Rapport TP3-4-5

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Chapter 1

OpenSM

Lors du premier lancement d'opensm, on nous indique que le module ib_umad n'est chargé.

Nous avons donc edité le fichier /etc/modules en y ajoutant la ligne "ib_umad" puis redémarrant.

Le LID correspond à Local Identifier et permet d'identifier chaque périphérique du réseau et l'utiliser comme adresse.

Lors du lancement d'OpenSM, on remarque que les LIDs sont attribués.

Chapter 2

Tables de routage

Un fichier route se décompose en les différentes tables de routages pour chaque commutateur.

Chaque table contient des lignes similaires qui indique une route. Voici un exemple:

0x0001 004 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')

Les champs sont les suivants:

- 1. Le LID de la destination
- 2. Le port de sortie sur le switch
- 3. Des informations sur la destination, notamment son nom

Chapter 3

Etudes de routages

3.1 Etudes de topologies avancés

Le fichier Topo1.topo contient une topologie PGFT(2,[3,3],[1,2],[1,2]). Le fichier Topo2.topo contient une topologie XGFT(3,[1,2,2],[4,2,2]).

	XGFT	PGFT
Avantages	On peut multiplier les liens entre des nœux du niveau L et $L-1$. Non bloquant. Premier "petaflopique".	
Inconvénients	On ne peut pas doubler les liens entre deux nœux	

Table 3.2 - Avantages et inconvénients des topologies précédentes

Les tables de routage générées sont disponibles dans Appendix B.

