

R3

AllSPFRouters

R4

ospfv2_multi_area.pcapng

OSPF Hello Packet

Frame 1 | 2020-08-04T21:40:08.314585Z

ID	Source OSPF Router	10.0.0.3
🏠	Area ID	0.0.0.5
	Network Mask	0.0.0.0
	Hello Interval [sec]	10
	Options	0x12, (L) LLS Data block, (E) External Routing
	Router Priority	1
	Router Dead Interval [sec]	40
👑	Designated Router	0.0.0.0
👑	Backup Designated Router	0.0.0.0

OSPF Hello Packet

Frame 2 | 2020-08-04T21:40:16.895779Z

ID	Source OSPF Router	10.0.0.3
🏠	Area ID	0.0.0.0 (Backbone)
	Network Mask	255.255.255.0
	Hello Interval [sec]	10
	Options	0x12, (L) LLS Data block, (E) External Routing
	Router Priority	1
	Router Dead Interval [sec]	40
👑	Designated Router	0.0.0.0
👑	Backup Designated Router	0.0.0.0

OSPF Hello Packet

Frame 3 | 2020-08-04T21:40:17.094705Z

ID	Source OSPF Router	10.0.0.4
🏠	Area ID	0.0.0.0 (Backbone)
	Network Mask	255.255.255.0
	Hello Interval [sec]	10
	Options	0x12, (L) LLS Data block, (E) External Routing
	Router Priority	1
	Router Dead Interval [sec]	40
👑	Designated Router	0.0.0.0
👑	Backup Designated Router	0.0.0.0

OSPF Hello Packet

Frame 4 | 2020-08-04T21:40:17.09475Z

ID	Source OSPF Router	10.0.0.4
🏠	Area ID	0.0.0.5
	Network Mask	0.0.0.0
	Hello Interval [sec]	10
	Options	0x12, (L) LLS Data block, (E) External Routing
	Router Priority	1
	Router Dead Interval [sec]	40
👑	Designated Router	0.0.0.0
👑	Backup Designated Router	0.0.0.0

OSPF Hello Packet

Frame 5 | 2020-08-04T21:40:17.095597Z

ID	Source OSPF Router	10.0.0.3
🏠	Area ID	0.0.0.5
	Network Mask	0.0.0.0
	Hello Interval [sec]	10
	Options	0x12, (L) LLS Data block, (E) External Routing
	Router Priority	1
	Router Dead Interval [sec]	40
👑	Designated Router	0.0.0.0
👑	Backup Designated Router	0.0.0.0
👤	Active Neighbor	10.0.0.4

OSPF DB Description

Frame 6 | 2020-08-04T21:40:17.096151Z

ID	Source OSPF Router	10.0.0.4
🏠	Area ID	0.0.0.5
	Interface MTU	1500
	Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
	DB Description	0x07, (I) Init, (M) More, (MS) Master
	DD Sequence	2721

R3

AllSPFRouters

R4

OSPF Hello Packet

ID	Source OSPF Router	10.0.0.4
🏠	Area ID	0.0.0.5
	Network Mask	0.0.0.0
	Hello Interval [sec]	10
	Options	0x12, (L) LLS Data block, (E) External Routing
	Router Priority	1
	Router Dead Interval [sec]	40
👑	Designated Router	0.0.0.0
👑	Backup Designated Router	0.0.0.0
👤	Active Neighbor	10.0.0.3

Frame 7 |
2020-08-04T21:40:17.09617Z

OSPF DB Description

ID	Source OSPF Router	10.0.0.3
🏠	Area ID	0.0.0.5
	Interface MTU	1500
	Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
	DB Description	0x07, (I) Init, (M) More, (MS) Master
	DD Sequence	9095

Frame 8 |
2020-08-04T21:40:17.096308Z

OSPF DB Description

ID	Source OSPF Router	10.0.0.3
🏠	Area ID	0.0.0.5
	Interface MTU	1500
	Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
	DB Description	0x02, (M) More
	DD Sequence	2721
	Options	0x22, (DC) Demand Circuits, (E) External Routing
	LS Type	Router-LSA (1)
	Link State ID	10.0.0.3
🚩	Advertising Router	10.0.0.3
	Options	0x22, (DC) Demand Circuits, (E) External Routing
	LS Type	Summary-LSA (IP network) (3)
	Link State ID	10.0.0.1
🚩	Advertising Router	10.0.0.3
	Options	0x22, (DC) Demand Circuits, (E) External Routing...
		19 more

