

Statement by Submitter

I, Avik Chakraborti, of 3-9-11 Midori-cho, Musashino-shi, Tokyo 180-8585, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, is my own original work, or if submitted jointly with others, is the original work of the joint submitters. I further declare that (check at least one of the following):

- ✓ I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD;
- ✓ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, may be covered by the following U.S. and/or foreign patents: **US7949129, US8321675**;
- ✓ I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: **JP Application No. 2013-161446**.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystems specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment I do hereby agree to provide the statements required by Sections 2.4.2 and 2.4.3, below, for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the lightweight crypto evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.4.1, 2.4.2 and 2.4.3, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed: *Avik Chakraborti*

Title: *Dr.*

Date: *4th March, 2019*

Place: *Tokyo, Japan*

Statement by Submitter

I, Nilanjan Datta, of Indian Statistical Institute, 203 B.T.Road, Kolkata, India 700108, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, is my own original work, or if submitted jointly with others, is the original work of the joint submitters. I further declare that (check at least one of the following):

- ✓ I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD;
- ✓ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, may be covered by the following U.S. and/or foreign patents: **US7949129, US8321675**;
- ✓ I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: **JP Application No. 2013-161446**.

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Signed: Nilanjan Datta

Title: Dr.

Date: 07/03/2019

Place: Kolkata, India

Statement by Submitter

I, Ashwin Jha, of Indian Statistical Institute, 203 B.T.Road, Kolkata, India 700108, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, is my own original work, or if submitted jointly with others, is the original work of the joint submitters. I further declare that (check at least one of the following):

- ✓ I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD;
- ✓ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, may be covered by the following U.S. and/or foreign patents: **US7949129, US8321675**;
- ✓ I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: **JP Application No. 2013-161446**.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystems specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment I do hereby agree to provide the statements required by Sections 2.4.2 and 2.4.3, below, for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the lightweight crypto evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.4.1, 2.4.2 and 2.4.3, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed: Ashwin Jha
Title: Mr.
Date: March 07, 2019
Place: Kolkata, India

Statement by Reference/Optimized/Additional Implementations Owner(s)

I, Ashwin Jha, of Indian Statistical Institute, 203 B.T.Road, Kolkata, India 700108, am the owner or authorized representative of the owner of the submitted reference implementation, optimized and additional implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the lightweight cryptography public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.

Signed: Ashwin Jha

Title: Mr.

Date: March 07, 2019

Place: Kolkata, India

Statement by Submitter

I, Cuauhtemoc Mancillas López, of Av. IPN 2508, La Laguna Ticoman 07360, Ciudad de México, México, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOTUS-AEAD and LOCUS-AEAD v1, is my own original work, or if submitted jointly with others, is the original work of the joint submitters. I further declare that (check at least one of the following):

- I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOTUS-AEAD and LOCUS-AEAD v1;
- to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOTUS-AEAD and LOCUS-AEAD v1, may be covered by the following U.S. and/or foreign patents: none;
- I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: none.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystems specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment I do hereby agree to provide the statements required by Sections 2.4.2 and 2.4.3, below, for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the lightweight crypto evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.4.1, 2.4.2 and 2.4.3, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed: Cuauhtemoc

Title: Dr.

Date: February 13th, 2019.

Place: Mexico city.

Statement by Reference/Optimized/Additional Implementations Owner(s)

I, Cuauhtemoc Mancillas López, of Av. IPN 2508, La Laguna Ticoman 07360, Ciudad de México, México, am the owner or authorized representative of the owner of the submitted reference implementation, optimized and additional implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the lightweight cryptography public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.

Signed: Cuauhtemoc.

Title: Dr.

Date: February 13th, 2019.

Place: México city.

Statement by Submitter

I, Mridul Nandi, of Indian Statistical Institute, 203 B.T.Road, Kolkata, India 700108, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, is my own original work, or if submitted jointly with others, is the original work of the joint submitters. I further declare that (check at least one of the following):

- ✓ I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD;
- ✓ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, may be covered by the following U.S. and/or foreign patents: **US7949129, US8321675**;
- ✓ I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: **JP Application No. 2013-161446**.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystems specifications (e.g., to protect against a newly discovered vulnerability).

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Signed: MNandi
Title: Mr.
Date: March 7, 2019
Place: Kolkata, India

Statement by Submitter

I, Yu Sasaki, of 3-9-11 Midori-cho Musashino-shi Tokyo, 180-8585, Japan, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, is my own original work, or if submitted jointly with others, is the original work of the joint submitters. I further declare that (check at least one of the following):

- I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD;
- to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as LOCUS-AEAD/LOTUS-AEAD, may be covered by the following U.S. and/or foreign patents:
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Signed: yu Sasaki

Title: Dr.

Date: 28 Feb. 2019

Place: Tokyo Japan