**Differences between IPV 4 and IPV 6**

**IPV 4**

* The IP address has 32 bits and is in dotted decimal form
* It has four billion possible IP addresses
* It uses checksum to verify integrity of data being sent
* It supports manual and DHCP address configuration
* End to end connection Integrity is unachievable
* The security feature is dependent on the application
* Flow identification is not available
* Encryption and authentication facility not provided
* It has a header of 20 – 60 bytes

**IPV 6**

* The IP address has 128 bits and is In alphanumeric hexadecimal notation
* It increases the number of possible IP addresses from 4 billion all the way up to 340 trillion
* Checksum field is not available
* It supports auto and renumbering address configuration
* End to end connection integrity is achievable
* It has an inbuilt security feature called IPSEC
* Flow identification is available
* Encryption and authentication are provided
* It has a header of 40 bytes fixed