

How to enable IPv6 on a Cisco Router

Now in order for you to allow (enable) a Cisco router to begin routing IPv6 packets, you'll need to perform the following two tasks.

Step1 - Enable IPv6 routing globally on the router Step2 - **enable IPv6 processing on a particular interface(s)**. To begin completing task number one (enabling IPv6 routing globally on a router) you'll need to enter Global Configuration mode and type `ipv6 unicast-routing` on the router like you see here: `Router>enable Router#configure terminal Router(config)#ipv6 unicast-routing Router(config)#exit Router#` Notice, that I typed the word "enable" while the router was in User Exec mode (`Router>`) which then placed the router into Privileged Exec mode (`Router#`). Then once the router was in Privileged Exec mode (`Router#`) I typed the words "configure terminal" which then placed the router into Global Configuration mode (`Router(config)#`) so I could begin configuring the router to globally route IPv6 packets; and as you can see, I typed the Global Configuration command "`ipv6 unicast-routing`" to complete task number one. So, to make a long story short, the command that you need to type on a Cisco router to enable it globally for IPv6 packet routing is "**ipv6 unicast-routing**". Now, that I've successfully completed task number one, I typed the word "exit" to leave Global Configuration mode (`Router(config)#`) and re-entered into Privileged Exec mode (`Router#`). `Router>enable Router#configure terminal Router(config)#ipv6 unicast-routing Router(config)#exit Router#configure terminal Router(config)#interface fastethernet 0/0 Router(config-if)#ipv6 enable Router(config-if)#` Now, since the router is back into Privileged Exec mode (`Router#`), I continued on to completing task number two (enabling IPv6 processing on a particular interface(s). By re-typing the command "configure terminal" which placed the router back into Global Configuration mode (`Router(config)#`), so I could use the "interface" command to specify the interface type (fastethernet) and its slot and port information (0/0). Notice, that the router has entered into Interface Configuration mode (`Router(config-if)#`) by hitting the enter key, and once the router was in Interface Configuration mode (`Router(config-if)#`); I used the interface command "**ipv6 enable**" to enable the fastethernet 0/0 interface for IPv6 processing to complete task number 2. Here's another way the previous commands could have been typed: `Router>enable Router#configure terminal Router(config)#ipv6 unicast-routing Router(config)#interface fastethernet 0/0 Router(config-if)#ipv6 enable Router(config-if)#exit Router#` Notice, that it wasn't really necessary to leave Global Configuration mode (`Router(config)#`) to complete both tasks; I just did it, to show you each task individually. I invite you to visit my website where you'll find the latest information regarding Cisco IPv6 Design and Implementation Techniques. To your success.