3.2 Quelques algorithmes de routage

3.3 Quelques metriques pour letude des performances des algorithmes de routage

3.4 MinHop

Le code du calculateur est disponible dans Appendix A

3.5 Route balancing

Appendix A

Calculateur

Listing A.1 – "Calculation.cpp"

```
#include <iostream>
   #include <vector>
   #include "calculation.h"
   using namespace std;
   Calculation::Calculation()
   Calculation::~Calculation()
13
14
15
16
    * Constructeur qui charge les informations
17
    * de la topologie et table de routage en mémoire.
19
   Calculation::Calculation(char * topoFile, char * routeFile)
21
      topologyTable.loadData(topoFile);
22
      routingTable.loadData(routeFile);
   }
24
25
26
   * Méthode qui calcule le nombre de sauts
   * d'un noeud source jusqu'au noeud destination.
   int Calculation::getHopCount(int fromId, int toId)
31
     if(fromId == toId)
32
        return 0;
33
     int count = 1;
34
35
      struct hostNode * fromHost = topologyTable.getHostById(fromId);
      string fromNode = fromHost->name;
      string toNode = topologyTable.getHostById(toId)->name;
      string switchName = fromHost->dstName;
     //TODO
     //Parcourer la table de routage du noeud fromId vers le toId
      //Aide : Regarder la struture routeItem et switchNode elles pourront vous aider.
44
      //Aide : struct routeItem * item = routingTable.getTableByName(switchName); permet de charger la table
45
      //Retourner le nombre de sauts du noeud fromId vers le toId
      bool shouldSearch = true;
```

```
50
      while(shouldSearch)
52
         bool changed = false;
53
         routeItem * route = routingTable.getTableByName(switchName);
54
         for(int i = 0; i < route->subitems; i++)
55
56
            if(route->dstInfo.at(static_cast<unsigned long>(i)) == topologyTable.getHostById(toId)->name)
57
            {
58
               string name = topologyTable.getSwitchByName(switchName)->dstName.at(static_cast<unsigned
59
                    long>(route->outport.at(i)) - 1);
               if(name == topologyTable.getHostById(toId)->name)
                  shouldSearch = false;
63
                  break;
               }
64
               else
65
66
                  changed = true;
67
                  switchName = name;
68
69
            }
70
         }
         if(shouldSearch && !changed)
73
74
            std::cout << "ERRROR MAMAMIA" << std::endl;</pre>
            break;
76
         }
78
         count++;
79
80
81
      cout << "From " << fromNode << " to " << toNode << ": Hop Count = " << count << endl;</pre>
82
83
      return count;
   }
84
85
86
    * Méthode qui implémente la métrique Minhop.
87
88
    int Calculation::calculate()
89
    {
90
      int minHop = Oxffff; //Max value
91
92
      //TODO
93
      //Implémenter l'algo du calcul du nombre de sauts
94
      //Aide : Pour recueperer le nombre de saut de source vers destination -> getHopCount(source,
95
           destination);
      //Aide : Pour recuperer le nombre de HCA -> topologyTable.getHostCount();
96
      //Aide utiliser les fonctions min(i,j) et max(i,j) pour recuperer le min et le max entre deux valeurs
97
      //retourner le minimum trouver.
98
99
      for(int i = 0; i < topologyTable.getHostCount(); i++)</pre>
100
         int cpt = 0;
102
         for(int j = 0; j < topologyTable.getHostCount(); j++)</pre>
            if(i == j)
105
               continue;
106
            cpt = max(cpt, getHopCount(i, j));
107
108
         minHop = min(minHop, cpt);
109
110
      return minHop;
113
    }
114
    * Méthode qui calcule la charge d'un noeud
116
```

```
* source jusqu'au noeud destination.
   int Calculation::getRoute(int fromId, int toId)
119
120
      struct hostNode * fromHost = topologyTable.getHostById(fromId);
121
      string fromNode = fromHost->name;
124
      string toNode = topologyTable.getSwitchById(toId)->name;
126
      cout << "From " << fromNode << " to " << toNode;</pre>
      string switchName = fromHost->dstName;
      //TODO
      //Parcourir la table de routage du noeud fromId vers le toId
      //Aide : Regarder la structure routeItem et switchNode elles pourront vous aider.
134
      //Aide : struct routeItem * item = routingTable.getTableByName(switchName); permet de charger la table
           de routage
      //Retourner 1 si le noeud toId est atteilgnable depuis fromId sinon 0
136
      struct routeItem * route = routingTable.getTableByName(switchName);
      for(int i = 0; i < route->dstInfo.size(); i++){
141
           if(route->dstInfo[i] == toNode)
142
               return 1:
143
144
145
146
      return 0;
147
148
149
150
    * Méthode qui implémente la métrique nombre de chemins disjoints.
151
    */
152
   int Calculation::balance()
154
      int balance = 0x0000;; //Max value
156
157
      //Implémenter l'algo du calcul de chemins disjoints
158
      //Aide : Pour recueperer le nombre de sauts de source vers destination -> getHopCount(source,
           destination);
      //Aide : Pour recuperer le nombre de HCA -> topologyTable.getHostCount();
      //Aide utiliser les fonctions min(i,j) et max(i,j) pour recuperer le min et le max entre deux valeurs
161
      //retourner le minimum trouver.
162
163
164
165
       for(int i = 0; i < topologyTable.getSwitchCount(); i++){</pre>
166
           switchNode * s = topologyTable.getSwitchById(i);
167
           struct routeItem * route = routingTable.getTableByName(s->name);
           int t[s->portCount] = {0};
           for(int j = 0; j < route->subitems; j++){
                   t[route->outport[j] -1]++;
           for(int j = 0; j < s->portCount; j++)
               balance = max (balance, t[j]);
174
176
178
179
180
      return balance;
181
   }
```

