Troubleshooting

Polycom Admin Password

Regular default Polycom password	`456`
Our version of the admin password	`147456`
Admin menu for Polycom 330	`Menu => Settings => Advanced => <password>`
Accessing the Polycom web admin	**What is the standard way to access? Use the Admin / Polycom password**

Reset To Factory

Menu Steps	1. Go to Menu > Settings > Advanced 2. Enter the password 147456 3. Go to Admin Settings 4. Reset To Defaults 5. Reset To Factory

Phone not connecting / Not initializing / constantly rebooting

Plug the phone directly into the switch in the closet. If the phone boots up correctly, then this is an issue with any of the following:

cable	Try replacing cable
jack	Possibly need to network-test the jack
switch config	Not allowing the phone on the voice VLAN or having the wrong VLAN. • Boiling Springs uses Vlan 90 • Bergen uses VLAN 55 See custom notes on the system: /etc/network/interfaces Example to set to VLAN to our default of 50: `menu => settings => advanced => pw: 147456 => Ethernet => vlan => vlan 50`
check connected IPs	`asterisk -rvvv` `sip show peers`

Transfer Log aka Provisioning Log

What	When a phone gets its configuration, it downloads it from the provisioning server.
Location	`/var/log/pure-ftpd/transfer.log`
	Any other locations on other systems?
Search	IP or compressed lowercase MAC
Example	`grep 50.51 /var/log/pure-ftpd/transfer.log` Can search for just the last two octets
Example	`grep 588d /var/log/pure-ftpd/transfer.log` Can search for just the last few characters of a MAC
Tip	If a phone downloads sip.ld twice then it's probably doing a firmware update
Tip	The last thing the phone downloads is the ringtones, but only if there are ringtones to be downloaded

```
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:26 -0400] "GET /var/tftpboot/0004f248588d.cfg" 200 336
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:26 -0400] "GET /var/tftpboot/2345-12375-001.sip.ld" 200 0
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:26 -0400] "GET /var/tftpboot/phone6322.cfg" 200 2656
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:27 -0400] "GET /var/tftpboot/site.cfg" 200 7880
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:27 -0400] "GET /var/tftpboot/sip.cfg" 200 21622
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:32 -0400] "PUT /var/tftpboot/Logs/0004f248588d-boot.log" 200 5907
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:32 -0400] "PUT /var/tftpboot/Logs/0004f248588d-app.log" 200 26614
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:55 -0400] "GET /var/tftpboot/0004f248588d.cfg" 200 336
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:55:58 -0400] "GET /var/tftpboot/2345-12375-001.sip.ld" 200 4970628
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:56:32 -0400] "GET /var/tftpboot/0004f248588d.cfg" 200 336
192.168.50.51 - PlcmSpIp [28/Aug/2017:09:56:35 -0400] "GET /var/tftpboot/2345-12375-001.sip.ld" 200 3932160
```

CLI aka Command Line Interface

Finding the MAC / IP via Caller ID

```
show extension status filter_by callerid_name
```

```
-----------------------------------------
-----------------------------------------
-------------------------------------
|  Exten  |  Phonegroup  |  CallerID
|  MAC           |  Type     |  Agent  |
IP             |  Port  |  Status      |
-----------------------------------------
-----------------------------------------
-------------------------------------
|  6239   |  internal    |  Dave Plaza
|  0004f2a669ad  |  Polycom  |  yes    |
192.168.51.99  |  5060  |  OK (18 ms)  |
|  6280   |  internal    |  Dave Scalfani
|  0004f22c9fa3  |  Polycom  |  no     |
192.168.51.51  |  5060  |  OK (16 ms)  |
-----------------------------------------
-----------------------------------------
-------------------------------------
```

Finding the MAC / IP via Extension

```
show extensions status filter_by extension lik
```

```
-----------------------------------------
-----------------------------------------
-------------------------------------
|  Exten  |  Phonegroup  |  CallerID    |
MAC           |  Type     |  Agent  |
IP             |  Port  |  Status      |
-----------------------------------------
-----------------------------------------
-------------------------------------
|  6239   |  internal    |  Dave Plaza  |
0004f2a669ad  |  Polycom  |  yes    |
192.168.51.99  |  5060  |  OK (19 ms)  |
-----------------------------------------
-----------------------------------------
-------------------------------------
```

