

IRC deployment lab

Dr Peadar Grant

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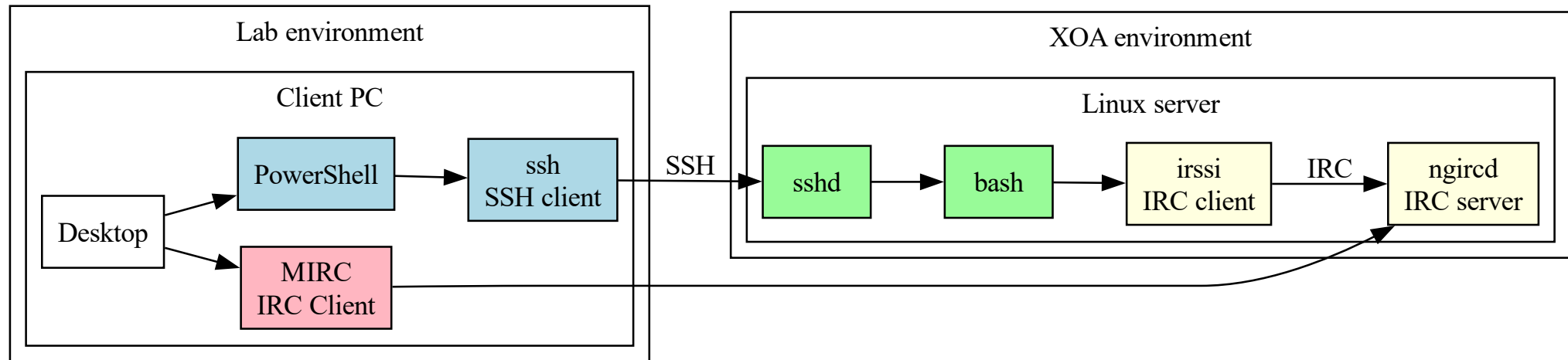
1 Aim

We're going to draw together:

- Experience with Linux to date
- Usage of SSH
- Basic SysAdmin and Networking knowledge

to put together a basic IRC server and demonstrate it with a Windows Client.

1.1 Scenario



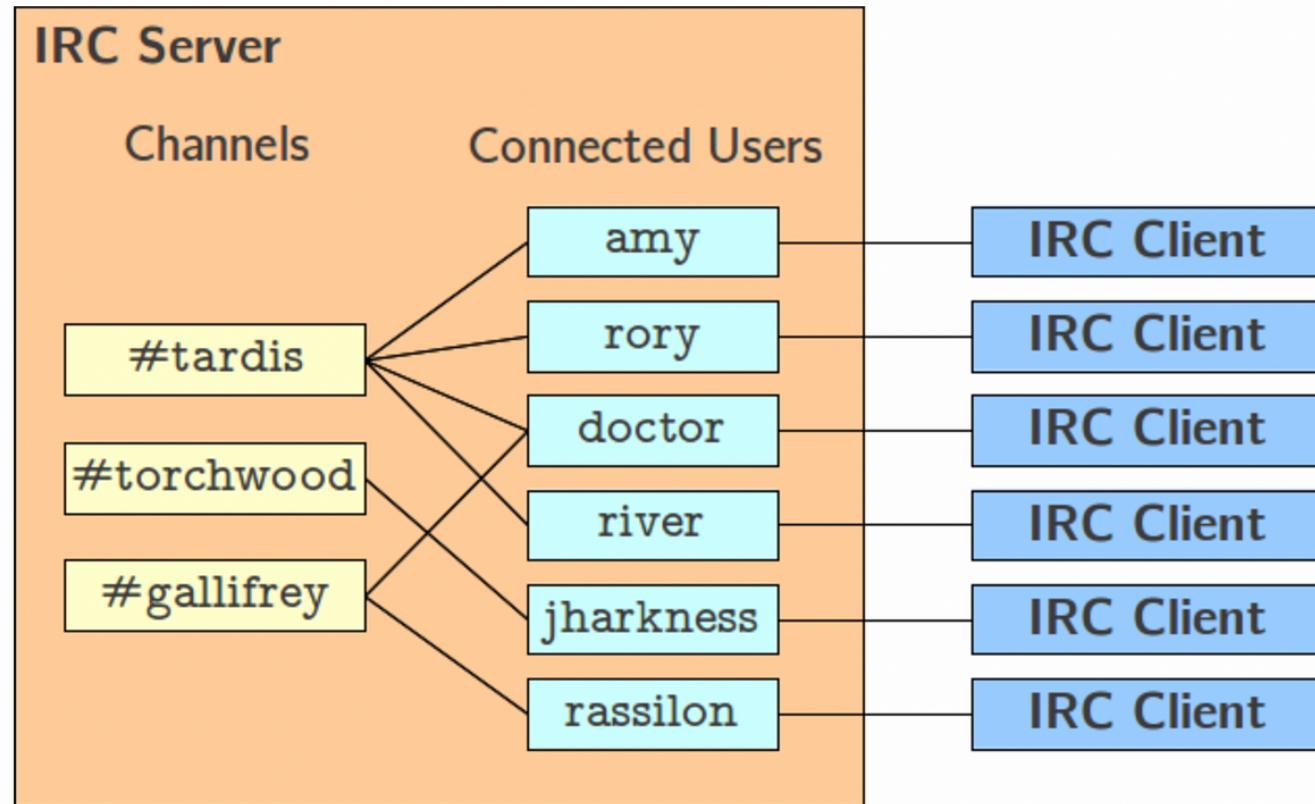
2 Internet Relay Chat (IRC)

