

ATTACHMENT A

Purposes of Grant; Budget, if Applicable

Purpose of Grant: To develop a remote management interface for the Kea DHCP server.

Project Details

Milestone 1: Groundwork, remote configuration

This milestone enables remote management of Kea through manual creation of JSON structures and sending them using 'socat' or a similar existing tool.

- * Design management API
- * Extend parser to support remote management format (JSON)
- * Add 'set-config' command

Projected completion: January 2017

Milestone 2: Local mgmt client, additional configuration commands

This milestone creates a dedicated command line client that will allow sending commands and receive responses, and which can be scripted or called by other systems.

- * Create management client which can send configuration commands and receive and display responses using command channel.
- * Add four more commands for manipulating the configuration: test-config, get-config, write-config, reload-config.

Projected completion: April 2017

Milestone 3: Remote client with security

This milestone creates a remotely-accessible API with authentication, confidentiality and integrity.

- * Design approach - perhaps TCP + TSIG like signatures, HTTPS or some similar form.
- * Provide security - either a shared secret (similar to TSIG in DNS) or maybe certificate based (as in HTTPS).

Projected completion: July 2017



Milestone 4: Lease management

This milestone extends the API to allow lease management as well as configuration management.

* Add commands to API for managing leases: add-lease4, add-lease6, get-lease4(addr), get-lease4(type, identifier, subnet-id), get-lease6(addr), get-lease6(type, identifier, subnet-id), update-lease4, update-lease6, delete-lease4, delete-lease6, delete-all-leases4, delete-all-leases6.

Projected delivery: September 2017

