I, <u>Tetsu Iwata</u>, of <u>Nagoya University</u>, Furo-cho, Chikusa-ku, <u>Nagoya 464-8603</u>, Japan, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as <u>Thank Goodness It's Friday</u>, 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 Thank Goodness It's Friday;
- □ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Thank Goodness It's Friday, may be covered by the following U.S. and/or foreign patents: <u>none</u>;
- □ 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: <u>none</u>.

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 cryptosystem's 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.

Signed: 売日 指 Deter Junta Title: Dr. Eng. Date: March 1st, 2019 Place: Nagoya, Japan

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

I, <u>Tetsu Iwata</u>, of <u>Nagoya University</u>, <u>Furo-cho</u>, <u>Chikusa-ku</u>, <u>Nagoya 464-8603</u>, <u>Japan</u>, 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: To FF 15 Jetu Juata Title: Pr. Eng. Date: March 1st, 2019 Place: Nagoya, Japan

I, <u>Mustafa Mahmoud Mohammed Kairallah</u>, of <u>21 Nanyang Link</u>, <u>Singapore 637371</u>, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as <u>Thank Goodness It's Friday</u>, 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 Thank Goodness It's Friday;

- □ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Thank Goodness It's Friday, may be covered by the following U.S. and/or foreign patents: <u>none</u>;
- □ 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: <u>none</u>.

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.

implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate. Signed: Mustafa Khairallah (Mustafa Mahmoud Mohammed Kairallah) Title: Mr Date: 12/02/2019 Place: Singapore

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

I, <u>Mustafa Mahmoud Mohammed Kairallah</u>, of <u>21 Nanyang Link</u>, <u>Singapore 637371</u>, 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: Mustafa Khairallah (Mustafa Mahmoud Mohammed Kairallah) Title: Mr Date: 12/02/2019 Place: Singapore.

I, <u>Kazuhiko Minematsu</u>, of 1753 Shimonumabe, Nakahara-Ku, Kawasaki Kanagawa 211-8666 Japan, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as <u>Thank Goodness It's Friday</u>, 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 Thank Goodness It's Friday;
- □ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Thank Goodness It's Friday, 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: <u>none</u>.

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.

Kycht minus Signed:

Title: Principal Researcher

Date: February 27, 2019 Place: Kawasaki, Kanagawa

I, Thomas Peyrin, of SPMS, Nanyang Technological University, 21 Nanyang Link, Singapore 637371, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Thank Goodness It's Friday, 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 Thank Goodness It's Friday;
- □ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as **Thank Goodness It's Friday**, may be covered by the following U.S. and/or foreign patents: <u>none</u>;
- □ 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 cryptosystem's 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.

Signed: Title: Dr. Date: 08/03/2019 Place: JINGAPORE

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

I, <u>Thomas Peyrin</u>, of <u>SPMS</u>, <u>Nanyang Technological University</u>, <u>21 Nanyang Link</u>, <u>Singapore</u> 637371, 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: Title: Dr. Date: 08/03/2019 Place: SiNGAPORE

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 <u>Thank Goodness It's Friday</u>, 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 Thank Goodness It's Friday;
- □ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Thank Goodness It's Friday, 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.

Dr. Dr. 28 Feb. 2019 Tokyo Japan Signed: Title: Date: Place:

I, Siang Meng Sim, of 21 Nanyang Link, Singapore 637371, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Thank Goodness It's Friday, 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):

- \overline{M} 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 Thank Goodness It's Friday;
- □ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Thank Goodness It's Friday, 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).

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Signed: Date: 25 Feb 2019 Place: Singapore, Singapore.

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

I, Siang Meng Sim, of 21 Nanyang Link, Singapore 637371, 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: 15.20

Title: Dr. Date: 25 Feb 2019 Place: Singapore, Singapore.

I, <u>Ling Sun</u>, of <u>Room 1209</u>, <u>Block B</u>, Zhixin Building, School of Mathematics, Shandong University, 27 Shanda Nanlu, Jinan, Shandong, P.R.China, 250100, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as <u>Thank</u> <u>Goodness It's Friday</u>, 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 <u>Thank Goodness It's Friday</u>;
- ☑ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as <u>Thank Goodness It's Friday</u>, may be covered by the following U.S. and/or foreign patents: <u>none</u>;
- \checkmark 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.

Signed: Ling Sun Ms Title: Date: February 15th, 2019 Place: Jinan, Shandong, P.R. China

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

I, Ling Sun, of Room 1209, Block B, Zhixin Building, School of Mathematics, Shandong University, 27 Shanda Nanlu, Jinan, Shandong, P.R.China, 250100, am the owner or authorized representative of the owner (print full name, if different than the signer) 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: Ling Sun Title: Ms Date: February 15th, 2019 Place: Jinan, Shandong, P.R. China