Internet Relay Chat (IRC) is a chat-oriented text protocol running over port 6667.

- Originated in the 1980's
- Still in use but popularity has waned:
 - Social media, lack of “rich content”.
 - Not a simple 1-click setup
- Standardised protocol with choice of clients
 - Easy to code up bots!
- Spartan interface with text commands like /JOIN
- Insecure server defaults for authentication, channel creation etc.

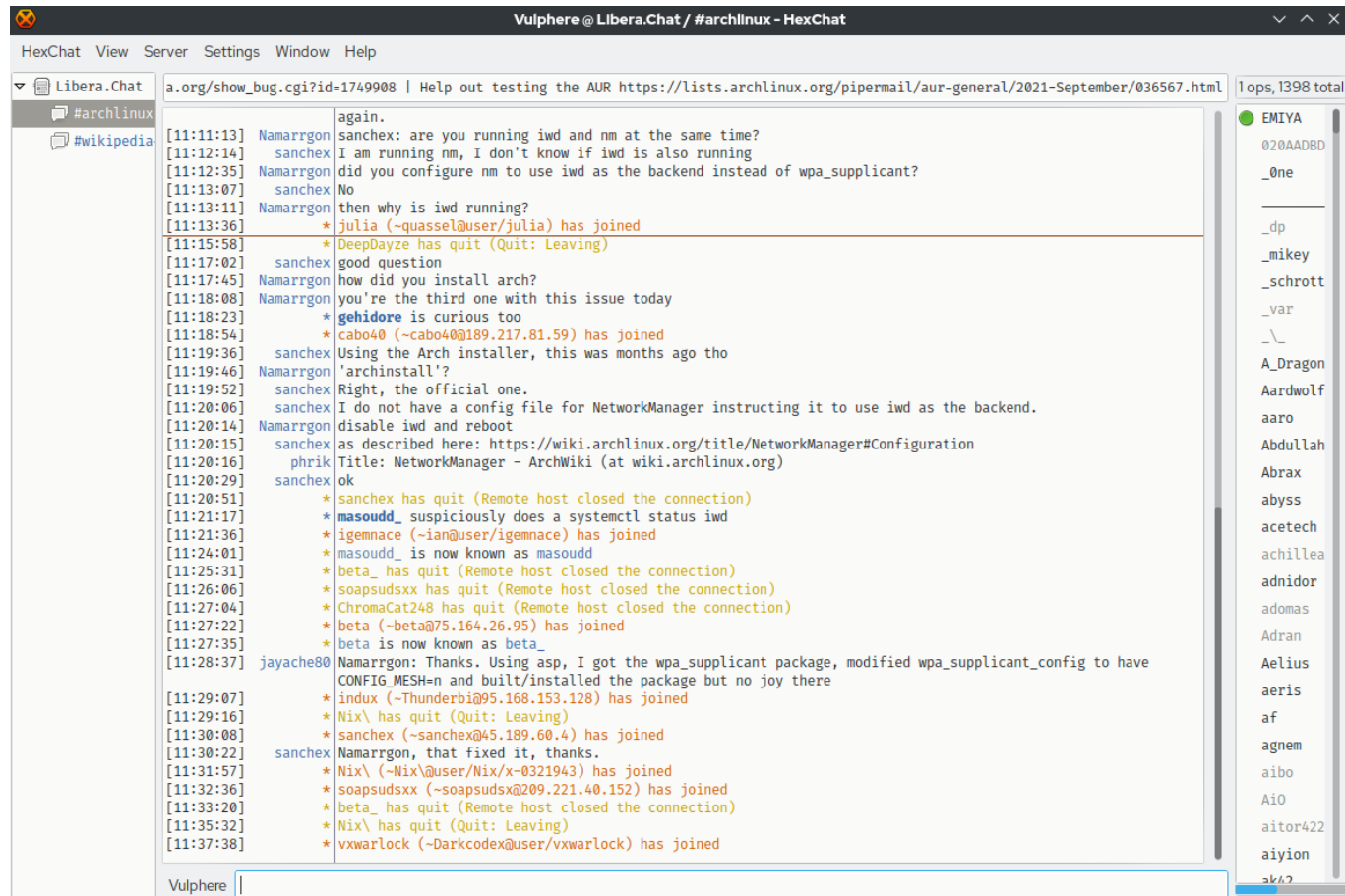
At its most basic level an IRC server hosts a number of “channels”.

