

















| A 1 1 | | |
|--|------|------|
| Address Type | IPv4 | IPv6 |
| Unicast - One-to-one communication | Yes | Yes |
| Broadcast - One-to-many communication local | Yes | No |
| Multicast - One-to-many communication local/remote | Yes | Yes |
| Anycast - One-to-many communication nearest | Yes | Yes |

| Address Scope | IPv4 | IPv6 |
|---|-------------------------|----------|
| Link-Local - Not routable | Yes (is temp, APIPA) | Yes |
| Global Unicast - Routable to Internet | Aka public | Yes |
| Unique Local - Routable only within domain | Aka private RFC 1918 | RFC 4193 |

| IPv4/IPv6 special addresses | | | | | | | | |
|-----------------------------|---|---------------|--|--|--|--|--|--|
| Address Type IPv4 IPv6 | | | | | | | | |
| Default Route | 0.0.0/0 | ::/0 | | | | | | |
| Unspecified | 0.0.0/32 | ::/128 | | | | | | |
| Loopback | 127.0.0.1/8 | ::1/128 | | | | | | |
| Multicast | 224.0.0.0/4 | ff00::/8 | | | | | | |
| Link-Local | 169.254.0.0/16 | fe80::/10 | | | | | | |
| Global Unicast | All others | 2000::/3 | | | | | | |
| Unique Local | 10.0.0/8 172.16.0.0/12 192.168.0.0/16 | fc00::/7 | | | | | | |
| Documentation | 192.0.2.0/24 198.51.100.0/24 203.0.113.0/24 | 2001:db8::/32 | | | | | | |

| known multic | ast addres |
|-------------------------|--|
| Description | Scope |
| All nodes address | Interface-local |
| All nodes address | Link-local |
| All routers address | Interface-local |
| All routers address | Link-local |
| All routers address | Site-local |
| DVMRP routers | Link-local |
| OSPF drothers | Link-local |
| OSPF designated routers | Link-local |
| RIPng routers | Link-local |
| EIGRPv6 routers | Link-local |
| All PIM routers | Link-local |
| ALL MLDv2 routers | Link-local |
| DHCPv6 servers/agents | Link-local |
| DHCPv6 servers/agents | Site-local |
| Solicited node address | Link-local |
| | Description All nodes address All nodes address All nouters address All routers address OSPF drothers OSPF designated routers RIPng routers EIGRPv6 routers All PIM routers DHCPv6 servers/agents DHCPv6 servers/agents Solicited node address |







| IPv4 | IPv6 |
|----------------------|--------------------------------|
| ARP Request | Neighbor Solicitation |
| ARP Reply | Neighbor Advertisement |
| Router Solicitation | Router Solicitation |
| Router Advertisement | Router Advertisement |
| Gratuitous ARP | Duplicate Address Detection |
| ARP Cache | Neighbor Cache |







| IPv6 autoconfiguration options | | | | | | | | | | |
|--|---------------------------------|---------------------------------|--|--|---------------------------|---|-----------------------------------|---|--|--|
| Address Autoconfiguration Method | ICM RA (Typ Fla M Flag | Pv6 be 134) ags O Flag | ICM RA (Typ ICMPv6 Prefix A Flag | Pv6 be 134) Option Info L Flag | Prefix Derived from | Interface ID Derived from | Other Configuration Options | # of IPv6 Addr | | |
| Link-Local (always configured) | N/A | N/A | N/A | N/A | Internal (fe80::) | M-EUI-64 or Privacy | Manual | 1 | | |
| Manual | Off | Off | Off | On | Manual | Manual | Manual | 2 (LL, Manual) | | |
| SLAAC | Off | Off | On | On | RA | M-EUI-64 or Privacy | Manual | 3 (LL, IPv6, IPv6 temp) | | |
| Stateful (DHCPv6) | On | N/R | Off | On | DHCPv6 | DHCPv6 | DHCPv6 | 2 (LL, DHCPv6) | | |
| Stateless DHCPv6 | Off | On | On | On | RA | M-EUI-64 or Privacy | DHCPv6 | 3 (LL, IPv6, IPv6 temp) | | |
| Combination Stateless & DHCPv6 | On | N/R | On | On | RA and DHCPv6 | M-EUI-64 or Privacy and DHCPv6 | DHCPv6 | 4 (LL, IPv6, IPv6 temp, DHCPv6) | | |







