

## Network

All compute and login nodes of Salomon are interconnected by 7D Enhanced hypercube Infiniband network and by Gigabit Ethernet network. Only Infiniband network may be used to transfer user data.

### Infiniband Network

All compute and login nodes of Salomon are interconnected by 7D Enhanced hypercube Infiniband network (56 Gbps). The network topology is a 7D Enhanced hypercube.

Read more about schematic representation of the Salomon cluster IB single-plain topology (hypercube dimension 0).>

The compute nodes may be accessed via the Infiniband network using ib0 network interface, in address range 10.17.0.0 (mask 255.255.224.0). The MPI may be used to establish native Infiniband connection among the nodes.

The network provides **2170MB/s** transfer rates via the TCP connection (single stream) and up to **3600MB/s** via native Infiniband protocol.

### Example

```
$ qsub -q qexp -l select=4:ncpus=16 -N Name0 ./myjob $ qstat -n -u
username                               Req'd
Req'd   Elap Job ID                   Username Queue   Jobname   SessID
NDS TSK Memory Time   S Time -----
-----  ---  -----  -  -----  15209.isrv5      username
qexp      Name0              5530    4   96      --   01:00 R 00:00
r4i1n0/0*24+r4i1n1/0*24+r4i1n2/0*24+r4i1n3/0*24
```

In this example, we access the node r4i1n0 by Infiniband network via the ib0 interface.

```
$ ssh 10.17.35.19
```

In this example, we get information of the Infiniband network.

```
' $ ifconfig .... inet addr:10.17.35.19.... ..
```

```
$ ip addr show ib0
```

```
.... inet 10.17.35.19.... .. '
```