



Com.X

IP PBX / Gateway

Callcabinet / Atmos Troubleshooter

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Document History

Version	Date	Description of Changes
1.0	27/01/2016	M.knight - Draft
1.1	12/05/2016	M.Knight – updated to “Connectivity to Atmos Cloud”



Table of Contents

1 BASICS.....	4
1.1 IS CALLCABINET INSTALLED?.....	4
1.2 IS CALLCABINET RUNNING?.....	4
2 CONFIGURATION FILE.....	5
2.1 SITE ID AND CUSTOMER ID.....	5
3 CONNECTIVITY TO ATMOS CLOUD.....	6
3.1 CONNECTION URLS.....	6
3.2 FIREWALL RULES TO ALLOW ACCESS TO ATMOS SERVERS.....	7
4 LOG FILES.....	8
4.1 CCLOG.LOG.....	8
4.2 CCMODULE.LOG.....	8
4.3 CAPTURING AND COMPRESSING LOGS.....	9
5 THE LINKS FOLDER.....	10
6 EXPECTED UPLOAD DELAYS.....	11
6.1 SIZE OF EXISTING BACKLOG.....	11



1 Basics

1.1 Is callcabinet installed?

```
> dpkg -l | grep callcabinet
```

If there is no response please check the routes table and make sure there is an active Internet connection. (ping www.google.co.za as a quick verification.)

```
> apt-get install callcabinet
```

1.2 Is callcabinet running?

To check if callcabinet is running:

```
> /etc/init.d/callcabinet status
```

If not running, start the service up:

```
> /etc/init.d/callcabinet restart
```

If callcabinet is still not uploading recordings correctly then continue on to section 5



2 Configuration File

2.1 Site ID and Customer ID

Make sure that `/etc/CCconfig.txt` exists and has both its site ID and customer ID set. Both these identifiers can be obtained via the customer's Atmos account. If they have not created an account the registration process will have to be followed:

<https://farsouthnet.callcabinet.com/Account/Register?class=modal-opener>

```
> nano /etc/CCconfig.txt
```

```
SiteID:<insert_site_id_here>  
CustomerID:<insert_customer_id_here>  
RemoteServiceLocation:<https://atmoscapture.callcabinet.com/RecordingInformationService.svc?singleWsdI>  
RemoteFileStorageServer:<https://passthrough.callcabinet.co.za/FileUpload.aspx>  
...
```

There is no need to restart the callcabinet service as the callcabinet upload agent is monitoring changes made to the configuration file.



3 Connectivity to Atmos Cloud

In order for successful file upload the ComX Pbx must have a stable connection to the Atmos cloud. It will use this connection to upload all call recording files. The Com.X unit may need persistent routes created and on site Firewall rules need to be updated to allow access.

3.1 Connection URLs

To test the connection to the Atmos cloud we must ensure that we can access the two main connection urls that the uploader uses to connect to the cloud. These are:

1. Remote Service Location:

This maintains the “heart beat” of the unit.

```
https://atmoscapture.callcabinet.com/RecordingInformationService.svc?singleWsdI
```

Test access:

```
> wget
https://atmoscapture.callcabinet.com/RecordingInformationService.svc?singleWsdI
--2016-05-12 11:24:28--
https://atmoscapture.callcabinet.com/RecordingInformationService.svc?singleWsdI
Resolving atmoscapture.callcabinet.com... 138.91.115.40
Connecting to atmoscapture.callcabinet.com[138.91.115.40]:443...
connected.
...
```

Port access: If no access check that the correct port (443 – HTTPS) is open. To do this use a port mapper like nmap. If this fails please see 7

```
> nmap atmoscapture.callcabinet.com

Starting Nmap 5.00 ( http://nmap.org ) at 2016-05-12 11:31 SAST
Interesting ports on 138.91.115.40:
Not shown: 997 filtered ports
PORT      STATE SERVICE
80/tcp    open  http
443/tcp  open  https
...
```



Routing: add static route to atmoscapture.callcabinet.com
(use “nslookup atmoscapture.callcabinet.com” to get public IP.)

```
> route add -net 138.91.115.40 netmask 255.255.255.255 gw  
<your_gateway_ip_address_here>
```