| • Windows 7 example: C:\>netsh int ipv6 show neighbors interface=12 Interface 12: Local Area Connection Internet Address Physical Address Type | Link-Local neighbo | ors (Win7) | |
|---|---|--|---|
| C:\>netsh int ipv6 show neighbors interface=12 Interface 12: Local Area Connection Internet Address Physical Address Type | • Windows 7 example: | | |
| Interface 12: Local Area Connection Internet Address Physical Address Type 2001:470:1f0f:ee7::1 00-09-0f-db-04-d3 Stale (Router) fe80::209:fff:fedb:4d3 00-09-0f-db-04-d3 Stale (Router) ff02::1 33-33-00-00-00-01 Permanent ff02::2 33-33-00-00-00-02 Permanent ff02::16 33-33-00-00-00-16 Permanent ff02::12 33-33-00-00-00-76 Permanent ff02::13 33-33-00-00-00-76 Permanent | C:\>netsh int ipv6 show neighbors interface=12 | | |
| 2001:470:1f0f:ee7::1 00-09-0f-db-04-d3 Stale (Router) fe80::209:fff:fedb:4d3 00-09-0f-db-04-d3 Stale (Router) ff02::1 33-33-00-00-00-01 Permanent ff02::2 33-33-00-00-00-02 Permanent ff02::16 33-33-00-00-00-06 Permanent ff02::16 33-33-00-00-01-6 Permanent ff02::12 33-33-00-00-00-76 Permanent ff02::13 33-33-00-00-00-76 Permanent | Interface 12: Local Area Connection Internet Address | Physical Address | Туре |
| ff02::1:ff00:1 33-33-ff-00-00-01 Permanent ff02::1:ff07:101 33-33-ff-07-01-01 Permanent ff02::1:ff0a:69b2 33-33-ff-0a-69-b2 Permanent ff02::1:ff15:d7a3 33-33-ff-15-d7-a3 Permanent ff02::1:ffdb:4d3 33-33-ff-db-04-d3 Permanent | 2001:470:1f0f:ee7::1 fe80::209:fff:fedb:4d3 ff02::1 ff02::2 ff02::c ff02::fb ff02::12 ff02::1:2 ff02::1:3 ff02::1:ff00:1 ff02::1:ff00:1 ff02::1:ff00:1 ff02::1:ff00:4d3 | 00-09-0f-db-04-d3 00-09-0f-db-04-d3 33-33-00-00-00-01 33-33-00-00-00-02 33-33-00-00-00-0c 33-33-00-00-00-0c 33-33-00-00-00-fb 33-33-00-01-00-02 33-33-00-01-00-03 33-33-ff-00-00-01 33-33-ff-07-01-01 33-33-ff-03-69-b2 33-33-ff-15-d7-a3 33-33-ff-db-04-d3 | Stale (Router) Stale (Router) Permanent Permanent Permanent Permanent Permanent Permanent Permanent Permanent Permanent Permanent Permanent Permanent Permanent |









| Link-Local address status | (HP) |
|--|-------------------|
| • HP ProVision Laver3 switch example: | |
| | |
| HP3500# show ipv6 | |
| · · · · · | |
| Internet (IPv6) Service | |
| IPv6 Routing : Enabled ND DAD : Enabled DAD Attempts : 3 | |
| VLAN Interfaces | |
| Interface Name : v12-client-vlan | |
| IPv6 Status : Enabled | |
| Layer 3 Status : Enabled | |
| Address Origin IPv6 Address/Prefix Length | Address Status |
| + | |
| manual 2001:470:c9:1692::f254/64 | preferred |
| manuar IE8U::9/64 | preierred |
| | |
| IPv6 in Wireshark v1.5 - Copyright © 2016 Jeffrey L. Carrell | 30 |

