

InfraNotes2020

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This page was created in July of 2020 during sa-vm1 sa-vm migration ([INFRA-20449](#) - Getting issue details... [STATUS](#))

Infrastructure

DNS Hosting

PowerDNS web interface for easy management of spamassassin.org DNS records:

1. Open an SSH tunnel: `ssh -f sa-vm.apache.org -L 8090:localhost:8090 -N`
2. Open web interface: <http://localhost:8090>
3. Login with admin. (Password is encrypted in [sysadmins/accounts.](#))
 - a. Root can also create new users (sqlite3 /var/www/nsedit/includes/pdns.users.sqlite3 - insert new into users table)

Zone	Server	Contact	Notes
spamassassin.org	ns2.pccc.com	Kevin McGrail kevin.mcgrail@mcgrail.com, kmcgrail@apache.org	Instant updates via NOTIFY
	ns2.ena.com	Dave Jones djones@ena.com, davej@apache.org	Instant updates via NOTIFY
	dns-master.sonic.net	ops-req@sonic.net, joe.muller@sonic.net	Hidden slave, 0-10 min delay of public slaves after NOTIFY
	ns.hyperreal.org	Brian Behlendorf	Currently not used since DJBDNS doesn't support NOTIFY or EDNS over TCP

Standards

*Ubuntu 20.04 LTS

*Cron entries should be in new standard locations /etc/cron.d, /etc/cron.daily, etc. and avoid using user's crontab

*Custom scripts should reside in /usr/local/bin if they are not directly related to [SpamAssassin](#) processing that should be in /usr/local/spamassassin

*Symlink scripts from /usr/local/bin to /etc/cron.d, /etc/cron.daily, or /etc/cron.weekly. This provides easy discovery and future management by others on the sysadmins team.

*Scripts and cron entries should mail output to the sysadmins mailing list

Legacy Servers

*minotaur.apache.org - handled various build and devel related tasks

*hyperion.apache.org - likely a Solaris box that had backup data of next server

*spamassassin.zones.apache.org - DIED - was replaced with spamassassin-vm

*spamassassin.zones2.apache.org - deprecated by Infra, replaced by sa-vm1.apache.org

*spamassassin-vm.apache.org - deprecated by Infra, replaced by sa-vm1.apache.org

*buildbot, ruleqa, etc. are aliases of above deprecated servers

Servers

Hostname	Function	Software	Configs/Location	Resource/URL
apachesf.sonic.net	Donated by Sonic	CentOS 7		sa-update.spamassassin.org (64.142.56.146)
sa-vm.apache.org	DNS Hidden Master	PowerDNS	/etc/powerdns/pdns.d/pdns.local.conf	spamassassin.org (DNS)

	Rsync Mirrors	rsyncd	/etc/rsyncd.conf	rsync.spamassassin.org
	RuleQA	apache2	/etc/apache2/sites-available/apache2-le-ssl.conf	ruleqa.spamassassin.org
	Nightly Masscheck	cron/scripts	/etc/cron.d/automc, /usr/local/spamassassin	

Backups

An old backup of sa-vm1 etc exists in sa-vm.apache.org:/usr/local/spamassassin/backups.

We need to setup offsite backups that at least two of the SA sysadmins members can access.

sa-vm.apache.org OS is backedup by ASF infra.

Crashplan will be installed by KAM to backup everything including /usr/local/spamassassin.