Route persistence: add the following to your /etc/network/interfaces file e.g.

```
# Atmos access route  
post-up route add -net 138.91.115.40 netmask 255.255.255.255 gw  
<your_gateway_ip_address_here>
```

2. Remote File Storage Server:

This does the actual encrypted recording file uploads.

```
https://passthrough.callcabinet.co.za/FileUpload.aspx
```

Test access:

```
> wget https://passthrough.callcabinet.co.za/FileUpload.aspx  
--2016-05-12 11:40:03--  
https://passthrough.callcabinet.co.za/FileUpload.aspx  
Resolving passthrough.callcabinet.co.za... 154.0.172.214  
Connecting to passthrough.callcabinet.co.za|154.0.172.214|:443...  
connected.  
...
```

Routing: add static route to passthrough.callcabinet.co.za
(use “nslookup passthrough.callcabinet.co.za” to get public IP.)

```
> route add -net 154.0.172.214 netmask 255.255.255.255 gw  
<your_gateway_ip_address_here>
```

Route persistence: add the following to your /etc/network/interfaces file e.g.

```
# Atmos access route  
post-up route add -net 154.0.172.214 netmask 255.255.255.255 gw  
<your_gateway_ip_address_here>
```

3.2 Firewall Rules to allow access to Atmos servers

A change to the local firewall rules maybe needed to allow access to port 443 of both passthrough.callcabinet.co.za and atmoscapture.callcabinet.com. Please talk to the customer's on site network administrator to arrange for this.





4 Log Files

The log files record all progress made by the call recording upload process. In the event that an upload problem cannot be solved Farsouth Networks will need these logs for further analysis.

4.1 cclog.log

This log file lists the link creation process. Each recorded call has an associated 'uniqueid' which is used to identify

```
> less /var/log/callcabinet/cclog.log
```

Typical meta information contained within this log would look like:

```
-----  
cclink_daemon: name = 20160108-083037-1452234637.1081.wav  
cclink_daemon: unique_id = 1452234637.1081  
cclink_daemon: formatted_date = 2016-01-08  
cclink_daemon: utc_time = 06:34:48  
cclink_daemon: queue =  
destination: 2056 is a local extension  
0822137408 is not local ... therefore CALLTYPE_INBOUND  
ccmove: call_type = CALLTYPE_INBOUND  
ccmove: source = 0822137408  
ccmove: destination = 2056  
ccmove: duration = 247 sec  
ccmove: uniqueid = 1452234637.1081  
inbound call  
link: 0822137408_2016-01-08T06:34:48_2056_247_INCOMING_1452234637.1081_20160108-083037-1452234637.1081.WAV  
-----
```

4.2 ccmodule.log

This is the callcabinet upload agent log that gives an indication of recording file upload status and any errors that may have occurred.

```
> less /var/log/callcabinet/ccmodule.log
```



4.3 Capturing and Compressing Logs

To store and compress log files:

```
> tar cvfz callcabinet_logs.tar.gz /var/log/callcabinet/
```

Send the generated compressed tarball to:

<mailto:support@farsouthnet.com?subject=Callcabinet Logs>



5 The Links Folder

Once recorded calls are completed on the PBX they are then stored as .wav files under the `/var/spool/asterisk/monitor` folder. These files should have the following form:

```
-<UniqueID>.wav  
e.g. 20160120-100041-1453276836.5.wav
```

Once this happens a link creation agent script will then analyse the file and use it to find meta information on the recorded call which it will then embed in a created link of the form:

```
<source>_<start_time>_<destination>_<duration>_<direction>_<uniqueid>_<file_name>.WAV
```

These links are stored in the `/var/lib/callcabinet` folder



6 Expected Upload Delays

Depending on call volumes for any particular day there may be a significant back log of recording files that still need to be uploaded by the callcabinet upload agent. These uploads are normally completed over night.

6.1 Size of Existing Backlog

To get the size of the existing backlog (i.e. files that the agent has not yet uploaded to the cloud), enter the following command into your terminal:

```
> ls | grep -i .wavq | wc -l
```

If the returned figure is larger than **3000** then there maybe cause for concern and the PBX's connection to the Atmos Cloud may need to be checked. Ideally this number should be zero.

Note: this backlog depends on upload bandwidth, average call length and call volumes for that day