Network Working Group
Request for Comments: 912

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Authentication Service

STATUS OF THIS MEMO

This RFC suggests a proposed protocol for the ARPA-Internet community, and requests discussion and suggestions for improvements. Distribution of this memo is unlimited.

INTRODUCTION

The Authentication Server provides a means to determine the identity of a user of a particular TCP connection. Given a TCP port number pair, it returns a character string which identifies the owner of that connection on the server's system. Suggested uses include automatic identification and verification of a user during an FTP session, additional verification of a TAC dial up user, and access verification for a generalized network file server.

OVERVIEW

This is a connection based application on TCP. A server listens for TCP connections on TCP port 113 (decimal). Once a connection is established, the server reads one line of data which specifies the connection of interest. If it exists, the system dependent user identifier of the connection of interest is sent out the connection. The service closes the connection after sending the user identifier.

RESTRICTIONS

Queries are permitted only for fully specified connections. The local/foreign host pair used to fully specify the connection are taken from the query connection. This means a user on Host A may only query the server on Host B about connections between A and B.

QUERY/RESPONSE FORMAT

The server accepts simple text query requests of the form

<local-port>, <foreign-port>

where <local-port>, is the TCP port (decimal) on the target (server) system, and <foreign-port> is the TCP port (decimal) on the source (user) system.

For example:

```
        23, 6191
```

The response is of the form

```
   <local-port>, <foreign-port> : <response-type> : <additional-info>
```

where <local-port>, <foreign-port> are the same pair as the query, <response-type> is a keyword identifying the type of response, and <additional info> is context dependent.

For example:

```
        23, 6191 : USERID : StJohns
```

RESPONSE TYPES

A response can be one of two types:

USERID

In this case, <additional-info> is the printable representation of the user identifier of the owner of the connection. The format of the returned user identifier is completely system dependent.

ERROR

For some reason the owner of the TCP port could not be determined, <additional-info> tells why. The following are suggested values of <additional-info> and their meanings.

INVALID PORT

Either the local or foreign port was improperly specified.

NO USER

The connection specified by the port pair is not currently in use.

UNKNOWN ERROR

Can't determine connection owner; reason unknown.
Other values may be specified as necessary.

CAVEATS

Unfortunately, the trustworthiness of the various host systems that might implement an authentication server will vary quite a bit. It is up to the various applications that will use the server to determine the amount of trust they will place in the returned information. It may be appropriate in some cases restrict the use of the server to within a locally controlled subnet.

APPLICATIONS

1) Automatic user authentication for FTP.

2) Verification for privileged network operations. For example, having the server start or stop special purpose servers.

DISCLAIMER

I designed this protocol to allow me to eliminate the bother of having to identify myself before continuing an FTP session.

Since I started work on it, other applications appeared. I have tried to consider all of our applications while still making this as general as possible.