Intel Cloud Orchestration Networking Design and Goals

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Open vSwitch uses a database to manage configuration while running. The configuration can be updated on the fly by accessing its management protocol using the Open vSwitch Database Management Protocol, defined in RFC 7047[1]

Libovsdb

Libovsdb is an open source library that provides a Go programming language wrapper around the OVS Database Management Protocol. Here is an example:[2]

Listing 1: Example insert operation using libovsdb

```
// simple insert operation
insertOp := libovsdb.Operation{
    Op:   "insert",
    Table:  "Bridge",
    Row:  bridge,
    UUIDName: namedUUID,
}
```

nvGRE and VxLAN

Two alternative tunneling protocols to replace GRE, the current protocol used by Ciao.
nvGRE: Network virtualization standard created in tandem by HP, Dell, and Intel VxLAN: Network virtualization standard created in tandem by Cisco, VMware, Citrix, and Redhat
Overall performance and overhead are similar on paper, will require testing to see which is the best fit for our implementation

Stumbling Blocks

Stumbling blocks go here

References

- E. B. Pfaff, B. David. (2013, dec) The open vswitch database management protocol. [Online]. Available: https://tools.ietf.org/html/rfc7047
- Socketplane. (2016, dec) play_with_ovs.go. [Online]. Available: https://github.com/socketplane/libovsdb/blob/example/play_with_ov