

Advanced LANE Setup – SSRP with Dual Phy

Document ID: 10399

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Introduction

The objective of this document is to describe a redundant ATM LAN emulation (LANE) network using Simple Server Redundancy Protocol (SSRP) modules for the Cisco Catalyst 5000. SSRP is supported in these components:

- Cisco Catalyst LANE Module version 3.1 and later
- Cisco LightStream 1010 version 11.2 and later
- Cisco IOS® Software Release 11.2 and later

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on the Cisco Catalyst 5000.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to Cisco Technical Tips Conventions.

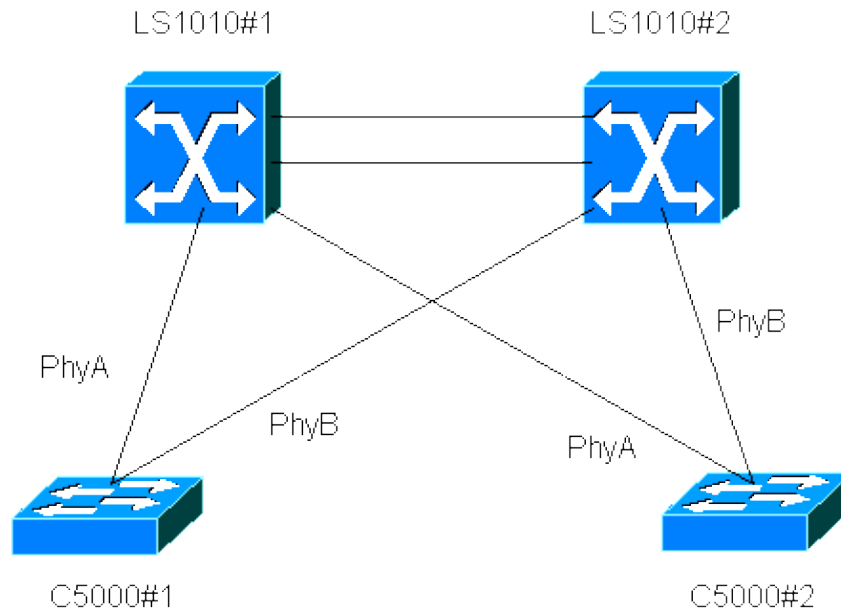
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only) .

Network Diagram

This document uses this network setup:



Note: Because the ATM prefix changes with the switch connected to, the ATM address of a LAN emulation server (LES) changes if moved from PhyA to PhyB. Therefore, you need two LES addresses in the LAN emulation configuration server (LECS) database for each LES residing on a LANE module. Because there are two redundant LESEs (one on each of the LANE modules), four lines are needed in the LECS database for each emulated LAN (ELAN).

This advanced configuration shows an example of a large setup with many ELANs, as it can typically be found in live networks. The LECS configured here will not be listening to the well-known ATM address. (For example, they are not configured with the **lane config fixed-config-atm-address** command.)

Note: The locations of the various services shown in this document might not be optimal. Before implementing such a configuration in a live network, please review the LANE Design Recommendations.

Configurations

This document uses these configurations:

- C5000#1
- C5000#2
- LS1010#1
- LS1010#2

C5000#1
Current configuration: ! service timestamps debug uptime service timestamps log uptime !


```
!  
interface ATM0  
  atm preferred phy A  
  atm pvc 1 0 5 qsaal  
  atm pvc 2 0 16 ilmi  
  lane config auto-config-atm-address  
  lane config database sbs-elanbase  
!  
interface ATM0.1 multipoint  
  lane server-bus ethernet default  
  lane client ethernet 1 default  
!  
interface ATM0.2 multipoint  
  lane server-bus ethernet Elan_13_131  
  lane client ethernet 2 Elan_13_131  
!  
interface ATM0.3 multipoint  
  lane server-bus ethernet Elan_126_23  
  lane client ethernet 3 Elan_126_23  
!  
interface ATM0.4 multipoint  
  lane server-bus ethernet Elan_31  
  lane client ethernet 4 Elan_31  
!  
interface ATM0.5 multipoint  
  lane server-bus ethernet Elan_50  
  lane client ethernet 5 Elan_50  
!  
interface ATM0.6 multipoint  
  lane server-bus ethernet Elan_51  
  lane client ethernet 6 Elan_51  
!  
interface ATM0.7 multipoint  
  lane server-bus ethernet Elan_91  
  lane client ethernet 7 Elan_91  
!  
interface ATM0.8 multipoint  
  lane server-bus ethernet Elan_125  
  lane client ethernet 8 Elan_125  
!  
interface ATM0.9 multipoint  
  lane server-bus ethernet Elan_128_140  
  lane client ethernet 9 Elan_128_140  
!  
interface ATM0.10 multipoint  
  lane server-bus ethernet Elan_130  
  lane client ethernet 10 Elan_130  
!  
interface ATM0.11 multipoint  
  lane server-bus ethernet Elan_132  
  lane client ethernet 11 Elan_132  
!  
interface ATM0.12 multipoint  
  lane server-bus ethernet Elan_133_6  
  lane client ethernet 12 Elan_133_6  
!  
interface ATM0.13 multipoint  
  lane server-bus ethernet Elan_136  
  lane client ethernet 13 Elan_136  
!  
interface ATM0.14 multipoint  
  lane server-bus ethernet Elan_138  
  lane client ethernet 14 Elan_138  
!  
interface ATM0.17 multipoint  
  lane server-bus ethernet Elan_135
```

```

lane client ethernet 17 Elan_135
!
logging trap debugging
!
line con 0
line vty 0 4
  no login
!
end

```

ATM# **show lane**

LE Config Server ATM0 config table: sbs-elanbase

Admin: up State: operational

LECS Mastership State: active master

list of global LECS addresses (33 seconds to update):

47.00918100000000E014CB3701.00605C05BE13.00 <----- me

47.00918100000000E014CB3701.006083DA4013.00

47.00918100000000E014CB4101.00605C05BE13.00

47.00918100000000E014CB4101.006083DA4013.00 connected outgoing call (vcd 3)

ATM Address of this LECS: 47.00918100000000E014CB3701.00605C05BE13.00 (auto)

