Rapport TP3-4-5

March 21, 2018

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Contents

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 0x0000000000100001: '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"

```cpp
#include <iostream>
#include <vector>

#include "calculation.h"

using namespace std;

Calculation::Calculation()
{
}

Calculation::~Calculation()
{
}

/**
 * Constructeur qui charge les informations
 * de la topologie et table de routage en mémoire.
 */
Calculation::Calculation(char * topoFile, char * routeFile)
{
    topologyTable.loadData(topoFile);
    routingTable.loadData(routeFile);
}

/**
 * Méthode qui calcule le nombre de sauts
 * d'un noeud source jusqu'au noeud destination.
 */
int Calculation::getHopCount(int fromId, int toId)
{
    if(fromId == toId)
        return 0;
    int count = 1;

    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.
    //Aide : struct routeItem * item = routingTable.getTableByName(switchName); permet de charger la table
    //    de routage
    //Retourner le nombre de sauts du noeud fromId vers le toId

    bool shouldSearch = true;
```

```cpp
50      while(shouldSearch)
51      {
52          bool changed = false;
53          routeItem * route = routingTable.getTableByName(switchName);
54
55          for(int i = 0; i < route->subitems; i++)
56          {
57              if(route->dstInfo.at(static_cast<unsigned long>(i)) == topologyTable.getHostById(toId)->name)
58              {
59                  string name = topologyTable.getSwitchByName(switchName)->dstName.at(static_cast<unsigned
                        long>(route->outport.at(i)) - 1);
60                  if(name == topologyTable.getHostById(toId)->name)
61                  {
62                      shouldSearch = false;
63                      break;
64                  }
65                  else
66                  {
67                      changed = true;
68                      switchName = name;
69                  }
70              }
71          }
72
73          if(shouldSearch && !changed)
74          {
75              std::cout << "ERRROR MAMAMIA" << std::endl;
76              break;
77          }
78
79          count++;
80      }
81
82      cout << "From " << fromNode << " to " << toNode << ": Hop Count = " << count << endl;
83      return count;
84  }
85
86  /**
87   * Méthode qui implémente la métrique Minhop.
88   */
89  int Calculation::calculate()
90  {
91      int minHop = 0xffff; //Max value
92
93      //TODO
94      //Implémenter l'algo du calcul du nombre de sauts
95      //Aide : Pour recueperer le nombre de saut de source vers destination -> getHopCount(source,
            destination);
96      //Aide : Pour recuperer le nombre de HCA -> topologyTable.getHostCount();
97      //Aide utiliser les fonctions min(i,j) et max(i,j) pour recuperer le min et le max entre deux valeurs
98      //retourner le minimum trouver.
99
100     for(int i = 0; i < topologyTable.getHostCount(); i++)
101     {
102         int cpt = 0;
103         for(int j = 0; j < topologyTable.getHostCount(); j++)
104         {
105             if(i == j)
106                 continue;
107             cpt = max(cpt, getHopCount(i, j));
108         }
109         minHop = min(minHop, cpt);
110     }
111
112     return minHop;
113 }
114
115 /**
116  * Méthode qui calcule la charge d'un noeud
```

```
117   * source jusqu'au noeud destination.
118   */
119  int Calculation::getRoute(int fromId, int toId)
120  {
121     struct hostNode * fromHost = topologyTable.getHostById(fromId);
122
123     string fromNode = fromHost->name;
124
125     string toNode = topologyTable.getSwitchById(toId)->name;
126
127     cout << "From " << fromNode << " to " << toNode;
128
129     string switchName = fromHost->dstName;
130
131
132     //TODO
133     //Parcourir la table de routage du noeud fromId vers le toId
134     //Aide : Regarder la structure routeItem et switchNode elles pourront vous aider.
135     //Aide : struct routeItem * item = routingTable.getTableByName(switchName); permet de charger la table
               de routage
136     //Retourner 1 si le noeud toId est atteilgnable depuis fromId sinon 0
137     return 0;
138  }
139
140  /**
141   * Méthode qui implémente la métrique nombre de chemins disjoints.
142   */
143  int Calculation::balance()
144  {
145     int balance = 0xffff;; //Max value
146
147     //TODO
148     //Implémenter l'algo du calcul de chemins disjoints
149     //Aide : Pour recueperer le nombre de sauts de source vers destination -> getHopCount(source,
               destination);
150     //Aide : Pour recuperer le nombre de HCA -> topologyTable.getHostCount();
151     //Aide utiliser les fonctions min(i,j) et max(i,j) pour recuperer le min et le max entre deux valeurs
152     //retourner le minimum trouver.
153
154     return balance + 1;
155  }
```