Frame 9 |
2020-08-04T21:40:17.096493Z

OSPF DB Description

ID	Source OSPF Router	10.0.0.4
🏠	Area ID	0.0.0.5
	Interface MTU	1500
	Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
	DB Description	0x01, (MS) Master
	DD Sequence	2722

Frame 10 |
2020-08-04T21:40:17.096782Z

OSPF DB Description

ID	Source OSPF Router	10.0.0.3
🏠	Area ID	0.0.0.5
	Interface MTU	1500
	Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
	DB Description	0x00
	DD Sequence	2722

Frame 11 |
2020-08-04T21:40:17.096938Z

OSPF LS Request

ID	Source OSPF Router	10.0.0.4
🏠	Area ID	0.0.0.5
🚩	Advertising Router	10.0.0.3
🚩	Advertising Router	10.0.0.3
🚩	Advertising Router	10.0.0.3
🚩	Advertising Router	10.0.0.3
🚩	Advertising Router	10.0.0.3
🚩	Advertising Router	10.0.0.3
🚩	Advertising Router	10.0.0.3
🚩	Advertising Router	10.0.0.3

Frame 12 |
2020-08-04T21:40:17.097185Z

OSPF LS Update

Frame 13 |
2020-08-04T21:40:17.097297Z

R3

AllSPFRouters

R4

Source OSPF Router	10.0.0.3
Area ID	0.0.0.5
LS Age (seconds)	571
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.3
Advertising Router	10.0.0.3
Sequence Number	0x80000001
LS Age (seconds)	516
LS Type	Summary-LSA (IP network) (3)
Link State ID	10.0.0.1
Advertising Router	10.0.0.3
Sequence Number	0x80000001
LS Age (seconds)	516
LS Type	Summary-LSA (IP network) (3)...
	23 more

OSPF LS Update

Source OSPF Router	10.0.0.4
Area ID	0.0.0.5
LS Age (seconds)	1
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.4
Advertising Router	10.0.0.4
Sequence Number	0x80000001

Frame 14 | 2020-08-04T21:40:17.56808Z

OSPF LS Update

Source OSPF Router	10.0.0.3
Area ID	0.0.0.5
LS Age (seconds)	1
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.3
Advertising Router	10.0.0.3
Sequence Number	0x80000002

