

Building a battlefield for authenticated encryption

D. J. Bernstein

University of Illinois at Chicago

Krovetz–Rogaway, tomorrow:

Look at how slow AES-GCM is!

Cycles/byte for 4096-byte
authenticated encryption:

3.73 on Core i5-650.

3.88 in 32-bit mode.

10.9 without AES insns.

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Big trouble near 2^{64} blocks,
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NIST needs to take a break.

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