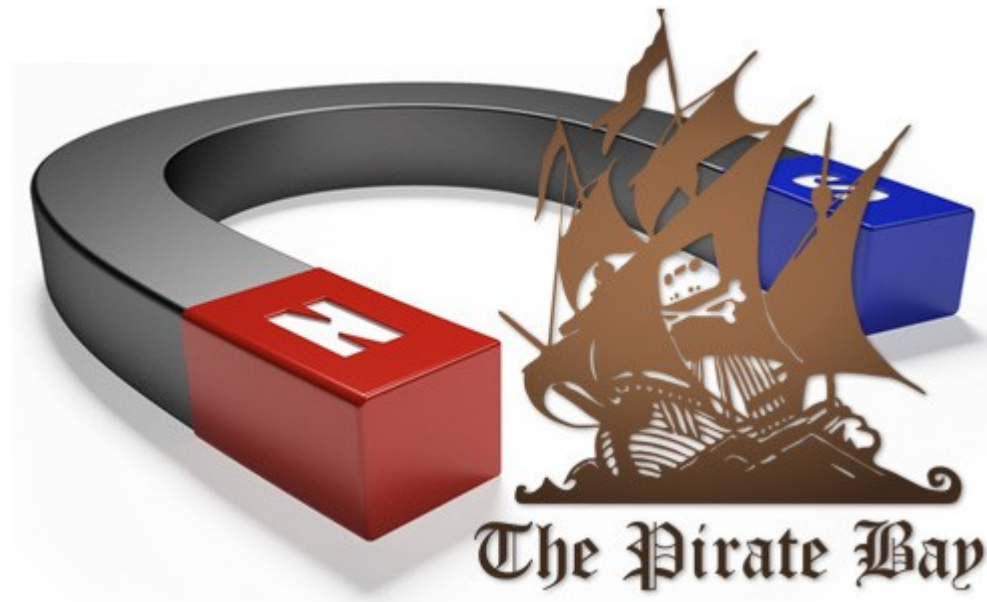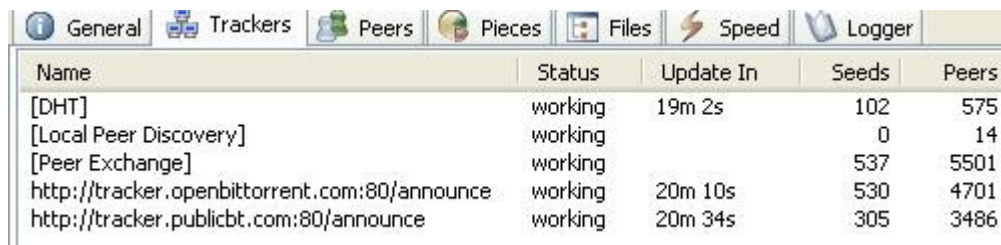# TrackerLess torrents
DHT, PEX, Magnet Links

Main Technologies

- DHT : is used to find the IP address of node storing some data.

- Magnet links : torrent files hashes.

- PEX : Peer EXchange : another means of finding IP addresses, it leverages the knowledge of peers you are connected to, by asking them in turn for the addresses of peers they are connected to.

		General		Trackers		Peers		Pieces		Files		Speed		Logger	

| Name	Status	Update In	Seeds	Peers
[DHT]	working	19m 2s	102	575
[Local Peer Discovery]	working		0	14
[Peer Exchange]	working		537	5501
http://tracker.openbittorrent.com:80/announce	working	20m 10s	530	4701
http://tracker.publicbt.com:80/announce	working	20m 34s	305	3486

Magnet Links

- Traditionally, .torrent files are downloaded from torrent sites. A torrent client seeks the addresses of peers from a tracker before connecting to those peers and downloading the desired content.

- Given the torrent hash – passed as a parameter within a Magnet link – clients immediately seek the addresses of peers from the DHT network and connect to them to download first the torrent file, and then the desired content.

How it works ?

