

GOSTbusting Reloaded

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Motivation

- Russian Digital Signature Algorithm
(GOST-R-34.10-94 and GOST R 34.10-2001)
- Proposed at the same time as SHA-1, but larger output size (256 instead of 160 bits)
- Based on conservative block cipher
(32 round Feistel network)

First Collision Search Attack:

2^{105} instead of 2^{128}



Attacks on GOST

First Collision Search Attack:

2^{105} instead of 2^{128}

New Preimage and Second Preimage Attack:

2^{192} instead of 2^{256}



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New Insight:

exploit „**Doppelgänger**“ property
of the block cipher



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