Psychic Broadcast

Application layer UDP broadcasting protocol used to identify open servers

There are two components:

1. Client

* Sends broadcasts asking for any open servers (broadcast request)
* Waits to receive answers from open servers (answer)

1. Server

* Receives broadcasts from clients (broadcast request)
* Is set up on a port which the client is aware of
* Sends answers to broadcasts in response

Packet format:

Client->Server Broadcast Request

0 8 16 24

+--------+--------+--------+--------+

| R | E | Q | U |

+--------+--------+--------+--------+

| E | S | T | . |

+--------+--------+--------+--------+

Each character is written in terms of its ASCII literal i.e. the message is the ASCII-encoded string “REQUEST.”

Server->Client Answer

0 8 16 24

+--------+--------+--------+--------+

| A | N | S | W |

+--------+--------+--------+--------+

| . | IPVERS | PORT |

+--------+--------+--------+--------+

| . ADDRESS |

+--------+--------+--------+--------+

| DATA... |

+--------+--------+--------+--------+

The first 5 characters are written in terms of its ASCII literal i.e. the message starts with the ASCII-encoded string “ANSW.”

IPVERS: This is the unsigned integer 4 for IPv4 and 6 for IPv6

PORT: This is the unsigned integer representing the port of the server.

ADDRESS: This is 4 bytes long if the version is IPv4, otherwise it is 16 bytes long

DATA: This is the rest of the packet, containing information about the server.