

ncclient

<http://ncclient.grnet.gr>

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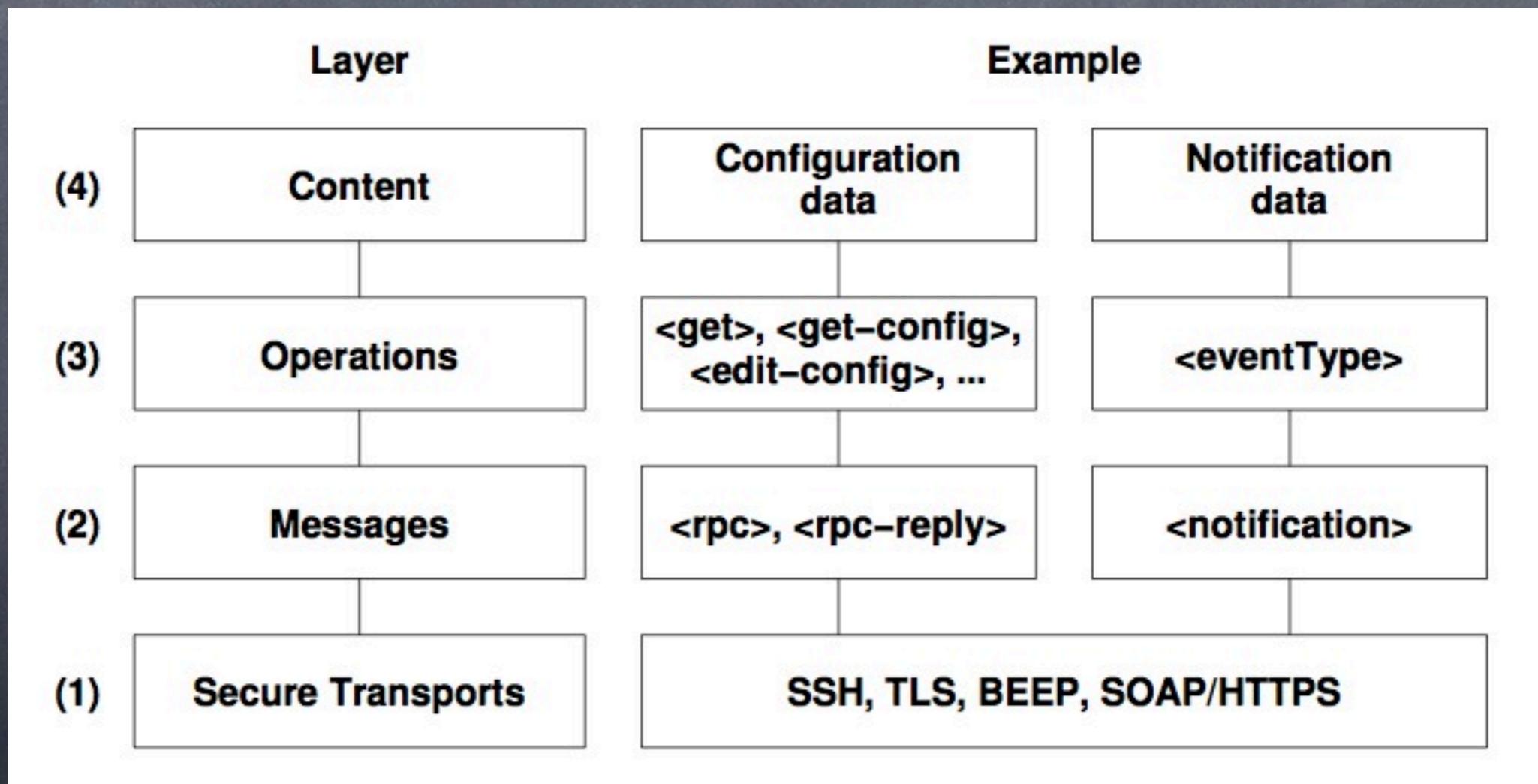
NETCONF

NETCONF is a network management protocol specifically designed to support configuration management

- ⦿ multiple configuration data stores.
- ⦿ configuration transaction support
- ⦿ configuration validation
- ⦿ selective data retrieval
- ⦿ subscription model: events and notification

NETCONF

layered model



[1]