Appendix B

Tables de routage

B.1 Topologie 1

Listing B.1 - "Route 1"

```
Unicast lids [0x0-0xe] of switch Lid 4 guid 0x000000000000000000 (Switch(1 1 0)):
    Lid Out Destination
  0x0001 004 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
  0x0003 006 : (Switch portguid 0x0000000000001: 'Switch(1 0 1)')
  0x0004 000 : (Switch portguid 0x000000000200002: 'Switch(1 1 0)')
  0x0005 005 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
  0x0006 004 : (Switch portguid 0x00000000000003: 'Switch(0 0 0)')
  0x0007 006 : (Switch portguid 0x000000000200004: 'Switch(0 0 1)')
  0x0008 006 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
  0x0009 007 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
  0x000a 004 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
  0x000b 005 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
  0x000c 001 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
  0x000d 002 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
  0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
18 14 valid lids dumped
  Unicast lids [0x0-0xe] of switch Lid 3 guid 0x0000000000001 (Switch(1 0 1)):
   Lid Out Destination
        Port
              Tnfo
  0x0001 004 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
  0x0002 006 : (Switch portguid 0x00000000000000: 'Switch(1 0 0)')
  0x0003 000 : (Switch portguid 0x000000000001: 'Switch(1 0 1)')
  0x0004 006 : (Switch portguid 0x00000000000200002: 'Switch(1 1 0)')
  0x0005 005 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
  0x0006 004 : (Switch portguid 0x00000000000003: 'Switch(0 0 0)')
  0x0007 006 : (Switch portguid 0x000000000000004: 'Switch(0 0 1)')
  0x0008 006 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
  0x0009 001 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
  0x000a 002 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
  0x000b 003 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
  0x000c 007 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
  0x000d 004 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
  0x000e 005 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
  14 valid lids dumped
  Unicast lids [0x0-0xe] of switch Lid 7 guid 0x0000000000004 (Switch(0 0 1)):
   Lid Out Destination
        Port
               Info
  0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
  0x0003 004 : (Switch portguid 0x000000000001: 'Switch(1 0 1)')
  0x0004 006 : (Switch portguid 0x000000000200002: 'Switch(1 1 0)')
  0x0005 002 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
  0x0006 002 : (Switch portguid 0x000000000003: 'Switch(0 0 0)')
  0x0008 001 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
```

```
0x0009 003 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
  0x000a 004 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
  0x000b 003 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
  0x000c 005 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
  0x000d 006 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
  0x000e 005 : (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
  14 valid lids dumped
  Unicast lids [0x0-0xe] of switch Lid 6 guid 0x000000000003 (Switch(0 0 0)):
55
    Lid Out Destination
56
        Port
                Info
   0x0001 001 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
   0x0002 002 : (Switch portguid 0x00000000000000: 'Switch(1 0 0)')
   0x0003 004 : (Switch portguid 0x000000000001: 'Switch(1 0 1)')
   0x0004 006 : (Switch portguid 0x000000000200002: 'Switch(1 1 0)')
   0x0005 002 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
  0x0006 000 : (Switch portguid 0x000000000003: 'Switch(0 0 0)')
  0x0007 002 : (Switch portguid 0x000000000200004: 'Switch(0 0 1)')
  0x0008 001 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
  0x0009 003 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
  0x000a 004 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
  0x000b 003 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
  0x000c 005 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
  0x000d 006 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
  0x000e 005 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
  14 valid lids dumped
  Unicast lids [0x0-0xe] of switch Lid 2 guid 0x000000000000000000 (Switch(1 0 0)):
   Lid Out Destination
74
        Port
                Info
75
  0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
76
   0x0003 006 : (Switch portguid 0x0000000000001: 'Switch(1 0 1)')
78
   0x0004 006 : (Switch portguid 0x000000000200002: 'Switch(1 1 0)')
79
   0x0005 002 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 006 : (Switch portguid 0x0000000000003: 'Switch(0 0 0)')
   0x0007 007 : (Switch portguid 0x00000000000004: 'Switch(0 0 1)')
  0x0008 003 : (Channel Adapter portguid 0x000000000100005: 'HCA(010)')
  0x0009 004 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
  0x000a 005 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
  0x000b 006 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
  0x000c 007 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
  0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
89 0x000e 005 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
  14 valid lids dumped
```

