

OSPF Data API

Ever wanted to play with the OSPF link data yourself but didn't want to take the time to build an OSPF node or parse the output from `bird`? Look no further than the OSPF JSON API:

```
> curl http://api.andrew.mesh/api/v1/ospf/linkdb
{"areas": {"0.0.0.0": {"routers": ... }}}
```

Data Available

The full state of the entire OSPF network on the mesh is available via this endpoint. The format is as follows:

```
{
  "areas": {
    "0.0.0.0": {
      "routers": {
        "<router_id>": {
          "links": {
            "router": [
              {"id": "<other router id>", "metric": <integer link cost>},
              {"id": "<other router id>", "metric": <integer link cost>, "via": "<another router id>"},
              ...
            ],
            "external": [
              {"id": "<external CIDR>", "metric": <integer link cost>},
              ...
            ],
            "stubnet": [
              {"id": "<stubnet CIDR>", "metric": <integer link cost>},
              ...
            ],
            "network": [
              {"id": "<network CIDR>", "metric": <integer link cost>},
              {"id": "<network CIDR>", "metric2": <integer link cost>},
              ...
            ]
          }
        }
      }
    }
  }
}
```

```
    },
    ...
  },
  "networks": {
    "<network CDIR>": {
      "dr": "<router id>",
      "routers": [
        "<router id>",
        ...
      ]
    },
    ...
  },
  "updated": <integer epoch timestamp>
}
```

For each router, you can see the OSPF links it is advertising, and which type of link they are. Some links have a `metric2` value instead of a `metric` value. This represents a semantically meaningful difference in that router's configuration and the OSPF behavior for that node, but one that is beyond the scope of this document to explain.

Update Frequency

The server refreshes the JSON data blob once per minute, see the `updated` field in the top-level JSON object to confirm data freshness.

Authentication

None. This data is publicly available to any OSPF node, so no authentication is needed when accessing from the mesh private IP space.

Source Code?

[GitHub Link!](#)

Contact

The OSPF data API is maintained by Andrew Dickinson. Reach out to [@Andrew Dickinson](#) on slack for questions and comments. I'd love to see what you build.

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