Night's Watch Crow

Night's Watch Crow Address Translation, a Minimum Viable Product feature, implements flexible network address translation (NAT) through its NAT table type, supporting all standard NAT operations including source NAT (SNAT), destination NAT (DNAT), masquerading, and bidirectional NAT (port forwarding).

The service provides:

- Full tuple matching (source/destination address, port, protocol) for translation
- Dynamic address translation masquerading for varying WAN IP scenarios
- Static NAT mappings with optional port translation (1:1 NAT)
- Port forwarding with support for port ranges and multiple protocols
- Address and port randomization for enhanced security
- Fully stateful NAT tracking integrated with the connection tracking system

NAT rules can be configured with fine-grained control over address/port selection and can be combined with filtering rules for comprehensive network policy enforcement. The implementation maintains translation state tables for connection tracking and supports atomic ruleset updates for seamless configuration changes.