# Deploying IPv6

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NICTA

Australian Government
Department of Broadband, Communications and the Digital Economy
Australian Research Council

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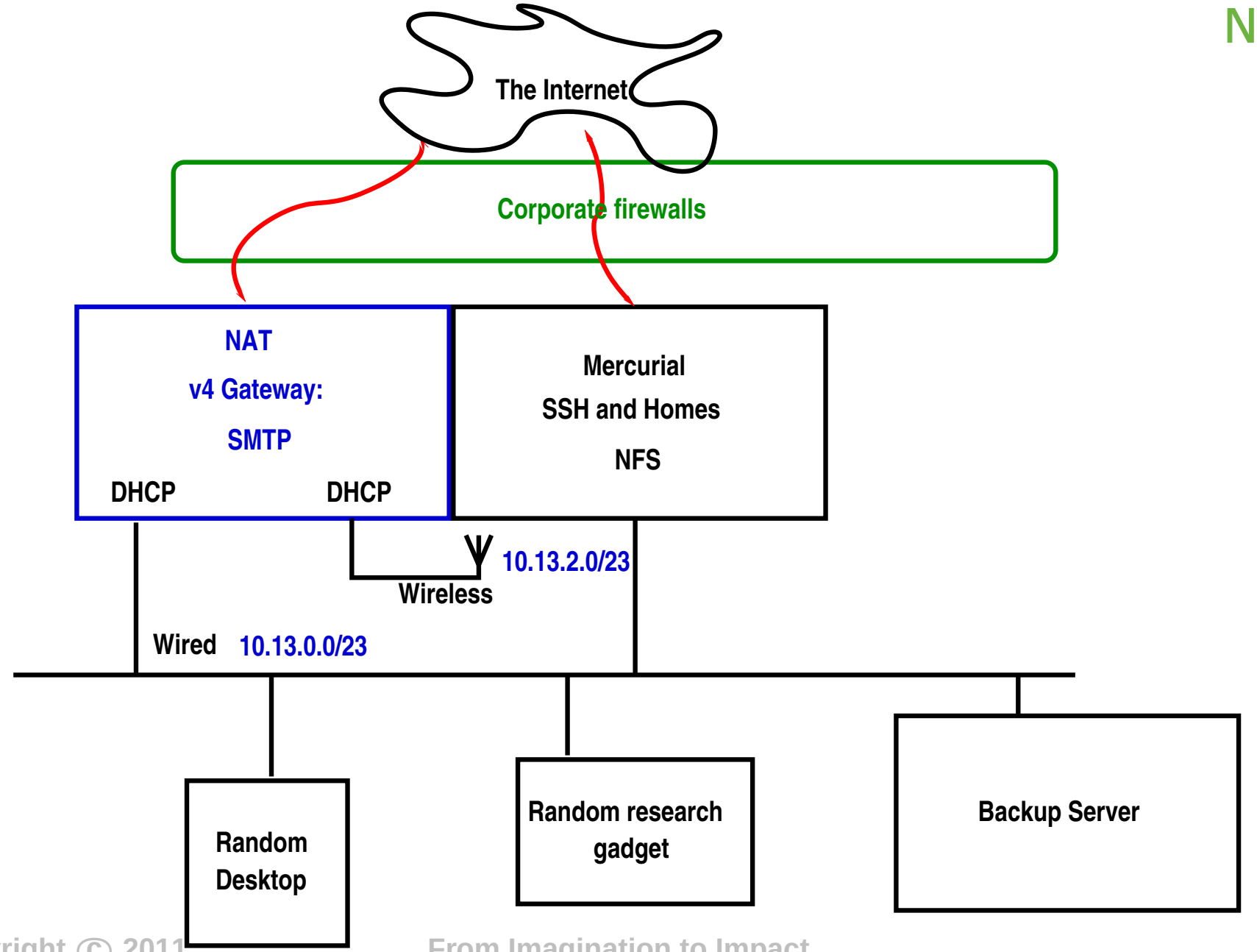
# Our network



# Our network


- Assign IPv6 addresses to external-facing interfaces
- Update firewall rules and DNS
- Add another gateway/firewall for ipv6.