2.1 IRC server and clients



Basic IRC architecture

2.2 Clients



2.2.1 Text-based clients

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Welcome to Arch Linux, Good Luck: https://archlinux.org | Rules: https://coc.archlinux.org | Pastebins: |paste | https://status.archlinux.org |
12:48 CompanionCube GodEater labrador noze stfn
12:48 ! Irssi: #archlinux: Total of 1399 nicks 1 ops, 0 halfops, 0 voices, 1398 normal
12:48 ! Channel #archlinux created Wed May 19 19:12:33 2021
12:48 ! Irssi: Join to #archlinux was synced in 2 secs
12:49 ! -mbax@155-079-043-212.ip-addr.inexio.net has joined #archlinux
12:49 ! -trampel@2601:602:9a00:49d:811:d0fd:329f:c4cb has joined #archlinux
12:49 gumbo [08:19:36] sanchex: Using the Arch installer, this was months ago
12:50 gumbo ^ arch has a installer?
12:50 ! -archangel@user/djapo has joined #archlinux
12:50 rcf Now it does, yes.
12:50 rcf xyh: best way to find out is to try building the new one yourself
12:52 trampel is AUR currently down? i'm getting 404 on https://aur.archlinux.org/rpc.php?v=56type=multiinfo&arg[]=...
12:52 rcf trampel: drop the '.php', they upgraded
12:52 trampel ah thank you!
12:53 ! blinux -blinux@pool-72-78-144-199.phlpa.fios.verizon.net has quit Ping timeout: 256 seconds
12:53 xyh rcf: I tried but failed
12:54 ! -kyk3@2402:3a80:1ca5:d7cc:ledc:82aa:5fc7:dcae has joined #archlinux
12:55 ! tasse -tasse@user/tasse has quit Ping timeout: 256 seconds
12:55 rcf This is likely why it hasn't been updated in the repos
12:56 ! sa02irc -mbax@155-079-043-212.ip-addr.inexio.net has quit Remote host closed the connection
12:56 ! -tasse@user/tasse has joined #archlinux
12:56 rcf Though if you can get it working send your changes to the maintainer to expedite things.
12:56 ! -Betal@user/betal has joined #archlinux
12:56 ! -mbax@155-079-043-212.ip-addr.inexio.net has joined #archlinux
12:56 ! sa02irc -mbax@155-079-043-212.ip-addr.inexio.net has quit Remote host closed the connection
12:57 ! -mbax@155-079-043-212.ip-addr.inexio.net has joined #archlinux
12:57 ! Betal -Betal@user/betal has quit Ping timeout: 256 seconds
12:57 ! -euouae@user/euouae has joined #archlinux
12:57 euouae Hello I'm trying to understand digital signatures on PKGBUILD
12:58 euouae so say I have the sources array and the sha256sums array. How can I also check signatures?
12:58 sheep euouae: see https://wiki.archlinux.org/title/Makepkg#Signature_checking
12:58 phrik Title: makepkg - ArchWiki (at wiki.archlinux.org)
12:59 kyki can someone help me. I have been trying to block website using a list and adding it in dnsmasq using conf-file but for some reason
when restarting dnsmasq its just fails while I have checked several forums and wikis and I think I have done exactly wht should be
done also in journald log it says its restarting very fast and exits
12:59 ! -Vonter@user/vonter has joined #archlinux
12:59 ! julia -quassel@user/julia has quit Ping timeout: 256 seconds
12:59 rcf euouae: set validpgpkeys and include the relevant signature file in the source array and it will be done automatically.
13:00 ! yk -ykelyvis@user/yk has quit Remote host closed the connection
13:00 ! -ykelyvis@user/yk has joined #archlinux
13:00 euouae got it, thank you. must it always be present or is it a recommendation to have them?
13:01 rcf If upstream is signing the sources, it is recommended, yes.
13:01 euouae by upstream you mean the maintainer, right?
13:01 rcf No, the people who release the software.
13:01 euouae oh yeah, of course
13:01 ! Andrew andrew@andrewyu.org has quit Ping timeout: 240 seconds
13:01 ! -LordRisha@user/lordrishav has joined #archlinux
13:02 ! obale1 -obale@user/obale has quit Ping timeout: 276 seconds
13:02 ! humberto1 -humbertow@187.202.198.64 has quit Ping timeout: 250 seconds
13:02 ! -obale@user/obale has joined #archlinux
[13:03] [Vulphere(=Ziw)] [2:liberachat/#archlinux(=Cnrt)]
#archlinux]