Frame 15 | 2020-08-04T21:40:17.611722Z

OSPF Hello Packet

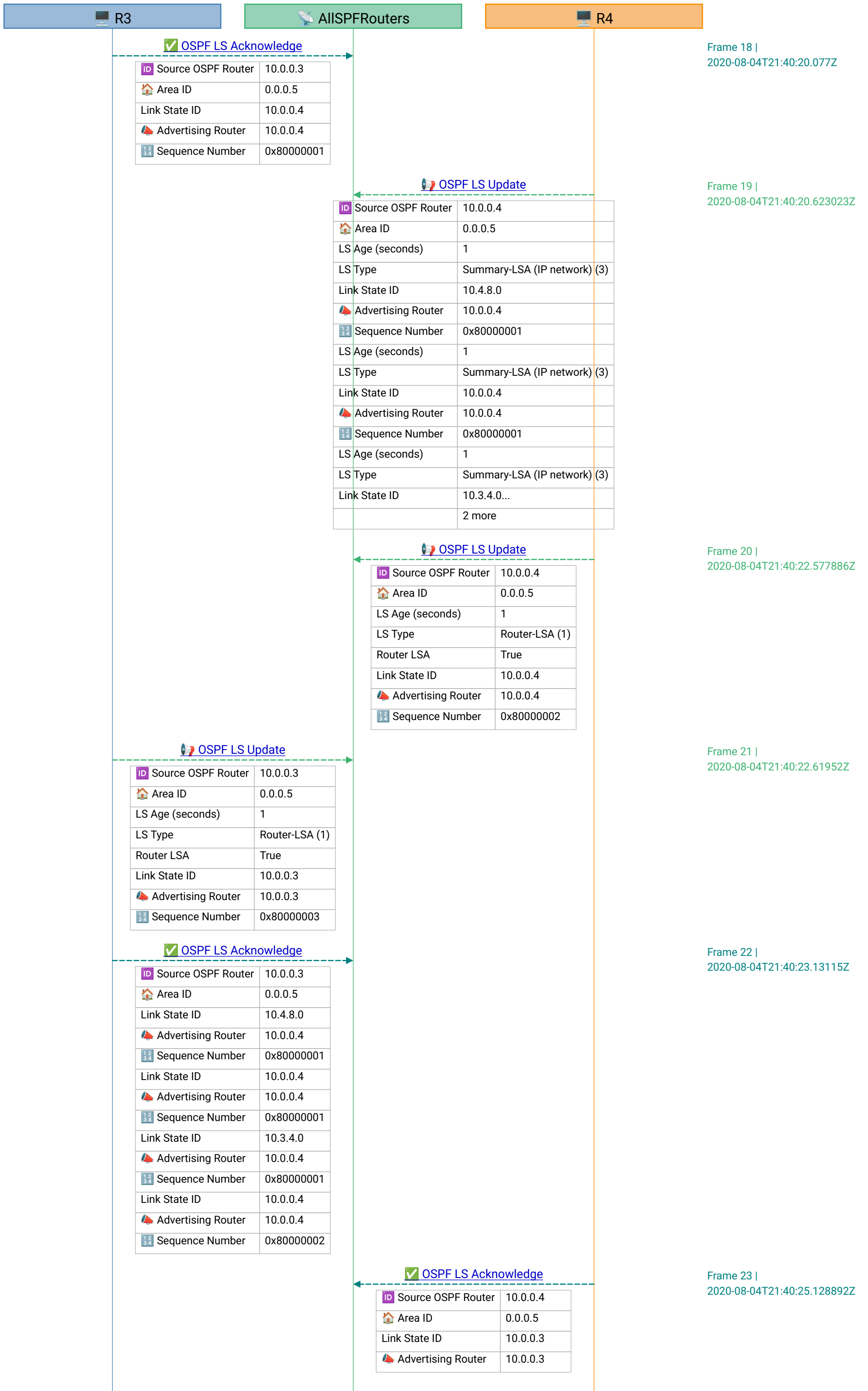
Source OSPF Router	10.0.0.3
Area ID	0.0.0.5
Network Mask	0.0.0.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.4

Frame 16 | 2020-08-04T21:40:17.941226Z

OSPF LS Acknowledge

Source OSPF Router	10.0.0.4
Area ID	0.0.0.5
Link State ID	10.0.0.3
Advertising Router	10.0.0.3
Sequence Number	0x80000001
Link State ID	10.0.0.1
Advertising Router	10.0.0.3
Sequence Number	0x80000001
Link State ID	10.0.0.2
Advertising Router	10.0.0.3
Sequence Number	0x80000001
Link State ID	10.0.0.3
Advertising Router	10.0.0.3
Sequence Number	0x80000001
Link State ID	10.0.123.0...
	11 more

Frame 17 | 2020-08-04T21:40:19.6028Z



R3

AllSPFRouters

R4

Sequence Number 0x80000003

OSPF Hello Packet

Frame 24 | 2020-08-04T21:40:25.941096Z

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Network Mask	255.255.255.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.4

OSPF DB Description

Frame 25 | 2020-08-04T21:40:25.941976Z

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
Interface MTU	1500
Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
DB Description	0x07, (I) Init, (M) More, (MS) Master
DD Sequence	2094

OSPF Hello Packet

Frame 26 | 2020-08-04T21:40:25.950305Z

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
Network Mask	255.255.255.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.3

OSPF DB Description

Frame 27 | 2020-08-04T21:40:25.951011Z

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Interface MTU	1500
Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
DB Description	0x07, (I) Init, (M) More, (MS) Master
DD Sequence	5830