vcd	rxCnt	txCnt	callingParty
14	9	9	47.00918100000000E014CB3701.00605C05BE11.0A LES Elan_130 0 active
15	11	11	47.00918100000000E014CB3701.00605C05BE11.01 LES default 0 active
16	9	9	47.00918100000000E014CB3701.00605C05BE11.0C LES Elan_133_6 0 active
17	9	9	47.00918100000000E014CB3701.00605C05BE11.0D LES Elan_136 0 active
18	9	9	47.00918100000000E014CB3701.00605C05BE11.0B LES Elan_132 0 active
19	9	9	47.00918100000000E014CB3701.00605C05BE11.09 LES Elan_128_140 0 active
20	9	9	47.00918100000000E014CB3701.00605C05BE11.0E LES Elan_138 0 active
21	9	9	47.00918100000000E014CB3701.00605C05BE11.02 LES Elan_13_131 0 active
22	9	9	47.00918100000000E014CB3701.00605C05BE11.03 LES Elan_126_23 0 active
23	9	9	47.00918100000000E014CB3701.00605C05BE11.07 LES Elan_91 0 active
24	9	9	47.00918100000000E014CB3701.00605C05BE11.04 LES Elan_31 0 active
25	9	9	47.00918100000000E014CB3701.00605C05BE11.06 LES Elan_51 0 active
26	9	9	47.00918100000000E014CB3701.00605C05BE11.11 LES Elan_135 0 active
27	9	9	47.00918100000000E014CB3701.00605C05BE11.05 LES Elan_50 0 active
28	9	9	47.00918100000000E014CB3701.00605C05BE11.08 LES Elan_125 0 active
45	8	8	47.00918100000000E014CB4101.006083DA4011.11 LEC
46	8	8	47.00918100000000E014CB4101.006083DA4011.0B LEC
47	8	8	47.00918100000000E014CB4101.006083DA4011.08 LEC
48	8	8	47.00918100000000E014CB4101.006083DA4011.09 LEC
49	8	8	47.00918100000000E014CB4101.006083DA4011.04 LEC
vcd	rxCnt	txCnt	callingParty
50	8	8	47.00918100000000E014CB4101.006083DA4011.0D LEC
51	8	8	47.00918100000000E014CB4101.006083DA4011.03 LEC
52	8	8	47.00918100000000E014CB4101.006083DA4011.07 LEC
53	8	8	47.00918100000000E014CB4101.006083DA4011.0A LEC
54	8	8	47.00918100000000E014CB4101.006083DA4011.02 LEC
55	10	10	47.00918100000000E014CB4101.006083DA4011.01 LEC
56	8	8	47.00918100000000E014CB4101.006083DA4011.0C LEC
57	8	8	47.00918100000000E014CB4101.006083DA4011.0E LEC
58	8	8	47.00918100000000E014CB4101.006083DA4011.06 LEC
457	8	8	47.00918100000000E014CB4101.006083DA4011.05 LEC

cumulative total number of unrecognized packets received so far: 0

cumulative total number of config requests received so far: 414

cumulative total number of config failures so far: 4

cause of last failure: no configuration

culprit for the last failure: 47.00918100000000E014CB3701.00605C05BE10.04

LE Server ATM0.1 ELAN name: default Admin: up State: operational

type: ethernet Max Frame Size: 1516

ATM address: 47.00918100000000E014CB3701.00605C05BE11.01

LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 31

control distribute: vcd 392, 11 members, 614 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid ST vcd pkts Hardware Addr ATM Address

1 0 259 33 00e0.14cb.3702 47.00918100000000E014CB3701.000000000000.00

```

2P O 278      31 0060.5c32.8610 47.00918100000000E014CB4101.00605C328610.01
3P O 291      32 0060.83d5.7410 47.00918100000000E014CB4101.006083D57410.00
4P O 292      33 0060.83be.8c10
47.00918100000000E014CB4101.006083BE8C10.00
5P O 296      33 0060.8361.c710 47.00918100000000E014CB4101.00608361C710.00
6 O 312      33 00e0.14cb.4102 47.00918100000000E014CB4101.000000000000.00
7 O 314      311 0060.2f84.ca20 47.00918100000000E014CB4101.00602F84CA20.01
8P O 317      32 0060.83bf.0810 47.00918100000000E014CB4101.006083BF0810.00
9P O 320      32 0060.09b6.d710 47.00918100000000E014CB4101.006009B6D710.00
10P O 352     32 0060.83da.4010 47.00918100000000E014CB4101.006083DA4010.01
11P O 431     31 0060.5c05.be10 47.00918100000000E014CB3701.00605C05BE10.01

```

```

LE BUS ATM0.1 ELAN name: default Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.01
data forward: vcd 456, 11 members, 1570 packets, 0 unicasts

```

lecid	vcd	pkts	ATM Address
1	432	66	47.00918100000000E014CB3701.000000000000.00
2	437	64	47.00918100000000E014CB4101.00605C328610.01
3	521	67	47.00918100000000E014CB4101.006083D57410.00
4	520	65	47.00918100000000E014CB4101.006083BE8C10.00
5	522	68	47.00918100000000E014CB4101.00608361C710.00
6	516	66	47.00918100000000E014CB4101.000000000000.00
7	519	917	47.00918100000000E014CB4101.00602F84CA20.01
8	518	59	47.00918100000000E014CB4101.006083BF0810.00
9	523	66	47.00918100000000E014CB4101.006009B6D710.00
10	535	67	47.00918100000000E014CB4101.006083DA4010.01
11	572	65	47.00918100000000E014CB3701.00605C05BE10.01

```

LE Client ATM0.1 ELAN name: default Admin: up State: operational
Client ID: 11 LEC up for 1 hour 3 minutes 35 seconds
Join Attempt: 8
HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 1
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.01

```

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
452	1	31	direct	47.00918100000000E014CB3701.00605C05BE11.01
551	597	0	distribute	47.00918100000000E014CB3701.00605C05BE11.01
578	0	65	send	47.00918100000000E014CB3701.00605C05BE12.01
584	1496	0	forward	47.00918100000000E014CB3701.00605C05BE12.01
603	409	378	data	47.00918100000000E014CB4101.00602F84CA20.01

```

LE Server ATM0.2 ELAN name: Elan_13_131 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.02
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 37
control distribute: vcd 283, 9 members, 1972 packets

```

```

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd      pkts Hardware Addr  ATM Address
1P O 129      2 0060.5c05.be10 47.00918100000000E014CB3701.00605C05BE10.02
2P O 268      699 0060.09b6.d710 47.00918100000000E014CB4101.006009B6D710.02
3P O 271      4 0060.83be.8c10 47.00918100000000E014CB4101.006083BE8C10.02
4P O 273      4 0060.83d5.7410 47.00918100000000E014CB4101.006083D57410.02
5P O 275      4 0060.5c32.8610 47.00918100000000E014CB4101.00605C328610.02
6P O 289      3 0060.8361.c710 47.00918100000000E014CB4101.00608361C710.02
7P O 299      549 0060.83da.4010 47.00918100000000E014CB4101.006083DA4010.02
proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd      pkts Hardware Addr  ATM Address
8 O 357      720 0060.2f84.ca20 47.00918100000000E014CB4101.00602F84CA20.02
9P O 361      3 0060.83bf.0810 47.00918100000000E014CB4101.006083BF0810.02

```

LE BUS ATM0.2 ELAN name: Elan_13_131 Admin: up State: operational
 type: ethernet Max Frame Size:
 1516
 ATM
 address: 47.00918100000000E014CB3701.00605C05BE12.02
 data forward: vcd 331, 9 members, 31955 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	309	63	47.00918100000000E014CB3701.00605C05BE10.02
2	480	19096	47.00918100000000E014CB4101.006009B6D710.02
3	477	62	47.00918100000000E014CB4101.006083BE8C10.02
4	476	62	47.00918100000000E014CB4101.006083D57410.02
5	472	62	47.00918100000000E014CB4101.00605C328610.02
6	479	62	47.00918100000000E014CB4101.00608361C710.02
7	475	3103	47.00918100000000E014CB4101.006083DA4010.02
8	504	9388	47.00918100000000E014CB4101.00602F84CA20.02
9	517	57	47.00918100000000E014CB4101.006083BF0810.02

