Client installation	7
	Testing, Debugging & Maintenance	9
	Updating LDAP Configuration	9
	Connectivity Testing	9
	License Update	9
	Moving ZURT instance	9
	Dry-Run	10
	Enhance Logging	10
	Logging	11
	Usage Configuration	12
	ZURT Service Management	17
	ZURT Folder / File structure	18
	Legacy ZRT Manager	19
	Zimbra User Reporting Page	20
	Organization Page	21
	Deployments	22
	Usage Reporting Page	23
	Password & Logging Out	26
	Changing Password	26



## Zimbra Usage Reporting Tool Guide

Zimbra Usage Reporting Tool (ZURT) is a service that collects usage against a provisioned license.

A single instance of the ZURT client needs to be configured for Zimbra each cluster. The client can be installed on any server in the cluster or on a non-zimbra server. In a multi-server environment, it should be installed on one server only. If more than one instance is configured, the data will be reported multiple times, but there are safeguards that prevent double counting.

## **Prerequisites**

The ZURT client requires:

- 1. Ability to access usage.zimbra.com on port 8443
- 2. Ability to access master LDAP on targeted cluster
- Supported Operating System Ubuntu version 18/16/14/13 RHEL/CentOS version 8/7/6
- 4. Access to root user

You can verify accessibility to usage.zimbra.com by telneting to the hostname from the server on which the ZURT will be installed.

telnet usage.zimbra.com 8443



## Installation

The ZURT client is installed from the Zimbra package repository. When installing on a Zimbra server, all systems running 8.7.x and newer will already have the repository configured. Admins installing on systems not running a Zimbra server will need to manually configure a package repository.

Zimbra Development is making the best effort to support the ZURT client on end of life OS's. If installation is unsuccessful, please open a Support case and Zimbra Support will try to assist. If the issue results into a bug, Zimbra Support may recommend installing the ZURT client on a new or existing Linux system with latest updates.



## Configuring Package Repository for Ubuntu

Select the correct version configuration and add it to the zimbra.list file as root user. If the zimbra.repo does not exist, create the file.

*Ubuntu Configuration*: Please note you must change (kernel of) trusty to precise (Ubuntu 12.04) Xenial for UBUNTU16

```
Ubuntu 18 root@repo:~# cat > /etc/apt/sources.list.d/zimbra.list << EOF
    deb [arch=amd64] https://repo.zimbra.com/apt/87 bionic zimbra
    EOF</pre>
```

```
Ubuntu 16 root@repo:~# cat > /etc/apt/sources.list.d/zimbra.list << EOF
    deb [arch=amd64] https://repo.zimbra.com/apt/87 xenial zimbra
    EOF</pre>
```

```
Ubuntu 14 root@repo:~# cat > /etc/apt/sources.list.d/zimbra.list << EOF
    deb [arch=amd64] https://repo.zimbra.com/apt/87 trusty zimbra
    EOF</pre>
```

```
Ubuntu 12 root@repo:~# cat > /etc/apt/sources.list.d/zimbra.list << EOF
    deb [arch=amd64] https://repo.zimbra.com/apt/87 precise
    zimbra
    EOF</pre>
```

#### Add the next Zimbra key to the apt keychain

```
root@repo:~# apt-key adv --keyserver keyserver.ubuntu.com
--recv-keys 9BE6ED79 root@repo:~#
apt-get update
```



## Configuring Package Repository for RHEL/CentOS

Select the correct version configuration and add it to the zimbra.repo file as root user. If zimbra.repo does not exist, create the file.

```
RHEL/CentOS 8 root@repo:~# cat > /etc/yum.repos.d/zimbra.repo
     <<EOF
      [zimbra] name=Zimbra RPM Repository
     baseurl=https://repo.zimbra.com/rpm/87/rhel8
     gpgcheck=1 enabled=1
      EOF
RHEL/CentOS 7 root@repo:~# cat > /etc/yum.repos.d/zimbra.repo
     <<EOF
      [zimbra] name=Zimbra RPM Repository
     baseurl=https://repo.zimbra.com/rpm/87/rhel7
     gpgcheck=1 enabled=1
      EOF
RHEL/CentOS 6 root@repo:~# cat > /etc/yum.repos.d/zimbra.repo
      [zimbra] name=Zimbra RPM Repository
     baseurl=https://repo.zimbra.com/rpm/87/rhel6
     gpgcheck=1 enabled=1
      EOF
```

