Changing the SIP Domain Name for Sipxcom in Release 17.04

Introduction

In Sipxcom, the fully qualified name for a voice server is defined at setup time by the host name (e.g. **pbx**) and SIP domain name (e.g. **lvtest.com**). After first installing the Sipxcom ISO, the server will restart. When logging into root after the reboot, the **sipxecs-setup** script is automatically started which prompts the user whether to change network settings, if this is the first Sipxcom server, and prompts for hostname and SIP domain. After a few minutes, sipxecs-setup completes and displays message to log into the voice server via a web browser.
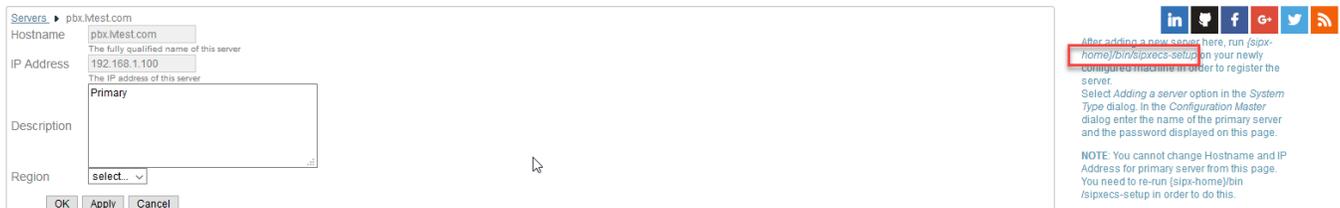
In older releases of Sipxcom, the voice server fully qualified domain name (e.g. **pbx.lvtest.com**) was changed by shutting down Sipxcom from the root account, and re-rerunning the **sipxecs-setup** script. In release 17.04, it appears **sipxecs-setup** fails to update the Mongo database name to the new updated fully qualified name for the voice server. This document describes how to complete the conversion of the fully qualified domain name in Sipxcom from **pbx.lvtest.com** to **pbx.lvtest1.com**.

Step 1 - Shut Down all Sipxcom Processes from Root

SSH into the voice server as root and issue the following commands:

- service sipxecs stop
- service sipxsupervisor stop
- service mongod stop
- service postgresql stop
- crontab -r to stop any automated Sipxcom processes from starting
- Do a **ps -ef | grep sipx** command and issue a kill -9 to any remaining Sipxcom processes
- Do a **service sipxcom status** command to ascertain all major Sipxcom processes are stopped

```
[root@pbx ~]#
[root@pbx ~]# service sipxecs stop
[root@pbx ~]# service sipxsupervisor stop
Stopping cf-serverd:                                    [  OK  ]
[root@pbx ~]# service mongod stop
Stopping mongod:                                        [  OK  ]
[root@pbx ~]# service postgresql stop
Stopping postgresql service:                            [  OK  ]
[root@pbx ~]# ps -ef | grep sipx
root      1493     1  0 15:50 ?        00:00:00 /usr/sbin/snmptrapd -A -Lf /var/
log/sipxpbx/snmptrapd.log -p /var/run/snmptrapd.pid
sipx      2709     1  0 15:50 ?        00:00:00 epmd -daemon
root     20642  7248  0 16:29 pts/1    00:00:00 grep sipx
[root@pbx ~]# crontab -r
[root@pbx ~]# ps -ef | grep sipx
root      1493     1  0 15:50 ?        00:00:00 /usr/sbin/snmptrapd -A -Lf /var/
log/sipxpbx/snmptrapd.log -p /var/run/snmptrapd.pid
sipx      2709     1  0 15:50 ?        00:00:00 epmd -daemon
root     20648  7248  0 16:30 pts/1    00:00:00 grep sipx
[root@pbx ~]# kill -9 1493
[root@pbx ~]# kill -9 2709
[root@pbx ~]# ps -ef | grep sipx
root     20650  7248  0 16:30 pts/1    00:00:00 grep sipx
[root@pbx ~]# service sipxecs status
sipxconfig is stopped
sipxpage is stopped
sipxsaa is stopped
sec is stopped
sipxrelay is stopped
sipxrest is stopped
sipxrls is stopped
sipxcdr is stopped
sipXproxy is stopped
sipstatus is stopped
cf-serverd is stopped
sipxsqa is stopped
sipxivr is stopped
sipxcallback is stopped
tcpdump dead but pid file exists
sipxacccode is stopped
sipregistrar is stopped
freeswitch is stopped
sipxprovision is stopped
sipxrecording is stopped
[root@pbx ~]#
```

