DISTRIBUTED, ASSURED, AND DYNAMIC CONFIGURATION

EFFICIENT AND ACCURATE CYBER INFRASTRUCTURE DESIGN

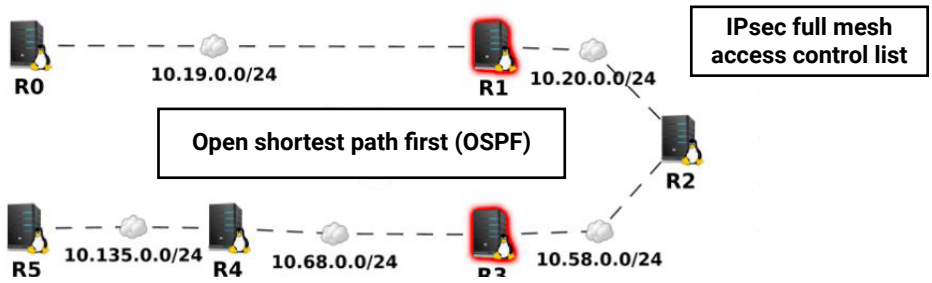
Configuration is the DNA of cyber infrastructure. Due to the large gap between end-to-end security and functionality requirements and detailed configurations, it takes months to set up infrastructure—and it is still rife with configuration errors. Such errors cause 50% - 80% of network vulnerabilities and downtime. Knowledge of configuration can allow adversaries to map out the network, identify high-value targets and plan devastating attacks.

Our Distributed, Assured and Dynamic Configuration (DADC) system allows network and cloud infrastructure to be set up in minutes, eliminates configuration errors, and proactively changes configurations to confuse an adversary and greatly increase the time and effort needed to penetrate a network..

DADC FEATURES

- **Visual requirement specification:** allows you to visually specify requirements in about the same amount of time as it takes to draw these out on paper
- **Configuration synthesis:** automatically transforms requirements into satisfying configurations and thus eliminates configuration errors
- **Configuration repair:** identifies configurations that are non-compliant with requirements and calculates the minimum-cost configuration changes to bring these into compliance
- **Visualization:** provides a conceptual understanding of the network via visualizations of a large number of logical structures and relationships latent in the current configuration
- **Verification:** evaluates how the access of an adversary can propagate through the network
- **Distributed configuration:** allows enforcement of global configuration consistency in the absence of a centralized configuration authority
- **Emulation interface:** allows the designed network to come alive and be tested in minutes with the CORE Linux network emulation system
- **In-band configuration:** removes the need to create an out-of-band network for configuration management
- **Network support:** covers commonly used features of IPv4/IPv6 routing, security, fault-tolerance, and QoS, for Cisco, Juniper, Linux, Palo Alto, and Vyatta
- **Cloud support:** allows specification and configuration synthesis of Amazon Web Services Virtual Private Cloud. Generates templates in the CloudFormation configuration language

