grpcurl curl for gRPC

CONCEPTS

Flags must come before the address and method; the address goes first, then list, describe or the method name.

grpcurl flags + JSON
↓ HTTP/2
gRPC server host:port
↓ schema from
Reflection or -proto / -protoset

Without -plaintext grpcurl uses TLS; a plain server then fails the handshake. Reflection must be enabled on the server, or give a schema file.

DISCOVER

grpcurl *<host:port>* **list**
List services via reflection

grpcurl *<host:port>* **list** *<service>*
List a service's methods

grpcurl *<host:port>* **describe**
Describe every service

grpcurl *<host:port>* **describe** *<service>*
Describe a service

grpcurl *<host:port>* **describe** *<service>*.*<method>*
Describe one method

grpcurl *<host:port>* **describe** *<message>*
Describe a message type

grpcurl -msg-template *<host:port>* **describe** *<message>*
Show a JSON template for a message

grpcurl -protoset *<file>* **list**
List from a descriptor set

grpcurl -import-path *<dir>* **-proto** *<file>* **list**
List from a .proto file

CALL

grpcurl *<host:port>* *<service>*/*<method>*
Call with an empty request

CALL (cont.)

grpcurl -d '*<json>***'** *<host:port>* *<service>*/*<method>*
Call with a JSON body

grpcurl -d @ *<host:port>* *<service>*/*<method>*
Read the body from stdin

grpcurl -emit-defaults ...
Print zero-valued fields

grpcurl -max-time *<secs>* **...**
Limit total time

CONNECTION AND TLS

grpcurl -plaintext *<host:port>* **...**
Connect without TLS

grpcurl -insecure *<host:port>* **...**
Skip server cert verification

grpcurl -cacert *<file>* *<host:port>* **...**
Trust a custom CA

grpcurl -cert *<file>* **-key** *<file>* *<host:port>* **...**
Present a client certificate (mTLS)

grpcurl -authority *<name>* **...**
Set :authority and TLS name

METADATA

grpcurl -H '*<name>***:** *<value>***' ...**
Send a header (repeatable)

grpcurl -rpc-header '*<name>***:** *<value>***' ...**
Header for the call only

grpcurl -expand-headers -H 'authorization: Bearer ${TOKEN}' ...
Expand env vars in headers

grpcurl -v ...
Show headers, trailers and details

SCHEMA SOURCES

grpcurl -proto *<file>* **-import-path** *<dir>* **...**
Use .proto source (repeatable)

grpcurl -protoset *<file>* **...**
Use a compiled descriptor set