LE Client ATM0.2 ELAN name: Elan_13_131 Admin: up State: operational
 Client ID: 1 LEC up for 1 hour 4 minutes 8 seconds
 Join Attempt: 7
 HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 2
 ATM Address: 47.00918100000000E014CB3701.00605C05BE10.02

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
185	1	2	direct	47.00918100000000E014CB3701.00605C05BE11.02
256	1980	0	distribute	47.00918100000000E014CB3701.00605C05BE11.02
311	0	63	send	47.00918100000000E014CB3701.00605C05BE12.02
329	31932	0	forward	47.00918100000000E014CB3701.00605C05BE12.02

LE Server ATM0.3 ELAN name: Elan_126_23 Admin: up State: operational
 type: ethernet Max Frame Size: 1516
 ATM address: 47.00918100000000E014CB3701.00605C05BE11.03
 LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 38
 control distribute: vcd 347, 9 members, 462 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1	O	180	191	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.03
2P	O	223	177	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.03
3P	O	235	2	0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.03
4P	O	236	2	0060.8361.c710	47.00918100000000E014CB4101.00608361C710.03
5P	O	238	2	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.03

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
6P	O	241	2	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.03
7P	O	242	2	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.03
8P	O	288	4	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.03
9P	O	442	91	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.03

LE BUS ATM0.3 ELAN name: Elan_126_23 Admin: up State: operational
 type: ethernet Max Frame Size: 1516
 ATM address: 47.00918100000000E014CB3701.00605C05BE12.03
 data forward: vcd 360, 9 members, 10998 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	349	1658	47.00918100000000E014CB4101.00602F84CA20.03
2	383	4820	47.00918100000000E014CB4101.006083BE8C10.03
3	384	57	47.00918100000000E014CB4101.006083BF0810.03
4	379	62	47.00918100000000E014CB4101.00608361C710.03
5	388	61	47.00918100000000E014CB4101.00605C328610.03
6	389	63	47.00918100000000E014CB4101.006009B6D710.03
7	401	63	47.00918100000000E014CB4101.006083D57410.03
8	509	62	47.00918100000000E014CB4101.006083DA4010.03

9 573 4152 47.00918100000000E014CB3701.00605C05BE10.03

LE Client ATM0.3 ELAN name: Elan_126_23 Admin: up State: operational
Client ID: 9 LEC up for 1 hour 3 minutes 58 seconds
Join Attempt: 8
HW Address: 0060.5c05.be10 Type: ethernet s
Max Frame Size:
1516
VLANID: 3
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.03

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
453	1	91	direct	47.00918100000000E014CB3701.00605C05BE11.03
552	447	0	distribute	47.00918100000000E014CB3701.00605C05BE11.03
579	0	4159	send	47.00918100000000E014CB3701.00605C05BE12.03
585	6852	0	forward	47.00918100000000E014CB3701.00605C05BE12.03
611	3891	4036	data	47.00918100000000E014CB4101.00602F84CA20.03
604	11817	11959	data	47.00918100000000E014CB4101.006083BE8C10.03

LE Server ATM0.4 ELAN name: Elan_31 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.04
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 40
control distribute: vcd 282, 9 members, 352 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd pkts Hardware Addr ATM Address
1P O 128 2 0060.5c05.be10 47.00918100000000E014CB3701.00605C05BE10.04
proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd pkts Hardware Addr ATM Address
2 O 231 66 0060.2f84.ca20 47.00918100000000E014CB4101.00602F84CA20.04
3P O 240 2 0060.5c32.8610 47.00918100000000E014CB4101.00605C328610.04
4P O 244 115 0060.83bf.0810 47.00918100000000E014CB4101.006083BF0810.04
5P O 248 2 0060.83be.8c10 47.00918100000000E014CB4101.006083BE8C10.04
6P O 265 2 0060.09b6.d710 47.00918100000000E014CB4101.006009B6D710.04
7P O 269 3 0060.83d5.7410 47.00918100000000E014CB4101.006083D57410.04
8P O 284 169 0060.8361.c710 47.00918100000000E014CB4101.00608361C710.04
9P O 298 3 0060.83da.4010 47.00918100000000E014CB4101.006083DA4010.04

LE BUS ATM0.4 ELAN name: Elan_31 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.04
data forward: vcd 310, 9 members, 13546 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	304	63	47.00918100000000E014CB3701.00605C05BE10.04
2	371	3172	47.00918100000000E014CB4101.00602F84CA20.04
3	404	63	47.00918100000000E014CB4101.00605C328610.04
4	374	2296	47.00918100000000E014CB4101.006083BF0810.04
5	405	63	47.00918100000000E014CB4101.006083BE8C10.04
6	417	63	47.00918100000000E014CB4101.006009B6D710.04
7	419	63	47.00918100000000E014CB4101.006083D57410.04
lecid	vcd	pkts	ATM Address
8	434	7702	47.00918100000000E014CB4101.00608361C710.04
9	471	62	47.00918100000000E014CB4101.006083DA4010.04

LE Client ATM0.4 ELAN name: Elan_31 Admin: up State: operational
Client ID: 1 LEC up for 1 hour 4 minutes 41 seconds
Join Attempt: 7
HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 4
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.04

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00

184	1	2	direct	47.00918100000000E014CB3701.00605C05BE11.04
255	352	0	distribute	47.00918100000000E014CB3701.00605C05BE11.04
305	0	63	send	47.00918100000000E014CB3701.00605C05BE12.04
308	13487	0	forward	47.00918100000000E014CB3701.00605C05BE12.04

LE Server ATM0.5 ELAN name: Elan_50 Admin: up State: operational
type: ethernet Max Frame Size: 1516

ATM address: 47.00918100000000E014CB3701.00605C05BE11.05

LECS used:

47.00918100000000E014CB3701.00605C05BE13.00 Øùs

connected, vcd

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control distribute: vcd 348, 9 members, 892 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1P	O	195	3	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.05
2P	O	503	2	0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.05
3P	O	506	332	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.05
4P	O	507	257	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.05
5	O	510	300	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.05
6P	O	512	2	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.05
7P	O	513	2	0060.8361.c710	47.00918100000000E014CB4101.00608361C710.05
8P	O	514	2	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.05
9P	O	515	2	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.05

LE BUS ATM0.5 ELAN name: Elan_50 Admin: up State: operational
type: ethernet Max Frame Size: 1516

ATM address: 47.00918100000000E014CB3701.00605C05BE12.05

data forward: vcd 400, 9 members, 18869 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	362	63	47.00918100000000E014CB3701.00605C05BE10.05
2	568	58	47.00918100000000E014CB4101.006083BF0810.05
3	567	9548	47.00918100000000E014CB4101.00605C328610.05
4	566	968	47.00918100000000E014CB4101.006083DA4010.05
5	564	7981	47.00918100000000E014CB4101.00602F84CA20.05
lecid	vcd	pkts	ATM Address
6	571	63	47.00918100000000E014CB4101.006083BE8C10.05
7	570	63	47.00918100000000E014CB4101.00608361C710.05
8	565	63	47.00918100000000E014CB4101.006009B6D710.05
9	569	63	47.00918100000000E014CB4101.006083D57410.05