Client want to get Data.file

Client

???????? →
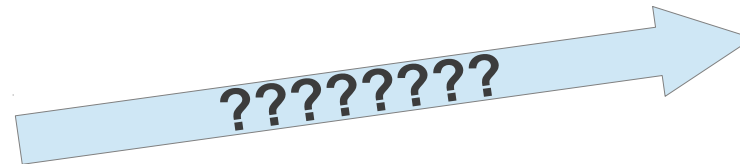
Data.file

With torrent file
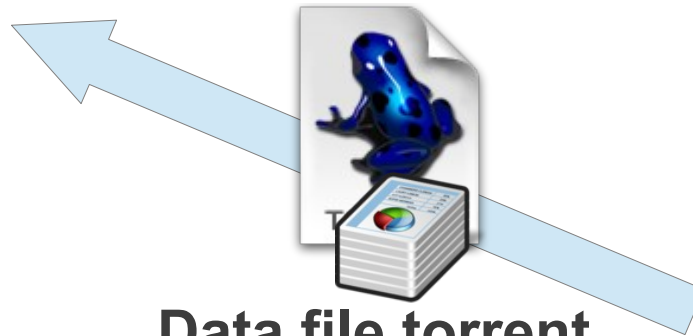## Client contact a tracker

Client

Data.file

Data.file ?