Step 2 - Run sipxecs-setup to Change FQDN of Voice Server

Run the sipxecs-setup script to change the Sipxcom FQDN from **pbx.lvtest.com** to **pbx.lvtest1.com**:

```
[root@pbx ~]#
[root@pbx ~]# sipxecs-setup
Network settings:
IP address    : 192.168.1.100
Would you like to configure your system's  network settings? [ enter 'y' or 'n' ] : n
Is this the first server in your cluster? [ enter 'y' or 'n' ] : y
Configuring as the first server...
Enter just the host name of this computer?. Example: myhost. [ press enter for 'pbx' ] :
Enter just the domain name of your network? Example: mydomain.com [ press enter for 'lvtest.com' ] : lvtest1.com
Tip: Use 'pbx.lvtest1.com' as your SIP domain if you are
setting up for the first time or if you know you are only going to setup one
server. This can make configuration easier.  You can always change the value
later.
Enter SIP domain name [ press enter for 'lvtest1.com' ] :
Enter SIP realm [ press enter for 'lvtest1.com' ] :
Application settings:
Primary server : yes
Host          : pbx
SIP Domain     : lvtest1.com
Network Domain : lvtest1.com
Would you like to change your application settings? [ enter 'y' or 'n' ] : n
Finishing system configuration, almost done...
done.


In a few more minutes you will be able to access the administration
interface from your web browser at the following URL:

  https://pbx.lvtest1.com

[root@pbx ~]#
```

Step 3 - Check Whether Sipregistrar is Running

Check the running Sipxcom processes via a **service sipxecs status** command - if the **sipxsaa**, **sipxrls**, **sipstatus**, and **sipregistrar** processes are stopped, then this is due to the Mongo **hostid** not being converted by **sipxecs-setup** from **pbx.lvtest.com** to **pbx.lvtest1.com**. Do a tail command on the **/var/log/sipxpbx/sipregistrar.log** file - there will be log messages for connect errors to the Mongo **pbx.lvtest1.com** database.

```
[root@pbx ~]# service sipxecs status
sipxconfig ( pid 26651 ) is running and listening on port
sipxpage ( pid 27622 ) is running and listening on port
sipxsaa is stopped
sec (pid 615) is running...
sipxrelay ( pid 28369 ) is running and listening on port
sipxrest ( pid  31218) is running...
sipxrls is stopped
sipxcdr ( pid 29983 ) is running and listening on port
sipXproxy ( pid 29224 ) is running and listening on port
sipstatus is stopped
cf-serverd ( pid 22861 ) is running and listening on port
sipxsqa ( pid 459 ) is running and listening on port
sipxivr ( pid 27458 ) is running and listening on port
sipxcallback (pid  24922) is running...
tcpdump (pid  523) is running...
sipxacccode (pid  24735) is running...
sipregistrar is stopped
freeswitch ( pid 27147 ) is running and listening on port
sipxprovision ( pid 27809 ) is running and listening on port
sipxrecording (pid  30191) is running...
[root@pbx ~]# tail /var/log/sipxpbx/sipregistrar.log
"2017-06-04T20:42:51.080598Z":3:KERNEL:CRIT:pbx.lvtest1.com::7efcda45b800:sipxregistry:"Failed to connect to 'sipxecs/pbx.lvtest1.com:27017' - socket exception [CONNECT_ERROR] for sipxecs/pbx.lvtest1.com:27017"
"2017-06-04T20:43:36.469772Z":1:KERNEL:NOTICE:pbx.lvtest1.com::7ff3ff69f800:sipxregistry:"OsResourceLimit::setCurrentLimit: Resource RLIMIT_NOFILE set to soft: 32768 hard: 65536"
"2017-06-04T20:43:36.469950Z":2:KERNEL:NOTICE:pbx.lvtest1.com::7ff3ff69f800:sipxregistry:"Maximum file descriptors set to 32768"
"2017-06-04T20:43:41.471965Z":3:KERNEL:CRIT:pbx.lvtest1.com::7ff3ff69f800:sipxregistry:"Failed to connect to 'sipxecs/pbx.lvtest1.com:27017' - socket exception [CONNECT_ERROR] for sipxecs/pbx.lvtest1.com:27017"
"2017-06-04T20:44:55.898407Z":1:KERNEL:NOTICE:pbx.lvtest1.com::7fe8961ba800:sipxregistry:"OsResourceLimit::setCurrentLimit: Resource RLIMIT_NOFILE set to soft: 32768 hard: 65536"
"2017-06-04T20:44:55.898573Z":2:KERNEL:NOTICE:pbx.lvtest1.com::7fe8961ba800:sipxregistry:"Maximum file descriptors set to 32768"
"2017-06-04T20:45:00.932212Z":3:KERNEL:CRIT:pbx.lvtest1.com::7fe8961ba800:sipxregistry:"Failed to connect to 'sipxecs/pbx.lvtest1.com:27017' - socket exception [CONNECT_ERROR] for sipxecs/pbx.lvtest1.com:27017"
"2017-06-04T20:45:46.240534Z":1:KERNEL:NOTICE:pbx.lvtest1.com::7f7f73fb2800:sipxregistry:"OsResourceLimit::setCurrentLimit: Resource RLIMIT_NOFILE set to soft: 32768 hard: 65536"
"2017-06-04T20:45:46.240702Z":2:KERNEL:NOTICE:pbx.lvtest1.com::7f7f73fb2800:sipxregistry:"Maximum file descriptors set to 32768"
"2017-06-04T20:45:51.243044Z":3:KERNEL:CRIT:pbx.lvtest1.com::7f7f73fb2800:sipxregistry:"Failed to connect to 'sipxecs/pbx.lvtest1.com:27017' - socket exception [CONNECT_ERROR] for sipxecs/pbx.lvtest1.com:27017"
[root@pbx ~]#
```

