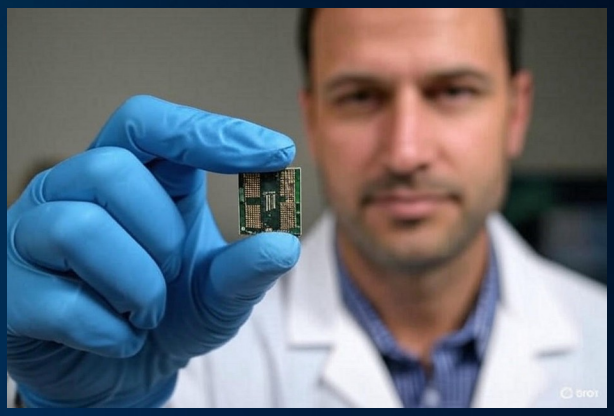


CIPHERBOLT™

Provable control-plane security on ordinary chips

Easy Reading Introduction

By JumPedal

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CipherBolt Network in one page

CipherBolt locks the Internet's control plane: the small messages that decide where every packet goes and who gets in. Two chips, married when they are made, sit inside equipment that is already installed. The CipherBolt network manages them. Nothing gets ripped out, and no new fiber is needed.

One product, two grades of security:

- **Grade 1, standard.** A post-quantum lock for every order, over any network, with no limit.
- **Grade 2, unconditional.** A true one-time pad for the orders that must never be read. Unbreakable while the sealed table lasts.

The perfect lock

- **It exists.** The one-time pad was invented in 1917. In 1949, Claude Shannon proved that no computer of any speed, quantum included, can break it.
- **Three rules.** The key must be truly random, as long as the message, and used once.
- **The catch.** Both ends need the same secret bits, and sending secret bits safely over a network uses up as many as it delivers. No method gets around that, ours included.
- **The light-based answer.** Quantum key distribution (QKD) costs about $100,000 to $250,000 per endpoint (company estimate) and typically needs its own fiber. Few organizations use it outside government.

How JumPedal does it

- **CipherCoil** makes truly random bits on the chip from physical noise. It is designed to the NIST SP 800-90B standard.
- **The sealed table.** Every chip leaves the factory with a table of secret bits it shares only with CipherBolt. That is the one-time-pad supply.
- **InfinityCoil** carries every key in one self-contained file. The far chip gets the exact bits back from the file alone. InfinityCoil also counts every table bit spent, so no bit is used twice.
- **CipherBolt** switches chips on, introduces pairs, sends fresh table bits when a pair needs Grade 2, and watches the counters. When a table runs low, it is reloaded by hand. Until then, the chips keep working at Grade 1 and say so.

Why the control plane first

It is a tiny share of traffic, but it carries the orders: "send this transfer to New York," "let this phone onto the tower." Whoever controls it controls the network. Today it is protected by public-key handshakes, which a quantum computer could break. The US mandate to replace them is public record: NSM-10 (May 2022), CNSA 2.0 (September 2022) and NIST's first post-quantum standards (August 2024).

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Where we are

- InfinityCoil’s internal testing was completed on 25 September 2026.
- On 8 November 2026, 16 of 16 test keys of 2,048 bits came back bit for bit.
- An outside engineer is repeating the test now. Accredited laboratories will follow.

The plan

Stage	What	Estimate
Now	InfinityCoil in testing; CipherCoil test bench ready	Under way
Stage 1	FPGA proof and the independent test (funded by the current round)	12 months
Stage 2	First silicon, on a mature process	About 12 months
Stage 3	Paying pilots with carriers and infrastructure operators	About 12 months
Stage 4	Our design inside equipment makers’ chips	12 months per partner, overlapping Stage 3

Stages 3 and 4 overlap: work with equipment makers starts during the paying pilots. Each stage opens on evidence, not on a set date. The cost aim is about $1 per chip plus card.

JumPedal sells chips and modules to equipment makers, licenses the design into partners’ silicon, and sells software and services by subscription.

To invest

The terms, capital structure and risk factors are in the Investor Package. Request it at jumpedal.com/investor-opportunities.

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