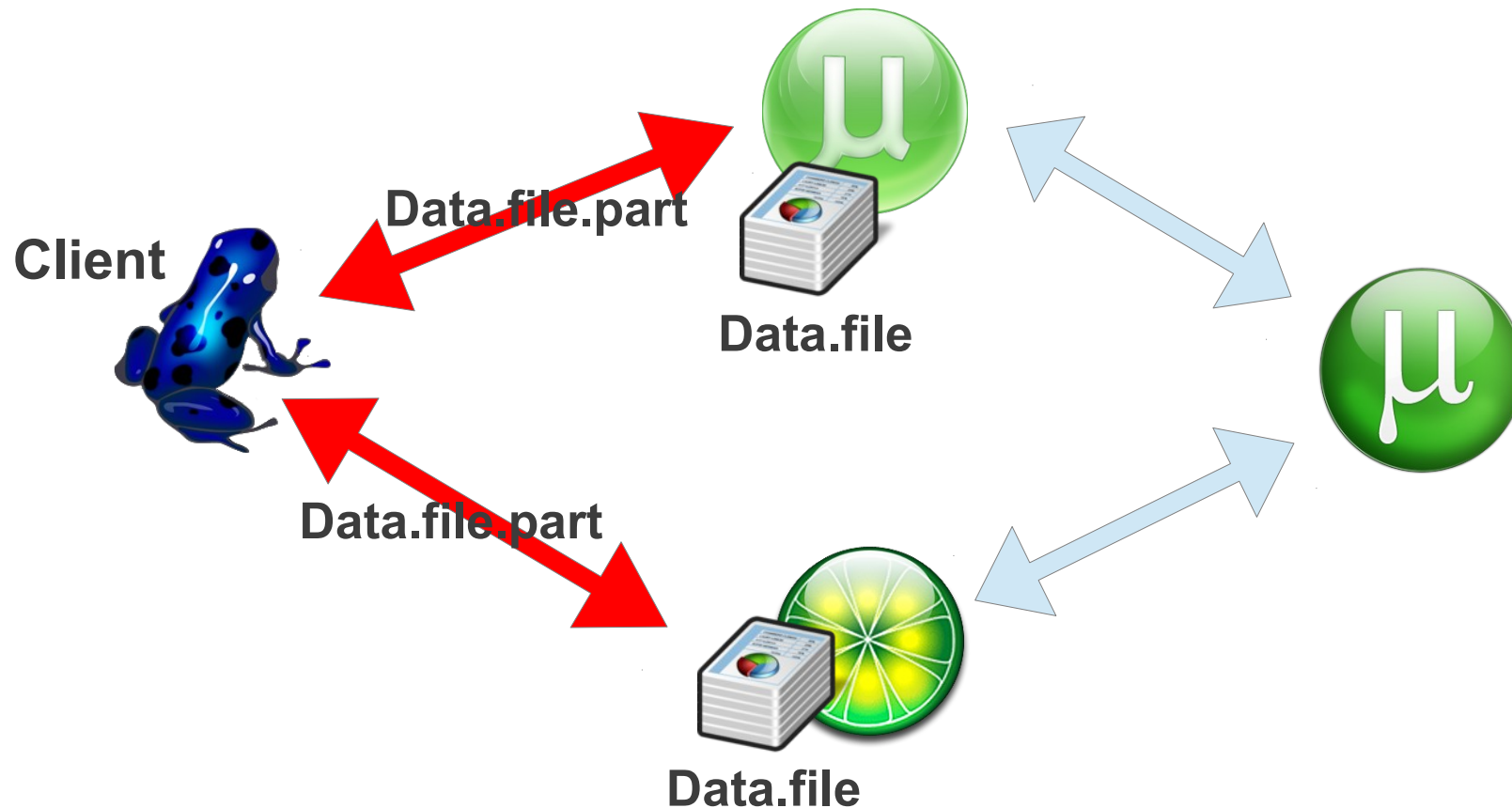The Pirate Bay
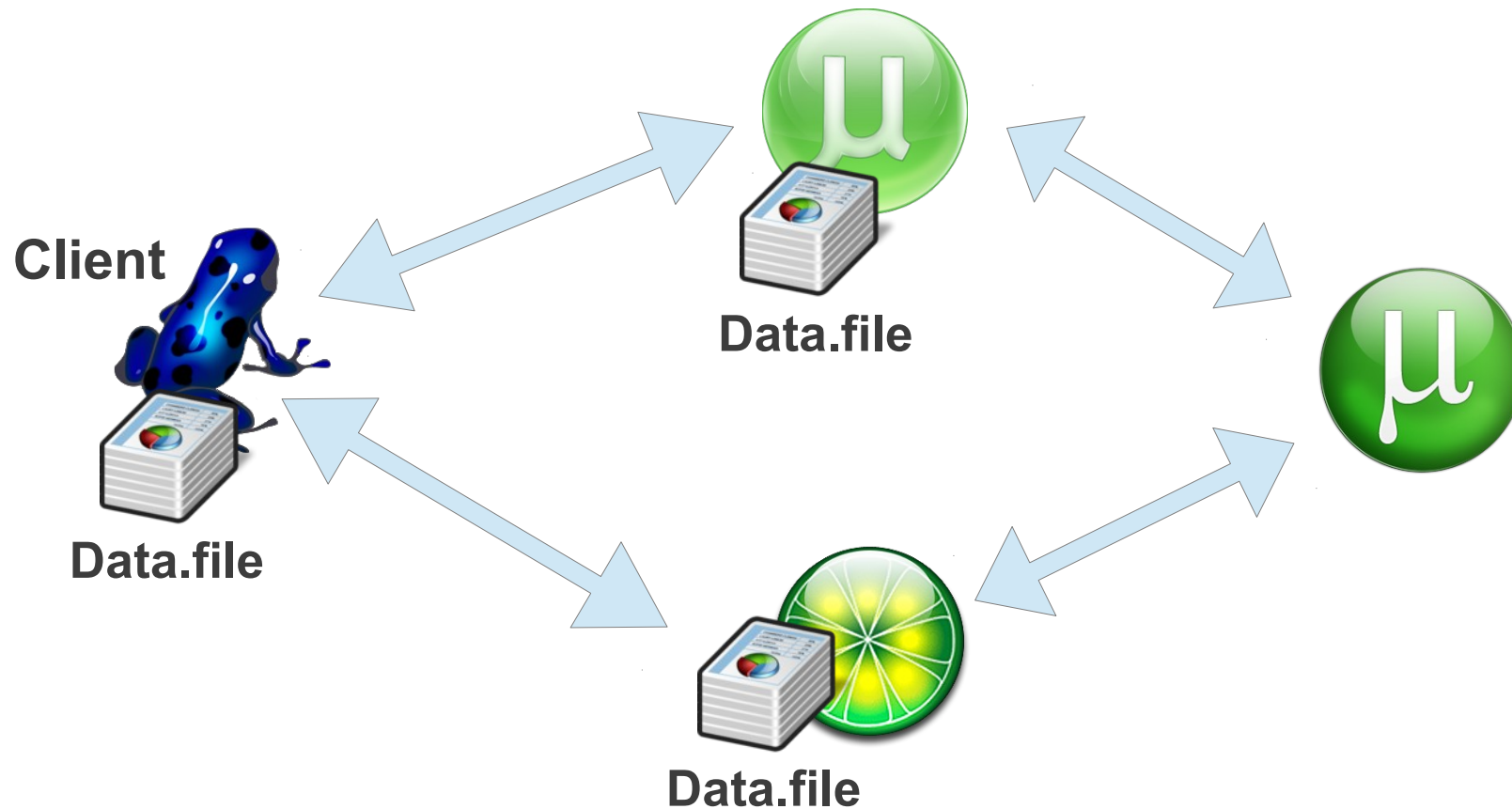
Client receive a torrent file as response