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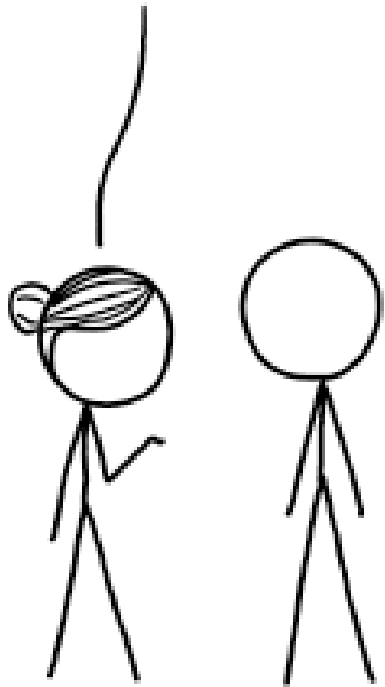

2.3 Usage

IRC has dwindled among the general public as a chat mechanism for a number of factors.

- Some open-source development communities still use it for commercial and political reasons.
- Works very well on low-bandwidth connections (e.g. legacy satellite)
- Development teams still use it sometimes in preference to Teams, Slack.
- **Twitch** gaming streaming site employs it
- Some monitoring systems use it for broadcast alerting and reporting
- Isolated servers for closed teams have modest resource requirements
 - Works fine on Raspberry PI on an isolated LAN

2004

OUR TEAM STAYS
IN TOUCH OVER IRC.



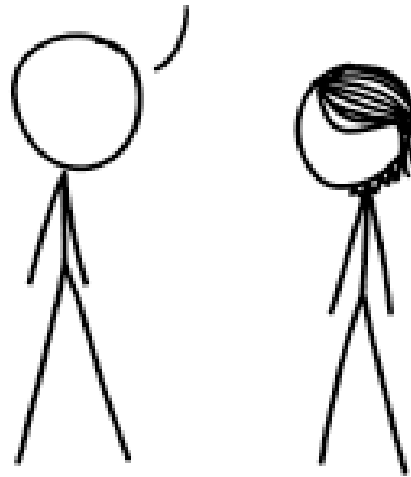
2010

OUR TEAM MAINLY
USES SKYPE, BUT
SOME OF US PREFER
TO STICK TO IRC.



2017

WE'VE GOT ALMOST
EVERYONE ON SLACK,
BUT THREE PEOPLE
REFUSE TO QUIT IRC AND
CONNECT VIA GATEWAY.



2051

ALL CONSCIOUSNESSES
HAVE MERGED WITH THE
GALACTIC SINGULARITY,
EXCEPT FOR ONE GUY
WHO INSISTS ON JOINING
THROUGH HIS IRC CLIENT.

I JUST HAVE IT SET UP
THE WAY I WANT, OKAY?!



3 SSH port forwarding

IRC uses Port 6667.

We want to test an IRC client on our lab desktop connected to our Linux VM.

SSH forwarding is where SSH can **tunnel** a port from our local server through to the remote machine.

It's almost like a mini VPN and is *VERY* useful!