#### Add Zimbra keys to the apt keychain

```
root@repo:~# rpm --import
https://files.zimbra.com/downloads/security/public.key
```

#### To verify a successful configuration, run:

```
yum search zimbra-urt
```



## Client installation

To install the client, run the following:

```
Ubuntu apt-get install zimbra-urt
```

```
RHEL/CentOS yum install zimbra-urt
```

When Installing where Zimbra is already installed, the installation process obtains the configuration data. If installing on a system that does not have Zimbra installed, obtain the Idap hostname, port, user DN and password by running the following command on one of the Zimbra systems in your cluster as the zimbra user:

```
zmlocalconfig -s ldap_host ldap_port zimbra_ldap_userdn
zimbra_ldap_password
```

Here is an overview of the installation process.

- 1. The installer installs the client within /opt/zurt
- 2. The installation will collect LDAP config using one of the following methods:
  - Check if LDAP configuration can be read from /opt/zimbra/conf/localconfig.xml
  - If no, check if it can be found in /opt/zurt/conf/zurt ldap config.xml.in
  - If no, prompt user to enter the data
- 3. The installer then uses the LDAP config to verify connection to LDAP
- 4. Then verifies connectivity to usage.zimbra.com
- 5. The installer then registers the deployment with usage.zimbra.com. It sends the Licenseld and ActivationId to usage.zimbra.com for verification.
- 6. Then zurt service is started, and usage is collected and reported once a day.

**Note**: LDAP protocol (SSL or plain) will be defined based on the configuration obtained from the ldap. During the installation, the client will verify the defined protocol from ldap\_master\_url within /opt/zimbra/conf/localconfig.xml file.

Idaps:// = Secure connection attempt
Idap:// = non-secure plain connection

If the installation fails during steps 2 or 3, the connectivity issues to the LDAP service need to be resolved, and the registration process needs to be performed manually.



When installing on a system not running Zimbra or manually configuring after installation, running register.sh under /opt/zurt/bin provides the option to add the LDAP configuration during the registration process:

```
Usage: /opt/zurt/bin/register.sh [option...]
-c run continue on error
-r reconfigure ldap details
-l test ldap connection
-u test usage portal connection
bin]#
./register.sh
[Info] By default you are agree with the terms of the software license
agreement
[Info] Please see /opt/zurt/docs/license.txt for license agreement
[Info] Checking for an installed version of Java...
[Info] Found valid system java version
Please provide the value of ldap host (): <Host Name>
Please provide the value of ldap port (): <Port>
Please provide the value of zimbra ldap userdn (): (LDAP userdn)
Please provide the value of zimbra_ldap_password (): (Password)
```

A failed installation is logged in error.log, located at /opt/zurt/log, and a successful installation reports usage data to usage.zimbra.com on port 8443.



## Testing, Debugging & Maintenance

## **Updating LDAP Configuration**

For ZURT clients running on Zimbra servers, any update to the LDAP is made in the zmlocalconfig and propagates to the client. There is no action required.

Non Zimbra servers need their configuration updated. To do this, either:

- Update zurt\_ldap\_config.xml file then run register.sh Or
- Run register.sh with the -r command to provide the LDAP configuration prompts during the registration process

## **Connectivity Testing**

The register.sh command also provides the ability to test the LDAP and usage portal connectivity. You can do this by adding the following flags:

- -I test Idap connection
- -u test usage portal connection

## License Update

The ZURT tool automatically recognizes a license update. There is no action required.

## Moving ZURT instance

To move a ZURT instance:

- 1. Install the client at the new location.
- 2. Verify the reported usage.
- 3. Uninstall the deprecated installation.



## Dry-Run

Dry-Run is a tool that verifies the client's ability to calculate usage and accuracy without reporting the data to usage.zimbra.com. This creates a file in .cvs format with a list of users, assigned COS and attributes enabled on the account. Find this file under /opt/zurt/data using mailboxes-yyyymmmdd-hh-mm-ss.csv.