Appendix B

Tables de routage

B.1 Topologie 1

Listing B.1 – "Route 1"

```
Unicast lids [0x0-0xe] of switch Lid 4 guid 0x0000000000200002 (Switch(1 1 0)):
  Lid  Out   Destination
       Port    Info
0x0001 004 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 006 : (Switch portguid 0x0000000000200000: 'Switch(1 0 0)')
0x0003 006 : (Switch portguid 0x0000000000200001: 'Switch(1 0 1)')
0x0004 000 : (Switch portguid 0x0000000000200002: 'Switch(1 1 0)')
0x0005 005 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 004 : (Switch portguid 0x0000000000200003: 'Switch(0 0 0)')
0x0007 006 : (Switch portguid 0x0000000000200004: 'Switch(0 0 1)')
0x0008 006 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
0x0009 007 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
0x000a 004 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
0x000b 005 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
0x000c 001 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
14 valid lids dumped
Unicast lids [0x0-0xe] of switch Lid 3 guid 0x0000000000200001 (Switch(1 0 1)):
  Lid  Out   Destination
       Port    Info
0x0001 004 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 006 : (Switch portguid 0x0000000000200000: 'Switch(1 0 0)')
0x0003 000 : (Switch portguid 0x0000000000200001: 'Switch(1 0 1)')
0x0004 006 : (Switch portguid 0x0000000000200002: 'Switch(1 1 0)')
0x0005 005 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 004 : (Switch portguid 0x0000000000200003: 'Switch(0 0 0)')
0x0007 006 : (Switch portguid 0x0000000000200004: 'Switch(0 0 1)')
0x0008 006 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
0x0009 001 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
0x000a 002 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
0x000b 003 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
0x000c 007 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
0x000e 005 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
14 valid lids dumped
Unicast lids [0x0-0xe] of switch Lid 7 guid 0x0000000000200004 (Switch(0 0 1)):
  Lid  Out   Destination
       Port    Info
0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 002 : (Switch portguid 0x0000000000200000: 'Switch(1 0 0)')
0x0003 004 : (Switch portguid 0x0000000000200001: 'Switch(1 0 1)')
0x0004 006 : (Switch portguid 0x0000000000200002: 'Switch(1 1 0)')
0x0005 002 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(0 0 0)')
0x0007 000 : (Switch portguid 0x0000000000200004: 'Switch(0 0 1)')
0x0008 001 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
```

```
48  0x0009 003 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
49  0x000a 004 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
50  0x000b 003 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
51  0x000c 005 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
52  0x000d 006 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
53  0x000e 005 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
54  14 valid lids dumped
55  Unicast lids [0x0-0xe] of switch Lid 6 guid 0x0000000000200003 (Switch(0 0 0)):
56    Lid  Out   Destination
57         Port    Info
58  0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
59  0x0002 002 : (Switch portguid 0x0000000000200000: 'Switch(1 0 0)')
60  0x0003 004 : (Switch portguid 0x0000000000200001: 'Switch(1 0 1)')
61  0x0004 006 : (Switch portguid 0x0000000000200002: 'Switch(1 1 0)')
62  0x0005 002 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
63  0x0006 000 : (Switch portguid 0x0000000000200003: 'Switch(0 0 0)')
64  0x0007 002 : (Switch portguid 0x0000000000200004: 'Switch(0 0 1)')
65  0x0008 001 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
66  0x0009 003 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
67  0x000a 004 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
68  0x000b 003 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
69  0x000c 005 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
70  0x000d 006 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
71  0x000e 005 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
72  14 valid lids dumped
73  Unicast lids [0x0-0xe] of switch Lid 2 guid 0x0000000000200000 (Switch(1 0 0)):
74    Lid  Out   Destination
75         Port    Info
76  0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
77  0x0002 000 : (Switch portguid 0x0000000000200000: 'Switch(1 0 0)')
78  0x0003 006 : (Switch portguid 0x0000000000200001: 'Switch(1 0 1)')
79  0x0004 006 : (Switch portguid 0x0000000000200002: 'Switch(1 1 0)')
80  0x0005 002 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
81  0x0006 006 : (Switch portguid 0x0000000000200003: 'Switch(0 0 0)')
82  0x0007 007 : (Switch portguid 0x0000000000200004: 'Switch(0 0 1)')
83  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
84  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
85  0x000a 005 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
86  0x000b 006 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
87  0x000c 007 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
88  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
89  0x000e 005 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
90  14 valid lids dumped
```