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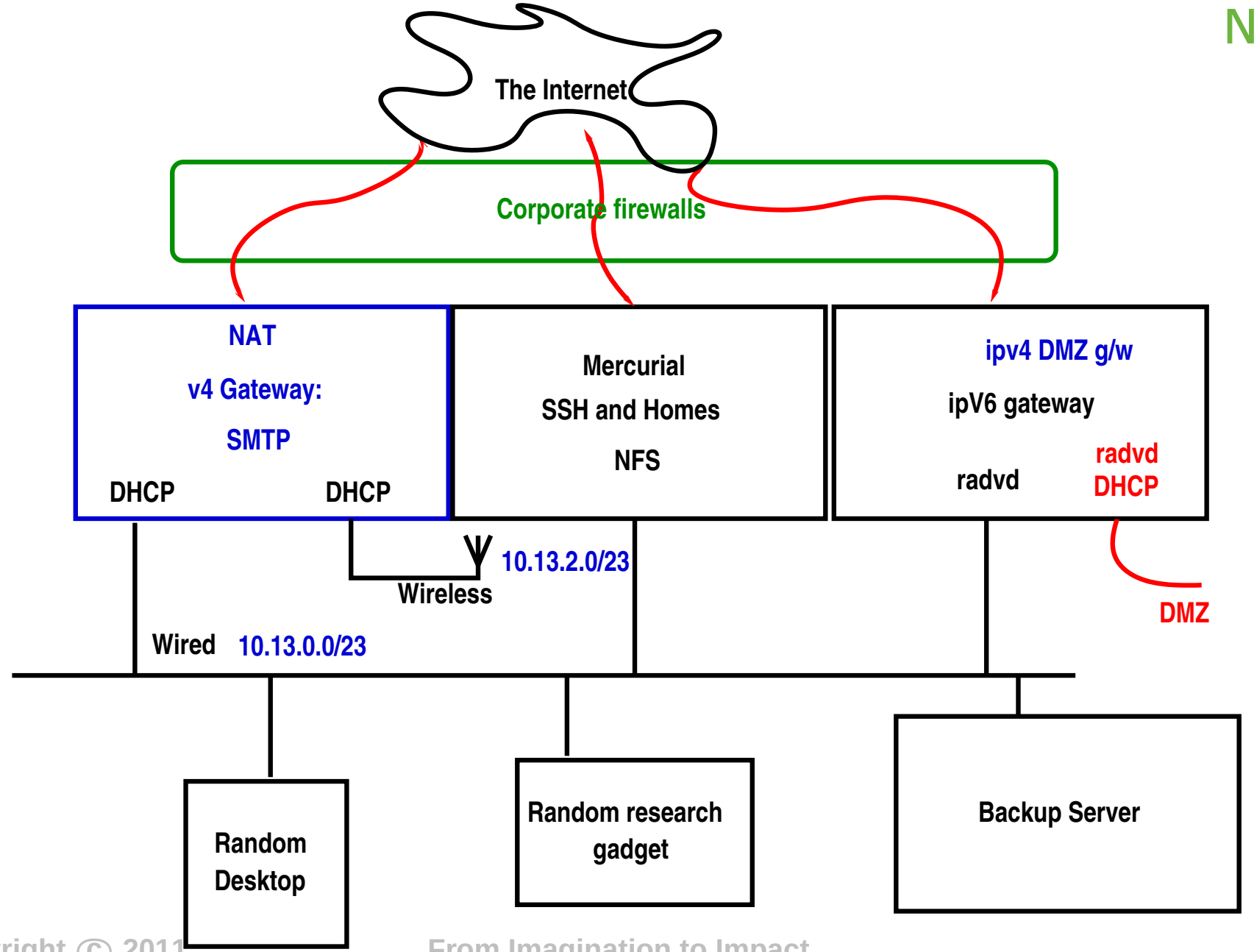

