

2.D.1 Statement by Each Submitter

I, Léo Ducas, of CWI, Science Park 123, 1098 XG Amsterdam, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Dilithium, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that 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 CRYSTALS-Dilithium;

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.D.2 and 2.D.3 in the Call For Proposals 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 post-quantum algorithm 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 If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed:

Title:

Dr. Léo Ducas

Date:

10 November 2017

Place:

Amsterdam, The Netherlands

2.D.1 Statement by Each Submitter

I, **Eike Kiltz**, of Knappenstr. 16, 44799 Bochum, Germany, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as **CRYSTALS-Dilithium**, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

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 **CRYSTALS-Dilithium**; **OR** (check one or both of the following):

- to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as _____ (print name of cryptosystem) _____, may be covered by the following U.S. and/or foreign patents: _____ (describe and enumerate or state "none" if applicable) _____;
- 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: _____ (describe and enumerate or state "none" if applicable) _____.

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).

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made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed:

Title: Prof. Dr. Eike Kiltz

Date: Nov, 20th 2017

Place: Bochum

A handwritten signature in blue ink, consisting of stylized, overlapping loops and lines, positioned to the right of the signature text.

2.D.1 Statement by Each Submitter

I, Vadim Lyubashevsky, of Saeumerstrasse 4, 8803 Rueschlikon, Switzerland, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Dilithium, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

*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 CRYSTALS - Dilithium; **OR** (check one or both of the following):*

- to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Dilithium, 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 cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

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owner(s), as appropriate.

Signed: 

Title:

Date: 3.4.18

Place: Ruschlikon

2.D.1 Statement by Each Submitter

I, Gregor Seiler, of Saeumerstrasse 4, 8803 Rueschlikon, Switzerland, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Dilithium, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

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 CRYSTALS - Dilithium; OR (check one or both of the following):

- to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Dilithium, 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 cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

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owner(s), as appropriate.

Signed: G. Seiler

Title:

Date: 4/2/2018

Place: Rueschlikon

2.D.1 Statement by Each Submitter

I, Peter Schwabe, of Radboud University, Comeniuslaan 4, 6525 HP Nijmegen, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Dilithium, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

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- 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.*

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owner(s), as appropriate.

Signed:



Title: Dr. Peter Schwabe, Assistant Professor

Date: Nov. 9, 2017

Place: Nijmegen, The Netherlands

2.D.1 Statement by Each Submitter

I, DAMIEN N. STEHLE, of ENS DE LYON, 15 PARVIS RENE DESCARTES 69007 LYON FRANCE, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Dilithium, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

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 CRYSTALS-Dilithium; **OR** (check one or both of the following):

- to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as _____ (print name of cryptosystem)_____, may be covered by the following U.S. and/or foreign patents: _____ (describe and enumerate or state "none" if applicable)_____;
- 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: _____ (describe and enumerate or state "none" if applicable) _____.

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I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals 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.

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made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed: Damien Stehlé

Title: Professor

Date: November 09, 2017

Place: Lyon, France

A handwritten signature in blue ink, appearing to read 'Stehlé', with a horizontal line underneath it.

2.D.1 Statement by Each Submitter

I, SRI International, of 333 Ravenswood Avenue, Menlo Park, California 94025, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as **CRYSTALS-DILITHIUM**, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

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 **CRYSTALS-DILITHIUM**; **OR** (check one or both of the following):

to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as _____ (print name of cryptosystem)_____, may be covered by the following U.S. and/or foreign patents: _____ (describe and enumerate or state "none" if applicable)_____;

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: _____ (describe and enumerate or state "none" if applicable) _____.

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I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals 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.

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Signed:



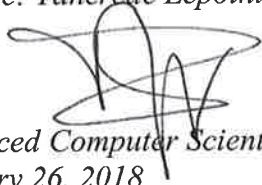
Title: Deputy General Counsel

Date: January 26, 2018

Place: Menlo Park, California

SRI Employee: Tancrede Lepoint

Signed:



Title: Advanced Computer Scientist II

Date: January 26, 2018

Place: Menlo Park, California

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, SRI International, of 333 Ravenswood Avenue, Menlo Park, California 94025, am the owner or authorized representative of the owner (SRI International) of the submitted reference implementation and optimized 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 post-quantum algorithm 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:



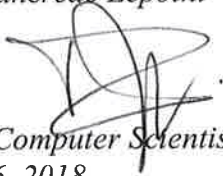
Title: Deputy General Counsel

Date: January 26, 2018

Place: Menlo Park, California

SRI Employee: Tancrede Lepoint

Signed:



Title: Advanced Computer Scientist II


Date: January 26, 2018

Place: Menlo Park, California

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

*I, **Eike Kiltz**, Knappenstr. 16, 44799 Bochum, Germany, am the owner or authorized representative of the owner of the submitted reference implementation and optimized 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 post-quantum algorithm 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: Prof. Dr. Eike Kiltz

Date: Nov, 20th, 2017

Place: Bochum

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, Peter Schwabe, Radboud University, Comeniuslaan 4, 6525 HP Nijmegen, The Netherlands, am the owner or authorized representative of the owner (print full name, if different than the signer) of the submitted reference implementation and optimized 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 post-quantum algorithm 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. Peter Schwabe, Assistant Professor*

Date: *Nov. 7, 2017*

Place: *Nijmegen, The Netherlands*

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, DAMIEN N. STEHLE , ENS DE LYON 15 PARVIS RENE DESCARTES 69007 LYON FRANCE, am the owner of the submitted reference implementation and optimized 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 post-quantum algorithm 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: Damien Stehle

Title: Professor

Date: November 09, 2017

Place: Lyon, France



2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, Alessandro Curioni, Saeumerstrasse 4, 8803 Rueschlikon, Switzerland, am the owner or authorized representative of the owner IBM Research – Zurich of the submitted reference implementation and optimized 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 post-quantum algorithm 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: Lab Director IBM Research - Zurich

Date: 2018.4.9

Place: Rueschlikon