

**New Tunnel-Type Values**  
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Abstract

This document defines a set of values for the Tunnel-Type RADIUS Attribute.

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## 1. Introduction

The RADIUS protocol is defined in [\[RFC2865\]](#). "RADIUS Attributes for Tunnel Protocol Support" [\[RFC2868\] Section 3.1](#) defines the Tunnel-Type Attribute. This document defines a set of new values for the Tunnel-Type Attribute.

In [\[RFC2868\] Section 3.1](#), two values relating to IPsec Tunnel-mode are allocated, one for "IP Authentication Header in the Tunnel-mode (AH)" (6), and one for "IP Encapsulating Security Payload in the Tunnel-mode (ESP)" (9). While the key management mechanisms are not stated, it is assumed that these include either Internet Key Exchange (IKE) [\[RFC2409\]](#) or manual keying via the Tunnel-Password Attribute defined in [\[RFC2868\] Section 3.5](#).

Since then, IKEv2 [\[RFC4306\]](#) has been developed, and the specification for ESP has been revised [\[RFC4303\]](#). This document requests allocation of additional Tunnel-Type values for "IP Encapsulating Security Payload in the Tunnel-mode (ESP) with IKEv2", as well as for the "Secure Socket Tunneling Protocol (SSTP)" [\[SSTP\]](#).

## 2. Tunnel-Type Values

This document defines new values for the Tunnel-Type Attribute. This specification concerns the following values:

- 14 IP Encapsulating Security Payload (ESP) [\[RFC4303\]](#) in the Tunnel-mode with IKEv2 [\[RFC4306\]](#)
- 15 Microsoft Secure Socket Tunneling Protocol (SSTP) [\[SSTP\]](#)

## 3. IANA Considerations

This document requests assignment of new values of the RADIUS Tunnel-Type Attribute by IANA in the appropriate registry [\[RADTYP\]](#).

The new values being requested are:

Tunnel-Type	Value
=====	====
IP Encapsulating Security Payload (ESP) in the Tunnel-mode with IKEv2	14
Microsoft Secure Socket Tunneling Protocol (SSTP)	15

Additional values of the Tunnel-Type Attribute are allocated as described in [\[RFC2868\] Section 6.1](#) (IETF Consensus). Allocation of attribute values is also discussed in [\[RFC3575\] Section 2.1](#).



#### **4. Security Considerations**

This specification neither adds to nor detracts from the security of the RADIUS protocol.

#### **5. References**

##### **5.1. Normative references**

- [RFC2865] Rigney, C., Rubens, A., Simpson, W. and S. Willens, "Remote Authentication Dial In User Service (RADIUS)", [RFC 2865](#), June 2000.
- [RFC2868] Zorn, G., Leifer, D., Rubens, A., Shriver, J., Holdrege, M., and I. Goyret, "RADIUS Attributes for Tunnel Protocol Support", [RFC 2868](#), June 2000.
- [RFC3575] Aboba, B., "IANA Considerations for RADIUS", [RFC 3575](#), July 2003.

##### **5.2. Informative references**

- [RADTYP] Internet Assigned Numbers Authority, "RADIUS TYPES", <<http://www.iana.org/assignments/radius-types>>.
- [RFC2409] Harkins, D. and D. Carrel, "The Internet Key Exchange (IKE)", [RFC 2409](#), November 1998.
- [RFC4303] Kent, S., "IP Encapsulating Security Payload (ESP)", [RFC 4303](#), December 2005.
- [RFC4306] Kaufman, C., Ed., "Internet Key Exchange (IKEv2) Protocol", [RFC 4306](#), December 2005.
- [SSTP] "[MS-SSTP]: Secure Socket Tunneling Protocol (SSTP) Specification", Microsoft Developer Network Library, <http://msdn.microsoft.com/en-us/library/cc247338.aspx>

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