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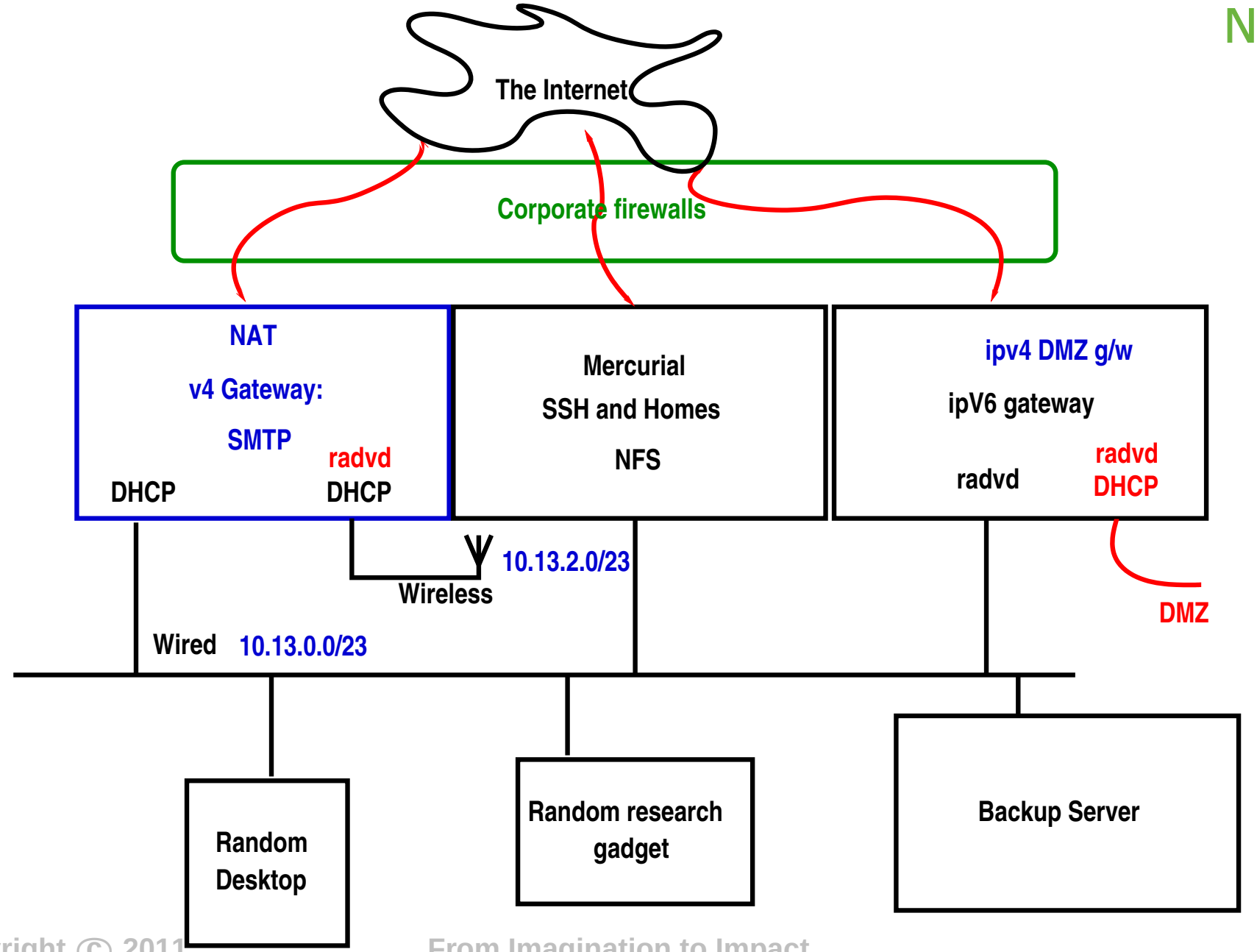
The Internet
Corporate firewalls
NAT
v4 Gateway:
SMTP
radvd
DHCP
DHCP
Mercurial
SSH and Homes
NFS
ipv4 DMZ g/w
ipV6 gateway
radvd
radvd
DHCP
10.13.2.0/23
Wireless
DMZ
Wired
10.13.0.0/23
Random
Desktop
Random research
gadget
Backup Server

# TRAPS FOR THE UNWARY


- router-advertisements don’t cross routers (duh!)

