

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	<ol style="list-style-type: none">1. Go to Menu > Settings > Advanced2. Enter the password 1474563. Go to Admin Settings4. Reset To Defaults5. Reset To Factory
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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	<p>Not allowing the phone on the voice VLAN or having the wrong VLAN.</p> <ul style="list-style-type: none">• Boiling Springs uses Vlan 90• Bergen uses VLAN 55 <p>See custom notes on the system: /etc/network/interfaces Example to set to VLAN to our default of 50:</p> <pre>menu => settings => advanced => pw: 147456 => Ethernet => vlan => vlan 50</pre>
check connected IPs	<pre>asterisk -rvvv sip show peers</pre>

Transfer Log aka Provisioning Log

What	When a phone gets its configuration, it downloads it from the provisioning server.
Location	<div>/var/log/pure-ftpd/transfer.log</div>
	Any other locations on other systems?
Search	IP or compressed lowercase MAC
Example	<div>grep 50.51 /var/log/pure-ftpd/transfer.log</div> <p>Can search for just the last two octets</p>
Example	<div>grep 588d /var/log/pure-ftpd/transfer.log</div> <p>Can search for just the last few characters of a MAC</p>
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 - PlcmSplp [28/Aug/2017:09:55:26 -0400] "GET /var/tftpboot/0004f248588d.cfg" 200 336
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:26 -0400] "GET /var/tftpboot/2345-12375-001.sip.ld" 200 0
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:26 -0400] "GET /var/tftpboot/phone6322.cfg" 200 2656
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:27 -0400] "GET /var/tftpboot/site.cfg" 200 7880
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:27 -0400] "GET /var/tftpboot/sip.cfg" 200 21622
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:32 -0400] "PUT /var/tftpboot/Logs/0004f248588d-boot.log" 200
5907
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:32 -0400] "PUT /var/tftpboot/Logs/0004f248588d-app.log" 200
26614
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:55 -0400] "GET /var/tftpboot/0004f248588d.cfg" 200 336
192.168.50.51 - PlcmSplp [28/Aug/2017:09:55:58 -0400] "GET /var/tftpboot/2345-12375-001.sip.ld" 200
4970628
192.168.50.51 - PlcmSplp [28/Aug/2017:09:56:32 -0400] "GET /var/tftpboot/0004f248588d.cfg" 200 336
192.168.50.51 - PlcmSplp [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	<div>show extension status filter_by callerid_name like dave</div> <div><div>----- ----- 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) ----- -----</div></div>
Finding the MAC / IP via Extension	<div>show extensions status filter_by extension like 239</div> <div><div>----- ----- Exten Phonegroup CallerID MAC Type Agent IP Port Status ----- ----- 6239 internal Dave Plaza 0004f2a669ad Polycom yes 192.168.51.99 5060 OK (19 ms) ----- -----</div></div>
Other search terms	<div>phonegroup_name</div> <div>mac</div> <div>ip_address</div>

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

Setting a DID	<div>configure</div> <div>extension <exten></div> <div>did <10-digit-number></div>
Check Class Of Service for international dialing on an extension	<p>Configure the extension and then show. The cos is set to international</p> <div>extension 373 always_autoanswer no call_screening no callerid_name "Bob Smith" callerid_number 373 cos kwi_internal+local+ld+intl</div>
If a phone is not hitting the provisioning server - especially for like-new or grade-b phones - could have hardcoded provisioning programmed into the phone itself	<p>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 PlcmSplp Set server type to FTP Utilities->reboot phone</p>

Polycom Directory Files

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

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

Apache Access Log

What	
Location	<div>/var/log/apache2/secure-access.log</div>
Tip	

Get Phones Script

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

DHCP Log

What	
Location	<div>/etc/dhcpd.conf</div>

Search	
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Daemon Log

What	
Location	<input type="text" value="/var/log/daemon.log"/>
Search	

Customer AEL

What	
Location	<input type="text" value="/etc/asterisk/ael/custom/customer.ael"/>
Usage	<input type="text" value="asterisk -rvvv"/> <input type="text" value="ael reload"/>

Packet Sniffing

What	Debugging provisioning server
Tip	Search DHCP log for mac address to find the IP
Usage	<input type="text" value="tcpdump -i eth1 host 192.168.50.226 -A -s0"/>

<p>Using external provisioning server and maybe should be local</p>	<pre> 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> </pre>
<p>Accidentally using HTTPS for provisioning</p>	<pre> 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=z9hG4bKc695b930AE8872 ED From: "Miguel Yanez" <sip:653@65.51.69.82>;tag=37A25335-380B2AAC To: <sip:653@65.51.69.82> </pre>

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	<pre> 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 ... } } </pre>
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Channel Tracing

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

Search	<ul style="list-style-type: none"> • 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 search for "<317>" as the incoming callerid number • Can search 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	<pre>/apps/bin/asterisk_trace_call -c 'SIP/317-0000130f' -d 2</pre> <p>That parses through the <code>full.*</code> files and displays the detailed call trace</p>
Tracing By Call Log	<pre>/apps/bin/asterisk_trace_call -l 3624783</pre> <p>That parses through a few <code>full.*</code> files based on the information it finds in the <code>log_asterisk.call_log</code> table</p>

```
/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 PlcmScIp (that's lower case L 1st, capital i 2nd)

Revision #5

Created 25 March 2024 15:42:19 by Robert Alexander

Updated 14 October 2024 16:15:55 by Andrew Baumes