Client

Data.file.torrent

The Pirate Bay

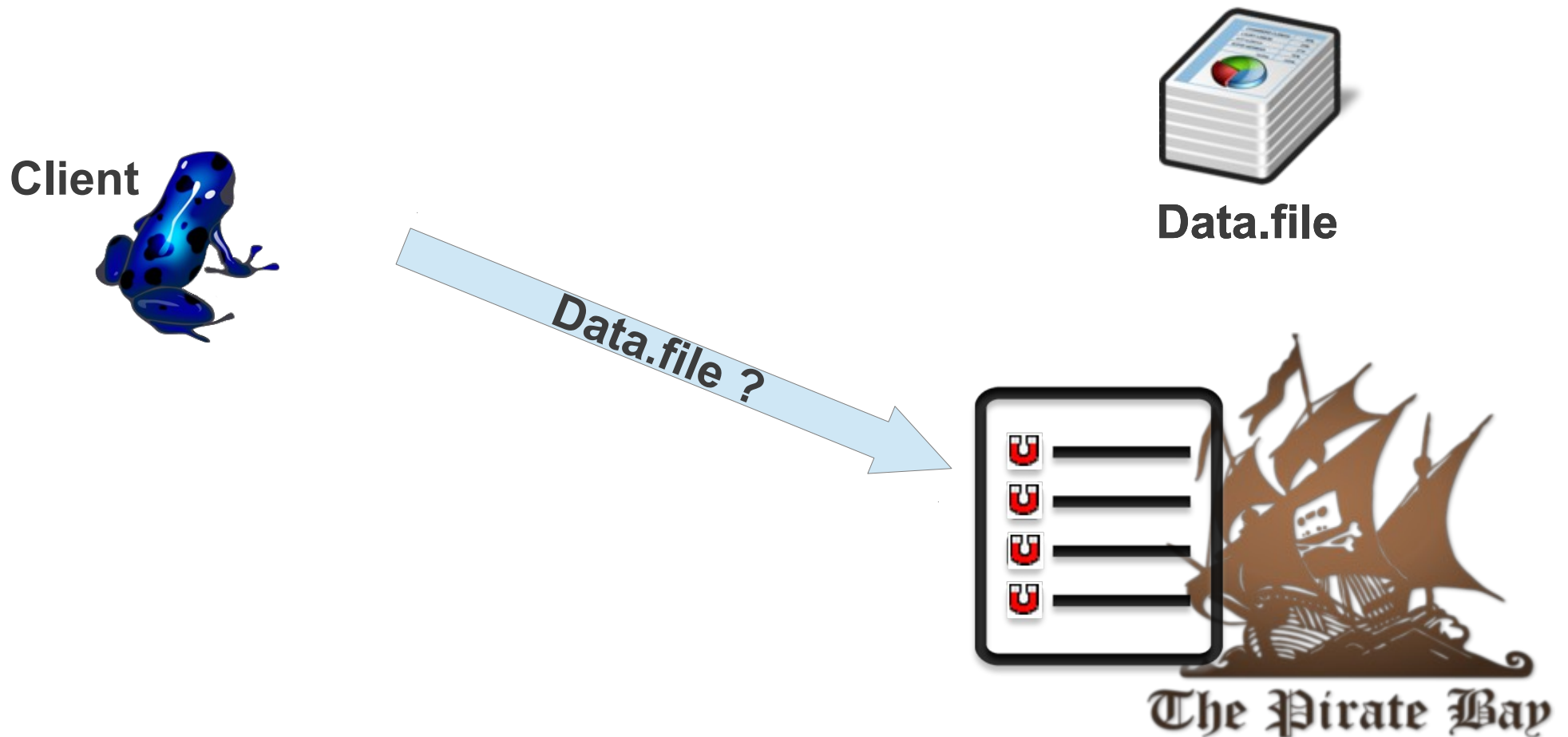# Client start downloading from other peers

Client

Data.file.part

Data.file

Data.file.part

Data.file

Client get the asked file

Client

Data.file

Data.file

Data.file

With Magnet Link
Client contact Indexer

Client

Data.file

Data.file ?