sa-vm.apache.org install/migration notes

```
# note that server uses an internal 10.x IP, and sa-vm.apache.org is an external NAT IP.
# /etc/hosts has some redirected names to localhost for ruleqa.spamassassin.org etc

apt install chrony
systemctl start chrony
systemctl enable chrony

apt install apache2 libapache2-mod-geoip libapache2-mod-php7.4 php7.4-sqlite3 php7.4-curl
a2enmod cgid
a2enmod cgi
a2enmod rewrite
a2enmod ssl
a2disconf serve-cgi-bin
a2dissite 000-default
a2dissite default-ssl

dpkg --purge geoip-database
mkdir -m 755 /usr/share/GeoIP
curl -o /etc/cron.weekly/geoip_update https://mailfud.org/geoip-legacy/geoip_update.sh
chmod 755 /etc/cron.weekly/geoip_update
## edit geoip_update, FILES="GeoIP GeoIPv6 GeoIPCity GeoIPCityv6 GeoIPASNum GeoIPASNumv6 GeoIPOrg GeoIPISP"
/etc/cron.weekly/geoip_update

groupadd -g 60000 automc
groupadd -g 60001 rsync
groupadd -g 60002 release
groupadd -g 60003 bbmass

useradd -u 60003 -g bbmass -d /usr/local/spamassassin/bbmss -s /bin/bash bbmass
useradd -u 60002 -g release -d /usr/local/spamassassin/release -s /bin/bash release
useradd -u 60001 -g rsync -G www-data,release -d /usr/local/spamassassin/rsync -s /bin/bash rsync
useradd -u 60000 -g automc -G www-data,rsync,release -d /usr/local/spamassassin/automc -s /bin/bash automc

rsync -vaH root@sa-vm1.apache.org:/usr/local/spamassassin/. /usr/local/spamassassin/.
rsync -vaH root@sa-vm1.apache.org:/var/www/. /var/www/.

systemctl stop systemd-resolved
# edit /etc/systemd/resolved.conf -> DNSStubListener=no
systemctl start systemd-resolved

apt install pdns-server pdns-backend-sqlite3 sqlite3 jq
systemctl stop pdns

apt install sysstat libalgorithm-diff-perl libalgorithm-diff-xs-perl \
libalgorithm-merge-perl libapparmor-perl libapt-pkg-perl libauthen-sasl-perl \
libb-hooks-op-check-perl libbareword-filehandles-perl libcgi-fast-perl \
libcgi-pm-perl libclass-accessor-perl libclass-data-inheritable-perl \
libclass-dbi-abstractsearch-perl libclass-dbi-mysql-perl libclass-dbi-perl \
libclass-method-modifiers-perl libclass-singleton-perl libclass-trigger-perl \
libclass-xsaccessor-perl libclone-perl libconfig-file-perl \
libcrypt-openssl-bignum-perl libcrypt-openssl-rsa-perl libdate-manip-perl \
libdatetime-locale-perl libdatetime-perl libdatetime-timezone-perl \
libdbd-mysql-perl libdbi-perl libdbix-contextualfetch-perl \
libdevel-globaldestruction-perl libdigest-hmac-perl libdigest-sha-perl \
libdpkg-perl libencode-detect-perl libencode-locale-perl liberror-perl \
libexporter-tiny-perl libfcgi-perl libfile-fcntllock-perl \
libfile-listing-perl libfont-afm-perl libgd-perl libgeo-ip-perl \
libgeo-ipfree-perl libhash-merge-perl libhtml-form-perl libhtml-format-perl \
libhtml-parser-perl libhtml-tagset-perl libhtml-tree-perl \
```

```

libhttp-cookies-perl libhttp-daemon-perl libhttp-date-perl \
libhttp-message-perl libhttp-negotiate-perl libima-dbi-perl \
libimport-into-perl libindirect-perl libio-html-perl libio-socket-inet6-perl \
libio-socket-ssl-perl libio-stringy-perl liblexical-sealrequirehints-perl \
liblingua-en-inflect-perl liblist-moreutils-perl liblocale-gettext-perl \
liblwp-mediatypes-perl liblwp-protocol-https-perl libmail-dkim-perl \
libmail-spf-perl libmailtools-perl libmodule-implementation-perl \
libmodule-runtime-perl libmoo-perl libmultidimensional-perl \
libnet-cidr-lite-perl libnet-dns-perl libnet-http-perl libnet-ip-perl \
libnet-libidn-perl libnet-patricia-perl libnet-smtp-ssl-perl \
libnet-snmp-perl libnet-ssleay-perl libnet-xwhois-perl libnetaddr-ip-perl \
libparams-classify-perl libparams-validate-perl libregexp-assemble-perl \
librole-tiny-perl libsnmp-perl libsocket6-perl libsql-abstract-limit-perl \
libsql-abstract-perl libstrictures-perl libsub-exporter-progressive-perl \
libsub-name-perl libsvn-perl libterm-readkey-perl libtext-charwidth-perl \
libtext-iconv-perl libtext-wrapil8n-perl libtime-parsedate-perl \
libtime-piece-mysql-perl libtimedate-perl libtry-tiny-perl \
libuniversal-moniker-perl liburi-perl libwww-perl libwww-robotrules-perl \
libxml-libxml-perl libxml-namespacesupport-perl libxml-parser-perl \
libxml-sax-base-perl libxml-sax-expat-perl libxml-sax-perl \
libxml-simple-perl libyaml-libyaml-perl libyaml-perl libcompress-lz4-perl \
libxml-sax-expatxs-perl libbsd-resource-perl libarchive-zip-perl \
libio-string-perl libmath-int64-perl