To run a dry run:

```
cd /opt/zurt/bin
./run.sh -d
```

## **Enhance Logging**

In the zurt.properties file, /opt/zurt/conf allows the admin to enable debug logging for:

- account.level: Create a .csv file for each reporting that contains a list of users, COS setting and attribute configuration. This can be set to TRUE or FALSE, with the default of FALSE. Logging provides a detailed method to audit reported usage at the account level.
- *collect.domain*: Write detailed domain level data to the usage-collector.log file, located at /opt/zurt/log. This can be set to TRUE or FALSE, with the default of FALSE.

A restart of the zurt is required.

/opt/zurt/bin/zurt restart



## Logging

ZURT tool writes all logging in /opt/zurt/log:

- *Install.log*: Logging of all installations.
- *Usage logging*: Each reporting will log the attempt in usage-collector.log. This log rotates each night -YYYY-MM-dd.com. This log needs to be manually purged.
- *Error.log*: Contains all reported errors during the reporting or installation. If the file is missing, the client hasn't experienced an error.

The /opt/zurt/data log captures *mailboxes-YYYYMMDD-HH-MM-RR.csv*. This is a detailed usage report containing each account reviewed, attributes, COS information and reported classification. A new file is created for each run and is not purged. To obtain this reporting, enable the feature in the zurt.properties files. This data is stored locally and is not shared with Zimbra.

dgsdb.lock.db dgsdb.mv.db: are internal databases used during usage reporting.



## **Usage Configuration**

The ZURT tool reports usage for:

Professional Edition (PE)
Standard Edition (SE)
Business EMail Plus (BEP)
Business Email (BE)
Exchange Web Service (EWS)

**Professional Edition (PE)** allows all available account attributes to be enabled at the COS or account level. If any of the following three attributes are enabled, regardless of the status of any other attribute, the account will be classified at PE:

zimbraFeatureMAPIConnectorEnabled zimbraFeatureMobileSyncEnabled zimbraArchiveEnabled

The following commands will list attributes for PE at COS and account level:

zmprov gc <COS> zimbraFeatureMAPIConnectorEnabled zimbraFeatureMobileSyncEnabled zimbraArchiveEnabled

zmprov ga <email@domain.com> zimbraFeatureMAPIConnectorEnabled zimbraFeatureMobileSyncEnabled zimbraArchiveEnabled

You can create a PE COS by running the following:

zmprov cc PE zimbraFeatureMAPIConnectorEnabled TRUE
zimbraFeatureMobileSyncEnabled TRUE zimbraArchiveEnabled TRUE
zimbraFeatureConversationsEnabled TRUE zimbraFeatureTaggingEnabled TRUE
zimbraAttachmentsIndexingEnabled TRUE zimbraFeatureViewInHtmlEnabled TRUE
zimbraFeatureGroupCalendarEnabled TRUE zimbraFreebusyExchangeURL TRUE
zimbraFeatureSharingEnabled TRUE zimbraFeatureTasksEnabled TRUE
zimbraFeatureBriefcasesEnabled TRUE zimbraFeatureSMIMEEnabled TRUE
zimbraFeatureVoiceEnabled TRUE zimbraFeatureManageZimlets TRUE
zimbraFeatureCalendarEnabled TRUE



**Standard Edition (SE)** contains all offerings excluding ZCO Connector, ActiveSync and Archiving. For an account or COS to be classified as SE, all PE attributes need to be configured to FALSE and any one of the following attributes set to TRUE at the COS or account level:

zimbraFeatureConversationsEnabled zimbraFeatureTaggingEnabled zimbraAttachmentsIndexingEnabled zimbraFeatureViewInHtmlEnabled zimbraFeatureGroupCalendarEnabled zimbraFeatureSharingEnabled zimbraFeatureTasksEnabled zimbraFeatureBriefcasesEnabled zimbraFeatureSMIMEEnabled zimbraFeatureVoiceEnabled

The following commands will list SE attributes at COS and account level:

zmprov gc <COS> zimbraFeatureConversationsEnabled zimbraFeatureTaggingEnabled zimbraAttachmentsIndexingEnabled zimbraFeatureViewInHtmlEnabled zimbraFeatureGroupCalendarEnabled zimbraFreebusyExchangeURL zimbraFeatureSharingEnabled zimbraFeatureTasksEnabled zimbraFeatureBriefcasesEnabled zimbraFeatureSMIMEEnabled zimbraFeatureVoiceEnabled

zmprov ga <email@domain.com> zimbraFeatureConversationsEnabled zimbraFeatureTaggingEnabled zimbraAttachmentsIndexingEnabled zimbraFeatureViewInHtmlEnabled zimbraFeatureGroupCalendarEnabled zimbraFreebusyExchangeURL zimbraFeatureSharingEnabled zimbraFeatureTasksEnabled zimbraFeatureBriefcasesEnabled zimbraFeatureSMIMEEnabled zimbraFeatureVoiceEnabled