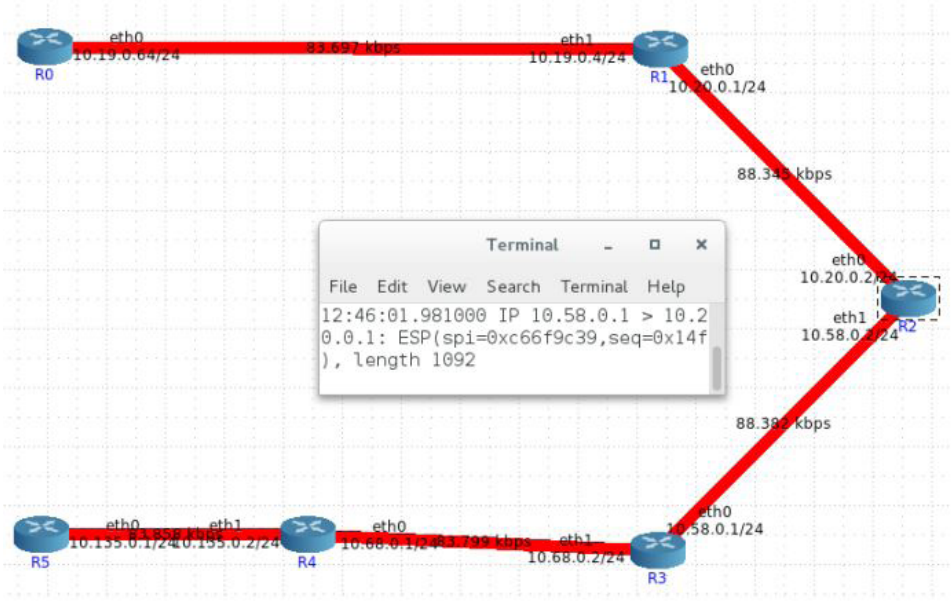
DADC VISUAL INTERFACE



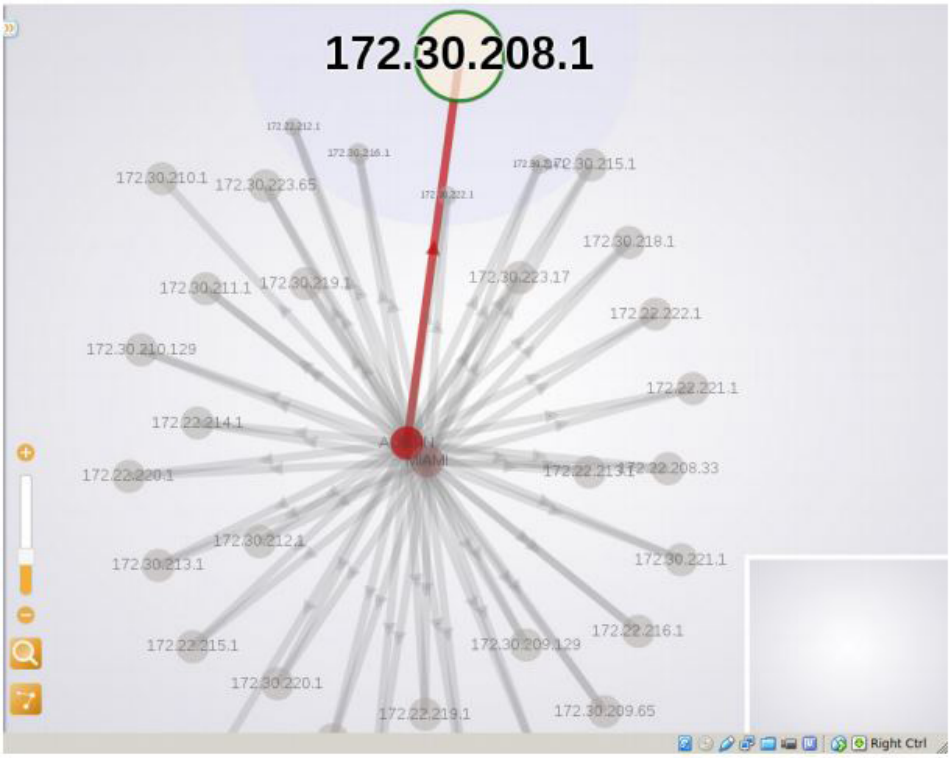
Peraton | LABS

Peraton | LABS

DADC VISUAL INTERFACE



Emulation of designed network showing end-to-end connectivity and encryption. Encapsulating security payload (ESP) packets are observed in tcpdump at R2 (router 2) as shown in the terminal box.



Visualization of the virtual routing redundancy protocol (VRRP) cluster in existing configurations which illustrates a misconfiguration in the cluster. Only the red router fields packets to virtual IP address 172.30.208.1; in the event of a failure of the red router, the gray router will not field packets with this virtual IP address.

peratonlabs.com/contact-us
150 Mount Airy Road
Basking Ridge, NJ 07920