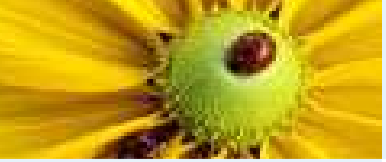
NIST Announcements

Computer Security Division

Crypto 2011 Rump Session



Draft NIST Special Publications

Special Pubs.
Meetings
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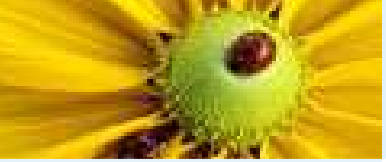
Team
applications

Available for public comments

- Draft 800-38F: Recommendation for Block Cipher Modes of Operation: Methods for Key Wrapping.

  Close date: October 1, 2011



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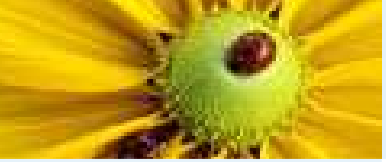
- Draft 800-133: Recommendation for Cryptographic Key Generation

  Close date: September 30, 2011



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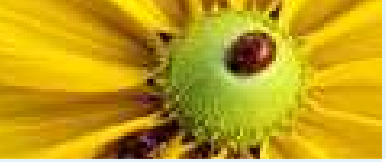
Find the links at http://csrc.nist.gov/publications/PubsDrafts.html



NIST Upcoming Workshop and Conference

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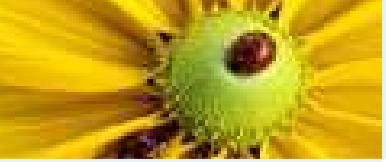
Workshop on Cryptography for Emerging Technologies and Applications
November 7-8, 2011
NIST Campus in Gaithersburg, MD, USA



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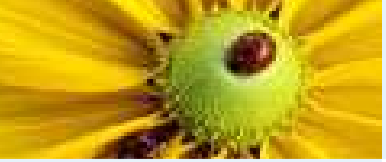
The Third SHA-3 Candidate Conference
March 22-23, 2012
Washington DC, USA (co-located with FSE March 19-21)



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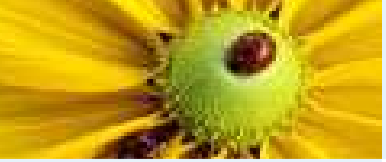
A PUBLIC RANDOMNESS SOURCE.



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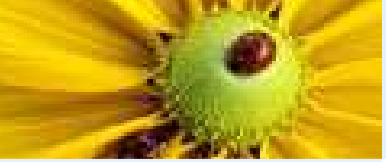
THREAT MODEL.



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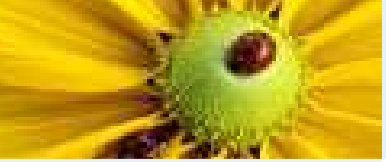
Threat Model Rene.



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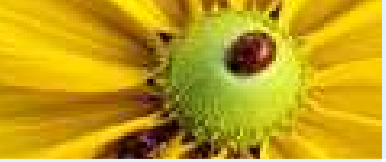
Threat Model Kelsey.



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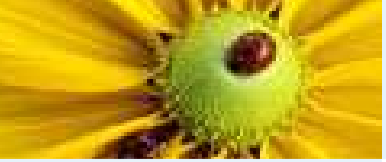
Nixed!



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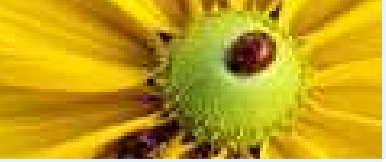
- Will broadcast full-entropy bit-strings.



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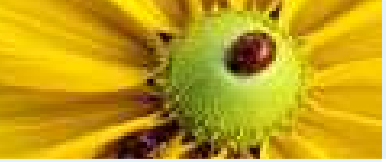
- Will broadcast full-entropy bit-strings.
- Will do it in blocks of 512 bits per minute.



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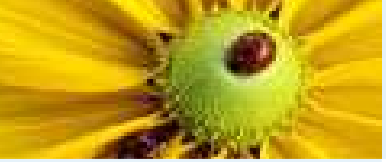
- Will broadcast full-entropy bit-strings.
- Will do it in blocks of 512 bits per minute.
- Will sign and time-stamp.



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- Will broadcast full-entropy bit-strings.
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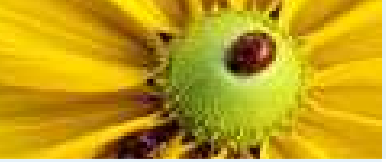

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- Will broadcast full-entropy bit-strings.
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- Will sign and time-stamp.
- Will link the sequence of blocks with a secure hash.
- As for source of entropy, we are talking to NIST physicists.