You can create a SE COS by running the following:

zmprov cc SE zimbraFeatureMAPIConnectorEnabled FALSE
zimbraFeatureMobileSyncEnabled FALSE zimbraArchiveEnabled FALSE
zimbraFeatureConversationsEnabled TRUE zimbraFeatureTaggingEnabled TRUE
zimbraAttachmentsIndexingEnabled TRUE zimbraFeatureViewInHtmlEnabled TRUE
zimbraFeatureGroupCalendarEnabled TRUE zimbraFreebusyExchangeURL TRUE
zimbraFeatureSharingEnabled TRUE zimbraFeatureTasksEnabled TRUE
zimbraFeatureBriefcasesEnabled TRUE zimbraFeatureSMIMEEnabled TRUE



## zimbraFeatureVoiceEnabled TRUE zimbraFeatureManageZimlets TRUE zimbraFeatureCalendarEnabled TRUE

For **Business EMail Plus (BEP)**, all PE and SE attributes need to be set to FALSE and any one of the following two attributes will enable BEP offering:

zimbraFeatureManageZimlets zimbraFeatureCalendarEnabled

The following commands will list attributes for BEP at COS and account level:

zmprov gc <COS> zimbraFeatureManageZimlets zimbraFeatureCalendarEnabled

zmprov ga <email@domain.com> zimbraFeatureManageZimlets zimbraFeatureCalendarEnabled

You can create a BEP COS by running the following:

zmprov cc BEP zimbraFeatureMAPIConnectorEnabled FALSE
zimbraFeatureMobileSyncEnabled FALSE zimbraArchiveEnabled FALSE
zimbraFeatureConversationsEnabled FALSE zimbraFeatureTaggingEnabled FALSE
zimbraAttachmentsIndexingEnabled FALSE zimbraFeatureViewInHtmlEnabled FALSE
zimbraFeatureGroupCalendarEnabled FALSE zimbraFreebusyExchangeURL FALSE
zimbraFeatureSharingEnabled FALSE zimbraFeatureTasksEnabled FALSE
zimbraFeatureBriefcasesEnabled FALSE zimbraFeatureSMIMEEnabled FALSE
zimbraFeatureVoiceEnabled FALSE zimbraFeatureManageZimlets TRUE
zimbraFeatureCalendarEnabled TRUE

**Note**: zimbraAttachmentsIndexingEnabled is the only attribute that can not be set in the Admin console. It is very common for BEP and BE accounts to be incorrectly classified as SE because Partners do not update zimbraAttachmentsIndexingEnabled from the command line when configuring BEP and BE COS or Accounts.



**Business Email (BE)** has all attributes set to false. The following commands will list attributes that need to be disabled on the COS or account level:

zmprov gc <COS> zimbraFeatureMAPIConnectorEnabled zimbraFeatureMobileSyncEnabled zimbraArchiveEnabled zimbraFeatureConversationsEnabled zimbraFeatureTaggingEnabled zimbraAttachmentsIndexingEnabled zimbraFeatureViewInHtmlEnabled zimbraFeatureGroupCalendarEnabled zimbraFreebusyExchangeURL zimbraFeatureSharingEnabled zimbraFeatureTasksEnabled zimbraFeatureBriefcasesEnabled zimbraFeatureSMIMEEnabled zimbraFeatureVoiceEnabled zimbraFeatureManageZimlets zimbraFeatureCalendarEnabled zmprov ga <email@domain.com> zimbraFeatureMAPIConnectorEnabled zimbraFeatureMobileSyncEnabled zimbraArchiveEnabled zimbraFeatureConversationsEnabled zimbraFeatureTaggingEnabled zimbraAttachmentsIndexingEnabled zimbraFeatureViewInHtmlEnabled zimbraFeatureGroupCalendarEnabled zimbraFreebusyExchangeURL zimbraFeatureSharingEnabled zimbraFeatureTasksEnabled zimbraFeatureBriefcasesEnabled zimbraFeatureSMIMEEnabled zimbraFeatureVoiceEnabled zimbraFeatureManageZimlets zimbraFeatureCalendarEnabled

