

**From:** [Alperin-Sheriff, Jacob \(Fed\)](#)  
**To:** [Peralta, Rene C. \(Fed\)](#); (b) (6); [Liu, Yi-Kai \(Fed\)](#)  
**Cc:** [Perlner, Ray A. \(Fed\)](#); [Bassham, Lawrence E. \(Fed\)](#); [Chen, Lily \(Fed\)](#); [Jordan, Stephen P \(Fed\)](#); [Miller, Carl A. \(Fed\)](#); [Moody, Dustin \(Fed\)](#); [Smith-Tone, Daniel C. \(Fed\)](#); [Regenscheid, Andrew R. \(Fed\)](#)  
**Subject:** Re: Hash-based signatures  
**Date:** Wednesday, January 4, 2017 2:50:37 PM

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A look through the CFP indicates that we didn't address stateful vs. stateless, so looks like you're not a liar!

But I had thought the problems with stateful signatures go well beyond the size of the private keys ...

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**From:** "Peralta, Rene (Fed)" <rene.peralta@nist.gov>  
**Date:** Wednesday, January 4, 2017 at 2:47 PM  
**To:** Daniel Smith (b) (6), "Liu, Yi-Kai (Fed)" <yi-kai.liu@nist.gov>  
**Cc:** "Alperin-Sheriff, Jacob (Fed)" <jacob.alperin-sheriff@nist.gov>, "Perlner, Ray (Fed)" <ray.perlner@nist.gov>, "Bassham, Lawrence E (Fed)" <lawrence.bassham@nist.gov>, "Chen, Lily (Fed)" <lily.chen@nist.gov>, "Jordan, Stephen P (Fed)" <stephen.jordan@nist.gov>, "Miller, Carl A. (Fed)" <carl.miller@nist.gov>, "Moody, Dustin (Fed)" <dustin.moody@nist.gov>, "Smith-Tone, Daniel (Fed)" <daniel.smith@nist.gov>, "Regenscheid, Andrew (Fed)" <andrew.regenscheid@nist.gov>  
**Subject:** Hash-based signatures

Somebody asked whether I was contradicting the statement that "NIST is not interested in hash-based signatures". I said "yes", hash-based signatures are in scope. Then Dan Boneh asked whether that included stateful hash-based signatures. I answered that we are open to someone making the case that these are useful despite the size of the private keys.

Don't make a liar out of me.

Rene.