OSPF DB Description

Frame 28 | 2020-08-04T21:40:25.951076Z

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Interface MTU	1500
Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
DB Description	0x02, (M) More
DD Sequence	2094
Options	0x22, (DC) Demand Circuits, (E) External Routing
LS Type	Router-LSA (1)
Link State ID	10.0.0.1
Advertising Router	10.0.0.1
Options	0x22, (DC) Demand Circuits, (E) External Routing
LS Type	Router-LSA (1)
Link State ID	10.0.0.2
Advertising Router	10.0.0.2
Options	0x22, (DC) Demand Circuits, (E) External Routing...
	27 more

OSPF DB Description

Frame 29 | 2020-08-04T21:40:25.951502Z

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
Interface MTU	1500
Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
DB Description	0x01, (MS) Master
DD Sequence	2095

R3

AllSPFRouters

R4

Options	0x22, (DC) Demand Circuits, (E) External Routing
LS Type	Router-LSA (1)
Link State ID	10.0.0.4
Advertising Router	10.0.0.4
Options	0x22, (DC) Demand Circuits, (E) External Routing
LS Type	Summary-LSA (IP network) (3)
Link State ID	10.3.49.3
Advertising Router	10.0.0.4
Options	0x22, (DC) Demand Circuits, (E) External Routing...
	7 more

OSPF LS Request

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Advertising Router	10.0.0.4
Advertising Router	10.0.0.4
Advertising Router	10.0.0.4
Advertising Router	10.0.0.4

OSPF DB Description

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Interface MTU	1500
Options	0x52, (O) Opaque, (L) LLS Data block, (E) External Routing
DB Description	0x00
DD Sequence	2095

OSPF LS Update

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
LS Age (seconds)	9
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.4
Advertising Router	10.0.0.4
Sequence Number	0x80000001
LS Age (seconds)	6
LS Type	Summary-LSA (IP network) (3)
Link State ID	10.3.49.3
Advertising Router	10.0.0.4
Sequence Number	0x80000001
LS Age (seconds)	6
LS Type	Summary-LSA (IP network) (3)...
	8 more

OSPF LS Request

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
Advertising Router	10.0.0.1
Advertising Router	10.0.0.2
Advertising Router	10.0.0.3
Advertising Router	10.0.0.3
Advertising Router	10.0.0.1
Advertising Router	10.0.0.1
Advertising Router	10.0.0.2
Advertising Router	10.0.0.3
Advertising Router	10.0.0.3

OSPF LS Update

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
LS Age (seconds)	531
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.1
Advertising Router	10.0.0.1

Frame 30 | 2020-08-04T21:40:25.951949Z

Frame 31 | 2020-08-04T21:40:25.951988Z

Frame 32 | 2020-08-04T21:40:25.952321Z

Frame 33 | 2020-08-04T21:40:25.952343Z

Frame 34 | 2020-08-04T21:40:25.952752Z

R3

AllSPFRouters

R4

Sequence Number	0x80000005
LS Age (seconds)	524
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.2
Advertising Router	10.0.0.2
Sequence Number	0x80000006
LS Age (seconds)	523...
	35 more

OSPF LS Update

Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
LS Age (seconds)	1
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.4
Advertising Router	10.0.0.4
Sequence Number	0x80000002

Frame 35 | 2020-08-04T21:40:26.463567Z

OSPF LS Update

Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
LS Age (seconds)	1
LS Type	Router-LSA (1)
Router LSA	True
Link State ID	10.0.0.3
Advertising Router	10.0.0.3
Sequence Number	0x80000007

Frame 36 | 2020-08-04T21:40:26.46405Z

OSPF Hello Packet

Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
Network Mask	255.255.255.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.3

Frame 37 | 2020-08-04T21:40:26.662739Z

OSPF Hello Packet

Source OSPF Router	10.0.0.4
Area ID	0.0.0.5
Network Mask	0.0.0.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.3

Frame 38 | 2020-08-04T21:40:26.975154Z

OSPF Hello Packet

Source OSPF Router	10.0.0.3
Area ID	0.0.0.5
Network Mask	0.0.0.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.4