B.2 Topologie 2

Listing B.2 – "Route 2"

```
1   Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,4,2 guid 0x0000000000200007 (Switch(2 3
        2)):
2     Lid  Out   Destination
3          Port    Info
4   0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
5   0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
6   0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
7   0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
8   0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
9   0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
10  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
11  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
12  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
13  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
14  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
15  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
16  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
17  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
```

```
18  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
19  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
20  0x0011 000 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
21  0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
22  0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
23  0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
24  0x0015 004 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
25  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
26  0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
27  0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
28  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
29  0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
30  0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
31  0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
32  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
33  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
34  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
35  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
36  0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
37  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
38  0x0023 001 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
39  0x0024 002 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
40  36 valid lids dumped
41  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,4,1 guid 0x0000000000200006 (Switch(2 3
       1)):
42    Lid  Out  Destination
43         Port    Info
44  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
45  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
46  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
47  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
48  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
49  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
50  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
51  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
52  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
53  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
54  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
55  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
56  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
57  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
58  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
59  0x0010 000 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
60  0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
61  0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
62  0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
63  0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
64  0x0015 004 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
65  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
66  0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
67  0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
68  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
69  0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
70  0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
71  0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
72  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
73  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
74  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
75  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
76  0x0021 001 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
77  0x0022 002 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
78  0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
79  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
80  36 valid lids dumped
81  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,3,2 guid 0x0000000000200005 (Switch(2 2
       1)):
82    Lid  Out  Destination
83         Port    Info
84  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
```

```
85  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
86  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
87  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
88  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
89  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
90  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
91  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
92  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
93  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
94  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
95  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
96  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
97  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
98  0x000f 000 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
99  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
100 0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
101 0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
102 0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
103 0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
104 0x0015 004 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
105 0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
106 0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
107 0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
108 0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
109 0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
110 0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
111 0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
112 0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
113 0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
114 0x001f 001 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
115 0x0020 002 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
116 0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
117 0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
118 0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
119 0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
120 36 valid lids dumped
121 Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,3,1 guid 0x0000000000200004 (Switch(2 2
       0)):
122   Lid  Out   Destination
123        Port    Info
124 0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
125 0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
126 0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
127 0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
128 0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
129 0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
130 0x0007 000 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
131 0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
132 0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
133 0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
134 0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
135 0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
136 0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
137 0x000e 001 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
138 0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
139 0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
140 0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
141 0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
142 0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
143 0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
144 0x0015 004 : (TSwitch portguid 0x000000000020000b: 'Switch(1 1 1)')
145 0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
146 0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
147 0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
148 0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
149 0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
150 0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
151 0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
152 0x001d 002 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
```

