# JSON structures for messages between CP and Controller

## DPN Available (Controller -> CP)

When a DPN is available, the Controller sends this message to the endpoint uri specified during the bind client process.

JSON:

{

  "notify": {

    "notification-id": 0,

    "dpn-groups": [

      "foo"

    ],

    "dpn-status": "available",

    "message-type": "Dpn-Availability",

    "dpn-id": "dpn1",

    "dpn-name": "site1-anchor1",

    "node-id": "node1",

    "network-id": "network1",

    "timestamp": 1494956804498

  }

}

CP responds with a 200 OK status to the Controller.

## DPN Unavailable (Controller -> CP)

When a DPN becomes unavailable, the Controller sends this message to the endpoint uri specified during the bind client process.

{

  "notify": {

    "notification-id": 1,

    "dpn-groups": [

      "foo"

    ],

    "dpn-status": "unavailable",

    "message-type": "Dpn-Availability",

    "dpn-id": "dpn1",

    "dpn-name": "site1-anchor1",

    "node-id": "node1",

    "network-id": "network1",

    "timestamp": 1494956845774

  }

}

CP responds with a 200 OK status to the Controller.

## Downlink Data Notification (Controller -> CP)

When the Controller receives a DDN from a DPN, it sends this message to the endpoint uri of the CP specified during the bind client process.

{

  "notify": {

    "notification-id": 14,

    "message-type": "Downlink-Data-Notification",

    "dpn-id": "dpn1",

    "client-id": "1",

    "session-id": 123456789,

    "op-id": 1,

    "timestamp": 1495053535760

  }

}

## Downlink Data Notification Acknowledgement (CP – Controller)

The CP sends the DDN-Ack as a response to the DDN message received from the Controller.

{

"dpn-id": "dpn1",

"dl-buffering-suggested-count": 16,

"client-id": "1",

"op-id": 1,

"message-type": "Downlink-Data-Notification-Ack",

"dl-buffering-duration": 5

}