You can create a BP COS by running the following:

zmprov cc BE zimbraFeatureMAPIConnectorEnabled FALSE
zimbraFeatureMobileSyncEnabled FALSE zimbraArchiveEnabled FALSE
zimbraFeatureConversationsEnabled FALSE zimbraFeatureTaggingEnabled FALSE
zimbraAttachmentsIndexingEnabled FALSE zimbraFeatureViewInHtmlEnabled FALSE
zimbraFeatureGroupCalendarEnabled FALSE zimbraFreebusyExchangeURL FALSE
zimbraFeatureSharingEnabled FALSE zimbraFeatureTasksEnabled FALSE
zimbraFeatureBriefcasesEnabled FALSE zimbraFeatureSMIMEEnabled FALSE
zimbraFeatureVoiceEnabled FALSE zimbraFeatureManageZimlets FALSE
zimbraFeatureCalendarEnabled FALSE



**Exchange Web Services (EWS)** is an extra attribute that can be applied to any offering:

zimbraFeatureEwsEnabled

The following command will provide the current status at the COS or Account level:

zmprov gc <COS> zimbraFeatureEwsEnabled zmprov ga <email@domain.com> zimbraFeatureEwsEnabled

**Note**: When reviewing reports, users can be listed in one offering but counted in another. The cause of this is account level configuration overriding the COS setting. So if a user who belongs to SE the COS but is counted as a PE user, it's because the user has one of the three PE attributes enabled at the account level.



## **ZURT Service Management**

Using command line zurt within /opt/zurt/bin will stop, start or verify the status

/opt/zurt/bin/zurt -help

Usage: ./zurt {start|stop|restart|status}

#### Server Status Check

To ensure that the ZURT services are continuously running and reporting usage, the following status checks have been configured:

#### Systemctl Support

ZURT service has been updated to support the systems with systemctl installed for service commands. The service is configure to respawn after 45 seconds incase the ZURT service is stopped or the process is terminated

#### Init.d service update

Init.d is updated to respond on termination or stoping of the ZURT service. The init.d service also will check if upstart is installed to keep server status in sync with status check for zurt start command or from /etc/init.d/zurt status..

#### Cron Job

Crontab was update to check and restart the ZURT every 12 hours

## Auto Update

With the installation of ZURT version 1.5 and higher, a cronjob is added to check if the latest version is installed every Sunday morning at midnight. The configuration can be found at /etc/cron.d/zurt with the following configuration:

0 0 \* \* 0 root PATH=/usr/bin:/bin:/usr/sbin:/sbin /opt/zurt/bin/run.sh upgrade

Customers who have change controls requirements, this can be removed or commented out. Please note, each upgrade will reconfigure this attribute and any modification will need to be recreated.



## Uninstalling

To uninstall ZURT do the following:

Stop the zurt services /opt/zurt/bin/zurt stop

2. Remove ZURT packages

Ubuntu: apt-get remove zimbra-urt RHEL/CentOS: yum remove zimbra-urt

- 3. Delete the log and zurt directory within /opt/zurt
- 4. Delete folder extract from ZURT tar

### **ZURT Folder / File structure**

The following folders and files are installed:

/opt/zurt
/opt/zurt/bin/register.sh
/opt/zurt/bin/run.sh
/opt/zurt/conf/log4j2.xml
/opt/zurt/conf/zurt\_ldap\_config.xml.in
/opt/zurt/conf/zurt.properties
/opt/zurt/bin/register.sh
/opt/zurt/bin/run.sh
/opt/zurt/docs/license.txt
/opt/zurt/docs/README.txt
/opt/zurt/lib/usage-collector.jar
/opt/zurt/lib/zrt-cli.jar
/opt/zurt/log/
/opt/zurt/data/



## Legacy ZRT Manager

Customers who have been running the legacy ZRT client will need to remove it from their systems. This can be done right after or a few weeks after the installation of the ZURT tool. Both reporting clients can be installed and configured on the same system.

