

Re: compare iis-ftp and serv-u.

Source:

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"Elga" <Elga@discussions.microsoft.com> wrote in message
news:04BC97AF-0E53-40C8-AB0C-7A4E7FB2ED8F@microsoft.com...

- > *First, it wasn't my intention to be unpolite. I appreciated the help I*
- > *received in this forum when I began to work with IIS. If it was the*
- > *consequence of my post, I apologize.*
- >
- > *But, I don't agree with the idea of this is a NAT's issue.*
- > *NAT have to translate internal IP to external IP (and viceversa) in the*
- > *header of IP message, but does not have to do with the body of thar*
- > *message.*
- > *So, if some NAT manufacturer wants to give an special treatment to the*
- > *body*
- > *of the answer to PASV command, it's cool, but it is not mandatory.*
- > *Because of this, there are many NATs that don't do it. Then, the FTP*
- > *server*
- > *software needs to know the external IP in order to send the right answer*
- > *to*
- > *the client, in this cases.*

I disagree.

RFC 1631 ("The IP Network Address Translator") actually lays this out as a requirement on the NAT router:

"3.3 Header Manipulations

In addition to modifying the IP address, NAT must modify the IP checksum and the TCP checksum. Remember, TCP's checksum also covers a pseudo header which contains the source and destination address. NAT must also look out for ICMP and FTP and modify the places where the IP address appears. There are undoubtedly other places, where modifications must be done. Hopefully, most such applications will be discovered during experimentation with NAT.

"

An example is given of the FTP PORT command, and how to modify it, and the

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sequence numbers, in order to carry out an FTP transaction through a NAPT router.

I have yet to see a NAPT router that did not support this, although most are constrained to only do this on port 21.

Consider the following scenario.

Assume an FTP server, Jim, that quotes an external IP address in its PASV response.

A client connects, and requests a PASV port be assigned. The server responds with "227 Passive port (192,168,2,3,4,1)" The client connects to 192.168.2.3:1025, which has been dynamically mapped at the NAT by the RPC service on Fred, a different machine, that wants an outward-facing RPC service.

The NAPT cannot prevent this, because, as far as it knows, address "192.168.2.3" is already an external address, and should not be modified. Jim does not know that Fred has this mapping added into the NAPT's routing table.

This is why it is the NAPT router's responsibility to do this translation if at all possible. Only the NAPT router has all the information necessary to make the translation securely.

Alun.

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