**APPENDIX 9 – Summary of Different Between SNMPv1, SNMPv2, and SNMPv3**

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| **Content** | **SNMPv1** | **SNMPv2** | **SNMPv3** |
| Standards | RFC-1155.1157.1212 | RFC-1441,1452 RFC-1909.1910 RFC- 1901 to 1908 | RFC-1902 to 1908,2271 to 2275 |
| Version | SNMPv1 was the first version of SNMP | SNMPv2 currently exists in at least three flavors, SNMPv2c, SNMPv2u, and SNMPv2 | SNMPv3 is the newest version of SNMP. |
| protocol operations | Simple request/ response protocol. Protocol operations:Get, GetNext, Set, and Trap | Similarity: Get, GetNext, Set Changes: Trap message format New protocol operations GetBulk and Inform | SNMPv3 uses SNMPv2 protocol operations and its PDU message format |
| Security | No security from someone with access to the network | SNMPv2 failed to improve on security. | Its primary feature is enhanced security. |
| Complexity | Performance and security limitations. | More powerful but more complex than SNMPv1 | SNMPv3 focuses on improving the security aspect. |
| Message Format | Five messages (*GetRequest,,GetNextRequest, SetRequest, Trap, Response*) | Seven messages instead of five (inform-request, get-bulk-request) | Implements SNMP v1 and v2 specifications along with proposed new features. |
| Protocol | An open, standard protocol, Streamlined protocol | Simple request/response protocol | The "EngineID" Identifier in SNMPv3 uniquely identifies each SNMP entity. |
| MIB | Defines limited, easily implemented MIB of scalar variables and two-dimensional tables | Defines general framework with which MIB defined and constructed | Can configure agents to provide a number of levels of access to MIB |
| Plaintext community strings | Yes | Yes | No |
| Encrypted traffic, Detection of malformed packets | No | Yes | Yes |
| Susceptible to brute- force attacks, Susceptible to buffer-overflow attacks | Yes | Yes | No |
| Susceptible to injection attacks | Yes | No | No |
| Susceptible to replay attacks | Yes | No | No |
| Susceptible to sniffing of session keys | Yes | No | No |
| Default/known passwords | Yes | Yes | No |