The data usage should be the same but may differ if user count changes occur between reporting. Also, once data is reported to the ZURT cloud, it is used for billing. Eventually the ZRT will no longer report to the Flexnet cloud and will fail. When this occurs, delete the legacy ZRT from all clusters.

To remove the legacy client:

Remove the cron entry:

```
su - zimbra crontab
-e
```

Locate, comment out or delete the ZRT entry. In a default installation, it's added at the bottom of the file and is similar to one of the following examples:

```
0 2 */3 * * . /opt/zimbra/.bashrc; /opt/zrt/run.sh; 0 2 */3 * * . /etc/skel/.bashrc; /opt/zrt/run.sh;
```

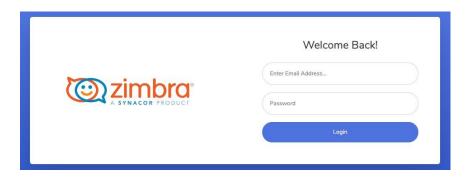
When this entry is removed, the legacy ZRT client no longer reports usage. Remove the ZRT installation at your convenience by deleting the ZRT directory and all of its information. The ZRT default installation path is /opt/zrt but can be different for custom installations.



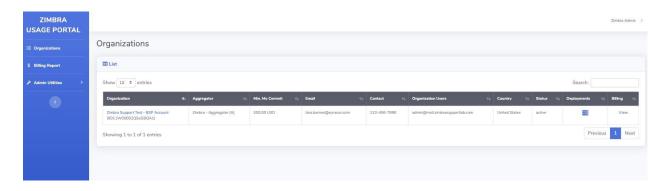
## Zimbra User Reporting Page

To access your usage reporting account, your account manager needs to enable and send you a password. If you do not have an account, please request one from your account manager.

Login here with your email address and password: <a href="https://usage.zimbra.com">https://usage.zimbra.com</a>



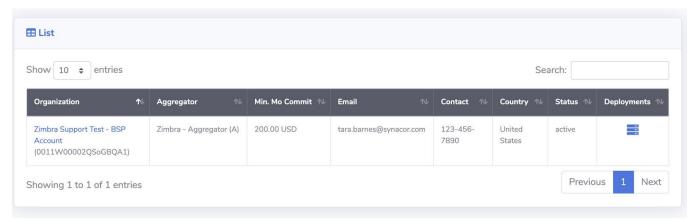
Once logged in, the Organizations page will load.





## **Organization Page**

The organization page contains your account overview and access to your reported usage. Select your account under Organization to view total usage reported for a defined time period. Select the link under Deployment to filter usage based on each reporting cluster.



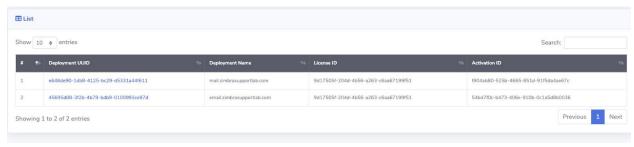
#### Columns:

- Organization: Your organization name, which is a hyperlink to your reported data.
- Aggregator: Name of the Aggregator assigned to your account
- Min Mo Commit: Minimum Monthly commitment
- Email: Zimbra Contact in Operations Department
- Contact: Phone number associated with your contact profile
- Country: Country where the BSP is headquartered
- Status: Current Account Status
- Deployments: Hyperlink to list of all configured clusters



## **Deployments**

The Deployment page shows each configured cluster in your account.



#### Columns:

- Deployment UUID: A unique cluster identifier and hyperlink to the reporting page. Click to filter usage reporting by cluster.
- Deployment Name: Name of the cluste,r which is taken from the first hostname in the LDAP Master URL:

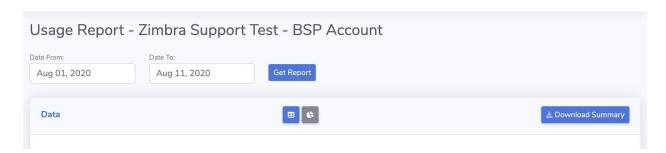
zmlocalconfig ldap\_master\_url

- License ID: ID of the license used to activate the server
- Activation ID: License server ID assigned to the cluster during activation



## **Usage Reporting Page**

Usage report provides the highest reported usage that occurred in the selected time period. The same page shows when selecting Organization or Deployments. Deployments filter all data for the selected deployments, and Organization shows all data reported against the account. Default time period will show for the current month and is changeable.



