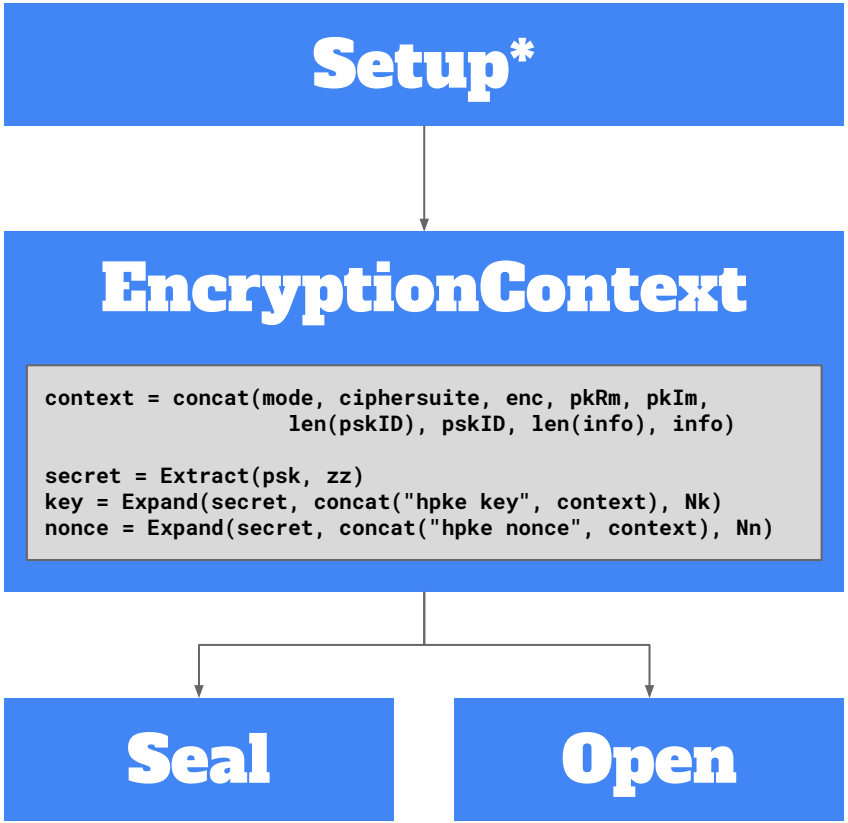
# draft-irtf-cfrg-hpke-00

IETF 105

# Changes in this version




| | PSK | Asymm |
|---|---|---|
| SetupBase | ❌ | ❌ |
| SetupPSK | ✔️ | ❌ |
| SetupAuth | ❌ | ✔️ |
| **SetupPSKAuth** | ✔️ | ✔️ |

# Running Code

Go implementation by Richard Barnes

- All ciphersuites **plus SIKE** (thanks Nick!) +154 −22 
- https://github.com/bifurcation/hpke

Python implementation by Dave Cridland

- Follows document pseudocode very closely
- https://github.com/dwd/crypto-examples/

**TODO: Interop, test vectors, verified implementation(s), ...**

# Limitations and Non-Goals

Forward Secrecy: **None**

- Meant as a primitive to be used in other protocols

Key Compromise Impersonation (KCI) Resistance: **None**

- Not possible with a “one round” KEM-based protocol

Post-Quantum Ciphersuites: **Not Right Now**

- Selections still ongoing
- Feasibility validated in code

# Questions

# Too Much?

Should we keep all four modes?  (Base, PSK, Auth, PSKAuth)

Are folks OK with unified logic => optional / default inputs?

**C**ombined
**A**symmetric /
**S**ymmetric
**H**ybrid
**E**ncryption
**W**rapping

# Analysis

[[ Your name here ]]