B.2 Topologie 2

Listing B.2 – "Route 2"

```
Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,4,2 guid 0x0000000000000000 (Switch(2 3
       2)):
    Lid Out Destination
         Port
                Info
   0x0001 003 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 003 : (Switch portguid 0x000000000000000: 'Switch(2 0 0)')
   0x0003 003 : (Switch portguid 0x0000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x0000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x000000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x000000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
13
   0x000b 004 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
```

```
0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
  0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
  0x0011 000 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
  0x0012 003 : (Switch portguid 0x000000000200008: 'Switch(1 0 0)')
  0x0013 004 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
  0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
  0x0015 004 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
  0x0016 003 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
  0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
  0x0019 004 : (Switch portguid 0x00000000000001: 'Switch(1 3 1)')
  0x001a 003 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
  0x001b 003 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
  0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
  0x001d 004 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
  0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
  0x001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
  0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
  0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
  0x0022 004 : (Channel Adapter portguid 0x0000000010001b: 'HCA(301)')
  0x0023 001 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
  0x0024 002 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
  36 valid lids dumped
  1)):
    Lid Out Destination
        Port
               Info
43
  0x0001 003 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
  0x0002 003 : (Switch portguid 0x00000000000000: 'Switch(2 0 0)')
  0x0003 003 : (Switch portguid 0x0000000000001: 'Switch(2 0 1)')
  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
  0x0005 004 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
  0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
  0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
  0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
  0x0009 004 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
  0x000a 003 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
  0x000b 004 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
  0x000c 003 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
  0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
  0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
  0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
  0x0010 000 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
  0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
  0x0012 003 : (Switch portguid 0x00000000000008: 'Switch(1 0 0)')
  0x0013 004 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
  0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
  0x0015 004 : (Switch portguid 0x000000000000b: 'Switch(1 1 1)')
  0x0016 003 : (Switch portguid 0x00000000020000c: 'Switch(1 2 0)')
  0x0017 004 : (Switch portguid 0x00000000000000: 'Switch(1 2 1)')
  0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
  0x0019 004 : (Switch portguid 0x000000000000f: 'Switch(1 3 1)')
  0x001a 003 : (Switch portguid 0x00000000000010: 'Switch(0 0 0)')
  0x001b 003 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
  0x001c 004 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
  0x001d 004 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
  0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
  0x001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
  0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
  0x0021 001 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
  0x0022 002 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
  0x0023 003 : (Channel Adapter portguid 0x0000000010001d: 'HCA(310)')
  0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
  36 valid lids dumped
  1)):
    Lid Out Destination
        Port
                Info
  0x0001 003 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
```

```
0x0002 003 : (Switch portguid 0x000000000000000: 'Switch(2 0 0)')
   0x0003 003 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
93
   0x000b 004 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   Ox000e 003: (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
   0x000f 000 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x000000000000006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x000000000200008: 'Switch(1 0 0)')
   0x0013 004 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
103
   0x0015 004 : (Switch portguid 0x00000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
105
   0x0017 004 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 003 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
   Ox001d 004 : (Channel Adapter portguid 0x000000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
   Ox001f 001 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 002 : (Channel Adapter portguid 0x00000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x00000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x0000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x0000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x0000000010001f: 'HCA(311)')
   36 valid lids dumped
   0)):
     Lid Out Destination
         Port
                Info
   0x0001 003 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
124
   0x0003 003 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
126
   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 000 : (Switch portguid 0x000000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
132
   0x000a 003 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
134
   Ox000c 003: (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   Ox000e 001: (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x000000000200007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x00000000000008: 'Switch(1 0 0)')
   0x0013 004 : (Switch portguid 0x000000000200009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 004 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x00000000020000c: 'Switch(1 2 0)')
   0x0017 004 : (Switch portguid 0x00000000000000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x0000000000010: 'Switch(0 0 0)')
   0x001b 003 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 004 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
   0x001d 002 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
```

```
0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x00000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   1)):
     Lid Out
             Destination
162
         Port
                Info
   0x0001 003 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 003 : (Switch portguid 0x000000000200000: 'Switch(2 0 0)')
   0x0003 003 : (Switch portguid 0x0000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 000 : (Switch portguid 0x0000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
170
   0x0008 003 : (Channel Adapter portguid 0x000000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   0x000c 001 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
   0x000d 002 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
178
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
179
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x000000000200008: 'Switch(1 0 0)')
181
   0x0013 004 : (Switch portguid 0x000000000000009: 'Switch(1 0 1)')
182
   0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
183
   0x0015 004 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
   0x0017 004 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x0000000000000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x00000000020000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 003 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
191
   0x001d 004 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
192
   0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
193
   0x001f 003: (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x00000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   0)):
    Lid Out Destination
202
         Port
                Info
203
   0x0001 003 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
   0x0002 003 : (Switch portguid 0x00000000000000: 'Switch(2 0 0)')
   0x0003 003 : (Switch portguid 0x000000000200001: 'Switch(2 0 1)')
   0x0004 000 : (Switch portguid 0x000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x000000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x000000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 001 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 002 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
```

```
0x0011 003 : (Switch portguid 0x000000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x000000000000008: 'Switch(1 0 0)')
   0x0013 004 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 004 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
   0x0017 004 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x00000000000001: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x00000000000010: 'Switch(0 0 0)')
   0x001b 003 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 004 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
   0x001d 004 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,3,4 guid 0x000000000000000f (Switch(1 3
       1)):
     Lid Out Destination
         Port
                 Info
   0x0001 003 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 003 : (Switch portguid 0x000000000000000: 'Switch(2 0 0)')
245
   0x0003 003 : (Switch portguid 0x000000000200001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x000000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
   Ox000e 003: (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0010 001 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 002 : (Switch portguid 0x000000000200007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x000000000200008: 'Switch(1 0 0)')
   0x0013 003 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 001 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 003 : (Switch portguid 0x000000000000b: 'Switch(1 1 1)')
   0x0016 001 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
   0x0017 003 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 001 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 000 : (Switch portguid 0x00000000020000f: 'Switch(1 3 1)')
   0x001a 001 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 001 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 003 : (Switch portguid 0x00000000000012: 'Switch(0 1 0)')
   0x001d 004 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   Ox001f 003 : (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 001 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 001 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 002 : (Channel Adapter portguid 0x0000000010001d: 'HCA(310)')
   0x0024 002 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   1)):
     Lid Out Destination
         Port
                 Info
   0x0001 003 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 003 : (Switch portguid 0x00000000000000: 'Switch(2 0 0)')
   0x0003 003 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
```

```
0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 001 : (Switch portguid 0x0000000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 001 : (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
