

# **DOTS Signal Channel**

## **draft-reddy-dots-signal-channel-08**

**Feb 22<sup>nd</sup> 2017**

**Interim Meeting**

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# Highlights

- DOTS YANG Data Models
  - DOTS Mitigation request model
  - DOTS Session configuration model
  - Encoding rules defined in [[I-D.ietf-core-yang-cbor](#)] for CBOR encoding of data models with YANG

# Highlights

- CBOR
  - All parameters in DOTS signal channel are mapped to CBOR types

# Highlights

- DOTS mitigation request/response are marked as non-confirmable messages.
- Requests marked by the DOTS client as Non-confirmable messages are sent at regular intervals until a response is received from the DOTS server

# Highlights

- Heartbeat mechanism using “CoAP ping”
- (D)TLS 1.3
- Added support for vendor specific parameters.
- Added new Mitigation status parameters:  
bytes\_dropped, bps\_dropped, pkts\_dropped  
and pps\_dropped.

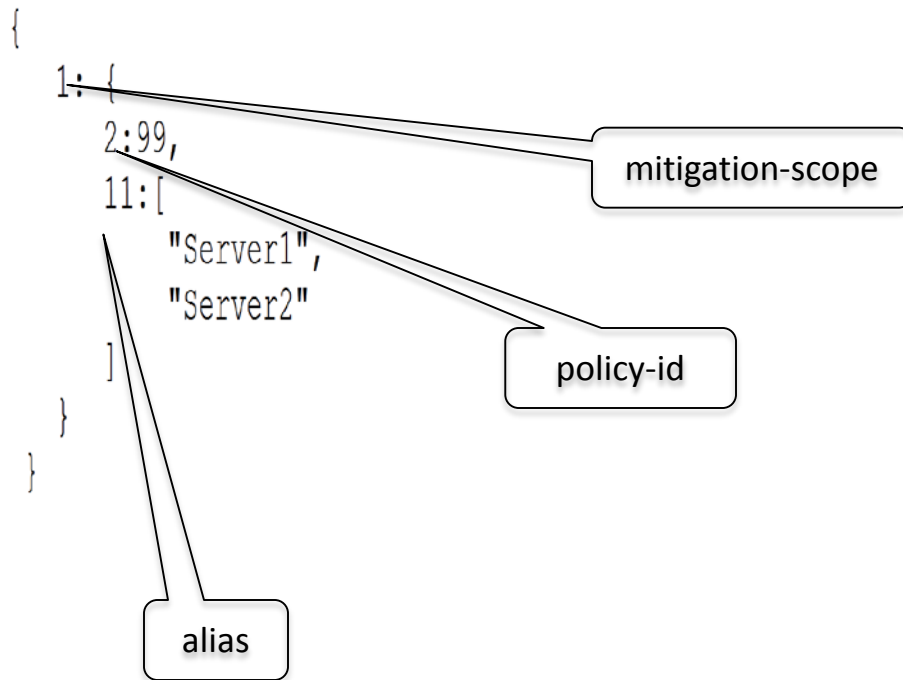
# Proof of concept

```
✓Constrained Application Protocol, Non-Confirmable, PUT, MID:2719
  01... .... = Version: 1
  ..01 .... = Type: Non-Confirmable (1)
  .... 1000 = Token Length: 8
Code: PUT (3)
Message ID: 2719
Token: 4ee7d4f8f01595e6
>Opt Name: #1: Uri-Host: www.example.com
>Opt Name: #2: Uri-Path: .well-known
>Opt Name: #3: Uri-Path: v1
>Opt Name: #4: Uri-Path: DOTS-signal
>Opt Name: #5: Uri-Path: signal
>Opt Name: #6: Content-Format: application/cbor
End of options marker: 255
\[Response In: 339\]
✓Payload: Payload Content-Format: application/cbor, Length: 27
  Payload Desc: application/cbor
✓Concise Binary Object Representation
  ✓Map: (1 entries)
    ✓...0 0001 = Unsigned Integer: 1
    ✓Map: (2 entries)
      ✓...0 0010 = Unsigned Integer: 2
        Unsigned Integer: 123344
      ✓...0 1011 = Unsigned Integer: 11
        ✓Array: (2 elements)
          Text String: Server1
          Text String: Server2
```

# Proof of concept

Diagnostic →

← 24 Bytes



```
a1 # map(1)
01 # unsigned(1)
a2 # map(2)
02 # unsigned(2)
18 63 # unsigned(99)
0b # unsigned(11)
82 # array(2)
67 # text(7)
53657276657231 # "Server1"
67 # text(7)
53657276657232 # "Server2"
```

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- Comments and questions are welcome.