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| Hub | Switch |
| Hub is operated on Physical layer of OSI model. | While switch is operated on Data link layer of OSI Model. |
| Hub is a broadcast type transmission. | While switch is a Unicast, multicast and broadcast type transmission. |
| Hub cannot be used as a repeater. | While switch can be used as a repeater. |
| Hacking of systems attached to hub is complex. | Hacking of systems attached to switch is little easy. |
| In hub, Packet filtering is not provided. | While in switch, Packet filtering is provided. |

1. Difference between : HUB & SWITCH
2. Difference between: SWITCH & ROUTER

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| Switch | Router |
| The main objective of router is to connect various networks simultaneously. | While the main objective of switch is to connect various devices simultaneously. |
| It works in network layer. | While it works in data link layer. |
| Router is used by LAN as well as MAN. | While switch is used by only LAN. |
| Router needs at least two networks to connect. | Switch needs at least single network is to connect. |
| Through the router, data is sent in the form of packets. | While through switch data is sent in the form of frame. |

1. Difference between: ROUTER & GATEWAY

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| Router | Gateway |
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