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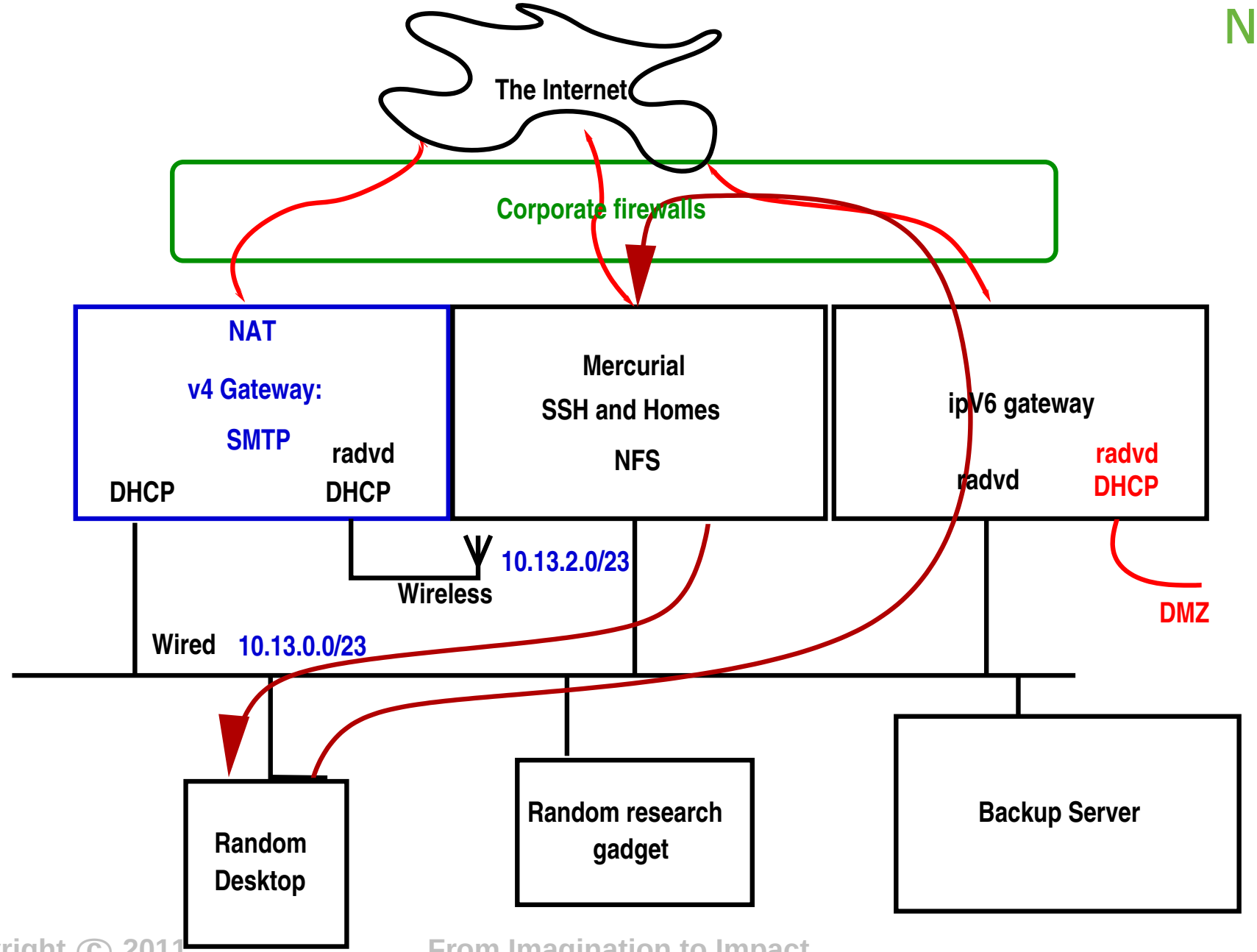