LE Client ATM0.5 ELAN name: Elan_50 Admin: up State: operational

Client ID: 1 LEC up for 1 hour 4 minutes 46 seconds

Join Attempt: 6

HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 5

ATM Address: 47.00918100000000E014CB3701.00605C05BE10.05

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
208	1	3	direct	47.00918100000000E014CB3701.00605C05BE11.05
345	896	0	distribute	47.00918100000000E014CB3701.00605C05BE11.05
393	0	63	send	47.00918100000000E014CB3701.00605C05BE12.05
396	18859	0	forward	47.00918100000000E014CB3701.00605C05BE12.05

LE Server ATM0.6 ELAN name: Elan_51 Admin: up State: operational

type: ethernet Max Frame Size: 1516

ATM address: 47.00918100000000E014CB3701.00605C05BE11.06

LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 41

VCD	rxFrames	txFrames	Type	ATM Address
-----	----------	----------	------	-------------

control distribute: vcd 395, 9 members, 437 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1P	O	253	118	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.06

```

2P O 293      3 0060.83d5.7410 47.00918100000000E014CB4101.006083D57410.06
3P O 294      3 0060.83be.8c10 47.00918100000000E014CB4101.006083BE8C10.06
4 O 313      228 0060.2f84.ca20 47.00918100000000E014CB4101.00602F84CA20.06
5P O 327      91 0060.83bf.0810 47.00918100000000E014CB4101.006083BF0810.06
6P O 336      3 0060.8361.c710 47.00918100000000E014CB4101.00608361C710.06
7P O 342      3 0060.09b6.d710 47.00918100000000E014CB4101.006009B6D710.06
8P O 344      3 0060.5c32.8610 47.00918100000000E014CB4101.00605C328610.06
9P O 358      3 0060.83da.4010 47.00918100000000E014CB4101.006083DA4010.06

```

LE BUS ATM0.6 ELAN name: Elan_51 Admin:

up

State: operational

type: ethernet Max Frame Size:

1516

ATM address:

47.00918100000000E014CB3701.00605C05BE12.06

data forward: vcd 468, 9 members, 13506 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	464	5695	47.00918100000000E014CB3701.00605C05BE10.06
2	461	63	47.00918100000000E014CB4101.006083D57410.06
lecid	vcd	pkts	ATM Address
3	459	63	47.00918100000000E014CB4101.006083BE8C10.06
4	458	3511	47.00918100000000E014CB4101.00602F84CA20.06
5	532	3940	47.00918100000000E014CB4101.006083BF0810.06
6	527	63	47.00918100000000E014CB4101.00608361C710.06
7	534	63	47.00918100000000E014CB4101.006009B6D710.06
8	530	63	47.00918100000000E014CB4101.00605C328610.06
9	537	63	47.00918100000000E014CB4101.006083DA4010.06

LE Client ATM0.6 ELAN name: Elan_51 Admin: up State: operational

Client ID: 1 LEC up for 1 hour 4 minutes 50 seconds

Join Attempt: 6

HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 6

ATM Address: 47.00918100000000E014CB3701.00605C05BE10.06

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
258	2	118	direct	47.00918100000000E014CB3701.00605C05BE11.06
390	437	0	distribute	47.00918100000000E014CB3701.00605C05BE11.06
466	0	5696	send	47.00918100000000E014CB3701.00605C05BE12.06
470	7832	0	forward	47.00918100000000E014CB3701.00605C05BE12.06
563	1045489	1044602	data	47.00918100000000E014CB4101.00602F84CA20.06
555	41925	41525	data	47.00918100000000E014CB4101.006083BF0810.06
VCD	rxFrames	txFrames	Type	ATM Address

LE Server ATM0.7 ELAN name: Elan_91 Admin: up State: operational

type: ethernet Max Frame Size: 1516

ATM address: 47.00918100000000E014CB3701.00605C05BE11.07

LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 39

control distribute: vcd 354, 9 members, 128 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1	O	220	62	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.07
2P	O	237	2	0060.8361.c710	47.00918100000000E014CB4101.00608361C710.07
3P	O	239	61	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.07
4P	O	245	3	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.07
5P	O	246	2	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.07
6P	O	249	2	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.07
7P	O	261	3	0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.07
8P	O	297	3	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.07
9P	O	483	2	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.07

LE BUS ATM0.7 ELAN name: Elan_91 Admin: up State: operational

type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.07
data forward: vcd 399, 9 members, 25789 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	365	1373	47.00918100000000E014CB4101.00602F84CA20.07
2	369	63	47.00918100000000E014CB4101.00608361C710.07
3	377	23980	47.00918100000000E014CB4101.006083D57410.07
4	409	62	47.00918100000000E014CB4101.00605C328610.07
5	410	64	47.00918100000000E014CB4101.006009B6D710.07
6	413	63	47.00918100000000E014CB4101.006083BE8C10.07
7	411	58	47.00918100000000E014CB4101.006083BF0810.07
8	462	63	47.00918100000000E014CB4101.006083DA4010.07
9	577	63	47.00918100000000E014CB3701.00605C05BE10.07

LE Client ATM0.7 ELAN name: Elan_91 Admin: up
State:

operational

Client ID: 9 LEC up for 1 hour 4
minutes 51 seconds

Join

Attempt: 7

HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 7
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.07

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
491	1	2	direct	47.00918100000000E014CB3701.00605C05BE11.07
558	115	0	distribute	47.00918100000000E014CB3701.00605C05BE11.07
VCD	rxFrames	txFrames	Type	ATM Address
583	0	63	send	47.00918100000000E014CB3701.00605C05BE12.07
593	25689	0	forward	47.00918100000000E014CB3701.00605C05BE12.07

LE Server ATM0.8 ELAN name: Elan_125 Admin: up State: operational
type: ethernet Max Frame Size: 1516

ATM address: 47.00918100000000E014CB3701.00605C05BE11.08

LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 44
control distribute: vcd 330, 9 members, 182 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1	O	178	90	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.08
2P	O	179	3	0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.08
3P	O	217	2	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.08
4P	O	226	2	0060.8361.c710	47.00918100000000E014CB4101.00608361C710.08
5P	O	228	2	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.08
6P	O	232	2	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.08
7P	O	276	4	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.08
8P	O	467	2	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.08
9P	O	598	87	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.08

LE BUS ATM0.8 ELAN name: Elan_125 Admin: up State: operational
type: ethernet Max Frame Size: 1516

ATM address: 47.00918100000000E014CB3701.00605C05BE12.08

data forward: vcd 355, 9 members, 3248 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	341	1823	47.00918100000000E014CB4101.00602F84CA20.08
2	351	58	47.00918100000000E014CB4101.006083BF0810.08
3	382	64	47.00918100000000E014CB4101.006083BE8C10.08
4	372	63	47.00918100000000E014CB4101.00608361C710.08
5	387	62	47.00918100000000E014CB4101.00605C328610.08
6	375	64	47.00918100000000E014CB4101.006009B6D710.08
7	474	63	47.00918100000000E014CB4101.006083DA4010.08
8	574	63	47.00918100000000E014CB3701.00605C05BE10.08
9	605	988	47.00918100000000E014CB4101.006083D57410.08