#### Columns:

- Date From: Start date used to filter requested data
- Date To: Last date used to filter requested data
- Get Report: Runs the date filter using the selected dates
- Download Summary: Downloads total reported data for the time period selected. The report is created using .csv format and contains:

Edition: Usage classification

Unit type: What was counted, default count is Accounts max count: Highest reported usage within the time period

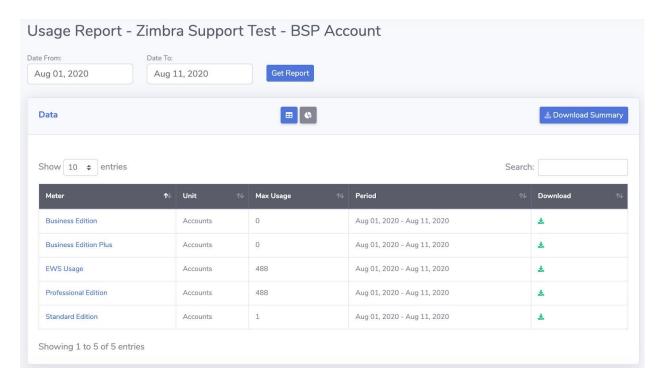
Entitled: Target monthly usage, default is 1000 Percent: Percentage of entitled / Max count

Period: Search time period

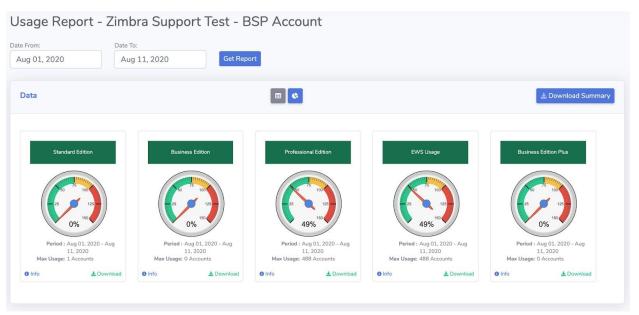
There are two ways to review usage, graphical meter or list. Select the icon in the middle of the page to change the view. List is the default view.

is the list view.





Shows reported usage in a graphical meter window



The max usage is the highest reported usage for the selected time period. If more than one client is reporting usage, then the max usage is the sum of the highest reported count for each cluster.

Select the offering under Meter in the list or click the Info Icon on the speed monitor list to enable a detailed pane that contains all reported data for the selected search.



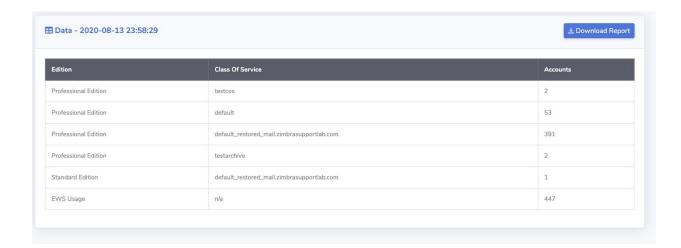


#### Columns:

- Receive Time: Time and date the reported data was posted in the Usage portal
- Count: Total count of all accounts on the system that match the defined offering.
- Deployment Name: Hostname of the master Idap
- Deployment ID: UUID of the cluster
- License ID: ID of license currently activated on the cluster
- Activation ID: ID assigned to the customer during license activation

This only shows one entitlement at a time, selecting a new entitlement automatically updates the data.

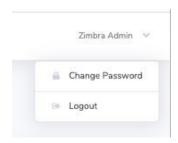
*Please Note*: A COS can have multiple reporting for different offerings. A user who is assigned to a COS could be counted in another offering. This occurs when attributes at the user level are changed to reclassify the user to a different service level. For a detailed report, we recommend running a dry run and creating a .cvs file for review.





## Password & Logging Out

After logging in, the Zimbra Admin dropdown list is located in the upper right of the page. Use the dropdown to change password or logout.



## **Changing Password**

Select Change Password, and enter and confirm your new password.

Passwords must be at least 8 characters, with a lower and upper case letters, a number and a special character (2, \$, %, \*, #, ?, &).