DNSCurve: Usable security for DNS
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How do web browsers find http://certicom.com or http://brightsight.com?

How do mail programs find microsoft.com?

They ask the Domain Name System.
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How do mail programs find microsoft.com?

They ask the Domain Name System. DNS has no security whatsoever.
Cryptography is used for private tunnels and for a small fraction of web pages but everybody knows that it’s too slow to protect all communication.

DNSSEC tries to minimize server costs by precomputing signatures.

DNSSEC tries to minimize client costs by using 1024-bit RSA.
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“Fifteen years. Ten million dollars of grants. More than 100 users.”
Actually, crypto isn’t so slow!

New project, DNSCurve:

1. Use state-of-the-art ECDH.

2. Reuse secret for subsequent packets exchanged between same parties.

3. Integrate carefully with DNS to avoid other usability problems.