Step 4 - Convert FQDN in Mongo from pbx.lvtest.com to pbx.lvtest1.com

Go into Mongo and issue the following commands - upon completion, exit Mongo and restart the Sipxcom server:

- Issue **Mongo** command
- Issue **rs.config()** command - you will notice that host name is still **pbx.lvtest.com**
- Issue the **cfg = rs.config()** command - which copies the database parameters into a variable
- Issue the **cfg.members[0].host = "pbx.lvtest1.com"** command which changes the voice FQDN host name to **pbx.lvtest1.com** in Mongo
- Issue the **"rs.reconfig(cfg,{force:true})"** command to apply the new pbx.lvtest1.com host name to Mongo
- Issue the **rs.config()** command again to ascertain the new host name has been applied in Mongo
- Issue the **exit** command from Mongo and then restart the Sipxcom server

```
sipxecs:PRIMARY> rs.config()
{
        "_id" : "sipxecs",
        "version" : 124716,
        "members" : [
                {
                        "_id" : 0,
                        "host" : "pbx.lvtest.com:27017",
                        "tags" : {
                                "clusterId" : "1",
                                "shardId" : "0"
                        }
                }
        ]
}
sipxecs:PRIMARY> cfg = rs.config()
{
        "_id" : "sipxecs",
        "version" : 124716,
        "members" : [
                {
                        "_id" : 0,
                        "host" : "pbx.lvtest.com:27017",
                        "tags" : {
                                "clusterId" : "1",
                                "shardId" : "0"
                        }
                }
        ]
}
sipxecs:PRIMARY> cfg.members[0].host = "pbx.lvtest1.com";
pbx.lvtest1.com
sipxecs:PRIMARY> rs.reconfig(cfg, {force:true})
2017-06-04T17:03:08.741-0400 DBClientCursor::init call() failed
2017-06-04T17:03:08.743-0400 trying reconnect to 127.0.0.1:27017 (127.0.0.1) failed
2017-06-04T17:03:08.743-0400 reconnect 127.0.0.1:27017 (127.0.0.1) ok
reconnected to server after rs command (which is normal)

sipxecs:PRIMARY>
Message from syslogd@pbx at Jun  4 17:03:31 ...
 sipXproxy[29224]: ALARM_MONGODB_SLOW_READ Last Mongo read took a long time: document: node.registrar delay: 5000 milliseconds

sipxecs:PRIMARY> rs.config()
{
        "_id" : "sipxecs",
        "version" : 207837,
        "members" : [
                {
                        "_id" : 0,
                        "host" : "pbx.lvtest1.com:27017",
                        "tags" : {
                                "clusterId" : "1",
                                "shardId" : "0"
                        }
                }
        ]
}
sipxecs:PRIMARY>
```

