

Night's Watch Crow

FQDN Filtering

Roadmap: 2026

Night's Watch Crow's FQDN Based Filtering, a roadmap 2026 feature, provides dynamic IP address management for Crow's filtering rules by actively monitoring and resolving domain names to their corresponding IP addresses. This service enhances nftables' filtering capabilities by:

- Automatic resolution and tracking of fully qualified domain names (FQDNs)
- Pre-emptive updates of Crow's filtering rules based on DNS Time to Live (TTL) values
- Atomic set updates to maintain connection state consistency
- Multi-threaded resolution for high-performance environments
- Caching of DNS responses with TTL-aware expiration

The service maintains synchronized IP address sets, ensuring that domain-based filtering rules remain current without manual intervention. By leveraging Crow's atomic update capabilities, the service updates IP address sets without disrupting existing connections or creating temporary security gaps during updates. This provides a robust solution for maintaining current domain-based filtering in dynamic environments where IP addresses frequently change.