**COLLINS KARUGIA.**

**DIFFERENCE BETWEEN IPV4 AND IPV6.**

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| **IPV4** |  | **IPV6** |
| It has a 32bit address length. | It has a 128 bit address lenght. |
| It supports manual address configuration. | It supports auto and renumbering address configuration.. |
| Address representation is in decimal. | Address representation is in hexadecimal. |
| Fragmentation is done by the server and the fowarding routers | Fragmentation is only perfomed by the sender. |
| It has a header of 20-60 bytes | It has a header of 40 fixed bytes. |
| Packet flow is not available in Ipv4 | Packet flow is available and it uses the flowlabel in the header. |

**DIFFERENCES BETWEEN A PROXY AND VPN.**

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| **PROXY** |  | **VIRTUAL PRIVATE NETWORK(VPN)** |
| Does not provide security. | Ensures encryption,integrity and authentication. |
| Protocols used are FTP , SMTP andHTTP | Protocols used are VPN and PTTP. |
| It only works on browsers. | It works on firewalls. |
| Does not have any tunnel between end users. | Creates a tunnel between end users. |
| It uses anoymous network ID’s thus hiding the client’s IP address. | Does not hide the IP address of the client. |
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