LE Client ATM0.8 ELAN name: Elan_125 Admin: up State: operational
 Client ID: 8 LEC up for 1 hour 5 minutes 2 seconds
 Join Attempt: 7
 HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 8
 ATM Address: 47.00918100000000E014CB3701.00605C05BE10.08

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
VCD	rxFrames	txFrames	Type	ATM Address
469	1	2	direct	47.00918100000000E014CB3701.00605C05BE11.08
553	174	0	distribute	47.00918100000000E014CB3701.00605C05BE11.08
580	0	63	send	47.00918100000000E014CB3701.00605C05BE12.08
590	3176	0	forward	47.00918100000000E014CB3701.00605C05BE12.08

LE Server ATM0.9 ELAN name: Elan_128_140 Admin: up State: operational
 type: ethernet Max Frame Size: 1516
 ATM address: 47.00918100000000E014CB3701.00605C05BE11.09
 LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd
 35
 control
 distribute: vcd 353, 9 members, 400 packets

proxy/ (ST: Init, Conn,
 Waiting, Adding, Joined,
 Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1	O	215	202	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.09
2P	O	222	2	0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.09
3P	O	225	190	0060.8361.c710	47.00918100000000E014CB4101.00608361C710.09
4P	O	229	2	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.09
5P	O	230	2	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.09
6P	O	233	2	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.09
7P	O	247	2	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.09
8P	O	286	3	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.09
9P	O	481	7	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.09

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
 lecid ST vcd pkts Hardware Addr ATM Address

LE BUS ATM0.9 ELAN name: Elan_128_140 Admin: up State: operational
 type: ethernet Max Frame Size: 1516
 ATM address: 47.00918100000000E014CB3701.00605C05BE12.09
 data forward: vcd 397, 9 members, 7168 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	363	1742	47.00918100000000E014CB4101.00602F84CA20.09
2	368	58	47.00918100000000E014CB4101.006083BF0810.09
3	367	4984	47.00918100000000E014CB4101.00608361C710.09
4	385	63	47.00918100000000E014CB4101.00605C328610.09
5	364	64	47.00918100000000E014CB4101.006009B6D710.09
6	376	64	47.00918100000000E014CB4101.006083D57410.09
7	412	64	47.00918100000000E014CB4101.006083BE8C10.09
8	433	63	47.00918100000000E014CB4101.006083DA4010.09
9	575	66	47.00918100000000E014CB3701.00605C05BE10.09

LE Client ATM0.9 ELAN name: Elan_128_140 Admin: up State: operational
 Client ID: 9 LEC up for 1 hour 5 minutes 13 seconds
 Join Attempt: 7
 HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 9
 ATM Address: 47.00918100000000E014CB3701.00605C05BE10.09

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
489	1	7	direct	47.00918100000000E014CB3701.00605C05BE11.09
556	383	0	distribute	47.00918100000000E014CB3701.00605C05BE11.09

581 0 66 send 47.00918100000000E014CB3701.00605C05BE12.09
591 7074 0 forward 47.00918100000000E014CB3701.00605C05BE12.09

LE Server ATM0.10 ELAN name: Elan_130 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.0A
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 30
control distribute: vcd 394, 9 members, 117 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd pkts Hardware Addr ATM Address
1P O 264 3 0060.8361.c710 47.00918100000000E014CB4101.00608361C710.0A
2P O 272 3 0060.83be.8c10 47.00918100000000E014CB4101.006083BE8C10.0A
3P O 274 3 0060.83d5.7410 47.00918100000000E014CB4101.006083D57410.0A
4P O 277 49 0060.5c32.8610 47.00918100000000E014CB4101.00605C328610.0A
5P O 285 3 0060.83bf.0810 47.00918100000000E014CB4101.006083BF0810.0A
6P O 290 4 0060.09b6.d710 47.00918100000000E014CB4101.006009B6D710.0A
7P O 303 4 0060.83da.4010 47.00918100000000E014CB4101.006083DA4010.0A

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd pkts Hardware Addr ATM Address
8 O 356 63 0060.2f84.ca20 47.00918100000000E014CB4101.00602F84CA20.0A
9P O
482 2
0060.5c05.be10 47.00918100000000E014CB3701.00605C05BE10.0A

LE BUS ATM0.10 ELAN Øùs
name: Elan_130 Admin: up
State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.0A
data forward: vcd 460, 9 members, 6649 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	436	64	47.00918100000000E014CB4101.00608361C710.0A
2	441	64	47.00918100000000E014CB4101.006083BE8C10.0A
3	435	64	47.00918100000000E014CB4101.006083D57410.0A
4	438	2425	47.00918100000000E014CB4101.00605C328610.0A
5	439	59	47.00918100000000E014CB4101.006083BF0810.0A
6	511	64	47.00918100000000E014CB4101.006009B6D710.0A
7	508	64	47.00918100000000E014CB4101.006083DA4010.0A
8	505	3782	47.00918100000000E014CB4101.00602F84CA20.0A
9	576	63	47.00918100000000E014CB3701.00605C05BE10.0A

LE Client ATM0.10 ELAN name: Elan_130 Admin: up State: operational
Client ID: 9 LEC up for 1 hour 5 minutes 23 seconds
Join Attempt: 7
HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 10
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.0A

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
490	1	2	direct	47.00918100000000E014CB3701.00605C05BE11.0A
557	107	0	distribute	47.00918100000000E014CB3701.00605C05BE11.0A
582	0	63	send	47.00918100000000E014CB3701.00605C05BE12.0A
592	6536	0	forward	47.00918100000000E014CB3701.00605C05BE12.0A

LE Server ATM0.11 ELAN name: Elan_132 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.0B
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 34
control distribute: vcd 307, 9 members, 1661 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd pkts Hardware Addr ATM Address
1 O 177 835 0060.2f84.ca20 47.00918100000000E014CB4101.00602F84CA20.0B

```

2P O 216      349 0060.5c32.8610 47.00918100000000E014CB4101.00605C328610.0B
3P O 218      2 0060.83d5.7410 47.00918100000000E014CB4101.006083D57410.0B
4P O 219      2 0060.83bf.0810 47.00918100000000E014CB4101.006083BF0810.0B
5P O 224      2 0060.83be.8c10 47.00918100000000E014CB4101.006083BE8C10.0B
proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd      pkts Hardware Addr  ATM Address

6P O 254      212 0060.5c05.be10 47.00918100000000E014CB3701.00605C05BE10.0B
7P O 266      4 0060.83da.4010 47.00918100000000E014CB4101.006083DA4010.0B
8P O 322      268 0060.8361.c710 47.00918100000000E014CB4101.00608361C710.0B
9P O 335      4 0060.09b6.d710 47.00918100000000E014CB4101.006009B6D710.0B

```

```

LE BUS ATM0.11 ELAN name: Elan_132 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.0B
data forward: vcd 346, 9 members, 24322 packets, 0 unicasts

