

final determination is made to issue the EFP. After publication of this document in the **Federal Register**, the EFP, if approved, may become effective following a 15-day public comment period.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: June 17, 2009.

**Kristen C. Koch,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E9-14722 Filed 6-22-09; 8:45 am]

**BILLING CODE 3510-22-S**

## DEPARTMENT OF COMMERCE

### National Institute of Standards and Technology

#### Jointly Owned Invention Available for Non-Exclusive, Royalty-Free Licensing for Advanced Encryption Standard S-box Applications

**AGENCY:** National Institute of Standards and Technology, Commerce.

**ACTION:** Notice of jointly owned invention available for non-exclusive, royalty-free licensing for Advanced Encryption Standard S-box applications.

**SUMMARY:** The invention listed below is jointly owned by the U.S. Government, as represented by the Department of Commerce, and the University of Southern Denmark. The Department of Commerce's interest in the invention is available for non-exclusive, royalty-free licensing in the Field of Use of Advanced Encryption Standard S-box applications, in accordance with 35 U.S.C. 207 and 37 CFR part 404 to achieve expeditious commercialization of results of federally funded research and development.

**FOR FURTHER INFORMATION CONTACT:** Technical and licensing information on this invention may be obtained by writing to: National Institute of Standards and Technology, Office of Technology Partnerships, Building 820, Room 213, Gaithersburg, MD 20899. Information is also available via telephone: 301-975-3084, fax 301-975-3482, or e-mail:

*brenda.thomasson@nist.gov*. Any request for information should include the NIST Docket number or Patent number and title for the invention as indicated below. The invention available for licensing is:

[Patent Number Application No. 12/367,660 filed February 9, 2009]

[NIST DOCKET NUMBER: 08-033]

*Title:* A New Technique for Combinational Circuit Optimization and a New Circuit for the S-Box of AES.

**Abstract:** A method of simplifying a combinational circuit establishes an initial combinational circuit operable to calculate a set of target signals. A quantity of multiplication operations performed in a first portion of the initial combinational circuit is reduced to create a first, simplified combinational circuit. The first portion includes only multiplication operations and addition operations. A quantity of addition operations performed in a second portion of the first, simplified combinational circuit is reduced to create a second, simplified combinational circuit. The second portion includes only addition operations. Also, the second, simplified combinational circuit is operable to calculate the target signals using fewer operations than the initial combinational circuit.

A computer-implemented method of simplifying a plurality of formulas establishes a plurality of formulas. The formulas include only addition operations, and the formulas correspond to a portion of a combinational circuit including only addition operations. A basis set including a plurality of input signals is defined. Using a computer, a distance vector is determined that includes one value for each of the plurality of formulas, the one value corresponding to a number of addition operations necessary to calculate a corresponding formula using signals from the basis set. Using the computer, two basis vectors are determined whose sum, when added to the distance vector, reduces at least one value in the distance vector, and the sum is added to the basis set. The steps of determining two basis vectors whose sum, when added to the basis set, reduces at least one value in the distance vector, and adding the sum to the basis set may be selectively repeated until the basis set includes sums corresponding to each of the plurality of formulas.

A combinational circuit for a Substitution-Box for the Advanced Encryption Standard having a total of 115 Boolean gates comprises a first, input portion, a second portion coupled to the first, input portion, and a third, output portion coupled to the second portion. The first, input portion has 23 XOR gates. The second portion has 30 XOR gate and 32 AND gates, and computes the non-linear component of inversion in GF(256). Also, in the second portion 11 of the 30 XOR gates and 5 of the 32 AND gates are operable to perform inversion in GF(16). The third, output portion has 26 XOR gates and 4 XNOR gates.

Dated: June 18, 2009.

**Patrick Gallagher,**

*Deputy Director.*

[FR Doc. E9-14734 Filed 6-22-09; 8:45 am]

**BILLING CODE 3510-13-P**

## DEPARTMENT OF COMMERCE

### National Institute of Standards and Technology

#### Technology Innovation Program Advisory Board

**AGENCY:** National Institute of Standards and Technology; Department of Commerce.

**ACTION:** Notice of public meeting.

**SUMMARY:** Pursuant to the Federal Advisory Committee Act, 5 U.S.C. app., notice is hereby given that the Technology Innovation Program Advisory Board, National Institute of Standards and Technology (NIST) will meet Tuesday, July 7, 2009 from 8:30 a.m. to 3 p.m. The Technology Innovation Program (TIP) Advisory Board is composed of ten members appointed by the Director of NIST who are eminent in such fields as business, research, science and technology, engineering, education, and management consulting. The purpose of this meeting is to review and make recommendations regarding general policy for the Technology Innovation Program, its organization, its budget, and its programs within the framework of applicable national policies as set forth by the President and the Congress. The agenda will include a TIP Update. Agenda may change to accommodate Board business.

**DATES:** The meeting will convene Tuesday, July 7, at 8:30 a.m. and will adjourn at 3 p.m. on Tuesday, July 7, 2009.

**ADDRESSES:** The meeting will be held at the National Institute of Standards and Technology, Administration Building, Employees' Lounge, Gaithersburg, Maryland 20899. Please note admittance instructions under the **SUPPLEMENTARY INFORMATION** section of this notice.

**FOR FURTHER INFORMATION CONTACT:** JoEllen Hansroth, National Institute of Standards and Technology, Gaithersburg, Maryland 20899-4700, telephone number (301) 975-2162. JoEllen's e-mail address is *joellen.hansroth@nist.gov*.

**SUPPLEMENTARY INFORMATION:** The agenda will include a TIP Update. The agenda may change to accommodate Board business. The final agenda will be