| I | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|
| Link-Local usage | (HP) | | | | | | | | |
| • HP ProVision Layer3 swite | ch example: | | | | | | | | |
| HP3500# show ipv6 neighbors | | | | | | | | | |
| IPv6 ND Cache Entries IPv6 Address | MAC Address State Type Port | | | | | | | | |
| fe80::2cab:3680:143d:603a%vlan2 2001:470:56:1ff9::1 | 000c29-34478a STALE dynamic 8 4001c6-a6aa81 REACH dynamic 1 | | | | | | | | |
| HP3500# ping6 fe80::2cab:3680:143d:603a fe80::2cab:3680:143d:603a is alive, tim | ı%vlan2 ne = 5 ms | | | | | | | | |
| HP3500# ping6 fe80::2cab:3680:143d:603a | HP3500# ping6 fe80::2cab:3680:143d:603a [I did not supply vlan-id, I simply pressed <enter>]</enter> | | | | | | | | |
| Specified address must include an inter the link-local address "fe80::1" on VL2 | face scope. For example, to specify AN 1, use: fe80::1%vlan1. | | | | | | | | |
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| IPv6 autoconfiguration options | | | | | | | | | | |
|--|---------------------------------|----------------------------------|--|--|---------------------------|---|---|---|--|--|
| Address Autoconfiguration Method | ICM RA (Typ Fla M Flag | IPv6 pe 134) ags O Flag | ICM RA (Typ ICMPv6 Prefix A Flag | Pv6 De 134) Option Info L Flag | Prefix Derived from | Interface ID Derived from | Other Configuration Options (DNS, domain, time, tftp, etc) Derived via | # of IPv6 Addr | | |
| Link-Local (always configured) | N/A | N/A | N/A | N/A | Internal (fe80::) | M-EUI-64 or Privacy | Manual | 1 | | |
| Manual | Off | Off | Off | On | Manual | Manual | Manual | 2 (LL, Manual) | | |
| SLAAC | Off | Off | On | On | RA | M-EUI-64 or Privacy | Manual | 3 (LL, IPv6, IPv6 temp) | | |
| Stateful (DHCPv6) | On | N/R | Off | On | DHCPv6 | DHCPv6 | DHCPv6 | 2 (LL, DHCPv6) | | |
| Stateless DHCPv6 | Off | On | On | On | RA | M-EUI-64 or Privacy | DHCPv6 | 3 (LL, IPv6, IPv6 temp) | | |
| Combination Stateless & DHCPv6 | On | N/R | On | On | RA and DHCPv6 | M-EUI-64 or Privacy and DHCPv6 | DHCPv6 | 4 (LL, IPv6, IPv6 temp, DHCPv6) | | |









| IPv6 autoconfiguration options | | | | | | | | | | |
|--|---------------------------------|---------------------------------|--|--|---------------------------|---|---|---|--|--|
| Address Autoconfiguration Method | ICM RA (Typ Fla M Flag | Pv6 be 134) igs O Flag | ICM RA (Typ ICMPv6 Prefix A Flag | Pv6 be 134) Option Info L Flag | Prefix Derived from | Interface ID Derived from | Other Configuration Options (DNS, domain, time, tftp, etc) Derived via | # of IPv6 Addr | | |
| Link-Local (always configured) | N/A | N/A | N/A | N/A | Internal (fe80::) | M-EUI-64 or Privacy | Manual | 1 | | |
| Manual | Off | Off | Off | On | Manual | Manual | Manual | 2 (LL, Manual) | | |
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| | Pv6 | Stateful (D | HCPv6) pro | D Ce | SS |
|------------|--|---|---|--|---|
| Cile C | o_O-flag_still-gi | et-all-DHCPv6-other-info_HP-3500_061720 | 012_1315.pcap (Wireshark 1.8.2 (SVN Re Tools Internals Help | v 44520 fro | im /trurk-1.8)} |
| CH CH | BY DI DI D | | 1005 phenas Bep 1017 000 M # M % | 50 1 080 | |
| Filte | | | Proression Deg | aniu | Name - |
| No. | Time 2 13:13:17 3 13:13:17 4 13:13:18 5 13:13:18 | Source F680::223:47ff:fec1:5140 fe80::f10c:df5f:1fc2:2bee fe80::223:47ff:fec1:6140 fe80::f10c:df5f:1fc2:2bee fe80::f10c:df5f:1fc2:2bee fe80::f23:47ff:fec1:6140 | Destination 102201 ff02::1:2 fe80::f10c:df5f:1fc2:2bee ff02::1:2 re80::f10c:df5f:1fc2:2bee | Protocol DHCPV6 DHCPV6 DHCPV6 DHCPv6 DHCPv6 | Length Info 146 Solicit XI 184 Advertise 192 Request XI 184 Reply XID |
| • C • C |)HCPv6 <u>9</u>)HCPv6 <u>4</u> | <u>S</u> olicit = DHCP <u>D</u> is Advertise = DHCP <u>O</u> fl | SCOVEr (IPv4) Fer (IPv4) | | |
| • Г | | Poquest - DHCPPo | | | |
| L | | $\underline{\mathbf{N}}$ equest – Dricr <u>R</u> e | quest (19v4) | | |
| • [| DHCPv6 | <u>R</u> eply = DHCP <u>A</u> c | k (IPv4) | | |
| | | | | | |
| | s in Wirechark v1 5 - Conv | rright © 2016 Jeffrev L. Carrell | | | 42 |







