

draft-dickinson-dnsop- nameserver-control-01

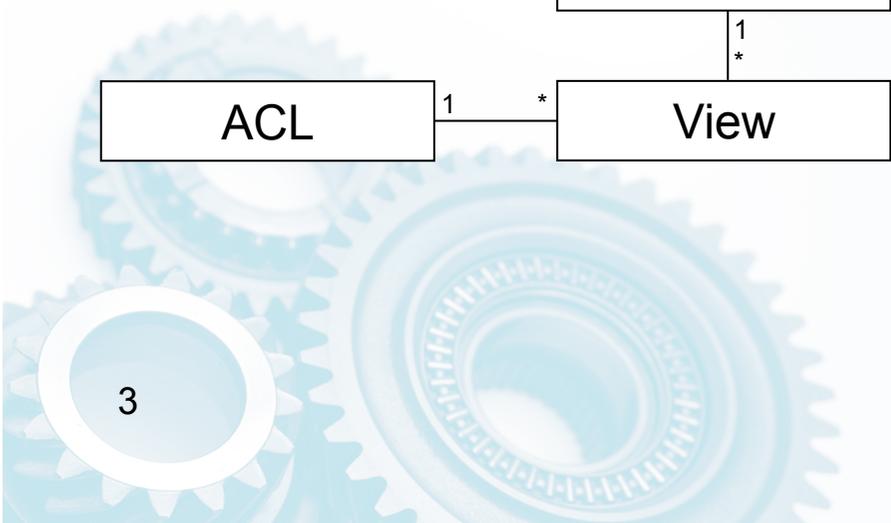
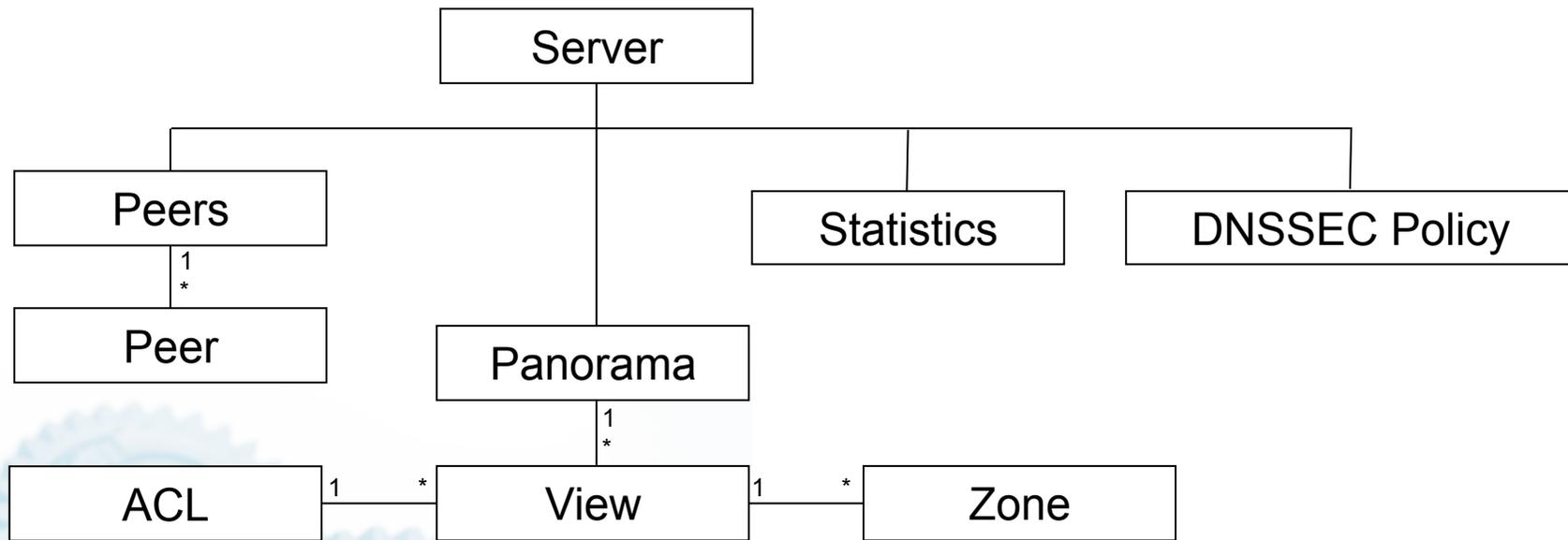
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Function Breakdown

- Commands - start, stop, halt etc.
- Zone manipulation – add/remove zone, ACL creation, etc.
- Parameters - control nameserver behaviour
- Statistics - obtain information from nameserver
- Zone data - manipulation of small amounts of zone data?

Object Model



Transport Mechanism

- NETCONF (RFC 4741)
 - Designed for controlling network devices
 - Persistent connections
 - Basic protocol superstructure
 - Commands to manipulate configuration
 - <get-config>, <edit-config>, <lock>, etc
 - Able to transport any XML data over it
 - Extensible

NSCP

- Breaks basic functionality into several capabilities:
 - Base – understands basic data model
 - Basic Control - stop/reload/restart
 - Start Control - start
- Additional functionality by defining additional capabilities

Comparison to Requirements (1)

- Expected Deployment Scenarios
 - Nothing restricts size of zone deployed.
 - Nothing restricts configuration data volatility.
 - Supplies a common data model.
- Nameserver Types
 - No constraint on type of server that can be managed.

Comparison to Requirements (2)

- Control Requirements
 - Supplies basic start/stop/reload
 - Asynchronous notification supported by NETCONF [RFC5277]
- Configuration Requirements
 - Can add/delete/modify zones
 - Potentially add zone data
 - Able to handle DNSSEC configuration
 - Able to limit access to zones/functions

Comparison to Requirements (3)

- Monitoring Requirements
 - Statistics part of base data model
- Alarm and Event Requirements
 - Built on asynchronous notification



Comparison to Requirements (4)

- Security Requirements
 - Provided mainly through NETCONF transport layer
- Other Requirements
 - Extensible via NETCONF capabilities