   0x000f 002 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x00000000000008: 'Switch(1 0 0)')
   0x0013 003 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 001 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 003 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 001 : (Switch portguid 0x00000000020000c: 'Switch(1 2 0)')
305
   0x0018 001 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 003 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 001 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 001 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 003 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
   0x001d 001 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
313
   0x001f 002 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
314
   0x0020 002 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
315
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
317
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
318
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,3,2 guid 0x00000000000000000 (Switch(1 1
       1)):
     Lid Out
              Destination
322
         Port
323
                 Info
   0x0001 003 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
324
   0x0002 003 : (Switch portguid 0x000000000200000: 'Switch(2 0 0)')
325
   0x0003 003 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
326
   0x0004 001 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
327
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
328
   0x0006 002 : (Switch portguid 0x0000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 001 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 001 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
334
   0x000c 002 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
335
   0x000d 002 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   Ox000e 003: (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
   0x000f 003: (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x00000000000008: 'Switch(1 0 0)')
   0x0013 003 : (Switch portguid 0x000000000200009: 'Switch(1 0 1)')
   0x0014 001 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 000 : (Switch portguid 0x00000000020000b: 'Switch(1 1 1)')
   0x0016 001 : (Switch portguid 0x00000000020000c: 'Switch(1 2 0)')
   0x0017 003 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 001 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 003 : (Switch portguid 0x000000000000f: 'Switch(1 3 1)')
   0x001a 001 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 001 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 003 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
   0x001d 004 : (Channel Adapter portguid 0x000000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x000000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
```

```
0x0020 004 : (Channel Adapter portguid 0x00000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x00000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   0)):
    Lid Out Destination
362
         Port
                Info
363
   0x0001 003 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
364
   0x0002 003 : (Switch portguid 0x00000000000000: 'Switch(2 0 0)')
   0x0003 003 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x0000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x000000000200004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0010 001 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 002 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x000000000000008: 'Switch(1 0 0)')
   0x0013 001 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
383
   0x0015 001 : (Switch portguid 0x00000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x000000000000000: 'Switch(1 2 0)')
   0x0017 001 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 000 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 001 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x00000000000010: 'Switch(0 0 0)')
   0x001b 004 : (Switch portguid 0x000000000200011: 'Switch(0 0 1)')
   0x001c 001 : (Switch portguid 0x000000000200012: 'Switch(0 1 0)')
   Ox001d 004: (Channel Adapter portguid 0x000000000100013: 'HCA(201)')
   0x001e 001 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
393
   0x001f 003: (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x00000000100017: 'HCA(211)')
   0x0021 001 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 001 : (Channel Adapter portguid 0x0000000010001b: 'HCA(301)')
   0x0023 002 : (Channel Adapter portguid 0x0000000010001d: 'HCA(310)')
   0x0024 002 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   0)):
    Lid Out Destination
402
         Port
                Info
403
   Ox0001 003 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
404
   0x0002 003 : (Switch portguid 0x0000000000000000000: 'Switch(2 0 0)')
405
   0x0003 003 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x0000000000002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 001 : (Switch portguid 0x000000000200004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 001 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 002 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0011 003 : (Switch portguid 0x000000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x00000000000008: 'Switch(1 0 0)')
```

```
0x0013 001 : (Switch portguid 0x000000000000009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 001 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 000 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
   0x0017 001 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 001 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 004 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 001 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
   0x001d 001: (Channel Adapter portguid 0x000000000100013: 'HCA(201)')
   0x001e 001 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   0x001f 002 : (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 002 : (Channel Adapter portguid 0x00000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,2 guid 0x000000000000000000 (Switch(1 1
       0)):
     Lid Out
              Destination
442
         Port
                 Info
   0x0001 003 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
   0x0002 003 : (Switch portguid 0x000000000000000: 'Switch(2 0 0)')
   0x0003 003 : (Switch portguid 0x0000000000001: 'Switch(2 0 1)')
   0x0004 001 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
   0x0006 002 : (Switch portguid 0x0000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
451
   0x0009 004 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 001 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 001 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   0x000c 002 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
   0x000d 002 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x000000000200006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x000000000200008: 'Switch(1 0 0)')
461
   0x0013 001 : (Switch portguid 0x000000000000009: 'Switch(1 0 1)')
   0x0014 000 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 001 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
   0x0017 001 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 001 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 004 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
471
   0x001d 004 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
472
   0x001e 001 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   Ox001f 003: (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,4 guid 0x000000000000013 (Switch(0 1 1)):
     Lid Out Destination
482
                 Info
483
   0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0003 001 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
   0x0004 002 : (Switch portguid 0x00000000000200002: 'Switch(2 1 0)')
   0x0005 001 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
   0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
```

```
0x0007 003 : (Switch portguid 0x0000000000000004: 'Switch(2 2 0)')
   0x0008 001 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 001 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 002 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 002 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   0x000c 002 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 002 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003: (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
   0x0010 004 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 004 : (Switch portguid 0x000000000200007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x00000000000008: 'Switch(1 0 0)')
   0x0013 001 : (Switch portguid 0x0000000000009: 'Switch(1 0 1)')
   0x0014 002 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
   0x0015 002 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x0000000000000c: 'Switch(1 2 0)')
   0x0017 003 : (Switch portguid 0x00000000020000d: 'Switch(1 2 1)')
   0x0018 004 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x0000000000010001: 'Switch(1 3 1)')
   0x001a 001 : (Switch portguid 0x00000000000010: 'Switch(0 0 0)')
   0x001b 001 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 001 : (Switch portguid 0x000000000200012: 'Switch(0 1 0)')
   0x001d 003 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 000 : (Switch portguid 0x0000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 003 : (Channel Adapter portguid 0x00000000100017: 'HCA(211)')
   0x0021 004 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
517
   0x0023 004 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
518
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
519
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,3 guid 0x00000000000012 (Switch(0 1 0)):
521
     Lid Out Destination
         Port
                 Info
   0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 001 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
   0x0003 001 : (Switch portguid 0x000000000200001: 'Switch(2 0 1)')
   0x0004 002 : (Switch portguid 0x000000000200002: 'Switch(2 1 0)')
527
   0x0005 001 : (Channel Adapter portguid 0x000000000100003: 'HCA(001)')
   0x0006 002 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
529
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 001 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
531
   0x0009 001 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
532
   0x000a 002 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 002 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   0x000c 002 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
   0x000d 002 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
538
   0x0010 004 : (Switch portguid 0x000000000200006: 'Switch(2 3 1)')
539
   0x0011 004 : (Switch portguid 0x000000000000007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x000000000000008: 'Switch(1 0 0)')
   0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
   0x0014 002 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 002 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x00000000020000c: 'Switch(1 2 0)')
   0x0018 004 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x00000000020000f: 'Switch(1 3 1)')
   0x001a 001 : (Switch portguid 0x00000000000010: 'Switch(0 0 0)')
   0x001b 001 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 000 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
   0x001d 003: (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 001 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 003 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 004 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 004 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
```