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153  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
154  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
155  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
156  0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
157  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
158  0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
159  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
160  36 valid lids dumped
161  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,2,2 guid 0x0000000000200003 (Switch(2 1
          1)):
162    Lid  Out   Destination
163         Port    Info
164  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
165  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
166  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
167  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
168  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
169  0x0006 000 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
170  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
171  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
172  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
173  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
174  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
175  0x000c 001 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
176  0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
177  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
178  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
179  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
180  0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
181  0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
182  0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
183  0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
184  0x0015 004 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
185  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
186  0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
187  0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
188  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
189  0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
190  0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
191  0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
192  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
193  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
194  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
195  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
196  0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
197  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
198  0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
199  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
200  36 valid lids dumped
201  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,2,1 guid 0x0000000000200002 (Switch(2 1
          0)):
202    Lid  Out   Destination
203         Port    Info
204  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
205  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
206  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
207  0x0004 000 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
208  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
209  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
210  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
211  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
212  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
213  0x000a 001 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
214  0x000b 002 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
215  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
216  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
217  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
218  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
219  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
```

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220  0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
221  0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
222  0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
223  0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
224  0x0015 004 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
225  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
226  0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
227  0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
228  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
229  0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
230  0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
231  0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
232  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
233  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
234  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
235  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
236  0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
237  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
238  0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
239  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
240  36 valid lids dumped
241  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,3,4 guid 0x000000000020000f (Switch(1 3
         1)):
242   Lid Out  Destination
243      Port    Info
244  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
245  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
246  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
247  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
248  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
249  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
250  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
251  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
252  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
253  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
254  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
255  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
256  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
257  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
258  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
259  0x0010 001 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
260  0x0011 002 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
261  0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
262  0x0013 003 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
263  0x0014 001 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
264  0x0015 003 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
265  0x0016 001 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
266  0x0017 003 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
267  0x0018 001 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
268  0x0019 000 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
269  0x001a 001 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
270  0x001b 001 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
271  0x001c 003 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
272  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
273  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
274  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
275  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
276  0x0021 001 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
277  0x0022 001 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
278  0x0023 002 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
279  0x0024 002 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
280  36 valid lids dumped
281  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,3,3 guid 0x000000000020000d (Switch(1 2
         1)):
282   Lid Out  Destination
283      Port    Info
284  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
285  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
286  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
```

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287  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
288  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
289  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
290  0x0007 001 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
291  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
292  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
293  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
294  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
295  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
296  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
297  0x000e 001 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
298  0x000f 002 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
299  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
300  0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
301  0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
302  0x0013 003 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
303  0x0014 001 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
304  0x0015 003 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
305  0x0016 001 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
306  0x0017 000 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
307  0x0018 001 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
308  0x0019 003 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
309  0x001a 001 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
310  0x001b 001 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
311  0x001c 003 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
312  0x001d 001 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
313  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
314  0x001f 002 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
315  0x0020 002 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
316  0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
317  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
318  0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
319  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
320  36 valid lids dumped
321  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,3,2 guid 0x000000000020000b (Switch(1 1
         1)):
322    Lid  Out   Destination
323         Port    Info
324  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
325  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
326  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
327  0x0004 001 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
328  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
329  0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
330  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
331  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
332  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
333  0x000a 001 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
334  0x000b 001 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
335  0x000c 002 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
336  0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
337  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
338  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
339  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
340  0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
341  0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
342  0x0013 003 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
343  0x0014 001 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
344  0x0015 000 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
345  0x0016 001 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
346  0x0017 003 : (TBitch portguid 0x000000000020000d: 'Switch(1 2 1)')
347  0x0018 001 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
348  0x0019 003 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
349  0x001a 001 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
350  0x001b 001 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
351  0x001c 003 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
352  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
353  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
354  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
```