Step 5 - Check Intranet Domain Field in the Internet Calling Menu

Go to the **SystemInternet Calling** or **System->SettingsInternet Calling** menu, and if necessary, update the Intranet Domain field with the new **lvtest1.com** domain.

INTERNET CALLING

Step 6 - Push Sipxcom Server Processes and Validate All Processes are Running

Push the **pbx.lvtest1.com** server profile which copies all configuration data from the SQL server into Mongo. Check to ascertain all server processes are running.

	Name	ID	IP Address	Description	Status
☑	pbx.lvtest1.com	1	192.168.1.100	Primary	Configured

[Send Profiles] [Delete] [Reset keys]

Servers ▸ pbx.lvtest1.com

	Name	Status
☐	tcpdump	✅ Running
☐	Authorization Code (sipxacccode)	✅ Running
☐	Callback on Busy (sipxcallback)	✅ Running
☐	CDRs (sipxcdr)	✅ Running
☐	Conference Event Listener (sipxrecording)	✅ Running
☐	Configuration (sipxconfig)	✅ Running
☐	DNS (named)	✅ Running
☐	Elasticsearch	✅ Running
☐	FTP (vsftpd)	✅ Running
☐	Global Database (mongod)	✅ Running
☐	Log watcher (sipxlogwatcher)	✅ Running
☐	Media Relay (sipxrelay)	✅ Running
☐	Media Services (sipxfreeswitch)	✅ Running
☐	Network Queue (sipxsqa)	✅ Running
☐	Network Queue DB (redis-server)	✅ Running
☐	NTP (ntpd)	✅ Running
☐	Paging Groups (sipxpage)	✅ Running
☐	Phone Auto-Provisioning (sipxprovision)	✅ Running
☐	REST API (sipxrest)	✅ Running
☐	RLS (sipxrls)	✅ Running
☐	SAA/BLA (sipxsaa)	✅ Running
☐	SIP Proxy (sipxproxy)	✅ Running
☐	SIP Registrar (sipxregistrar)	✅ Running
☐	SMTP (sendmail)	✅ Running
☐	SNMP (snmpd)	✅ Running
☐	SNMP Alarms (snmptrapd)	✅ Running
☐	Supervisor (sipxsupervisor)	✅ Running
☐	System Audit (sipxconfig)	✅ Running
☐	Voicemail MWI (sipxpublisher)	✅ Running
☐	Voicemail/AutoAttendant/IVR/MoH (sipxivr)	✅ Running

[Restart] [Refresh]

Step 7 - Rebuild Phone Profiles and Restart Phones

The phones registered to the Sipxcom voice server currently use **lvtest.com** as the SIP domain - push all phone profiles which rebuilds the configuration files on the Sipxcom TFTP directory. The phones will need to be manually restarted to pick up the new configuration files and register to the voice server with SIP domain **lvtest1.com**.

Step 8 - Test Incoming, Outgoing Calls, Voicemails, Autoattendants, etc

Test a variety of internal and external calls, call forwards, voicemail, autoattendants to ascertain all calls are working properly. If bearer path fails to appear on some calls (e.g. voicemail announcements), and you are testing with a new voice server, then pay attention to your NAT traversal settings:

- If this is a new system and Sipxbridge is used,for external calls, ascertain the NAT Traversal type is set to IP address, and Public IP address is set to the IP address assigned to the WAN router, assuming Sipxcom is behind a firewall.
- If this is a new system and unmanaged gateways are used for external calls, then pay attention to the following settings, particularly if voicemail or autoattendant announcements disappear after 30-60 seconds (assume Sipxcom and gateway is behind a firewall):
    - **NAT public IP address** should be configured to be the Sipxcom private IP address.
    - The **Enable NAT traversal** and **Server behind NAT** settings should be disabled.