| W2K8-F | | CPv6 | serve | er o | ре | eration |
|---|---|--|---|-------------------------------------|------------------------------|---|
| UPCF B B server01.pp://servebos.com H B Prid B Songe (2001:ebbt tabe:2001::); H Songe (2001:ebbt tabe:2001::); H Songe (2001:ebbt tabe:2001::); H Songe (2001:ebbt tabe:2001::); | Chert Pv6 Addrest 2001: dbb: tab:beSe: 102 2001: dbb: tab:beSe: 105 2001: dbb: tab:beSe: 109 | Nane Win7_02.ipv6aandba Win7_03.ipv6aandba | Lesse Explosion Reservation (active) 5/31/2013 8:17/22 AM Reservation (inactive) | 1410 254884137 0 254884137 | Type Lana Lana Lana | UNDER 10 001 2001 18 34015 3035-294 (Belod 001 2001 19596776 (Belod Belod 001 2001 19596776 (Belod Belod 001 2001 1959 [Jak 5030-2948 Belod |
| Client IPv6 Address Nar | me L | ease Expiration | IAID | Type Unic | jue ID | |
| Bornesser and a set of the s | r | Local and (aLUVE) Lidbilabilabilabic: cpv6-server (547), t 5000c29al4a20 5000c29al4a20 5000c29al4a20 ary Address Non-temporary Addre 505001820010db801abb 102 3636f6d00 r (23) 5002000 51ba5e::2000 | 2.550(13) 0 (2001:db:lab:ba sst Port: dhcpv6-cl) :ss (3) ba5e | 56:200), ient (546) | | 0010000000 |
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| IPv6 a | auto | 000 | nfig | gur | <u>atio</u> | n opt | ions | |
|--|---------------------------------|---------------------------------|--|--|---------------------------|---|---|---|
| Address Autoconfiguration Method | ICM RA (Typ Fla M Flag | Pv6 pe 134) ags O Flag | ICM RA (Typ ICMPv6 Prefix A Flag | Pv6 De 134) Option Info L Flag | Prefix Derived from | Interface ID Derived from | Other Configuration Options (DNS, domain, time, tftp, etc) Derived via | # of IP∨6 Addr |
| Link-Local (always configured) | N/A | N/A | N/A | N/A | Internal (fe80::) | M-EUI-64 or Privacy | Manual | 1 |
| Manual | Off | Off | Off | On | Manual | Manual | Manual | 2 (LL, Manual) |
| SLAAC | Off | Off | On | On | RA | M-EUI-64 or Privacy | Manual | 3 (LL, IPv6, IPv6 temp) |
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| Stateless DHCPv6 | Off | On | On | On | RA | M-EUI-64 or Privacy | DHCPv6 | 3 (LL, IPv6, IPv6 temp) |
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| IPv6 a | auto | 000 | nfi | gur | atio | n opt | ions | (Pvo) |
|--|---------------------------------|----------------------------------|--|---|---------------------------|---|---|---|
| Address Autoconfiguration Method | ICM RA (Tyj Fla M Flag | IPv6 pe 134) ags O Flag | ICM RA (Typ ICMPv6 Prefix A Flag | IPv6 De 134) Option K Info L Flag | Prefix Derived from | Interface ID Derived from | Other Configuration Options (DNS, domain, time, tftp, etc) Derived via | # of IPv6 Addr |
| Link-Local (always configured) | N/A | N/A | N/A | N/A | Internal (fe80::) | M-EUI-64 or Privacy | Manual | 1 |
| Manual | Off | Off | Off | On | Manual | Manual | Manual | 2 (LL, Manual) |
| SLAAC | Off | Off | On | On | RA | M-EUI-64 or Privacy | Manual | 3 (LL, IPv6, IPv6 temp) |
| Stateful (DHCPv6) | On | N/R | Off | On | DHCPv6 | DHCPv6 | DHCPv6 | 2 (LL, DHCPv6) |
| Stateless DHCPv6 | Off | On | On | On | RA | M-EUI-64 or Privacy | DHCPv6 | 3 (LL, IPv6, IPv6 temp) |
| Combination Stateless & DHCPv6 | On | N/R | On | On | RA and DHCPv6 | M-EUI-64 or Privacy and DHCPv6 | DHCPv6 | 4 (LL, IPv6, IPv6 temp, DHCPv6) |