```
355  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
356  0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
357  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
358  0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
359  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
360  36 valid lids dumped
361  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,4 guid 0x000000000020000e (Switch(1 3
        0)):
362    Lid  Out   Destination
363         Port    Info
364  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
365  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
366  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
367  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
368  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
369  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
370  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
371  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
372  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
373  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
374  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
375  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
376  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
377  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
378  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
379  0x0010 001 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
380  0x0011 002 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
381  0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
382  0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
383  0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
384  0x0015 001 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
385  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
386  0x0017 001 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
387  0x0018 000 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
388  0x0019 001 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
389  0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
390  0x001b 004 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
391  0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
392  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
393  0x001e 001 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
394  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
395  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
396  0x0021 001 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
397  0x0022 001 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
398  0x0023 002 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
399  0x0024 002 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
400  36 valid lids dumped
401  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,3 guid 0x000000000020000c (Switch(1 2
        0)):
402    Lid  Out   Destination
403         Port    Info
404  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
405  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
406  0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
407  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
408  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
409  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
410  0x0007 001 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
411  0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
412  0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
413  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
414  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
415  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
416  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
417  0x000e 001 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
418  0x000f 002 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
419  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
420  0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
421  0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
```

```
0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
0x0015 001 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
0x0016 000 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
0x0017 001 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
0x0019 001 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
0x001b 004 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
0x001d 001 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
0x001e 001 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
0x001f 002 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
0x0020 002 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
36 valid lids dumped
Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3,2 guid 0x000000000020000a (Switch(1 1
    0)):
  Lid  Out   Destination
        Port    Info
0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
0x0004 001 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
0x000a 001 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
0x000b 001 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
0x000c 002 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
0x0014 000 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
0x0015 001 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
0x0017 001 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
0x0019 001 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
0x001b 004 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
0x001e 001 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
36 valid lids dumped
Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,4 guid 0x0000000000200013 (Switch(0 1 1)):
  Lid  Out   Destination
        Port    Info
0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 001 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
0x0003 001 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
0x0004 002 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
0x0005 001 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
```

```
490  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
491  0x0008 001 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
492  0x0009 001 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
493  0x000a 002 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
494  0x000b 002 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
495  0x000c 002 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
496  0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
497  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
498  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
499  0x0010 004 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
500  0x0011 004 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
501  0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
502  0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
503  0x0014 002 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
504  0x0015 002 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
505  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
506  0x0017 003 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
507  0x0018 004 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
508  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
509  0x001a 001 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
510  0x001b 001 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
511  0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
512  0x001d 003 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
513  0x001e 000 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
514  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
515  0x0020 003 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
516  0x0021 004 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
517  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
518  0x0023 004 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
519  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
520  36 valid lids dumped
521  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4,3 guid 0x0000000000200012 (Switch(0 1 0)):
522    Lid  Out   Destination
523         Port    Info
524  0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
525  0x0002 001 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
526  0x0003 001 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
527  0x0004 002 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
528  0x0005 001 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
529  0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
530  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
531  0x0008 001 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
532  0x0009 001 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
533  0x000a 002 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
534  0x000b 002 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
535  0x000c 002 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
536  0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
537  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
538  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
539  0x0010 004 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
540  0x0011 004 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
541  0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
542  0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
543  0x0014 002 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
544  0x0015 002 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
545  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
546  0x0017 003 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
547  0x0018 004 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
548  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
549  0x001a 001 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
550  0x001b 001 : (TBitch portguid 0x0000000000200011: 'Switch(0 0 1)')
551  0x001c 000 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
552  0x001d 003 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
553  0x001e 001 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
554  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
555  0x0020 003 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
556  0x0021 004 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
557  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
558  0x0023 004 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
```