Frame 39 | 2020-08-04T21:40:26.989386Z

OSPF LS Acknowledge

Frame 40 | 2020-08-04T21:40:28.463198Z

R3

AllSPFRouters

R4

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
Link State ID	10.0.0.1
Advertising Router	10.0.0.1
Sequence Number	0x80000005
Link State ID	10.0.0.2
Advertising Router	10.0.0.2
Sequence Number	0x80000006
Link State ID	10.0.0.3
Advertising Router	10.0.0.3
Sequence Number	0x80000006
Link State ID	10.0.123.3
Advertising Router	10.0.0.3
Sequence Number	0x80000001
Link State ID	10.1.5.0...
	17 more

✓ OSPF LS Acknowledge

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Link State ID	10.0.0.4
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.3.49.3
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.3.49.4
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.4.8.0
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.0.0.4...
	2 more

Frame 41 |
2020-08-04T21:40:28.463306Z

OSPF LS Update

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.5
LS Age (seconds)	1
LS Type	Summary-LSA (IP network) (3)
Link State ID	10.0.0.3
Advertising Router	10.0.0.4
Sequence Number	0x80000001
LS Age (seconds)	1
LS Type	Summary-LSA (IP network) (3)
Link State ID	10.0.0.2
Advertising Router	10.0.0.4
Sequence Number	0x80000001
LS Age (seconds)	1
LS Type	Summary-LSA (IP network) (3)
Link State ID	10.0.0.1...
	12 more

Frame 42 |
2020-08-04T21:40:30.636025Z

OSPF LS Update

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
LS Age (seconds)	1
LS Type	Summary-LSA (ASBR) (4)
Link State ID	10.0.0.2
Advertising Router	10.0.0.4
Sequence Number	0x80000001

Frame 43 |
2020-08-04T21:40:30.636196Z

OSPF LS Update

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.5
LS Age (seconds)	1

Frame 44 |
2020-08-04T21:40:32.600255Z

R3

AllSPFRouters

R4

LS Type	Summary-LSA (IP network) (3)
Link State ID	10.0.0.4
Advertising Router	10.0.0.3
Sequence Number	0x80000001

✓ OSPF LS Acknowledge

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.5
Link State ID	10.0.0.3
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.0.0.2
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.0.0.1
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.0.123.0
Advertising Router	10.0.0.4
Sequence Number	0x80000001
Link State ID	10.0.0.2...
	2 more

Frame 45 |
2020-08-04T21:40:33.142686Z

✓ OSPF LS Acknowledge

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Link State ID	10.0.0.2
Advertising Router	10.0.0.4
Sequence Number	0x80000001

Frame 46 |
2020-08-04T21:40:33.142847Z

✓ OSPF LS Acknowledge

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.5
Link State ID	10.0.0.4
Advertising Router	10.0.0.3
Sequence Number	0x80000001

Frame 47 |
2020-08-04T21:40:35.103216Z

👋 OSPF Hello Packet

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.0 (Backbone)
Network Mask	255.255.255.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.4

Frame 48 |
2020-08-04T21:40:35.734989Z

👋 OSPF Hello Packet

ID Source OSPF Router	10.0.0.4
Area ID	0.0.0.0 (Backbone)
Network Mask	255.255.255.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
Designated Router	0.0.0.0
Backup Designated Router	0.0.0.0
Active Neighbor	10.0.0.3

Frame 49 |
2020-08-04T21:40:36.119342Z

👋 OSPF Hello Packet

ID Source OSPF Router	10.0.0.3
Area ID	0.0.0.5
Network Mask	0.0.0.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing

Frame 50 |
2020-08-04T21:40:36.56298Z

R3

AllSPFRouters

R4

Router Priority	1
Router Dead Interval [sec]	40
👑 Designated Router	0.0.0.0
👑 Backup Designated Router	0.0.0.0
👤 Active Neighbor	10.0.0.4

👋 OSPF Hello Packet

ID Source OSPF Router	10.0.0.4
🏠 Area ID	0.0.0.5
Network Mask	0.0.0.0
Hello Interval [sec]	10
Options	0x12, (L) LLS Data block, (E) External Routing
Router Priority	1
Router Dead Interval [sec]	40
👑 Designated Router	0.0.0.0
👑 Backup Designated Router	0.0.0.0
👤 Active Neighbor	10.0.0.3

Frame 51 |
2020-08-04T21:40:36.787882Z