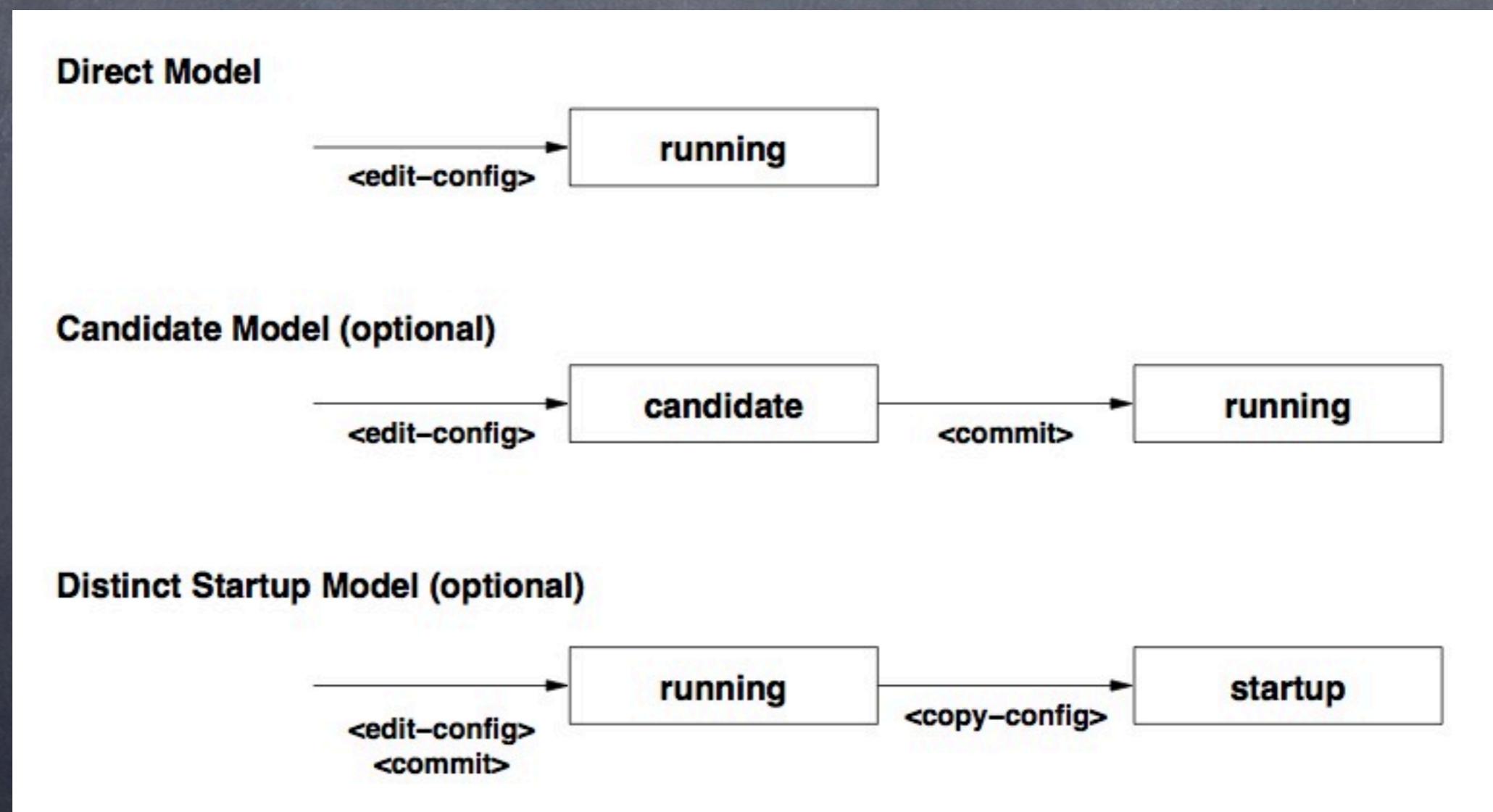
NETCONF

operations

- get-config
- edit-config
- copy-config
- delete-config
- lock
- unlock
- close-session
- kill-session
- discard-changes
- validate
- commit
- create-subscription

NETCONF

transaction model



[1]

ncclient

- high-level Python API for NETCONF clients.
- extensible:
 - additional transports/protocols/RPC
- request-pipelining
- asynchronous and synchronous RPC calls
- thread safe
- exploits rich Python idioms
 - context managers for sessions and locks

ncclient

② supported capabilities

Capability	Supported
:writable-running	✓
:candidate	✓
:confirmed-commit	✓
:rollback-on-error	✓
:startup	✓
:url	✓
:validate	✓
:xpath	✓
:notification	
:interleave	

[1]

Demo

internals discussion

Voluntary Assignment

- ⦿ Download and setup a NETCONF server (yuma) [1]
- ⦿ Download and compile ncclient. [2]
- ⦿ Run all the ncclient examples/

[1] <http://www.yumaworks.com/products/yuma/>

[2] <http://ncclient.grnet.gr>