1. Time To Live
   1. Default TTL Values
      1. TTL is a timer value included in packets sent over TCP/IP-based networks that tells the recipients how long to hold or use the packet or any of its included data before expiring and discarding the packet or data.
      2. Folloing are the list of Devices / Operating system with Default TTL values

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| --- | --- | --- | --- |
| **OS/Device** | **Version** | **Protocol** | **TTL** |
| AIX |  | TCP | 60 |
| AIX |  | UDP | 30 |
| AIX | 3.2, 4.1 | ICMP | 255 |
| BSDI | BSD/OS 3.1 and 4.0 | ICMP | 255 |
| Compa | Tru64 v5.0 | ICMP | 64 |
| Cisco |  | ICMP | 254 |
| DEC Pathworks | V5 | TCP and UDP | 30 |
| Foundry |  | ICMP | 64 |
| FreeBSD | 2.1R | TCP and UDP | 64 |
| FreeBSD | 3.4, 4.0 | ICMP | 255 |
| FreeBSD | 5 | ICMP | 64 |
| HP-UX | 9.0x | TCP and UDP | 30 |
| HP-UX | 10.01 | TCP and UDP | 64 |
| HP-UX | 10.2 | ICMP | 255 |
| HP-UX | 11 | ICMP | 255 |
| HP-UX | 11 | TCP | 64 |
| Irix | 5.3 | TCP and UDP | 60 |
| Irix | 6.x | TCP and UDP | 60 |
| Irix | 6.5.3, 6.5.8 | ICMP | 255 |
| juniper |  | ICMP | 64 |
| MPE/IX (HP) |  | ICMP | 200 |
| Linux | 2.0.x kernel | ICMP | 64 |
| Linux | 2.2.14 kernel | ICMP | 255 |
| Linux | 2.4 kernel | ICMP | 255 |
| Linux | Red Hat 9 | ICMP and TCP | 64 |
| MacOS/MacTCP | 2.0.x | TCP and UDP | 60 |
| MacOS/MacTCP | X (10.5.6) | ICMP/TCP/UDP | 64 |
| NetBSD |  | ICMP | 255 |
| Netgear FVG318 |  | ICMP and UDP | 64 |
| OpenBSD | 2.6 & 2.7 | ICMP | 255 |
| OpenVMS | 07.01.2002 | ICMP | 255 |
| OS/2 | TCP/IP 3.0 |  | 64 |
| OSF/1 | V3.2A | TCP | 60 |
| OSF/1 | V3.2A | UDP | 30 |
| Solaris | 2.5.1, 2.6, 2.7, 2.8 | ICMP | 255 |
| Solaris | 2.8 | TCP | 64 |
| Stratus | TCP\_OS | ICMP | 255 |
| Stratus | TCP\_OS (14.2-) | TCP and UDP | 30 |
| Stratus | TCP\_OS (14.3+) | TCP and UDP | 64 |
| Stratus | STCP | ICMP/TCP/UDP | 60 |
| SunOS | 4.1.3/4.1.4 | TCP and UDP | 60 |
| SunOS | 5.7 | ICMP and TCP | 255 |
| Ultrix | V4.1/V4.2A | TCP | 60 |
| Ultrix | V4.1/V4.2A | UDP | 30 |
| Ultrix | V4.2 – 4.5 | ICMP | 255 |
| VMS/Multinet |  | TCP and UDP | 64 |
| VMS/TCPware |  | TCP | 60 |
| VMS/TCPware |  | UDP | 64 |
| VMS/Wollongong | 1.1.1.1 | TCP | 128 |
| VMS/Wollongong | 1.1.1.1 | UDP | 30 |
| VMS/UCX |  | TCP and UDP | 128 |
| Windows | for Workgroups | TCP and UDP | 32 |
| Windows | 95 | TCP and UDP | 32 |
| Windows | 98 | ICMP | 32 |
| Windows | 98, 98 SE | ICMP | 128 |
| Windows | 98 | TCP | 128 |
| Windows | NT 3.51 | TCP and UDP | 32 |
| Windows | NT 4.0 | TCP and UDP | 128 |
| Windows | NT 4.0 SP5- |  | 32 |
| Windows | NT 4.0 SP6+ |  | 128 |
| Windows | NT 4 WRKS SP 3, SP 6a | ICMP | 128 |
| Windows | NT 4 Server SP4 | ICMP | 128 |
| Windows | ME | ICMP | 128 |
| Windows | 2000 pro | ICMP/TCP/UDP | 128 |
| Windows | 2000 family | ICMP | 128 |
| Windows | Server 2003 |  | 128 |
| Windows | XP | ICMP/TCP/UDP | 128 |