```

```

apt install gnupg2 gnupg-agent pigz gnuplot git-svn dnsutils zip zsh tcsh \
gsfonts gsfonts-x11 pyzor razor lzop makedev mutt rename
systemctl stop gdm
systemctl disable gdm

```

```

wget https://cpan.metacpan.org/authors/id/J/JH/JHI/Statistics-DEA-0.04.tar.gz; tar xvfz Statistics-DEA-0.04.tar.
gz; cd Statistics-DEA-0.04; perl Makefile.PL; make install
wget https://cpan.metacpan.org/authors/id/J/JM/JMASON/IPC-DirQueue-1.0.tar.gz; ...
wget https://cpan.metacpan.org/authors/id/G/GA/GAAS/Digest-SHA1-2.13.tar.gz; ...
wget https://cpan.metacpan.org/authors/id/N/NW/NWELLNHOF/IP-Country-DB_File-3.03.tar.gz; ...

```

```

rsync -va root@sa-vm1.apache.org:'/usr/local/bin/*.sh' /usr/local/bin/
rsync -va root@sa-vm1.apache.org:'/usr/local/bin/dns_compare' /usr/local/bin/
apt install python python-dnspython

```

```

rsync -va root@sa-vm1.apache.org:/etc/letsencrypt /etc/
apt install certbot python3-requests
# change to python3 --> /etc/letsencrypt/acme-dns-auth.py #! python3

```

```

rsync -va root@sa-vm1.apache.org:/usr/local/spamassassin/automc/svn/automc/apache2-le-ssl.conf /etc/apache2/sites-
available/
rsync -va root@sa-vm1.apache.org:/etc/apache2/sites-available/nsedit.conf /etc/apache2/sites-available/
a2ensite apache2-le-ssl
a2ensite nsedit
systemctl enable apache2
systemctl restart apache2

```

```

rsync -va root@sa-vm1.apache.org:/etc/rsyncd.conf /etc/
systemctl enable rsync
systemctl start rsync

```

```

##
## final syncs after shutting down sa-vm1 services, crons commented out
##

```

```

rsync -vaH --delete root@sa-vm1.apache.org:/usr/local/spamassassin/. /usr/local/spamassassin/.
rsync -vaH --delete root@sa-vm1.apache.org:/var/www/. /var/www/.
rsync -vaH root@sa-vm1.apache.org:/etc/cron.d/automc :/etc/cron.d/svn /etc/cron.d
rsync -vaH root@sa-vm1.apache.org:/etc/cron.hourly/setperms /etc/cron.hourly
rsync -vaH root@sa-vm1.apache.org:/etc/cron.daily/checkDNShosting /etc/cron.daily

```

```

systemctl stop pdns
rm -f /var/lib/powerdns/pdns.sqlite3*
rsync -va root@sa-vm1.apache.org:'/var/lib/powerdns/pdns.sqlite3*' /var/lib/powerdns/
sqlite3 /var/lib/powerdns/pdns.sqlite3
### UPDATE domainmetadata SET content='DEFAULT' WHERE kind='SOA-EDIT-API' AND content='INCEPTION-INCREMENT';
# also replace /var/www/nsedit/*/* INCEPTION-INCREMENT -> DEFAULT
systemctl start pdns
systemctl enable pdns

```

```

systemctl start apache2
systemctl enable apache2

```

```

rsync -va root@sa-vm1.apache.org:/etc/letsencrypt /etc/

```

```

# check
# /etc/cron.d/* MAILTO=
# /usr/local/bin/* NOTIFY=
# uncomment cron

```

```
# fixes to masscheck, revisions r1880323, r1880320, r1880318, r1880316, r1880312, r1880309
```

Builds

The sa-vm1 server TZ is UTC so cron entries will be in UTC.