The Pirate Bay

Client will receive an URI

magnet:?xt=urn:sha1:YNCKHTQCWBTRNJIV4WNAE52SJUQCZO5C

Client

Data.file

Data.file.URI

The Pirate Bay
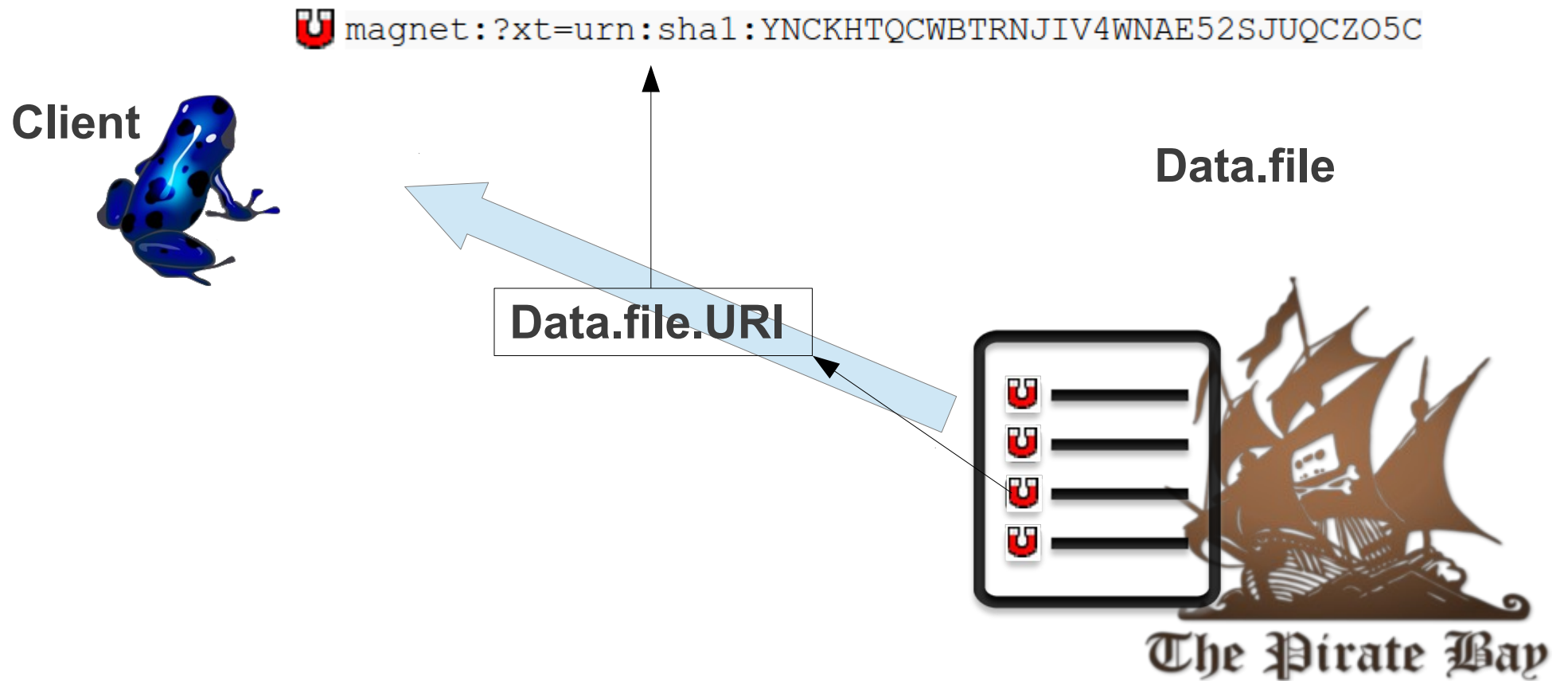
Client ask for the torrent file corresponding to the received URI

get_peers

HASH(Data.file.torrent)

