

30 IPv6 on Routers

Addresses that reach multiple destinations	Multicast
What prefix do they use	FF00::/8
Addresses that are unique only within a single LAN	Link-Local
What prefix do they use	FE80::/64
Addresses that can be arbitrarily generated for internal use	Unique Local
What prefix do they use	FD00::/8
What prefix is used for link-local multicasts	FF02::/16
What prefix is used for organization-local multicasts throughout an enterprise but not beyond, to the internet.	FF08::/16

Multicast Addresses	IPv6	IPv4
All-nodes (any interface running IPv6)	FF02::1	(Subnet broadcast)
All-routers	FF02::2	(none)
All Routers Running OSPF (All-OSPF)	FF02::5	224.0.0.5
All OSPF DRs (Designated Routers)	FF02::6	224.0.0.6
All RIPng Routers	FF02::9	224.0.0.9
All EIGRP Routers	FF02::A	224.0.0.10
All Routers acting as DHCP relay agents	FF02::1:2	(none)

IPv6 Net Prefix	MAC Address	EUI-64 Address
2001:DB8::/64	0002.3b9d.e192	2001:DB8::0202:ebff:fe9d:e192/64
2001:DB8::/64	E4:E7:8B:01:7C:E6	2001:DB8::e6e7:8bff:fe01:7ce6/64
2001:DB8::/64	0018.baa6.9f58	2001:DB8::0218:baff:fea6:9f58/64
2001:DB8::/64	10dd.b13c.8dc2	2001:DB8::12dd:b1ff:fe3c:8dc2/64
2001:DB8::/64	00c0.029d.e192	2001:DB8::02c0:02ff:fe9d:e192/64
2001:DB8::/64	000d.932b.116f	2001:DB8::020d:93ff:fe2b:116f/64
2001:DB8::/64	0816.cb2b.116f	2001:DB8::0a16:cbff:fe2b:116f/64
2001:DB8::/64	f0de.f1d1.a460	2001:DB8::f2de:f1ff:fed1:a460/64
2001:DB8::/64	0005.5e3c.8dc2	2001:DB8::0205:5eff:fe3c:8dc2/64

IPv6 Address	Solicited-Node Multicast Address
2001:DB8::0218:baff:fea6:9f58/64	FF02::1:FFa6:9f58
2001:DB8::12dd:b1ff:fe3c:8dc2/64	FF02::1:FF3c:8dc2
2001:DB8::02c0:02ff:fe9d:e192/64	FF02::1:FF9d:e192