```
0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
36 valid lids dumped
Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,4 guid 0x0000000000200011 (Switch(0 0 1)):
  Lid Out  Destination
      Port   Info
0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 001 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
0x0003 001 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
0x0004 002 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
0x0005 001 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
0x0008 001 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
0x0009 001 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
0x000a 002 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
0x000b 002 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
0x000c 002 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
0x0010 004 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
0x0011 004 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
0x0014 002 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
0x0015 002 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
0x0017 003 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
0x0018 004 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
0x001a 001 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
0x001b 000 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
0x001d 003 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
0x001e 001 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
0x0020 003 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
0x0021 004 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
0x0023 004 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
36 valid lids dumped
Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,3 guid 0x0000000000200010 (Switch(0 0 0)):
  Lid Out  Destination
      Port   Info
0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 001 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
0x0003 001 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
0x0004 002 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
0x0005 001 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 002 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
0x0008 001 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
0x0009 001 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
0x000a 002 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
0x000b 002 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
0x000c 002 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
0x000d 002 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
0x0010 004 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
0x0011 004 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
0x0014 002 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
0x0015 002 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
0x0017 003 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
0x0018 004 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
```

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628  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
629  0x001a 000 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
630  0x001b 001 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
631  0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
632  0x001d 003 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
633  0x001e 001 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
634  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
635  0x0020 003 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
636  0x0021 004 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
637  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
638  0x0023 004 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
639  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
640  36 valid lids dumped
641  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3,2 guid 0x0000000000200001 (Switch(2 0 1)):
642    Lid  Out   Destination
643         Port    Info
644  0x0001 003 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
645  0x0002 003 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
646  0x0003 000 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
647  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
648  0x0005 004 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
649  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
650  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
651  0x0008 001 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
652  0x0009 002 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
653  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
654  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
655  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
656  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
657  0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
658  0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
659  0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
660  0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
661  0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
662  0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
663  0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
664  0x0015 004 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
665  0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
666  0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
667  0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
668  0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
669  0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
670  0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
671  0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
672  0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
673  0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
674  0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
675  0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
676  0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