Other search terms	`phonegroup_name` `mac` `ip_address`
Switch to Configuring Extension from Polycom => reg 1	`sip_extension`
Switch to Configuring Polycom from Extension	`polycom`
Take Out Override Provisioning Server	`polycom <mac>` `reg 1` `no override_server`
Idle Screen URL	`polycom <mac>` `idle_screen_url "https://65.51.69.82/pbx/polyc` **External HTTPS** `idle_screen_url "http://192.168.50.1/pbx/polyc` **Internal HTTP**
Setting or changing the extension of a polycom	`configure` `polycom <mac>` `reg 1` `sip_extension <exten>`
Getting rid of an extension	Same as above except for the last line `no sip_extension`
Renaming an extension	configure rename extension <existingExten> <newExten>

Switching the extension to a different phone	First need to get rid of the extension (within the polycom config) just like above "no sip_extension" Then configure the new extension for the polycom just like above
Setting a DID	`configure` `extension <exten>` `did <10-digit-number>`
Check Class Of Service for international dialing on an extension	Configure the extension and then show. The cos is set to international `extension 373` ` always_autoanswer no` ` call_screening no` ` callerid_name "Bob Smith"` ` callerid_number 373` ` cos kwi_internal+local+ld+intl`
If a phone is not hitting the provisioning server - especially for like-new or grade-b phones - could have harcoded provisioning programmed into the phone itself	Get ip address from the menu on the polycom simpleproxy -L 9000 -R 192.168.50.208:80 http://kwi-a.client:9000 Default polycom pass is 456 Our password is 147456 Settings → provisioning → clear server address Set username and password to PlcmSpIp Set server type to FTP Utilities->reboot phone

Polycom Directory Files

What	Contact files for presence and monitoring extensions
Location	`/var/tftpboot-files/Contacts/<mac>-directory.x` **Single tenant system** `/var/tftpboot-files/secure/Contacts/<mac>-dire` **Multi-tenant hosted uses "secure"**
Search	`find /var/tftpboot-files/ | grep <mac>`

What	Site file - contains digit map

Location	/var/tftpboot-files/site.cfg **Single tenant system** /var/tftpboot-files/secure/site.cfg **Multi-tenant hosted uses "secure"**
Hack way to force a reboot	`<digitmap dialplan.digitmap="***x.T|**x.T|*x.T` Add an extra "|3" to the timeOut Save `asterisk -rvvv` `sip notify polycomReboot <device>` Undo the extra |3 in the timeOut Save

Apache Access Log

What	
Location	`/var/log/apache2/secure-access.log`
Tip	

Get Phones Script

What	Search for phones
Location	`/apps/bin/getPhones.pl`
Usage	`/apps/bin/getPhones.pl | grep <device>`

DHCP Log

What	
Location	`/etc/dhcpd.conf`
Search	

Daemon Log

What	
Location	`/var/log/daemon.log`
Search	

Customer AEL

What	
Location	`/etc/asterisk/ael/custom/customer.ael`
Usage	`asterisk -rvvv` `ael reload`

Packet Sniffing

What	Debugging provisioning server
Tip	Search DHCP log for mac address to find the IP
Usage	`tcpdump -i eth1 host 192.168.50.226 -A -s0`
Using external provisioning server and maybe should be local	09:01:53.150684 IP 192.168.50.226.sip > 41334552.cst.lightpath.net.sip: SIP, length: 532 E..0....@.....2.A3ER........REGISTER sip:65.51.69.82:5060 SIP/2.0 Via: SIP/2.0/UDP 192.168.50.226;branch=z9hG4bKc695b930AE8872 ED From: "Miguel Yanez" <sip:653@65.51.69.82>;tag=37A25335-380B2AAC To: <sip:653@65.51.69.82>