| IPv6 a | aut | 000 | nfig | gur | atio | n opt | ions | |
|--|---------------------------------|---------------------------------|--|--|---------------------------|---|---|---|
| Address Autoconfiguration Method | ICM RA (Tyr Fla M Flag | Pv6 pe 134) ags O Flag | ICM RA (Typ ICMPv6 Prefix A Flag | Pv6 be 134) Option k Info L Flag | Prefix Derived from | Interface ID Derived from | Other Configuration Options (DNS, domain, time, tftp, etc) Derived via | # of IPv6 Addr |
| Link-Local (always configured) | N/A | N/A | N/A | N/A | Internal (fe80::) | M-EUI-64 or Privacy | Manual | 1 |
| Manual | Off | Off | Off | On | Manual | Manual | Manual | 2 (LL, Manual) |
| SLAAC | Off | Off | On | On | RA | M-EUI-64 or Privacy | Manual | 3 (LL, IPv6, IPv6 temp) |
| Stateful (DHCPv6) | On | N/R | Off | On | DHCPv6 | DHCPv6 | DHCPv6 | 2 (LL, DHCPv6) |
| Stateless DHCPv6 | Off | On | On | On | RA | M-EUI-64 or Privacy | DHCPv6 | 3 (LL, IPv6, IPv6 temp) |
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| IPv6 Li | ink-lo | cal ir | า URL | | Pvo |
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| IPv6 in Wireshark v1.5 - Copyright © 2 | 016 Jeffrey L. Carrell | | | | 61 |

| Telnet/S | SH over IP | v6 | ve |
|-------------------|------------------------------|---|----|
| Tera Term: New co | nnection | | |
| | Hos <u>t</u> : [2001:470:56: | 1612::f254] - TCP port#: 23 SSH version: SSH2 - Protocol: UNSPEC - | |
| Serial | Port: COM3 | - Help | |













| Jeff's IP | v6 Wires | sharl | | × |
|--|--|--------------------------------------|--|------|
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| IPv6 in Wireshark v1.5 - Copyright © 2016 Jeff | rey L. Carrell | | 69 | |

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| 442 0.000 | 25115151.500 | 2001-008-120-005-11102 | 2001 (d)811 ab (b/Set 12000 | TOMPAG | 36 Relation Advertisement Shittidkitahik |
| 441 0.249 | 20:15:51.607 | 10,1,0,200 | 10.1.0.100 | DIS | 87 Standard query response Rec208 Server |
| 444 9,999 | 23:15:51.638 | 2001:dbil:1ab:ba5e::2000 | 2001:db8:1ab:ba5e::102 | DIS | 107 Standard query response 0x15cd Server |
| 445 0.000 | 23:15:51.638 | 10.1.0.200 | 18.1.8.188 | DHS | 87 Standard guery response Bxt6c4 Server |
| 445 0.000 | 23:15:51.638 | 10.1.0.200 | 10.1.0.100 | DHS | 87 Standard query response 0xc998 Server |
| 447 0.000 | 23115151.638 | 10.1.0.200 | 10.1.0.100 | DHS | 87 Standard query response ExiScd Server |
| 443.0.000 | 25:15:51.638 | 20.1.0.200 | 10.1.0.200 | IOP | 115 Destination unreachable (Port unreach |
| 449 0.000 | 23:15:51.638 | 2001:db8:1ab:ba5e::2000 | 2001:db8:1ab:ba5e::102 | DHS | 96 Standard query response 0xc998 Server |
| 458 0.000 | 23115151.639 | 2001:db8:1ab:ba5e::102 | 2001:db8:1ab:ba5e::2000 | ICHPv6 | 155 Destination Unreachable (Port unreach |
| 451 0.959 | 23:15:52.599 | HevlettP_b3:76:ec | LLOP_Multicast | LLOP | 282 TTL = 120 System Name = IPv63500-Fe |
| 452 1.255 | 23:15:52.965 | fe90::1 | ff02::1 | ICHP/r6 | 100 Bouter Advertisement from 00:10:35:53 |
| 453 0.287 | 23(15)54,152 | 10.1.0.100 | 229.255.255.258 | SSDP | 175 M-SEARCH * HTTP/1.1 |
| 454 1.045 | 23:15:55.198 | HewLettP_03176100 | HP_00100167 | HP | 110 HP Switch Protocol |
| 455 1.139 | 23:15:56.328 | Vevare_14:a9:ta | Vmeane_10:59:5e | APP | 00 Who has 10.1.0.200? Tell 10.1.0.100 |
| 455 0.000 | 23115156.329 | 2001:058:145:5450:1002 | 2001:db8:1ab:ba5e::2000 | 100PV6 | BG Neighbor Solicitation for 2001:db8:1a |
| 457 0.001 | 25:15:56.330 | Ameaus_24123125 | Vmsare_141891+a | A99* | 00 10-1-0-200 15 0C 0010C129110159156 |
| • Co pr | olors l rotoco | help you fo Is, events, | ocus on speci and possibly | fic add / find / | dress, errors quickly |
| IPv6 in Wi | ireshark v1.5 - Copyrig | ht © 2016 Jeffrey L. Carrell | | | 70 |