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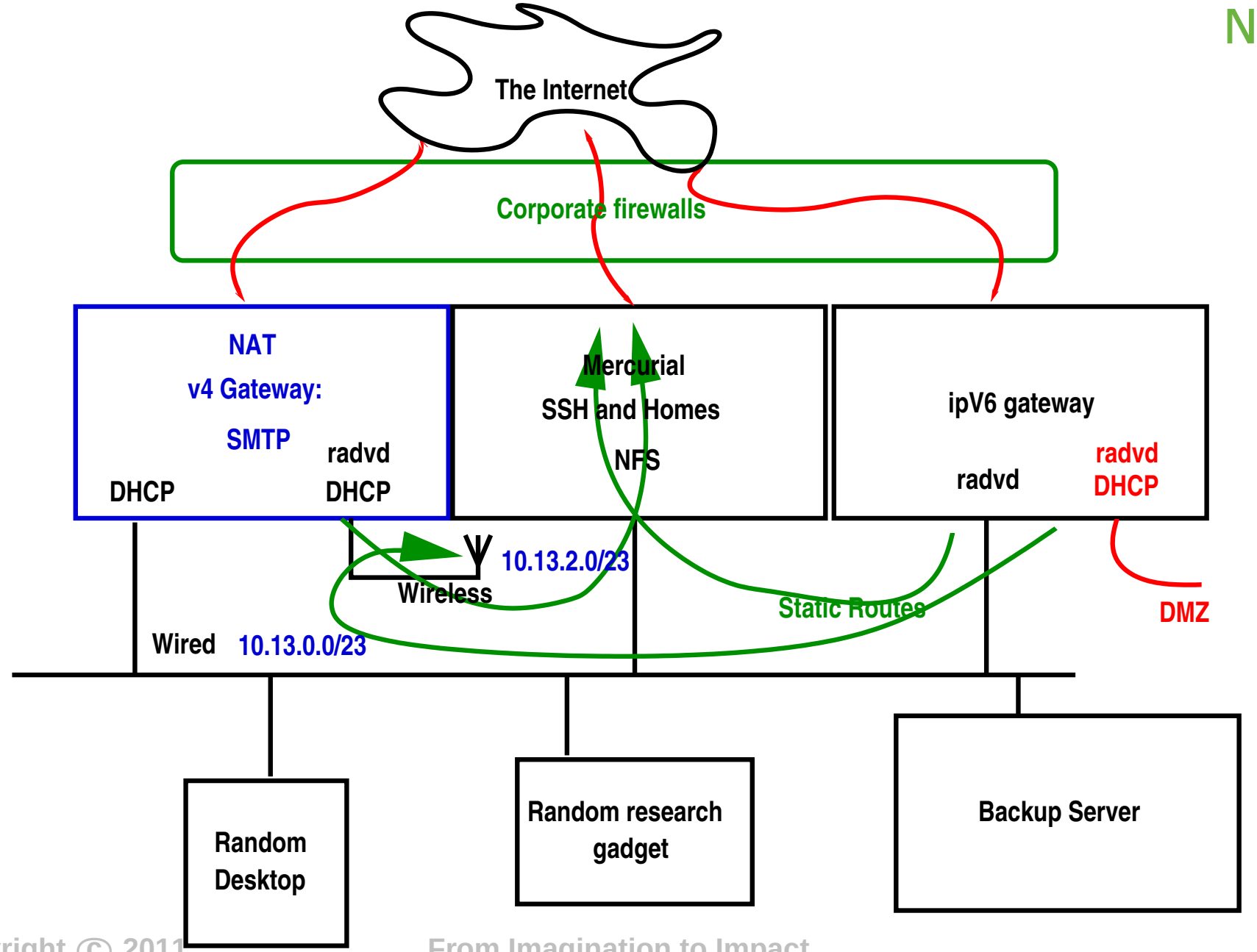

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- Use link-local addresses in static routes `fe80::...`

# SUCCESSES


- Can access web, ssh, mail via ipv6 from outside
- Can access external ipv6 sites
- Can ssh into machines inside
- DMZ allowed externals to demo mobile ipv6 apps.

# Issues


- Routing

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- Routing
  - Could use split-horizon DNS
  - Or keep adding static routes...

# Issues


- Routing
- Naming
  - Autoconfigured nodes are anonymous:

```
$ who
fred 13:28 (2402:zz:yyy:x:222:68ff:fea9:ff89)
```

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- Other dhcp-discovered services (nameservers, NTP servers) more complex than with ipv4 at present. — expect changes soon.