

The story of **242.242.0.0/16**

**Class E IP addresses
Real world experience**

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Ancient Internet

Class A, class B, class C -- unicast fixed size

Class D (224/3) -- reserved for future use

~~Ancient~~ Internet

Modern

Class A, class B, class C -- unicast/CIDR

Class D (224/4) -- multicast

Class E (240/4) -- reserved for future use

When such a future will come?

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19.1.2024

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ASN8747 started to propagate

242.242.0.0/16

242.242.1.1 pingable

```
RP/0/RSP0/CPU0:ASBR1-SITEL-KLEC#ping 242.242.1.1
```

```
Thu Feb 22 15:30:07.436 CET
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 242.242.1.1 timeout is 2 seconds:
```

```
!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/2 ms
```

242.242.1.1 pingable

```
ZPs-MBP-2:~ zp$ ping 242.242.1.1
PING 242.242.1.1 (242.242.1.1): 56 data bytes
64 bytes from 242.242.1.1: icmp_seq=0 ttl=60 time=21.477 ms
64 bytes from 242.242.1.1: icmp_seq=1 ttl=60 time=10.141 ms
64 bytes from 242.242.1.1: icmp_seq=2 ttl=60 time=5.535 ms
64 bytes from 242.242.1.1: icmp_seq=3 ttl=60 time=6.641 ms
64 bytes from 242.242.1.1: icmp_seq=4 ttl=60 time=9.763 ms
^C
--- 242.242.1.1 ping statistics ---
5 packets transmitted, 5 packets received, 0.0% packet loss
```


242.242.1.1 pingable

well, almost...



```
c:\windows\system32> ping 242.242.1.1
```

```
Pinging 242.242.1.1 with 32 bytes of data:  
PING: transmit failed. General failure.  
PING: transmit failed. General failure.  
PING: transmit failed. General failure.  
PING: transmit failed. General failure.
```

GENERAL FAILURE



Reading Drive C Since 1981.

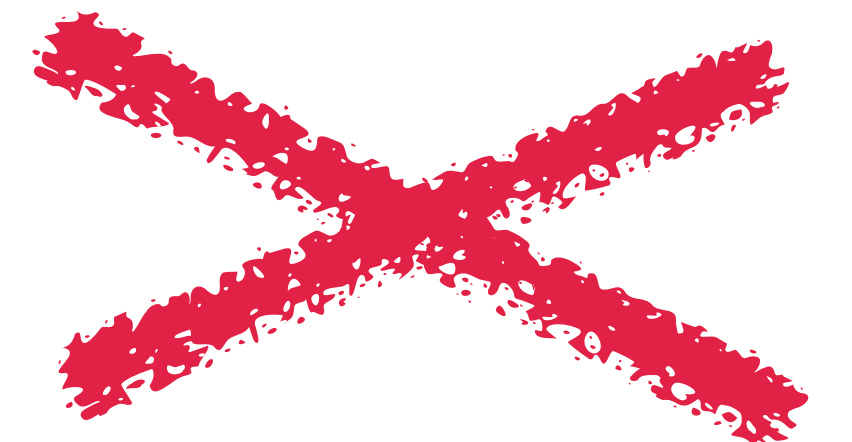
242.242.0.0/16

Compatibility test results

242.242.0.0/16











































Compatibility tests results



242.242.0.0/16

**Several different
"levels of
compatibility"**

RIPE Atlas measurements

Probe	ASN (IPv4)	ASN (IPv6)			Time (UTC)	RTT		Hops	Success	
13490	48926	48926			2024-01-19 18:13	2.022		9	✓	
30955	29208				2024-01-19 18:13	1.389		7	✓	
53850	203488	203488			2024-01-19 18:13	3.397		8	✓	
60830	29208				2024-01-19 18:13	2.393		8	✓	
1003739	29208	29208			2024-01-19 18:13	7.254		9	✓	
1004141	29208				2024-01-19 18:13	1.808		6	✓	
1004199	29208				2024-01-19 18:13	3.043		6	✓	
1005950	48926	48926			2024-01-19 18:13	1.802		7	✓	
6544	39392	39392			2024-01-19 18:13	0.495		7	✗	
6680	39790	39790			2024-01-19 18:13	39.616		7	✗	

RIPE Atlas measurements

2024-03-30 08:15 UTC

Traceroute to 242.242.1.1 (242.242.1.1), 48 byte packets

1	10.7.7.1	1.311ms	0.766ms	0.798ms	
2	185.108.196.1	gw.megalink.ru	AS24837	0.744ms	0.682ms
		0.848ms			
3	188.43.6.18	cta06rb.transtelecom.	AS20485	1.528ms	
		1.465ms	2.653ms		
4	80.81.194.117	ipv4.de-cix.fra.de.as20485.ttk.ru	113.451ms		
		113.363ms	113.971ms		
5	80.81.192.217	decix.quantcom.cz	112.501ms	112.293ms	
		112.006ms			
6	82.119.246.102	cz-prg-p1sit-be3.quantcom.cz	AS29208		
		120.781ms	120.681ms	120.895ms	
7	82.119.246.27	cz-prg.asbr1-4hunge0-3-0-7.quantcom.cz	AS29208		
		118.334ms	118.264ms	118.511ms	
8	82.119.246.26	cz-prg.p1sit-4hunge0-7-0-7.quantcom.cz	AS29208		
		130.474ms	130.315ms	130.638ms	
9	82.119.246.197	cz-prg-bbr4-et-5-0-0.quantcom.cz	AS29208		
		136.757ms	136.582ms	137.264ms	
10	242.242.1.1	135.343ms	135.281ms	135.176ms	



Quad9 support

```
# dig -b 242.242.1.1 @9.9.9.9 isc.org AAAA
```

```
; <<>> DiG 9.16.27-Debian <<>> -b 242.242.1.1 @9.9.9.9 isc.org AAAA
```

```
; (1 server found)
```

```
;; global options: +cmd
```

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 22090
```

```
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
```

```
;; OPT PSEUDOSECTION:
```

```
; EDNS: version: 0, flags:; udp: 512
```

```
;; QUESTION SECTION:
```

```
isc.org. IN AAAA
```

```
;; ANSWER SECTION:
```

```
isc.org. 300 IN AAAA 2001:500:6b:2::28
```

```
;; Query time: 172 msec
```

```
;; SERVER: 9.9.9.9#53(9.9.9.9)
```

```
;; WHEN: Wed Apr 03 15:00:21 CEST 2024
```

```
;; MSG SIZE rcvd: 64
```

Another funny moments...



Error! Are you a robot?



Router to use

Prague I (NIX CE Colo)
Prague I (GEANT primary, AMS-IX)
Prague II (Public Internet primary, NIX CRa)
Brno (Public Internet backup, GEANT backup, SANET, ACONET)

Command to issue

show bgp ipv4|ipv6 unicast IP_ADDRESS
show route as-path-regex AS_PATH_REGEX
ping IP_ADDRESS
traceroute IP_ADDRESS

Parameter

242.242.1.1

Help

Enter

Reset

Your IP address: 2001:4de8:1aa:aaaa:42f:359a:a788:d18b

All commands will be logged for possible later analysis and statistics. If you don't like this policy, please disconnect now!



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Is still a lot of effort necessary?