Doomsday Engine - Feature #1658

Automatic port forwarding (UPnP/NAT-PMP/PCP)

2013-11-07 10:05 - skyjake

Status:	New	**Start date:**	2013-11-07
Priority:	High	**% Done:**	0%
Assignee:	skyjake		
Category:	3rd party compatibility		
Target version:	Multiplayer		

Description

To facilitate running servers behind local internet gateways (routers, NAT, etc.), Doomsday should take advantage of UPnP, NAT-PMP and PCP to automatically allow the server's port to be forwarded to the correct place inside the local network.

This should be helpful:

- UPnP Forum: SDKs
  - Qt-based HUPnP (GPL3, LGPL)
  - libupnp (BSD license)
- RFC 6886 - NAT Port Mapping Protocol
- RFC 6887 - Port Control Protocol
- RFC 8445: allow clients to automatically negotiate connection parameters with each other, bypassing the need to use upnp and related tech.

Related issues:

Related to Feature #1415: [Master Server] Allow specifying server IP manually	**New**	**2006-08-06**

History

#1 - 2013-11-07 10:07 - skyjake

- Description updated

#2 - 2013-11-07 12:09 - skyjake

- Description updated

#3 - 2013-11-07 20:01 - danij

BRisa (http://brisa.garage.maemo.org/) looks useful.

#4 - 2013-11-08 21:07 - skyjake

- Description updated

#5 - 2013-11-08 21:12 - skyjake

- Subject changed from Automatic port forwarding (UPnP) to Automatic port forwarding (UPnP/NAT-PMP/PCP)

#6 - 2013-11-08 21:29 - skyjake

- Description updated

#7 - 2013-11-08 21:30 - skyjake

- Description updated

#8 - 2015-01-22 10:53 - skyjake

- Priority changed from High to Urgent

#9 - 2015-03-05 09:34 - skyjake

- Related to Feature #1415: [Master Server] Allow specifying server IP manually added

#10 - 2016-03-27 08:24 - skyjake

- Target version set to 2.1 (Late 2018)

#11 - 2016-03-27 08:30 - skyjake

- Priority changed from Urgent to High

#12 - 2018-07-29 16:46 - skyjake

- Target version changed from 2.1 (Late 2018) to Multiplayer

#13 - 2020-05-10 07:28 - jonesmz

Another thing to consider is support for the ICE protocol, https://tools.ietf.org/html/rfc8445

This would allow clients to automatically negotiate connection parameters with each other, bypassing the need to use upnp and related tech.

Further, if Doomsday adopts the model of having single player games connecting to a multiplayer server launched automatically, this would allow for clients to dynamically negotiate with each other on which client should act as the server, based on whatever decision making scheme you want.

#14 - 2020-05-10 11:14 - skyjake

- Description updated