

Duo Network Gateway (DNG) Overview & Deployment Planning

Duo Lab Sessions with Kelvin

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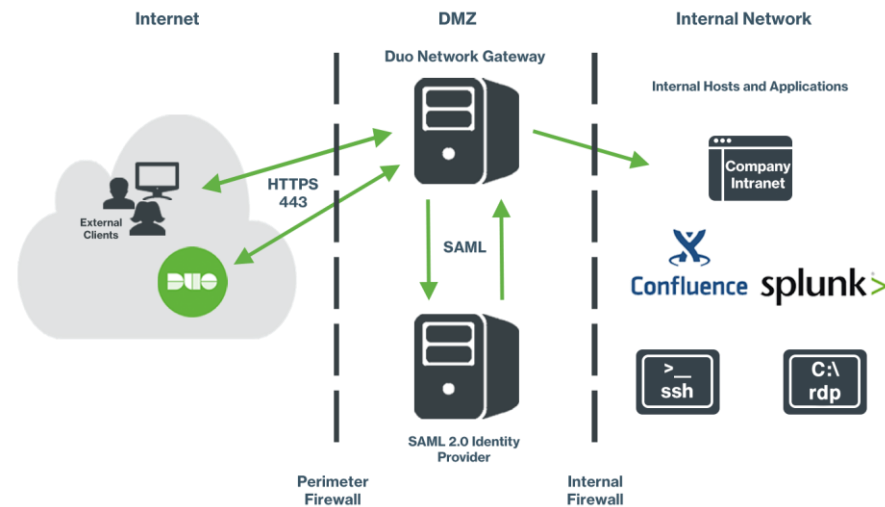
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What is the DNG?

Access to on-prem resources, applications, SSH servers and RDP hosts without a VPN but still with added security

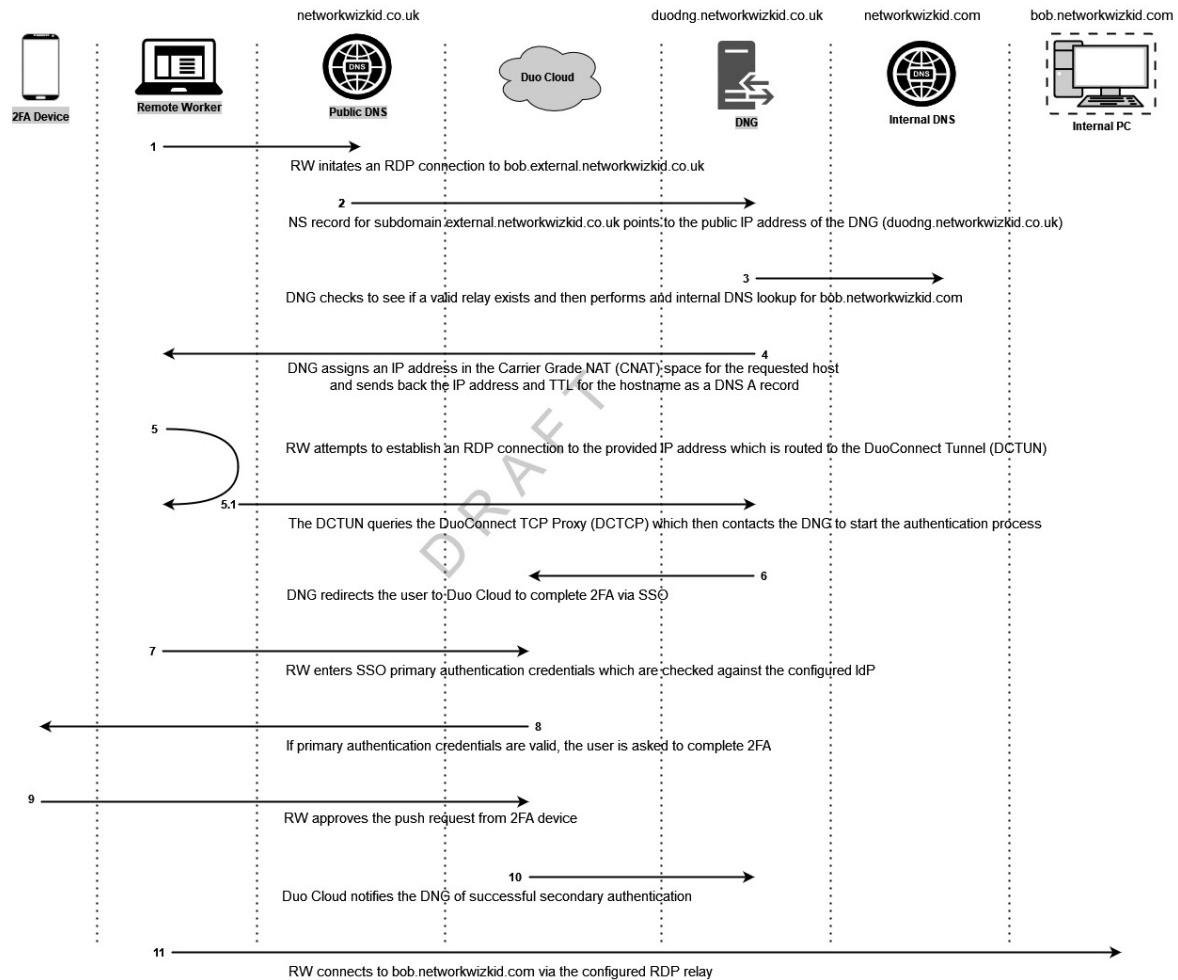
VPNless



Some Benefits of the DNG

- No need for VPN's
- Reducing configuration overhead
- Access to on-prem resources from anywhere (If permitted)
- Increased ROI
- Less admin
- Easy to setup and deploy
- Easy to follow documentation
- DNG is lightweight and uses Docker containers

Lets get Technical...



Prerequisites

- Plan for the deployment of the DNG
 - What do you want to protect? (Web apps, SSH hosts or RDP hosts)
 - Do you need to consider High-Availability (HA)?
- Select your SAML IdP that will be used
 - Recommended to use the Duo SSO (others do exist – check the docs)
 - Duo Auth Proxy will need to be configured if using an on-prem AD as a primary authentication source
- Deploy the DNG in your DMZ ensuring that resources assigned are suitable (check the Duo docs for more info)
 - Deployed on a Linux machine
- Prepare your firewall rules as per the Duo docs
 - Ports and Protocols to and from the DNG
 - Ports and Protocols from the DNG to internal resources
- Allow communication from the Internet to the DNG
 - Create a FQDN for the DNG that is publicly resolvable
 - Depending on your environment, you may need to configured NAT statements
- Purchase an SSL certificate for the DNG from a well-known CA
 - CN can be specific to DNG FQDN or you can also create a wildcard certificate
 - If you don't want to purchase one, you can configure one with Let's Encrypt for FREE and this will automatically renew

General Configuration Steps

1. Configure Duo SSO or other IdP
 - i. (Optional) Install and configure the Duo Auth Proxy if using on-prem AD
2. Install Linux machine that will be used for the DNG
3. Install Docker and Docker Compose to allow the DNG to run in a containerized environment
4. Install the DNG and verify its installation
 - i. Two options exist – check the Duo documentation and choose the option that best fits your needs
5. Configure the DNG – Initial Configuration and Auth Source
6. Configure protection for your resources (RDP, SSH, Web Apps)
7. Install and configure the Duo Connect Client

Useful Links

- www.youtube.com/networkwiizkiids
- www.networkwizkid.com
- www.twitter.com/iwiizkiid
- <https://duo.com/docs/dng>