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0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,4 guid 0x000000000000011 (Switch(0 0 1)):
     Lid Out Destination
         Port
                Tnfo
   0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
564
   565
   0x0003 001 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
   0x0004 002 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 001 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 002 : (Switch portguid 0x0000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 001 : (Channel Adapter portguid 0x000000000100005: 'HCA(010)')
   0x0009 001 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 002 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
   0x000b 002 : (Channel Adapter portguid 0x0000000010000b: 'HCA(101)')
   Ox000c 002 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
   0x000d 002 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003: (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
   0x0011 004 : (Switch portguid 0x000000000000007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x000000000000008: 'Switch(1 0 0)')
   0x0013 001 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 002 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 002 : (Switch portguid 0x00000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
   0x0017 003 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 004 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x0000000000001: 'Switch(1 3 1)')
   0x001a 001 : (Switch portguid 0x00000000000010: 'Switch(0 0 0)')
   0x001b 000 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 001 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
   0x001d 003 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 001 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 003 : (Channel Adapter portguid 0x00000000100017: 'HCA(211)')
   0x0021 004 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 004 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x0000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3 guid 0x0000000000000010 (Switch(0 0 0)):
601
     Lid Out Destination
        Port
                Info
   0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 001 : (Switch portguid 0x00000000000000: 'Switch(2 0 0)')
   0x0003 001 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
   0x0004 002 : (Switch portguid 0x00000000000200002: 'Switch(2 1 0)')
   0x0005 001 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
608
   0x0006 002 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
609
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 001 : (Channel Adapter portguid 0x000000000100005: 'HCA(010)')
   0x0009 001 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 002 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
   Ox000b 002 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
   0x000c 002 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 002 : (Channel Adapter portguid 0x0000000010000f: 'HCA(111)')
   Ox000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0010 004 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 004 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x000000000200008: 'Switch(1 0 0)')
   0x0013 001 : (Switch portguid 0x000000000200009: 'Switch(1 0 1)')
   0x0014 002 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 002 : (Switch portguid 0x000000000000b: 'Switch(1 1 1)')
   0x0018 004 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
```

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0x0019 004 : (Switch portguid 0x00000000000001: 'Switch(1 3 1)')
   0x001a 000 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 001 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 001 : (Switch portguid 0x00000000000012: 'Switch(0 1 0)')
   0x001d 003 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 001 : (Switch portguid 0x0000000000013: 'Switch(0 1 1)')
   Ox001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 003 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 004 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 004 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,2 guid 0x0000000000000001 (Switch(2 0 1)):
     Lid Out Destination
         Port
                 Info
643
   0x0001 003 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 003 : (Switch portguid 0x00000000000000: 'Switch(2 0 0)')
   0x0003 000 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 004 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 001 : (Channel Adapter portguid 0x000000000100005: 'HCA(010)')
   0x0009 002 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
657
   0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x000000000000006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x000000000000008: 'Switch(1 0 0)')
   0x0013 004 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x0000000000000a: 'Switch(1 1 0)')
   0x0015 004 : (Switch portguid 0x00000000020000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x00000000020000c: 'Switch(1 2 0)')
   0x0017 004 : (Switch portguid 0x0000000000000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x000000000000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 003 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 004 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
   0x001d 004 : (Channel Adapter portguid 0x000000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x00000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x00000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4 guid 0x000000000000000 (Switch(1 0 1)):
     Lid Out Destination
                 Info
         Port
   0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 001 : (Switch portguid 0x0000000000000000000000000000000)
'Switch(2 0 0)')
   0x0003 002 : (Switch portguid 0x0000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x000000000200002: 'Switch(2 1 0)')
   0x0005 001 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x00000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 002 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 002 : (Channel Adapter portguid 0x00000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
   0x000c 003 : (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
```