| isplay filters | - option | Ζ | |
|---|--|------------------------------------|---|
| 195 0.000 21:15:11.052 **80::150: 191 0.000 21:15:11.052 **80::150: 197 0.004 21:15:11.052 **60::150: | trowthatmes topentAll Collars All | Det-Right Cel-Right Cel-Latt | 1.1740 1.1740 1.1740 |
| 198 0.000 11:11:11:010 10.1.0.100 198 0.777 [3:15:11.323 Vmore_14:1 | Apply as Colores | | 110WH 38P |
| 200 0.000 21:15:12.321 10.1.0.100 201 0.000 21:15:12.321 :: 242 0.000 21:15:12.321 :: 242 0.000 21:15:12.321 :: 242 0.000 21:15:12.321 :: 244 0.010 21:15:12.341 fe80:::::::: 244 0.010 21:15:12.341 fe80:::::::: 244 0.010 21:15:12.341 fe80:::::::: 244 0.010 21:15:12.341 fe80:::::::::: 244 0.010 21:15:12.341 fe80:::::::::::::::: 244 0.010 21:15:12.345 fe80:::::::::::::::::::::::::::::::::::: | Apply at Film Popers of film Conversition Film Cohorse with Film Follow Copy | | Not Selected and Selected and Selected and selected and selected at red Selected |
| 201 0 000 21 15 13 146 7485 1452 209 0 000 23 15 13 146 7485 1452 209 0 000 23 15 13 147 10 1 0 100 210 0 007 23 15 12 155 10 1 0 100 | Export Packet Dytes. Wild Protocol Page Filter Field Reference | CHI-H | LUNK LUNK NESS |
| ume 2001 70 bytes on wire (624 bits herret 31, Src: Vmern_14:eD:fm (00) herret Protocol Vervice 6, Src: 1:, terret Control Pessage Protocol vé | Protocol Preferences Decode As Do to United Packet Stars Letters Packet to New Window | | ₽ 0 2 (13:33:47:00:01:0 |