```

```

lecid vcd      pkts ATM Address
1 318      6650 47.00918100000000E014CB4101.00602F84CA20.0B
2 386      2925 47.00918100000000E014CB4101.00605C328610.0B
3 373      64 47.00918100000000E014CB4101.006083D57410.0B
4 370      58 47.00918100000000E014CB4101.006083BF0810.0B
5 380      64 47.00918100000000E014CB4101.006083BE8C10.0B
6 406      2709 47.00918100000000E014CB3701.00605C05BE10.0B
7 463      64 47.00918100000000E014CB4101.006083DA4010.0B
8 478      11724 47.00918100000000E014CB4101.00608361C710.0B
9 540      64 47.00918100000000E014CB4101.006009B6D710.0B

```

```

LE Client ATM0.11 ELAN name:
Elan_132 Admin: up òs
State: operational
Client ID: 6 LEC up for 1 hour 5 minutes 46 seconds
Join Attempt: Øùs
6
HW Address:
0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 11
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.0B

```

```

VCD rxFrames txFrames Type ATM Address
0 0 0 configure 47.00918100000000E014CB3701.00605C05BE13.00
279 1 212 direct 47.00918100000000E014CB3701.00605C05BE11.0B
391 1656 0 distribute 47.00918100000000E014CB3701.00605C05BE11.0B
414 0 2710 send 47.00918100000000E014CB3701.00605C05BE12.0B
429 21619 0 forward 47.00918100000000E014CB3701.00605C05BE12.0B
554 4905 4791 data 47.00918100000000E014CB4101.00602F84CA20.0B
614 4095 4683 data 47.00918100000000E014CB4101.00608361C710.0B

```

```

LE Server ATM0.12 ELAN name: Elan_133_6 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.0C
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 32
control distribute: vcd 430, 9 members, 2587 packets

```

```

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd      pkts Hardware Addr  ATM Address
1P O 295      4 0060.5c32.8610 47.00918100000000E014CB4101.00605C328610.0C
proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd      pkts Hardware Addr  ATM Address

2P O 301      4 0060.8361.c710 47.00918100000000E014CB4101.00608361C710.0C
3P O 316      2285 0060.2f84.ca20 47.00918100000000E014CB4101.00602F84CA20.0C
4P O 326      3 0060.83bf.0810 47.00918100000000E014CB4101.006083BF0810.0C
5P O 334      3 0060.83d5.7410 47.00918100000000E014CB4101.006083D57410.0C
6P O 339      3 0060.83be.8c10 47.00918100000000E014CB4101.006083BE8C10.0C
7P O 340      159 0060.09b6.d710 47.00918100000000E014CB4101.006009B6D710.0C
8P O 343      3 0060.83da.4010 47.00918100000000E014CB4101.006083DA4010.0C

```

9P O 486 144 0060.5c05.be10 47.00918100000000E014CB3701.00605C05BE10.0C

LE BUS ATM0.12 ELAN name: Elan_133_6 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.0C
data forward: vcd 538, 9 members, 37804 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	529	64	47.00918100000000E014CB4101.00605C328610.0C
2	528	64	47.00918100000000E014CB4101.00608361C710.0C
3	524	26842	47.00918100000000E014CB4101.00602F84CA20.0C
4	531	59	47.00918100000000E014CB4101.006083BF0810.0C
5	525	64	47.00918100000000E014CB4101.006083D57410.0C
6	526	64	47.00918100000000E014CB4101.006083BE8C10.0C
7	533	1714	47.00918100000000E014CB4101.006009B6D710.0C
lecid	vcd	pkts	ATM Address
8	536	64	47.00918100000000E014CB4101.006083DA4010.0C
9	588	8874	47.00918100000000E014CB3701.00605C05BE10.0C

LE Client ATM0.12 ELAN name: Elan_133_6 Admin: up State: operational
Client ID: 9 LEC up for 1 hour 5 minutes 44 seconds
Join Attempt: 7
HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 12
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.0C

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
501	1	144	direct	47.00918100000000E014CB3701.00605C05BE11.0C
561	2578	0	distribute	47.00918100000000E014CB3701.00605C05BE11.0C
596	0	8874	send	47.00918100000000E014CB3701.00605C05BE12.0C
601	28949	0	forward	47.00918100000000E014CB3701.00605C05BE12.0C
608	124569	117958	data	47.00918100000000E014CB4101.00602F84CA20.0C

LE Server ATM0.13 ELAN name:
Elan_136 Admin: up State: operational
type:
ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.0D
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 33
control distribute: vcd 359, 9 members, 490 packets
VCD rxFrames txFrames Type ATM Address

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1	O	234	148	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.0D
2P	O	243	3	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.0D
3P	O	251	3	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.0D
4P	O	262	2	0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.0D
5P	O	263	3	0060.8361.c710	47.00918100000000E014CB4101.00608361C710.0D
6P	O	267	3	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.0D
7P	O	270	214	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.0D
8P	O	300	3	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.0D
9P	O	484	123	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.0D

LE BUS ATM0.13 ELAN name:
Elan_136 Admin: up State: operational
type:
ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.0D
data forward: vcd 398, 9 members, 11401 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	366	1852	47.00918100000000E014CB4101.00602F84CA20.0D
2	420	64	47.00918100000000E014CB4101.006083D57410.0D

lecid	vcd	pkts	ATM Address
3	421	64	47.00918100000000E014CB4101.00605C328610.0D
4	416	59	47.00918100000000E014CB4101.006083BF0810.0D
5	415	64	47.00918100000000E014CB4101.00608361C710.0D
6	418	65	47.00918100000000E014CB4101.006009B6D710.0D
7	422	3891	47.00918100000000E014CB4101.006083BE8C10.0D
8	473	64	47.00918100000000E014CB4101.006083DA4010.0D
9	586	5278	47.00918100000000E014CB3701.00605C05BE10.0D

LE Client ATM0.13 ELAN name: Elan_136 Admin: up State: operational
Client ID: 9 LEC up for 1 hour 5 minutes 55 seconds
Join Attempt: 7
HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 13
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.0D

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
492	1	123	direct	47.00918100000000E014CB3701.00605C05BE11.0D
559	475	0	distribute	47.00918100000000E014CB3701.00605C05BE11.0D
594	0	5278	send	47.00918100000000E014CB3701.00605C05BE12.0D
599	6100	0	forward	47.00918100000000E014CB3701.00605C05BE12.0D
613	34079	33299	data	47.00918100000000E014CB4101.00602F84CA20.0D
606	21094	21353	data	47.00918100000000E014CB4101.006083BE8C10.0D

VCD rxFrames txFrames Type ATM Address
LE Server ATM0.14 ELAN name: Elan_138 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.0E
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 36
control distribute: vcd 465, 9 members, 2808 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)
lecid ST vcd pkts Hardware Addr ATM Address

1	O	315	1747	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.0E
2P	O	319	4	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.0E
3P	O	321	7	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.0E
4P	O	s			
325		e%			
4		0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.0E		
5P	O	332	4	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.0E
6P	O	333	s		
4		0060.8361.c710	47.00918100000000E014CB4101.00608361C710.0E		
7P	O	337	763	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.0E
8P	O	338	260	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.0E
9P	O	487	32	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.0E