Accidentally using HTTPS for provisioning	09:01:56.656688 IP 192.168.50.226.63288 > 41334552.cst.lightpath.net.https: Flags [S], seq 2152593281, win 8192, options [mss 1460], length 0 E..,..@.@.....2.A3ER.8...M......`. ..S........ 09:01:57.150117 IP 192.168.50.226.sip > 41334552.cst.lightpath.net.sip: SIP, length: 532 E..0....@.....2.A3ER........REGISTER sip:65.51.69.82:5060 SIP/2.0 Via: SIP/2.0/UDP 192.168.50.226;branch=z9hG4bKc695b930AE8872ED From: "Miguel Yanez" <sip:653@65.51.69.82>;tag=37A25335-380B2AAC To: <sip:653@65.51.69.82>

Blocking Incoming Numbers

What	If for example a fax machine keeps calling and you want to block it
File	`/etc/asterisk/ael/custom/trunks_in.ael`

Example on BSSB-A	`context trunkhandler_pbx-sip-t1 {` `  _X. => {` `  // Stupid fax machine keeps calling (2014)` `  if (("${CALLERID(num)}" == "7023660961") || ("${CALLERID(num)}" == "7023894930")) {` `  Zapateller();` `  Hangup();` `  }` `  if (("${CALLERID(num)}" == "3152854391")) { Zapateller(); Hangup(); }` `// Block requested Jeff 2016-07-22` `  if (("${CALLERID(num)}" == "8885994209")) { Zapateller(); Hangup(); }` `// Block requested Jeff 2017-09-06` `  ...` `  }` `}`

Channel Tracing

What	Figuring out what the heck happened to a call-detail style
File	`/var/log/asterisk/full` `/var/log/asterisk/full.1` `/var/log/asterisk/full.2.gz` and many more .gz files
Example	`[2017-09-05 14:51:29.716] VERBOSE[1477] chan_s`

Search	• Can search for a date/time with maybe an hour if known "**2017-09-05 14**". For busy systems this is not ideal. • Can search for "**New Call**" just to find new calls, there may be thousands of calls to find • Can search for callerid name like "**Stann Gravesande**", much more specific • Can seach for "**<317>**" as the incoming callerid number • Can seach for "**Destiation: 671**" which is the number or extension being called
Secondary Search	Once the **New Call** is found, grab the channel **<SIP/317-0000130f>**
Tracing By Channel	`/apps/bin/asterisk_trace_call -c 'SIP/317-0000` That parses through the `full.*` files and displays the detailed call trace
Tracing By Call Log	`/apps/bin/asterisk_trace_call -l 3624783` That parses through a few `full.*` files based on the information it finds in the log_asterisk.call_log table

`/apps/bin/asterisk_trace_call -lc | grep 7175588105`

List all calls and then grep for a certain phone number

https://i.thinq.com => Origination (inbound calls to our call center - rounting into a phone number)

=> Uncompleted

ANI - Prefix with a 1 to a 10 digit number

Updating Polycom Firmware

Still TODO

so with the provisioning server there's a few things to do
in /var/tftpboot-files i already uploaded the 5.6 firmware
so, i make a backup directory with the current firmware
i do like sip-5.4 or whatever the old one is
if you cat sip.ver
it'll tell you the current version
i copy sip.cfg and sip.ver into the backup path
and *.sip.ld as well
and then i mkdir sip-5.6
cd sip-5.6
unzip ../Polycom-UC...etc.etc5-6.zip
and then copy the sip.ver ..
and then cp Configs/sip-interop.cfg ../sip.cfg
and then cp *.ld ..
and then once you have everything in /var/tftpboot-files
then you need to copy all those to public and secure as well
sip.cfg, sip.ver, and *.sip.ld

Adding Permission To A Mailbox For Office 365

https://portal.office.com/adminportal/home#/homepage
Users => active users => select user => mail settings => mailbox permissions => edit
Then can Add which displays the users and can search for "Global Administrator"

https://outlook.office365.com
Right click "Global Administrator" name and then click "Add Shared Folder"
Type in the name to search for and add it
It takes quite a while for the new permissions to take effect

Setting up a "Like New" Phone

Always check on the "Provisioning Server" configuration section of the phone.
Phones of this type were often configured to be provisioned somewhere else, and need to have:

- **"Server" setting cleared entirely**
- **User and password set to PlcmSclp (that's lower case L 1st, capital i 2nd)**

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