| | lcin | | schark | , to y | | |
|--|--|--|---|---|---|---------------------|
| | 511 | | 511a1 K | | iew irvo pro | ,5 |
| A 3,7795-2014 | Whetherk werksho | p-followine prograg | | | | - 0 X |
| File Edit New | Ge Capture A | naluze Statistics Telephony Wirels | ne Tech Hele | | | |
| | 88.1 ** | | Dig - Invasion - Point P | A M. Impediations. Almost | dend is at arrest double shidney rates Pri Milli semaleri | N. First search set |
| te. Inte | Tree | laws | Intintion | Protocol | imph bits | ~ |
| 78.9.211 | 21-12-12-10 | Server at | 6683.13 | 20740 | THE ROUTER ADVECTIONNESS From MILINITY, BILLOUIN | |
| 79.0.415 | 31:31:48.000 | fe88 : : 1957: 3844: 95e5 : 5657 | 179821136 - CONTUINS | 30946 | 90 Pultisot Listerer Report Research | |
| 42.0.372 | 31:12:48.005 | fe88 : : F957 : 3844: 95e5 :SeE7 | 11021136 | 30946 | 310 Pulticest Listemer Report Research al | |
| 112 5.847 | 31-31-00.256 | Area a | 404E-12 | 239-6 | THE ROUTER Advertisement from Millarith.https:// | |
| 113 2.947 | 10:10:11.322 | fe88117957138441954515457 | ff82::312 | IRCPu6 | 367 Solicit XI3: 0434547c CD: 8001800136759421800425404 | 429 |
| 154 2,915 | 31:54:15.000 | Addition | 1002113 | 309% | 110 Router Advertisement from Mills (Schlighter) | |
| 1071.849 | 31-14-01-412 | Associate State | HHRE I I | 209%0 | 110 Router Advertisement from MOLELIN.BILTOICE | |
| 158-5, 334 | 31:15:10.123 | 1 gr | 1782113117ec14066 | 309%6 | TB Heighber Selicitetien fer febb: x54:1489:56ec:4c66 | - |
| 111 0.800 | 31-11-00.120 | And I Charles The Contemporate | 4948113 44471 34 | 22946 | TO Reader Solicitation from ON Delaying the | |
| 153 0.805 | 31:15:20.100 | 11 | 1782:13:17ec:4066 | 309-6 | TS Neighbor Selicitation for fold: cS4:1003:50c:4005 | |
| 154.0.315 | 21/10/40.414 | Associate State | 1001113 | 2275-0 | THE ROUTEF Advertisement from Million All Police | |
| 155 0.211 | 33:15:16.497 | febilt riefd r Lakin Meer 4668 | 19821136 | 309%6 | 50 NuCtionst Listemer Report Resempt of | |
| 208-0.829 | 23, 25, 69, 603 | Anna 11254 (1499) morel doon | +++R21120- | 339%6 | DO PAIRIERT Litzener Report Retage vi | |
| 302 0.804 | 21:15:00.007 | Annual states of the second st | 111821130- | 3,79745 | SUPPORTERST Listener Report Research of | |
| 151.0.800 | 31-15-00.000 | Automatical State California Manager April 8 | 49982+-3-5 | 112908 | 87 Stanlard corry Buffle, MY Wir7, 81 | |
| - 300 0.041 | 21-15-09.988 | Associated (1499) meet door | 494411312 | BCP-0 | MAR BOLICIT STRI GARTYERI CITA BORLEOUTSEN/BORLEOUTSEL | icui 📃 |
| 355 0.861 | 33:15:18.040 | febilit to 54 (1489) 36ect 4c68 | ###211315 | LUMM | 87 Standard carry Refric AW KinZuti | |
| 367-0.800 | 21,15,18,128 | 2001 (dbd (1ak (bahw)) 2000 | 49821121896618088 | 329% | no molghow tallilitation for femulated identifications i | roe delector. Y |
| > Prome Idd. 3 > Ethernet II, > Internet Pro > User Outagro > DHEPv0 | in hytes on al . Src: Weenre_t rhourd Werslam an Protocol, Sr | <pre>re (2000 bits); 100 bytes on Austria (000 br:20 SACaderichs); b, tern followed-client (1000 client r Fort: dhoped-client (546);</pre> | hured (1202 bits) on inter- htt: Diviscant_81208202 (1 hold, Dak: 0982:312 htt Port: dkpv6-server (5 | fauer d (c.3.): 88 : 90: 300: 833 47) | | |
| • X | | | | | Polinika 32011 Doglaneka Weiczkunika Laad Sine Schutt | DOM: DO |
| 10.5 | Winschad ut 7 | Conscipt @ 2015 Joffeeu | | | | 76 |
| IPv6 in | wiresnark v1.5 - | copyright © 2016 Jeffrey L. Carrell | | | | 76 |

