NATS CLI Cheatsheet

Overview

Download: https://github.com/nats-io/natscli
One stop command line utility to interact with and manage NATS.
Independent from NATS server version.
Uses only public Golang API.
Please update regularly or compile the GitHub main branch.

Getting started

Built-in cheat sheet
```
nats cheat
```
Always check help for additional options
```
nats server info --help
```
Quick system status
```
nats server list
```
Show raw nats cli messages. No secret sauce
```
nats server list --trace
```

Publish/Subscribe

Listen to a subject
```
nats sub foo
```
Publish to a subject
```
nats pub foo Hello
```
Listen to wildcards
```
nats sub '>'
nats sub 'orders.emea.*'
nats sub 'orders.*.o1234'
```

Context and credentials

List local connectioncontexts
```
nats context list
```
Store credentials and server URL for *cloud*
```
nats context add --server
nats://mycloud.io --user
admin --password admin cloud
```
Select context
```
nats context select cloud
```

Request/Reply

Simple reply mockup
```
nats reply bar World
```
Send a request
```
nats request bar Hello
```

JetStream

List streams
```
nats stream list
```
Create stream interactively and with defaults
```
nats stream add <stream>
nats stream add <stream>
--replicas 3 --defaults
```
Stream view content
```
nats stream view <stream>
```
Publish JetStream message with ack
```
nats pub --jetstream foo Hello
```

Key-Value Store

List Key-Value buckets
```
nats kv list
```
Create a KV bucket
```
nats kv add <bucket>
```
Put and get a key
```
nats kv put <bucket> foo Hello
nats kv get <bucket> foo
```
Watch for changes
```
nats kv watch <bucket> '>'
```

Distributed security

Create an operator
```
nats auth operator add
my-system
```
Generate a sample config
```
nats server generate
server.conf
```
Walkthrough with accounts and users
```
nats auth cheat
```

Measure roundtrip and latency

Roundtrip time client to server
```
nats --server srv1:4222 rtt
```
Measure latency between clients connected to distinct servers in the mesh
```
nats latency --server srv1:4222
--server-b srv2:4222
```

Server Health and Monitoring

Show system health (SYS)
```
nats server list
```
Detailed server information (SYS)
```
nats server info <server>
```
Check account traffic
```
nats traffic
```
Gather and analyze for debugging (SYS)
```
nats audit gather
nats audit analyze <audit zip>
```

JetStream Monitoring

Show JetStream and meta status (SYS)
```
nats server report jetstream
```
List all streams
```
nats stream report
```
Stream details
```
nats stream info <stream>
```

JetStream backup and purge

Backup a stream with consumer state
```
nats stream backup <stream> <dir>
```
Restore stream from backup
```
nats stream restore <file>
```
Backup just messages
```
nats stream backup --no-consumers
<stream> <dir>
```
Backup all streams in current account
```
nats account backup  <dir>
```
Purge a stream
```
nats stream purge <stream>
```
Purge a subject in a stream
```
nats stream purge --subject foo
<stream>
```

Trace and debug message flow

Trace message without delivering to clients
```
nats trace foo Hello
```
Trace with delivery and timestamps
```
nats trace --timestamp --deliver foo
```

Benchmarking

Subscribe core NATS for 5 clients
```
nats bench sub foo --clients 5
--msgs 10000
```
Publish core NATS with 10 publishers
```
nats bench pub foo --clients 10
--msgs 10000 --size 512
```
Request-reply server for core nats
```
nats bench service serve --clients 5
testservice
```
Benchmark core nats subscribe for 5 clients
```
nats bench service request --clients
5 testservice --msgs 10000
```
JetStream async acknowledged publishing of batches of 100
```
nats bench js pub foo --create
--batch 100
```
JetStream sync publishing using 10 clients - purge stream
```
nats bench js pub foo --purge
--batch=1 --clients=10 --msgs 10000
```
JetStream delivery from a stream through a durable consumer with 4 instances
```
nats bench js consume --clients 4
--msgs 10000
```

Dashboards - top style

Watch all servers (SYS)
```
nats server watch servers
```
Watch a single server with statistics (SYS)
```
nats server top <server>
```

Created by Synadia, the team behind NATS - www.synadia.com
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