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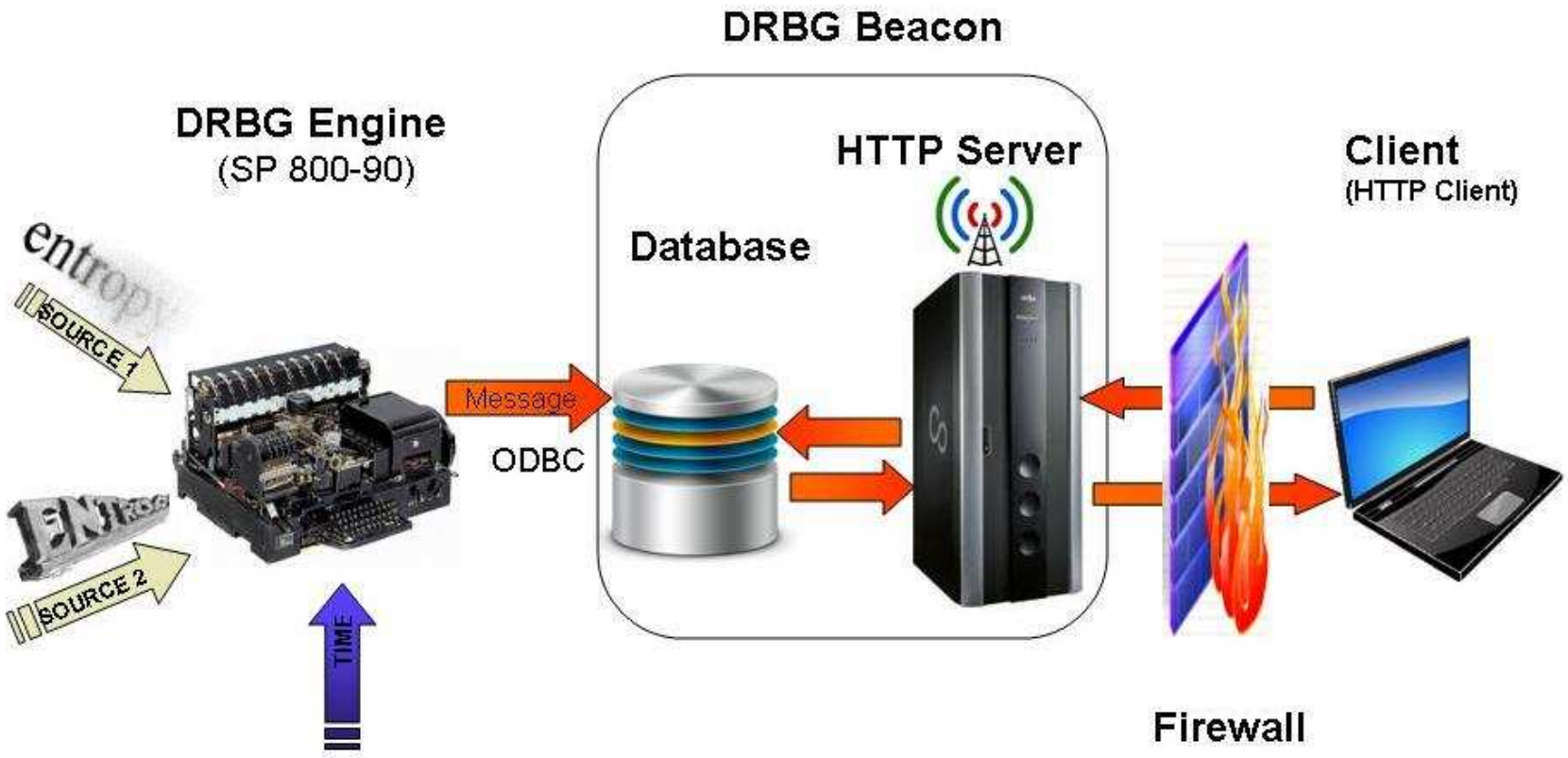
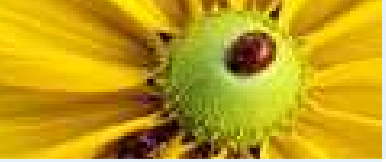
Prototype architecture.





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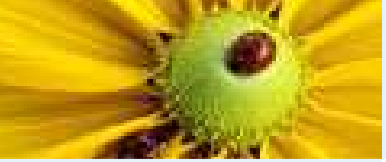
Team: Larry Basham, Michaela Iorga, Michael Fischer (Yale), John Kelsey, Rene Peralta.

Timeframe: this year we plan to complete a prototype.

Contact: michaela.iorga@nist.gov



Applications

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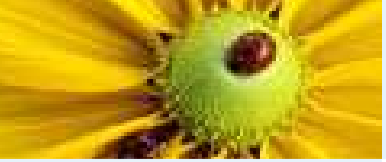
My favorite application: Given additively-homomorphic bit-commitment, produce 4-tuples of bit-commitments guaranteed to be in the set

$$U = \{0111, 1011, 1101, 1110\}$$



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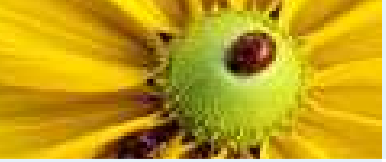

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Use this until practical fully homomorphic encryption is available.