

## Expectations for DNS Seed operators

Bitcoin Core attempts to minimize the level of trust in DNS seeds, but DNS seeds still pose a small amount of risk for the network. As such, DNS seeds must be run by entities which have some minimum level of trust within the Bitcoin community.

Other implementations of Bitcoin software may also use the same seeds and may be more exposed. In light of this exposure, this document establishes some basic expectations for operating dnsseeds.

0. A DNS seed operating organization or person is expected to follow good host security practices, maintain control of applicable infrastructure, and not sell or transfer control of the DNS seed. Any hosting services contracted by the operator are equally expected to uphold these expectations.
1. The DNS seed results must consist exclusively of fairly selected and functioning Bitcoin nodes from the public network to the best of the operator's understanding and capability.
2. For the avoidance of doubt, the results may be randomized but must not single-out any group of hosts to receive different results unless due to an urgent technical necessity and disclosed.
3. The results may not be served with a DNS TTL of less than one minute.
4. Any logging of DNS queries should be only that which is necessary for the operation of the service or urgent health of the Bitcoin network and must not be retained longer than necessary nor disclosed to any third party.
5. Information gathered as a result of the operators node-spidering (not from DNS queries) may be freely published or retained, but only if this data was not made more complete by biasing node connectivity (a violation of expectation (1)).
6. Operators are encouraged, but not required, to publicly document the details of their operating practices.
7. A reachable email contact address must be published for inquiries related to the DNS seed operation.

If these expectations cannot be satisfied the operator should discontinue providing services and contact the active Bitcoin Core development team as well as posting on bitcoin-dev.

Behavior outside of these expectations may be reasonable in some situations but should be discussed in public in advance.

### See also

- bitcoin-seeder is a reference implementation of a DNS seed.