

Consumer

Router

Circuit
Establishment
(run once)

Interest: CREATESESSION

Response: Encrypted session ID and IV

1. Create session ID and IV
2. Set $IV = IV + 1$
3. Store $(H(ID + IV), ID, IV)$ in state

Circuit
Usage
(run indefinitely)

1. Set $IV = IV + 1$
2. $SID' = H(ID + IV)$

Interest: CONTENT/OFFSET

1. Lookup SID' and retrieve ID and IV
2. Use session information to encrypt to forward unwrapped interest upstream

Interest: Unwrapped CONTENT/OFFSET

Response: Content

Verify, encrypt, and sign content using session information

Response: Encrypted content

1. Set $IV = IV + 1$
2. Update $(H(ID + IV), ID, IV)$ in state