Client

Data.file.torrent

get_peers

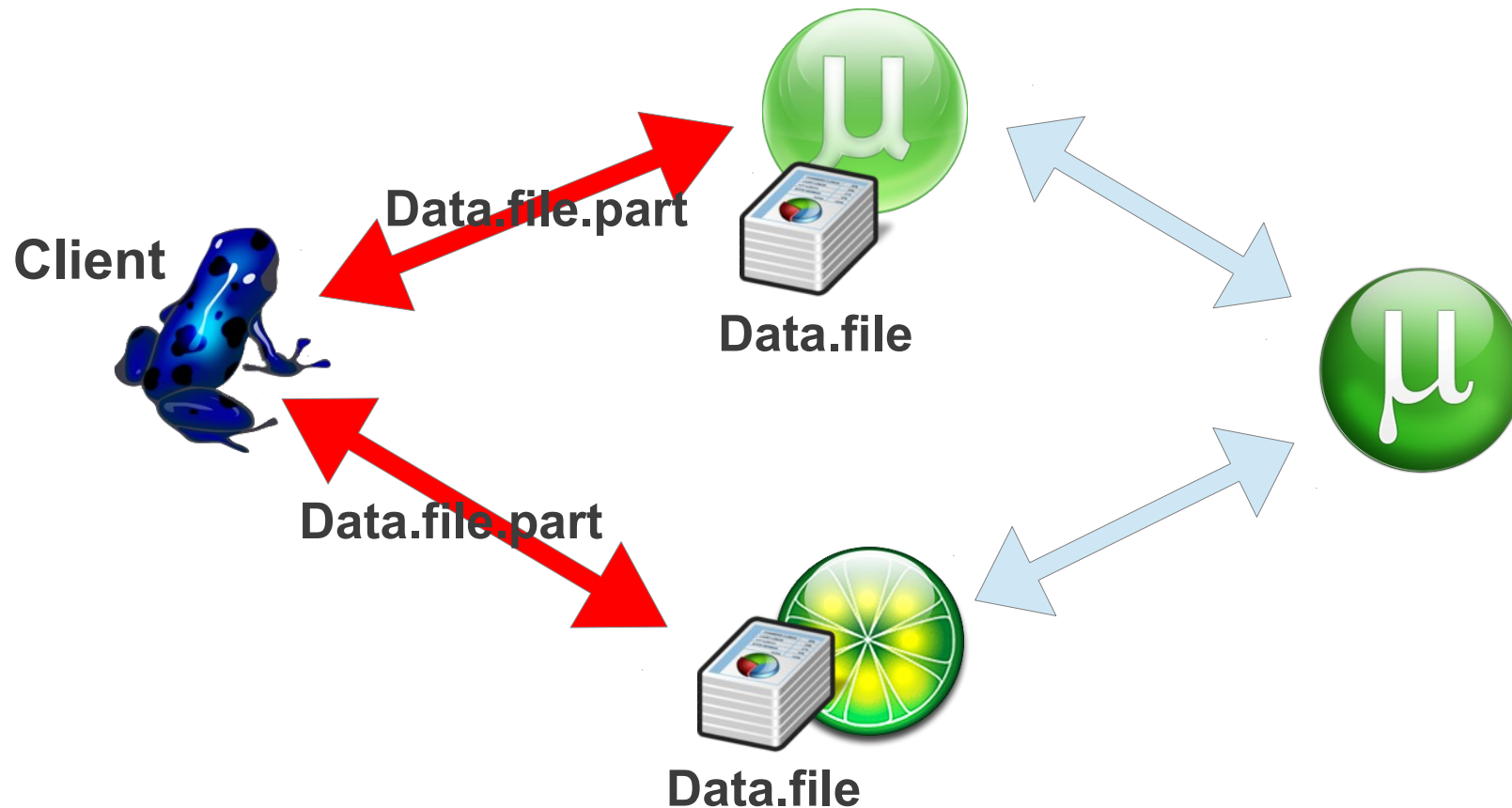**HASH(Data.file.torrent)**

Data.file.torrent
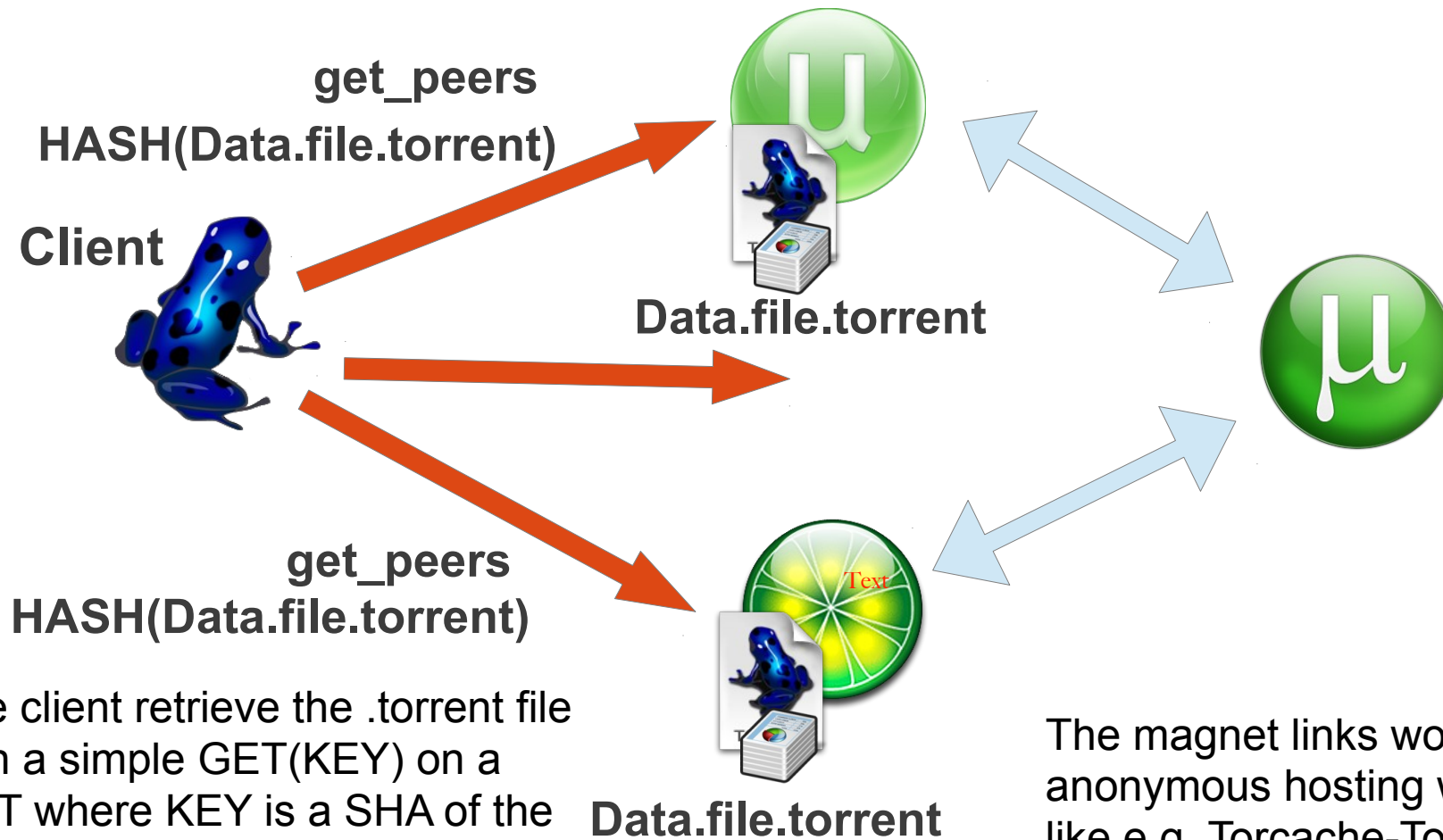
The client retrieve the .torrent file with a simple GET(KEY) on a DHT where KEY is a SHA of the file name (the "info section" in a torrent file) we are looking for. It plays as a ISBN for books.