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0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x0000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x000000000000007: 'Switch(2 3 2)')
   0x0012 001 : (Switch portguid 0x000000000000008: 'Switch(1 0 0)')
   0x0013 000 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 001 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
703
   0x0015 003 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
704
   0x0016 001 : (Switch portguid 0x000000000000000: 'Switch(1 2 0)')
705
   0x0018 001 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
   0x0019 003 : (Switch portguid 0x000000000000f: 'Switch(1 3 1)')
   0x001a 001 : (Switch portguid 0x0000000000010: 'Switch(0 0 0)')
   0x001b 001 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 003 : (Switch portguid 0x000000000200012: 'Switch(0 1 0)')
   Ox001d 004 : (Channel Adapter portguid 0x000000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x0000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x0000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3 guid 0x000000000000000 (Switch(1 0 0)):
     Lid Out Destination
         Port
                 Info
   0x0001 001 : (Channel Adapter portguid 0x000000000100001: 'HCA(000)')
724
   0x0003 002 : (Switch portguid 0x000000000001: 'Switch(2 0 1)')
726
   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 001 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
728
   0x0006 003 : (Switch portguid 0x000000000003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 002 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 002 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x00000000100009: 'HCA(100)')
   Ox000b 004 : (Channel Adapter portguid Ox0000000010000b: 'HCA(101)')
   Ox000c 003: (Channel Adapter portguid 0x00000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x00000000100011: 'HCA(200)')
737
   0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
738
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
739
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 000 : (Switch portguid 0x00000000000008: 'Switch(1 0 0)')
   0x0013 001 : (Switch portguid 0x00000000000009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
   0x0015 001 : (Switch portguid 0x0000000000000b: 'Switch(1 1 1)')
   0x0016 003 : (Switch portguid 0x000000000000c: 'Switch(1 2 0)')
745
   0x0017 001 : (Switch portguid 0x00000000020000d: 'Switch(1 2 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
747
   0x0019 001 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x00000000000010: 'Switch(0 0 0)')
   0x001b 004 : (Switch portguid 0x0000000000011: 'Switch(0 0 1)')
   0x001c 001 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
   0x001d 004 : (Channel Adapter portguid 0x00000000100013: 'HCA(201)')
   0x001e 001 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   Ox001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1 guid 0x000000000000000 (Switch(2 0 0)):
     Lid Out Destination
         Port
                 Info
   0x0001 001 : (Channel Adapter portguid 0x00000000100001: 'HCA(000)')
   0x0002 000 : (Switch portguid 0x00000000000000: 'Switch(2 0 0)')
```