mkupdates

This section of scripts publishes new ruleset updates to the mirrors. There are currently two different rule daily updates. Both do lint tests against the latest version of [SpamAssassin](#) but the first one updates the 72_scores.cf based on the masscheck contributions while the second one is a "blind" rule promotion and [tagged build of SVN rules](#) for the masscheck area setup later.

```
25 2 * * * automc ~/svn/trunk/build/mkupdates/do-stable-update-with-scores
~/svn/masses/rule-update-score-gen/do-nightly-rescore-example.sh
~/svn/masses/rule-update-score-gen/generate-new-scores.sh
*uses ~/tmp/generate-new-scores for SVN work area
*sorts out the usable corpus from the latest 'SVN revision' at the top of the submitter's log file which should match the latest tagged build of SVN rules
*${REVISION} LINE 123 NEEDS IMPROVEMENT!!! THIS SVN REVISION NEEDS TO BE CLOSELY TIED TO THE REVISION THAT WAS STAGED IN THE MASSCHECK RSYNC DIR.
*checks the sorted corpus for a minimum number of valid contributors and ham/spam
~/svn/trunk/build/mkupdates/mkupdate-with-scores
*uses ~/tmp/sa-mkupdate for SVN working area
*gets latest SVN ${REVISION} from rulesrc/scores/score-set*
*masses -> perl Makefile.PL && make (complete build of SA and test)
*perl hit-frequencies
*garescorer - compiles and runs it, requires build/pga
*sends email if not enough masscheck submitters or usable ham/spam for the latest SVN revision
*creates ${REVISION}.tar.gz ${REVISION}.tar.gz.sha1 and ${REVISION}.tar.gz.asc in /var/www/automc.spamassassin.org/updates for mirrors to pull
*updates DNS TXT entries [0-3].3.3.updates.spamassassin.org and 0.4.3.updates.spamassassin.org – versions >= 3.4.1 have a CNAME to 3.3.3.updates.spamassassin.org
*Script rewrite notes:
*Make each primary step modular since these steps are common in other scripts
*Should check for minimum contributors of ham/spam up front and not waste resources if requirements not met
*These 3 scripts above all share the same temp working dir. This should be determined from config file or relative path of user's home dir for flexibility.
*Should be able to run the ham/spam processing in parallel and merge the results together to cut this time in half
*Temp working dir for the corpus should be persistent so the rsync copy will be faster.
*Usuable corpus symlink setup could be improved. Invalid stale corpus should be removed into an archive/excluded dir.
```

```
30 8 * * * automc ~/svn/trunk/build/mkupdates/run_nightly > /var/www/automc.spamassassin.org/mkupdates/mkupdates.txt
*Currently ${SA_VERSION} = "3.4.2"
*${REVISION} = latest SVN revision THIS NEEDS TO BE ADDRESSED!!! NEED TO PREVENT REVISION FROM MESSING UP THE MASSCHECK PROCESSING.
*creates new rules/active.list
*commits new rules/active.list
*runs spamassassin lint against the updated rules and checks in a tagged version of 'sa-update_${SA_VERSION}_${TSTAMP}'
*commits "promotions validated" and emails dev@spamassassin.apache.org
*if the earlier daily update did not successfully produce the ${REVISION}.tar.gz* files
**creates ${REVISION}.tar.gz ${REVISION}.tar.gz.sha1 and ${REVISION}.tar.gz.asc in /var/www/automc.spamassassin.org/updates for mirrors to pull
**updates DNS TXT entries [0-3].3.3.updates.spamassassin.org and 0.4.3.updates.spamassassin.org – versions >= 3.4.1 have a CNAME to 3.3.3.updates.spamassassin.org
*Script rewrite notes:
*Uses many of the same primary steps previous section so reuse the code and not have to maintain multiple versions
*Should be turned into generic script that can be run on demand via SVN trigger/polling
```

nitemc

These run shortly after the build/mkupdates/run_nightly to setup the masscheck download area based on the latest [tagged build of SVN rules](#).

```
34 8 * * 0-5 automc *~/svn/nitemc/corpora_runs >> ~/rsync/corpus/nightly-versions.txt
36 8 * * 0-5 automc *~/svn/nitemc/extract_to_rsync_dir nightly ~/rsync/corpus/nightly-versions.txt
34 8 * * 6 automc *~/svn/nitemc/corpora_runs >> ~/rsync/corpus/weekly-versions.txt
36 8 * * 6 automc *~/svn/nitemc/extract_to_rsync_dir weekly ~/rsync/corpus/weekly-versions.txt
```

ruleqa

This updates the web interface for <http://ruleqa.spamassassin.org>.

```
5 2-20 * * * automc . /etc/profile; */usr/local/bin/runRuleQArefresh.sh
*$HOME/svn/masses/rule-qa/corpus-hourly --dir=$HOME/rsync/corpus
*$HOME/svn/masses/rule-qa/automc/gen_info_xml
*$HOME/svn/masses/rule-qa/automc/ruleqa.cgi -refresh
```