LE BUS ATM0.14 ELAN name: Elan_138 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.0E
data forward: vcd 548, 9 members, 48900 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	539	37218	47.00918100000000E014CB4101.00602F84CA20.0E
2	542	65	47.00918100000000E014CB4101.006083D57410.0E
3	544	233	47.00918100000000E014CB4101.006083DA4010.0E
4	546	60	47.00918100000000E014CB4101.006083BF0810.0E
5	543	64	47.00918100000000E014CB4101.00605C328610.0E
6	545	64	47.00918100000000E014CB4101.00608361C710.0E
7	547	7981	47.00918100000000E014CB4101.006009B6D710.0E
8	541	3119	47.00918100000000E014CB4101.006083BE8C10.0E
9	589	104	47.00918100000000E014CB3701.00605C05BE10.0E

LE Client ATM0.14 ELAN name: Elan_138 Admin: up State: operational
Client ID: 9 LEC up for 1 hour 6 minutes 5 seconds

Join Attempt: 7

HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 14
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.0E

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
502	1	32	direct	47.00918100000000E014CB3701.00605C05BE11.0E
562	2792	0	distribute	47.00918100000000E014CB3701.00605C05BE11.0E
597	0	104	send	47.00918100000000E014CB3701.00605C05BE12.0E
VCD	rxFrames	txFrames	Type	ATM Address
602	48789	0	forward	47.00918100000000E014CB3701.00605C05BE12.0E
609	107	108	data	47.00918100000000E014CB4101.00602F84CA20.0E

LE Server ATM0.17 ELAN name: Elan_135 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE11.11
LECS used: 47.00918100000000E014CB3701.00605C05BE13.00 connected, vcd 42
control distribute: vcd 257, 9 members, 552 packets

proxy/ (ST: Init, Conn, Waiting, Adding, Joined, Operational, Reject, Term)

lecid	ST	vcd	pkts	Hardware Addr	ATM Address
1	O	132	175	0060.2f84.ca20	47.00918100000000E014CB4101.00602F84CA20.11
2P	O	136	3	0060.83bf.0810	47.00918100000000E014CB4101.006083BF0810.11
3P	O	181	222	0060.5c32.8610	47.00918100000000E014CB4101.00605C328610.11
4P	O	214	3	0060.83d5.7410	47.00918100000000E014CB4101.006083D57410.11
5P	O	221	2	0060.83be.8c10	47.00918100000000E014CB4101.006083BE8C10.11
6P	O	260	3	0060.83da.4010	47.00918100000000E014CB4101.006083DA4010.11
7P	O	323	4	0060.8361.c710	47.00918100000000E014CB4101.00608361C710.11
8P	O	324	4	0060.09b6.d710	47.00918100000000E014CB4101.006009B6D710.11
9P	O	485	151	0060.5c05.be10	47.00918100000000E014CB3701.00605C05BE10.11

LE BUS ATM0.17 ELAN name: Elan_135 Admin: up State: operational
type: ethernet Max Frame Size: 1516
ATM address: 47.00918100000000E014CB3701.00605C05BE12.11
data forward: vcd 306, 9 members, 12578 packets, 0 unicasts

lecid	vcd	pkts	ATM Address
1	287	1877	47.00918100000000E014CB4101.00602F84CA20.11
2	328	59	47.00918100000000E014CB4101.006083BF0810.11
3	350	4857	47.00918100000000E014CB4101.00605C328610.11
4	378	65	
47.00918100000000E014CB4101.006083D57410.11			
5	381	65	47.00918100000000E014CB4101.006083BE8C10.11
6	440	64	47.00918100000000E014CB4101.006083DA4010.11
7	549	s	
65			
47.00918100000000E014CB4101.00608361C710.11			
8	550	65	47.00918100000000E014CB4101.006009B6D710.11
9	587	5461	47.00918100000000E014CB3701.00605C05BE10.11

LE Client ATM0.17 ELAN name: Elan_135 Admin: up State: operational
Client ID: 9 LEC up for 1 hour 6 minutes 15 seconds
Join Attempt: 7
HW Address: 0060.5c05.be10 Type: ethernet Max Frame Size: 1516 VLANID: 17
ATM Address: 47.00918100000000E014CB3701.00605C05BE10.11

VCD	rxFrames	txFrames	Type	ATM Address
0	0	0	configure	47.00918100000000E014CB3701.00605C05BE13.00
VCD	rxFrames	txFrames	Type	ATM Address
500	1	151	direct	47.00918100000000E014CB3701.00605C05BE11.11
560	540	0	distribute	47.00918100000000E014CB3701.00605C05BE11.11
595	0	5495	send	47.00918100000000E014CB3701.00605C05BE12.11
600	7127	0	forward	47.00918100000000E014CB3701.00605C05BE12.11
612	1947	1890	data	47.00918100000000E014CB4101.00602F84CA20.11
616	20260	20467	data	47.00918100000000E014CB4101.00605C328610.11