| Columns | | | Ţ | 2 |
|---|--|--------------------------|-----------------------------|--------------------|
| 152.0.000 23:15:01.324 fe80((C54)1609(36e) 153.0.005 23:15:01.330 :: | Expand Subtrees Expand All | Shift+Right Cat+Right | | |
| 154 0.285 23(15)01.616 fe60::1 | Collapse All | Carl+Left | | |
| 100 0.029 23:15:00.033 fe80::c5d:1d09:360 | Apply as Column | | C | D - Harth |
| 161 0.004 23:15:00.937 fe80::c5d:1600:16e | Apply as Filter | | Source | Alian Left |
| 164 0.041 23:15:00.000 fe80::::5d:1600:36e | Prepare a Filter | | Te80::c5a:1a | Alian Center |
| 167 0.000 23:15:10.126 2001:db0:lab:ba5e: 169 0.000 23:15:10.127 5e80:105d:ld00:36e | Colorize with Filter | | Te80::c5a:1ak | Align Bight |
| 170 0.001 23:15:10.120 2001:db8:1ab:ba5e: | Follow | | | Aligh Kight |
| 172 0.077 23:15:10.246 fe80::c5d:1d00:36e 174 0.026 23:15:10.273 fe80::c5d:1d00:36e | Сору | | fe80::1 | Column Preferences |
| 180 0.000 21:15:10.124 fe80::c5d:1d00:36e | Export Packet Bytes | CII+H | fe80::c5d:1d | Edit Column |
| 185 0.118 23(15)10,981 fe00::c5d:1000:30e) 189 0.219 23:15:11.825 2001(408)1ab)ba5e(| Filter Field Reference | | Te80::c5d:1d | Resize To Contents |
| ame 151: 70 bytes on wire (560 bits), 70 byte | Protocol Preferences | • | TE80::C20:10 | |
| hernet II, Src: Vmware_14:a9:Fa (00:00:29:14 | Decode As | | | |
| ternet Protocol Version 5, Src: 1080::c50:109 ternet Control Message Protocol v6 | So to Linked Packet Show Linked Packet in New Win | écw. | Right-c | lick column |
| Type: Router Solicitation (133) | | | headin | as to rename. |
| In the Packet Detai click on a specific fi as Column | ls view, right eld to Apply | t- | align, e | etc |
| IPv6 in Wireshark v1.5 - Copyright \otimes 2016 Jeffrey L. Carrell | | | | 77 |





| Packet annota | ation | Ŵ | 1 |
|--|-------------------------------------|-----------|---------------------------|
| 151 B. 898 _ 25:15:81, 524 - 6688) ((5d) 1.099).Sec(406) | 1100113 | 303856 | 70 Noute- Solicitation |
| 152 0.000 23:15:01.324 1e00::c5d:1009:30ec:4c00 153 0.005 23:15:01.329 :: | ang altradium - Nacket Comment | 1 X | 20 Multicent Listerer R |
| 154 B. Jan Prinsier nin How 11 | from the second state | | The motor Aller thread |
| 155 0.311 21:15:01.827 fe80::c5d:1d09:35ec:4c80 | ffg. | | 90 Multicent Listerer B |
| 160 0.059 23(15)(09,933 fvii0::c5d:1d09:36ec:dc66 | 110 | | 90 Multicast Listener R |
| 161 8.004 23:15:09.037 (000) (001 1009) (000) (1009) | | | 30 Multicost Listener 10 |
| 163 6.000 23:15 09.939 Tub9::c5d:1409:36ec:4c60 | #10 av | and a | #7 Standard garry Boofd |
| 164.0.041 21-15-00 000 FeBR U.ST 1099 36V 14/60 | | | 149 Solle 11 x30: 0:97299 |
| 151 0.000 23:15:01.324 fe80::c5d:1d09:36ec:4 | c66 ff02::2 | ICMPv6 | 70 Router Solici |
| ✓ Packet comments | | | |
| ✓ 1st Router Solicitation seen | | | |
| ✓ [Expert Info (Comment/Comment): 1st Router S | olicitation seen] | | |
| [1st Router Solicitation seen] | | | |
| [Severity level: Comment] | | | |
| > Frame 151: 70 bytes on wire (560 bits), 70 bytes | captured (560 bits) on interface 0 | 1 | |
| > Ethernet II, Src: Vmware_14:a9:fa (00:0c:29:14:a) | 9:fa), Dst: IPv6mcast_02 (33:33:00: | 00:00:02) | |
| > Internet Protocol Version 6, Src: fe80::c5d:1d09 | :36ec:4c66, Dst: ff02::2 | | |
| > Internet Control Message Protocol v6 | | | |
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