

- (1) Send GET foo.com request to proxy using TLS connection
- (2) DNS lookup from proxy for foo.com
- (3) CDN DNS lookup for a19.akamai.net (some Akamai ID that represents foo.com)
- (4) Proxy sends DNS request to origin's authoritative server, and the origin publishes $\{k\}_{PK(proxy)}$ in the SRV record. Then the proxy decrypts the shared key with his own private key
- (5) Proxy generates GET $HMAC_k(URL)$ request
- (6) Proxy sends request to cache node
- (7) Cache node returns $\{content\}_k, \{cert\}_k$ to proxy. Proxy decrypts and validates the cert. Once the cert is validated, proxy decrypts the content with origin server's shared key
- (8) Proxy returns decrypted content to client (using TLS)