The magnet links work also with anonymous hosting web sites, like e.g. Torcache-Torrends

Client download torrent file from peer

response

Client

Data.file.torrent

Data.file.torrent
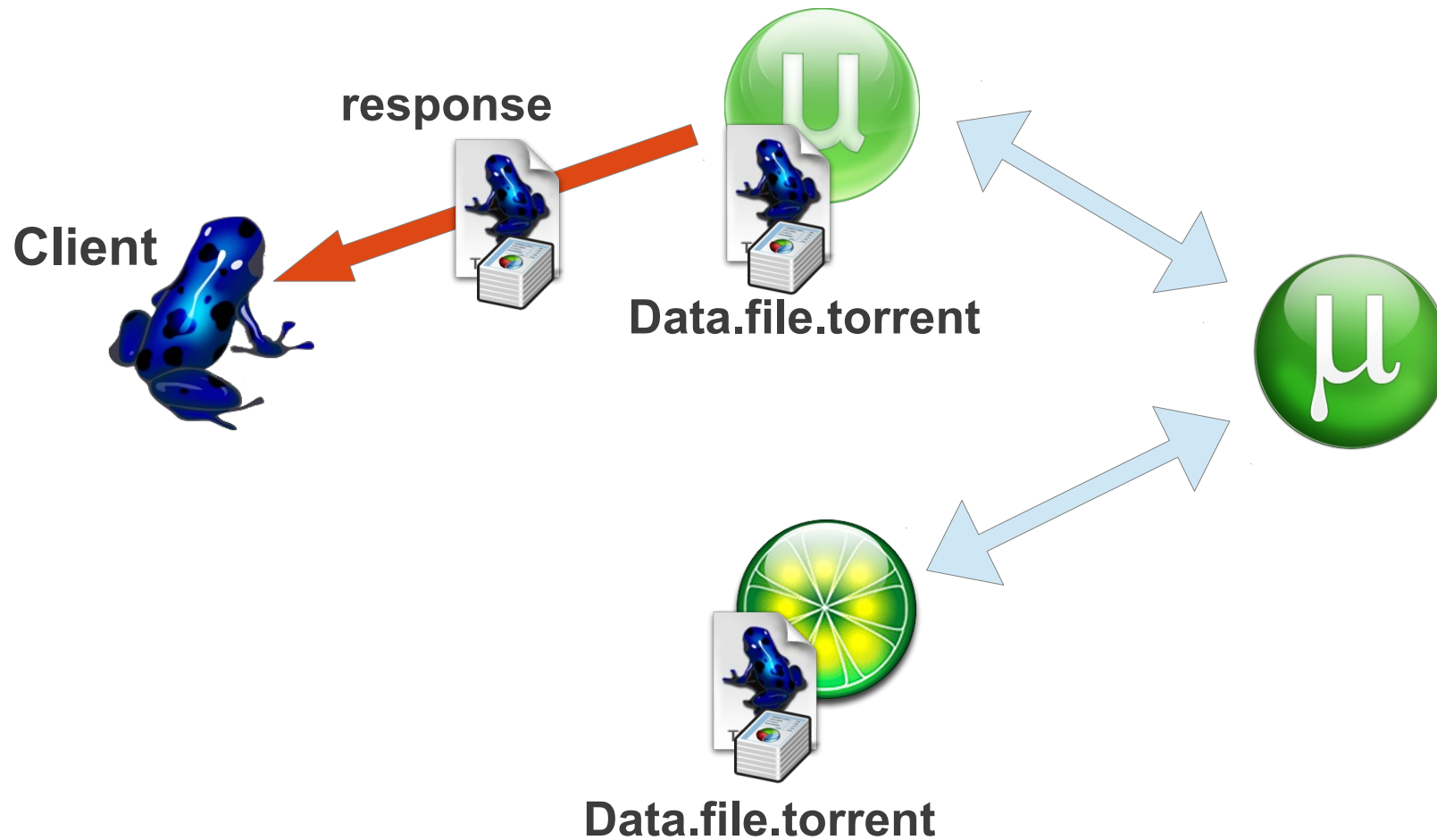
Client start downloading requested data from Peers

Client

Data.file.part

Data.file

Data.file.part

Data.file

Client get the requested data

Client

Data.file

Data.file

Data.file