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M. Leech
Bell-Northern Research Ltd

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Username/Password Authentication for SOCKS V5

Status of this Memo

1. Introduction

The protocol specification for SOCKS Version 5 specifies a generalized framework for the use of arbitrary authentication protocols in the initial socks connection setup. This document describes one of those protocols, as it fits into the SOCKS Version 5 authentication "subnegotiation".

Note:

Unless otherwise noted, the decimal numbers appearing in packet-format diagrams represent the length of the corresponding field, in octets. Where a given octet must take on a specific value, the syntax X'hh' is used to denote the value of the single octet in that field. When the word 'Variable' is used, it indicates that the corresponding field has a variable length defined either by an associated (one or two octet) length field, or by a data type field.

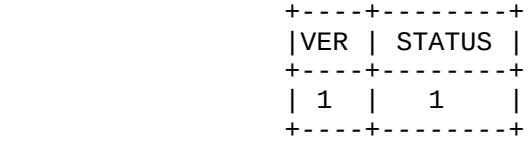
2. Initial negotiation

Once the SOCKS V5 server has started, and the client has selected the Username/Password Authentication protocol, the Username/Password subnegotiation begins. This begins with the client producing a Username/Password request:

VER	ULEN	UNAME	PLEN	PASSWD
1	1	1 to 255	1	1 to 255

The VER field contains the current version of the subnegotiation, which is X'01'. The ULEN field contains the length of the UNAME field that follows. The UNAME field contains the username as known to the source operating system. The PLEN field contains the length of the PASSWD field that follows. The PASSWD field contains the password association with the given UNAME.

The server verifies the supplied UNAME and PASSWD, and sends the following response:



A STATUS field of X'00' indicates success. If the server returns a 'failure' (STATUS value other than X'00') status, it MUST close the connection.

3. Security Considerations

This document describes a subnegotiation that provides authentication services to the SOCKS protocol. Since the request carries the password in cleartext, this subnegotiation is not recommended for environments where "sniffing" is possible and practical.

4. Author's Address

Marcus Leech
Bell-Northern Research Ltd
P.O. Box 3511, Station C
Ottawa, ON
CANADA K1Y 4H7

Phone: +1 613 763 9145
EMail: mleech@bnr.ca