```
0x0003 003 : (Switch portguid 0x0000000000001: 'Switch(2 0 1)')
   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
   0x0005 002 : (Channel Adapter portguid 0x00000000100003: 'HCA(001)')
   0x0006 003 : (Switch portguid 0x000000000200003: 'Switch(2 1 1)')
   0x0007 003 : (Switch portguid 0x00000000000004: 'Switch(2 2 0)')
   0x0008 003 : (Channel Adapter portguid 0x00000000100005: 'HCA(010)')
   0x0009 004 : (Channel Adapter portguid 0x000000000100007: 'HCA(011)')
   0x000a 003 : (Channel Adapter portguid 0x000000000100009: 'HCA(100)')
   0x000b 004 : (Channel Adapter portguid 0x00000000010000b: 'HCA(101)')
774
   0x000c 003 : (Channel Adapter portguid 0x0000000010000d: 'HCA(110)')
   0x000d 004 : (Channel Adapter portguid 0x00000000010000f: 'HCA(111)')
   0x000e 003 : (Channel Adapter portguid 0x000000000100011: 'HCA(200)')
   0x000f 003 : (Switch portguid 0x00000000000005: 'Switch(2 2 1)')
   0x0010 003 : (Switch portguid 0x00000000000006: 'Switch(2 3 1)')
   0x0011 003 : (Switch portguid 0x00000000000007: 'Switch(2 3 2)')
   0x0012 003 : (Switch portguid 0x000000000200008: 'Switch(1 0 0)')
   0x0013 004 : (Switch portguid 0x000000000200009: 'Switch(1 0 1)')
   0x0014 003 : (Switch portguid 0x00000000020000a: 'Switch(1 1 0)')
   0x0015 004 : (Switch portguid 0x00000000020000b: 'Switch(1 1 1)')
   0x0018 003 : (Switch portguid 0x00000000020000e: 'Switch(1 3 0)')
   0x0019 004 : (Switch portguid 0x000000000001000f: 'Switch(1 3 1)')
   0x001a 003 : (Switch portguid 0x000000000200010: 'Switch(0 0 0)')
   0x001b 003 : (Switch portguid 0x00000000000011: 'Switch(0 0 1)')
   0x001c 004 : (Switch portguid 0x0000000000012: 'Switch(0 1 0)')
   0x001d 004 : (Channel Adapter portguid 0x000000000100013: 'HCA(201)')
   0x001e 004 : (Switch portguid 0x00000000000013: 'Switch(0 1 1)')
   0x001f 003 : (Channel Adapter portguid 0x000000000100015: 'HCA(210)')
   0x0020 004 : (Channel Adapter portguid 0x000000000100017: 'HCA(211)')
795
   0x0021 003 : (Channel Adapter portguid 0x000000000100019: 'HCA(300)')
   0x0022 004 : (Channel Adapter portguid 0x00000000010001b: 'HCA(301)')
   0x0023 003 : (Channel Adapter portguid 0x00000000010001d: 'HCA(310)')
   0x0024 004 : (Channel Adapter portguid 0x00000000010001f: 'HCA(311)')
   36 valid lids dumped
801
   *** WARNING ***: this command has been replaced by dump_fts
```