C5000#2

Current configuration:

```
!  
service timestamps debug uptime  
service timestamps log uptime  
!  
hostname cat2-ATM  
!  
!  
!  
lane database sbs-elanbase  
  name default server-atm-address 47.00918100000000E014CB3701.006083DA4011.01  
  name default server-atm-address 47.00918100000000E014CB3701.00605C05BE11.01  
  name default server-atm-address 47.00918100000000E014CB4101.00605C05BE11.01  
  name default server-atm-address 47.00918100000000E014CB4101.006083DA4011.01  
  name Elan_132 server-atm-address 47.00918100000000E014CB3701.006083DA4011.0B  
  name Elan_132 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.0B  
  name Elan_132 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.0B  
  name Elan_132 server-atm-address 47.00918100000000E014CB4101.006083DA4011.0B  
  name Elan_13_131 server-atm-address 47.00918100000000E014CB3701.006083DA4011.02  
  name Elan_13_131 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.02  
  name Elan_13_131 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.02  
  name Elan_13_131 server-atm-address 47.00918100000000E014CB4101.006083DA4011.02  
  name Elan_126_23 server-atm-address 47.00918100000000E014CB3701.006083DA4011.03  
  name Elan_126_23 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.03  
  name Elan_126_23 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.03  
  name Elan_126_23 server-atm-address 47.00918100000000E014CB4101.006083DA4011.03  
  name Elan_31 server-atm-address 47.00918100000000E014CB3701.006083DA4011.04  
  name Elan_31 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.04  
  name Elan_31 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.04  
  name Elan_31 server-atm-address 47.00918100000000E014CB4101.006083DA4011.04  
  name Elan_50 server-atm-address 47.00918100000000E014CB3701.006083DA4011.05  
  name Elan_50 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.05  
  name Elan_50 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.05  
  name Elan_50 server-atm-address 47.00918100000000E014CB4101.006083DA4011.05  
  name Elan_51 server-atm-address 47.00918100000000E014CB3701.006083DA4011.06  
  name Elan_51 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.06  
  name Elan_51 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.06  
  name Elan_51 server-atm-address 47.00918100000000E014CB4101.006083DA4011.06  
  name Elan_91 server-atm-address 47.00918100000000E014CB3701.006083DA4011.07  
  name Elan_91 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.07  
  name Elan_91 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.07  
  name Elan_91 server-atm-address 47.00918100000000E014CB4101.006083DA4011.07  
  name Elan_125 server-atm-address 47.00918100000000E014CB3701.006083DA4011.08  
  name Elan_125 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.08  
  name Elan_125 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.08  
  name Elan_125 server-atm-address 47.00918100000000E014CB4101.006083DA4011.08  
  name Elan_128_140 server-atm-address 47.00918100000000E014CB3701.006083DA4011.09  
  name Elan_128_140 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.09  
  name Elan_128_140 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.09  
  name Elan_128_140 server-atm-address 47.00918100000000E014CB4101.006083DA4011.09  
  name Elan_130 server-atm-address 47.00918100000000E014CB3701.006083DA4011.0A  
  name Elan_130 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.0A  
  name Elan_130 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.0A  
  name Elan_130 server-atm-address 47.00918100000000E014CB4101.006083DA4011.0A  
  name Elan_133_6 server-atm-address 47.00918100000000E014CB3701.006083DA4011.0C  
  name Elan_133_6 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.0C  
  name Elan_133_6 server-atm-address  
47.00918100000000E014CB4101.00605C05BE11.0C  
  name Elan_133_6 server-atm-address 47.00918100000000E014CB4101.006083DA4011.0C  
  name Elan_136 server-atm-address 47.00918100000000E014CB3701.006083DA4011.0D  
  name Elan_136 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.0D  
  name Elan_136 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.0D  
  name Elan_136 server-atm-address 47.00918100000000E014CB4101.006083DA4011.0D  
  name Elan_136 server-atm-address 47.00918100000000E014CB4101.006083DA4011.0D  
  name Elan_138 server-atm-address 47.00918100000000E014CB3701.006083DA4011.0E
```

```
name Elan_138 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.0E
name Elan_138 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.0E
name Elan_138 server-atm-address 47.00918100000000E014CB4101.006083DA4011.0E
name Elan_135 server-atm-address 47.00918100000000E014CB3701.006083DA4011.11
name Elan_135 server-atm-address 47.00918100000000E014CB3701.00605C05BE11.11
name Elan_135 server-atm-address 47.00918100000000E014CB4101.00605C05BE11.11
name Elan_135 server-atm-address 47.00918100000000E014CB4101.006083DA4011.11
!
interface ATM0
  atm preferred phy A
  atm pvc 1 0 5 qsaal
  atm pvc 2 0 16 ilmi
  lane config auto-config-atm-address
  lane config database sbs-elanbase
!
interface ATM0.1 multipoint
  lane server-bus ethernet default
  lane client ethernet 1 default
!
interface ATM0.2 multipoint
  lane server-bus ethernet Elan_13_131
  lane client ethernet 2 Elan_13_131
!
interface ATM0.3 multipoint
  lane server-bus ethernet Elan_126_23
  lane client ethernet 3 Elan_126_23
!
interface ATM0.4 multipoint
  lane server-bus ethernet Elan_31
  lane client ethernet 4 Elan_31
!
interface ATM0.5 multipoint
  lane server-bus ethernet Elan_50
  lane client ethernet 5 Elan_50
!
interface ATM0.6 multipoint
  lane server-bus ethernet Elan_51
  lane client ethernet 6 Elan_51
!
interface ATM0.7 multipoint
  lane server-bus ethernet Elan_91
  lane client ethernet 7 Elan_91
!
interface ATM0.8 multipoint
  lane server-bus ethernet Elan_125
  lane client ethernet 8 Elan_125
!
interface ATM0.9 multipoint
  lane server-bus ethernet Elan_128_140
  lane client ethernet 9 Elan_128_140
!
interface ATM0.10 multipoint
  lane server-bus ethernet Elan_130
  lane client ethernet 10 Elan_130
!
interface ATM0.11 multipoint
  lane server-bus ethernet Elan_132
  lane client ethernet 11 Elan_132
!
interface ATM0.12 multipoint
  lane server-bus ethernet Elan_133_6
  lane client ethernet 12 Elan_133_6
!
interface ATM0.13 multipoint
  lane server-bus ethernet Elan_136
  lane client ethernet 13 Elan_136
```

```

!
interface ATM0.14 multipoint
  lane server-bus ethernet Elan_138
  lane client ethernet 14 Elan_138
!
interface ATM0.17 multipoint
  lane server-bus ethernet Elan_135
  lane client ethernet 17 Elan_135
!
logging trap errors
!
line con 0
line vty 0 4
  no login
!
end

```

LS1010#1

Current configuration:

```

!
! No configuration change since last restart
!
no service pad
service timestamps debug datetime
service timestamps log datetime
service udp-small-servers
service tcp-small-servers
!
hostname LS1010#1
!
clock calendar-valid
enable password cisco
!
ip host-routing
no ip domain-lookup
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.3701.0060.5c05.be13.00 1
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.3701.0060.83da.4013.00 2
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.4101.0060.5c05.be13.00 3
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.4101.0060.83da.4013.00 4
atm address 47.0091.8100.0000.00e0.14cb.3701.00e0.14cb.3701.00
atm router pnni
  node 1 level 56 lowest
  redistribute atm-static
!
!
interface ATM0/0/0
  no keepalive
!
interface ATM0/0/1
  no keepalive
!
interface ATM0/0/2
  no keepalive
!
interface ATM0/0/3
  no keepalive
!
interface ATM2/0/0
  ip address
  atm maxvp-number 0
  lane client ethernet default
!
interface Ethernet2/0/0
  no ip address

```

```
shutdown
!
ip default-gateway
no ip classless
logging buffered
logging trap debugging
!
line con 0
  password cisco
  login
line aux 0
line vty 0 4
  exec-timeout 30 30
  password cisco
  login
!
end
```

LS1010#2

```
Current configuration:
!
! No configuration change since last restart
!
no service pad
service timestamps debug datetime
service timestamps log datetime
service udp-small-servers
service tcp-small-servers
!
hostname LS1010#2
!
clock calendar-valid
enable password cisco
!
ip host-routing
no ip domain-lookup
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.3701.0060.5c05.be13.00 1
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.3701.0060.83da.4013.00 2
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.4101.0060.5c05.be13.00 3
atm lecs-address-default 47.0091.8100.0000.00e0.14cb.4101.0060.83da.4013.00 4
atm address 47.0091.8100.0000.00e0.14cb.4101.00e0.14cb.4101.00
atm router pnni
  node 1 level 56 lowest
  redistribute atm-static
!
!
interface ATM0/0/0
  no keepalive
!
interface ATM0/0/1
  no keepalive
!
interface ATM0/0/2
  no keepalive
!
interface ATM0/0/3
  no keepalive
!
interface ATM2/0/0
  ip address
  atm maxvp-number 0
  lane client ethernet default
!
interface Ethernet2/0/0
```

```
no ip address
shutdown
!
ip default-gateway
no ip classless
logging buffered
logging trap debugging
!
line con 0
password cisco
login
line aux 0
line vty 0 4
password cisco
login
!
end
```

Verify

This section provides information you can use to confirm your configuration is working properly.

Certain **show** commands are supported by the Output Interpreter Tool (registered customers only) , which allows you to view an analysis of **show** command output.

- **show lane client**
- **show lane server**
- **show lane database**
- **show lane config**

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- **ATM LANE Fast Simple Server Redundancy Protocol**
- **LANE Design Recommendations**
- **LANE Technology Support**
- **ATM Technology Support**
- **Technical Support & Documentation – Cisco Systems**

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Updated: Nov 15, 2007

Document ID: 10399