677  0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
678  0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
679  0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
680  36 valid lids dumped
681  Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,4 guid 0x0000000000200009 (Switch(1 0 1)):
682    Lid  Out   Destination
683         Port    Info
684  0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
685  0x0002 001 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
686  0x0003 002 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
687  0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
688  0x0005 001 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
689  0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
690  0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
691  0x0008 002 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
692  0x0009 002 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
693  0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
694  0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
695  0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
696  0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
```

```
0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
0x0012 001 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
0x0013 000 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
0x0014 001 : (Switch portguid 0x000000000002000a: 'Switch(1 1 0)')
0x0015 003 : (Switch portguid 0x000000000002000b: 'Switch(1 1 1)')
0x0016 001 : (Switch portguid 0x000000000002000c: 'Switch(1 2 0)')
0x0017 003 : (Switch portguid 0x000000000002000d: 'Switch(1 2 1)')
0x0018 001 : (Switch portguid 0x000000000002000e: 'Switch(1 3 0)')
0x0019 003 : (Switch portguid 0x000000000002000f: 'Switch(1 3 1)')
0x001a 001 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
0x001b 001 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
0x001c 003 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
36 valid lids dumped
Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1,3 guid 0x0000000000200008 (Switch(1 0 0)):
  Lid Out  Destination
      Port   Info
0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 001 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
0x0003 002 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
0x0005 001 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
0x0008 002 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
0x0009 002 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
0x0012 000 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
0x0013 001 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
0x0014 003 : (Switch portguid 0x000000000002000a: 'Switch(1 1 0)')
0x0015 001 : (Switch portguid 0x000000000002000b: 'Switch(1 1 1)')
0x0016 003 : (Switch portguid 0x000000000002000c: 'Switch(1 2 0)')
0x0017 001 : (Switch portguid 0x000000000002000d: 'Switch(1 2 1)')
0x0018 003 : (Switch portguid 0x000000000002000e: 'Switch(1 3 0)')
0x0019 001 : (Switch portguid 0x000000000002000f: 'Switch(1 3 1)')
0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
0x001b 004 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
0x001c 001 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
0x001e 001 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
36 valid lids dumped
Unicast lids [0x0-0x24] of switch DR path slid 0; dlid 0; 0,1 guid 0x0000000000200000 (Switch(2 0 0)):
  Lid Out  Destination
      Port   Info
0x0001 001 : (Channel Adapter portguid 0x0000000000100001: 'HCA(000)')
0x0002 000 : (Switch portguid 0x0000000000200000: 'Switch(2 0 0)')
```

```
0x0003 003 : (Switch portguid 0x0000000000200001: 'Switch(2 0 1)')
0x0004 003 : (Switch portguid 0x0000000000200002: 'Switch(2 1 0)')
0x0005 002 : (Channel Adapter portguid 0x0000000000100003: 'HCA(001)')
0x0006 003 : (Switch portguid 0x0000000000200003: 'Switch(2 1 1)')
0x0007 003 : (Switch portguid 0x0000000000200004: 'Switch(2 2 0)')
0x0008 003 : (Channel Adapter portguid 0x0000000000100005: 'HCA(010)')
0x0009 004 : (Channel Adapter portguid 0x0000000000100007: 'HCA(011)')
0x000a 003 : (Channel Adapter portguid 0x0000000000100009: 'HCA(100)')
0x000b 004 : (Channel Adapter portguid 0x000000000010000b: 'HCA(101)')
0x000c 003 : (Channel Adapter portguid 0x000000000010000d: 'HCA(110)')
0x000d 004 : (Channel Adapter portguid 0x000000000010000f: 'HCA(111)')
0x000e 003 : (Channel Adapter portguid 0x0000000000100011: 'HCA(200)')
0x000f 003 : (Switch portguid 0x0000000000200005: 'Switch(2 2 1)')
0x0010 003 : (Switch portguid 0x0000000000200006: 'Switch(2 3 1)')
0x0011 003 : (Switch portguid 0x0000000000200007: 'Switch(2 3 2)')
0x0012 003 : (Switch portguid 0x0000000000200008: 'Switch(1 0 0)')
0x0013 004 : (Switch portguid 0x0000000000200009: 'Switch(1 0 1)')
0x0014 003 : (Switch portguid 0x000000000020000a: 'Switch(1 1 0)')
0x0015 004 : (Switch portguid 0x000000000020000b: 'Switch(1 1 1)')
0x0016 003 : (Switch portguid 0x000000000020000c: 'Switch(1 2 0)')
0x0017 004 : (Switch portguid 0x000000000020000d: 'Switch(1 2 1)')
0x0018 003 : (Switch portguid 0x000000000020000e: 'Switch(1 3 0)')
0x0019 004 : (Switch portguid 0x000000000020000f: 'Switch(1 3 1)')
0x001a 003 : (Switch portguid 0x0000000000200010: 'Switch(0 0 0)')
0x001b 003 : (Switch portguid 0x0000000000200011: 'Switch(0 0 1)')
0x001c 004 : (Switch portguid 0x0000000000200012: 'Switch(0 1 0)')
0x001d 004 : (Channel Adapter portguid 0x0000000000100013: 'HCA(201)')
0x001e 004 : (Switch portguid 0x0000000000200013: 'Switch(0 1 1)')
0x001f 003 : (Channel Adapter portguid 0x0000000000100015: 'HCA(210)')
0x0020 004 : (Channel Adapter portguid 0x0000000000100017: 'HCA(211)')
0x0021 003 : (Channel Adapter portguid 0x0000000000100019: 'HCA(300)')
0x0022 004 : (Channel Adapter portguid 0x000000000010001b: 'HCA(301)')
0x0023 003 : (Channel Adapter portguid 0x000000000010001d: 'HCA(310)')
0x0024 004 : (Channel Adapter portguid 0x000000000010001f: 'HCA(311)')
36 valid lids dumped

*** WARNING ***: this command has been replaced by dump_fts
```