Help, the building is on fire and the router is down!

A concise guide to NAT forwarding on CentOS

IP Addressing:

To provide the CentOS router with IP addresses (which are necessary to route), perform the following actions:

- ☐ vi /etc/sysconfig/network-scripts/ifcfg-<interface name>
- ☐ Change the following lines:
  - o BOOTPROTO=dhcp to BOOTPROTO=static
  - o ONBOOT=no to ONBOOT=yes
- ☐ Add the following lines
  - o IPADDR=<IP Address>
  - o NETMASK=<netmask (non-CIDR)>
  - o If on the external interface, also add:
  - o GATEWAY=<next hop router IP address>
- ☐ Make sure that your internal IP address is the first address in the internal network and that your external IP address is in the valid range of addresses for the external network

NAT Forwarding or There and Back Again:

Enable forwarding on the OS:

- ☐ echo "net.ipv4.ip_forward = 1" | sudo tee /etc/sysctl.d/99-ipforward.conf
- ☐ sudo sysctl -p /etc/sysctl.d/99-ipforward.conf

Now for the actual NAT part (this is IPTables, don't mess it up)

- ☐ sudo iptables -t nat -A PREROUTING -p tcp –dport <OUTPORT> -j DNAT --to-destination <INTERNAL IP>:<INPORT>
- ☐ sudo iptables -t nat -A POSTROUTING -p tcp -d <INTERNAL IP> --dport <INPORT> -j SNAT --to-source <ROUTER IP>

Then save it with:

- ☐ sudo iptables-save |sudo tee /etc/sysconfig/iptables

Repeat the process for each port/service