AtoZ

A solution for AD to Zabbix user synchronization
Who am I?

Steven Bush

- Manager, Performance Enablement Team, SAS IT
- 17+ years IT/software development experience
- 4+ years Zabbix experience
- Zabbix Certified Professional and Certified Specialist
AtoZ

What I’m here to discuss

• What does AtoZ do?
• How to setup AtoZ?
• Questions?
What does AtoZ do?

Programmatically syncing target user groups to Zabbix
Syncing AD groups and membership

- Create user groups found in AD that match given pattern
- Remove user groups missing from AD that match pattern
- Create users found in AD groups
- Create/update user media
- Assign role to users based on group membership
- Remove users from groups synced from AD
- Delete users with no remaining user groups
- Send stats into Zabbix via zabbix_sender

- Programmatically syncing target user groups to Zabbix

- AtoZ

Programmatically syncing target user groups to Zabbix

<table>
<thead>
<tr>
<th>AtoZ (13 items)</th>
<th>10/09/2019 06:54:00 AM</th>
<th>0</th>
<th>Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of groups created</td>
<td>10/09/2019 06:54:00 AM</td>
<td>0</td>
<td>Graph</td>
</tr>
<tr>
<td>Number of groups deleted</td>
<td>10/09/2019 06:54:00 AM</td>
<td>-1</td>
<td>Graph</td>
</tr>
<tr>
<td>Number of groups processed</td>
<td>10/09/2019 06:54:00 AM</td>
<td>1732</td>
<td>Graph</td>
</tr>
<tr>
<td>Number of users created</td>
<td>10/09/2019 06:54:00 AM</td>
<td>0</td>
<td>Graph</td>
</tr>
<tr>
<td>Number of users deleted</td>
<td>10/09/2019 06:54:00 AM</td>
<td>0</td>
<td>Graph</td>
</tr>
<tr>
<td>Number of users modified</td>
<td>10/09/2019 06:54:00 AM</td>
<td>3</td>
<td>Graph</td>
</tr>
<tr>
<td>Number of users processed</td>
<td>10/09/2019 06:54:00 AM</td>
<td>1400</td>
<td>Graph</td>
</tr>
<tr>
<td>Synchronization pipeline processing time</td>
<td>10/08/2019 08:54:08 AM</td>
<td>3s 983.1ms</td>
<td>Graph</td>
</tr>
<tr>
<td>Execution results from atoz.log</td>
<td>10/09/2019 08:53:09 AM</td>
<td>2010/10/09 08:46:08 atoz_sync.INFO tot...</td>
<td>History</td>
</tr>
<tr>
<td>Zabbix group deletions</td>
<td>10/09/2019 08:53:09 AM</td>
<td>2010/10/09 08:46:09 atoz.zabbix.INFO ...</td>
<td>History</td>
</tr>
<tr>
<td>Log file modification time</td>
<td>10/08/2019 08:52:08 AM</td>
<td>10/09/2019 08:49:08 AM</td>
<td>-1009500</td>
</tr>
<tr>
<td>Zabbix user deletions</td>
<td>10/08/2019 08:48:09 AM</td>
<td>2010/10/09 08:34:10 atoz.zabbix.INFO ...</td>
<td>History</td>
</tr>
<tr>
<td>Zabbix user modifications</td>
<td>10/08/2019 02:43:07 PM</td>
<td>2010/10/09 14:30:06 atoz.zabbix.INFO ...</td>
<td>History</td>
</tr>
</tbody>
</table>
How to setup AtoZ?
The scripts and configuration files
AtoZ

The scripts and configuration files

Touch Points

- `atoz_wrapper.sh`
  - Update install path
  - Zabbix Server
  - Hostname

```bash
#!/bin/sh

ATOZ_DIR=/home/zabbix/atoz
ATOZ_EXE=${ATOZ_DIR}/bin/atoz
ATOZ_CFG=${ATOZ_DIR}/atoz.cfg
ATOZ_LOGGING_CONF=${ATOZ_DIR}/logging.conf

ZABBIX_SENDER=/usr/bin/zabbix_sender
ZABBIX_SERVER=sas.com
ZABBIX_HOSTNAME=sas.com

${ATOZ_EXE} -f ${ATOZ_CFG} -l ${ATOZ_LOGGING_CONF} | \
  awk -v NEWS quotid:BEGIN { error = 0 }
  group summary: / { print "- atoz.groups_processed", $6;
    print "- atoz.groups_created", $8;
    print "- atoz.groups_deleted", $10;
  } user summary: / { print "- atoz.users_processed", $6;
    print "- atoz.users_created", $8;
    print "- atoz.users_deleted", $10;
    print "- atoz.users_modified", $12;
  } total synchronization took / { print "- atoz.synchron_time", $7;
  } | ${ZABBIX_SENDER} -z ${ZABBIX_SERVER} -s ${ZABBIX_HOSTNAME} -i .`
```
AtoZ

The scripts and configuration files

Touch Points

• atoz.cfg
  • Update AD parameters
  • Zabbix API location and credentials
  • Add user group name patterns
  • Add any exclude users

The scripts and configuration files

[general]
media=mail_media, mobile_media

[mail_media]
mediatype=Email
field=MAIL

[mobile_media]
mediatype=SMS
field=mobile

[ad]
url=ldap://server:1234
username=user
password=password
baseDN=DC=something, DC=SAS, DC=com

[zabbix]
url=https://zabbix.sas.com/zabbix/api_jsonrpc.php
username=zabbix_api_user
password=password

[usergroups]
pattern1=Division: IT
pattern2=Hosting Development

[devgroups]
pattern1=IT Leadership
pattern2=IT Leads
pattern3=Web Masters
exclude1=admin
exclude2=app
exclude3=data
exclude4=webowner

[admingroups]
pattern1=Zabbix Admin Group
The scripts and configuration files

**Touch Points**

- logging.cfg
  - Set path
  - Set logging level

```python
[loggers]
keys=root

[handlers]
keys=consoleHandler,logFileHandler

[formatters]
keys=simpleFormatter

[logger_root]
handlers=consoleHandler,logFileHandler
level=NOTSET

[handler_consoleHandler]
level=INFO
class=StreamHandler
formatter=simpleFormatter
args=(<sys.stdout>,)

[handler_logFileHandler]
level=INFO
class=FileHandler
formatter=simpleFormatter
args=('~/home/zabbix/atoz/atoz.log',)

[formatter_simpleFormatter]
format=%(asctime)s %(name)s-%(levelname)s-%(message)s
datefmt=%Y-%m-%d %H:%M:%S
```
Touch Points

- Setup cron entry for atoz_wrapper.sh
THANK YOU!