

FiTP extension request(s) How to deal with?

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Specifying a protocol, which shall be commonly used, implies the following prerequisites

- Secure implementation
- Easy to use
- Widely accepted

How to handle new requests for inclusion?

Support for firewalls that support tokenised traffic authentication
Those have hardware support for HMAC-SHAx algorithms.

3100,GAcR,Allow=*n,h1,h2,GRI, TokenKey*

A user_PI requests access for an application which wants to communicate between ip addresses h1 and h2. Application uses Token Based Networking (TBN) and firewall is token-aware. Tokenized traffic will be authenticated with Global Resource Identifier (GRI) and the TokenKey.

GRI is a text identifier representing an unsigned long long (64bits) value either in digits or hex such as 0xAABBCCDD11223344. GRI must be a unique number for a server_PI at any moment. Therefore, the positive or negative answer to this request depends on the checking result of GRI in the existing list with granted GRIs.

TokenKey is a text identifier, expressed in digits or hex (0xAA...), which may have different lengths, according to the authentication algorithm requested to be used, as follows:

20Bytes for HMAC-SHA1,
32Bytes for HMAC-SHA256,
48Bytes for HMAC-SHA384,
64Bytes for HMAC-SHA512

3100, GAcR,ACK,Allow= $n, h1, h2, GRI$

Positive acknowledgement to the grant request n . For $h1$ and $h2$ specification see 3100 user_PI command above. This positive acknowledgement includes a positive result to checking that the requested GRI is not already in used by another granted request.

However, the details are not yet done, due to the various scenarios in which firewalls might work. For example, I do not know how a chain of firewalls would work with one single GRI . We have solved this issue in AAA end-to-end path setup, but here might be different issues involved. Therefore, I would take the chance and put some efforts in this respect if you are open to the idea of supporting TBN firewalls.

Questions and discussion

