

STATEMENT OF CONSIDERATIONS

REQUEST BY HONEYWELL INTERNATIONAL (HONEYWELL) FOR THE WAIVER OF DOMESTIC AND FOREIGN RIGHTS TO AN IDENTIFIED INVENTION TITLED "SECURE AND RELIABLE WIRELESS NETWORKS FOR CRITICAL INFRASTRUCTURE FACILITIES" (HONEYWELL ID #H0017286) DEVELOPED UNDER DOE PRIME CONTRACT DE-AC04-94AL85000 AND SANDIA-HONEYWELL PURCHASE ORDER/SUBCONTRACT 822892
DOE WAIVER NO. W(I) 2010-07.

The Petitioner, Honeywell, has requested a waiver of the Government's domestic and foreign patent rights in an identified invention titled "Secure and Reliable Wireless Networks for Critical Infrastructure Facilities." The identified invention was independently conceived and first constructively reduced to practice by Honeywell, prior to agreeing to a purchase order/subcontract (work for others) with Sandia National Laboratories. The identified invention was subsequently reduced to practice by employees of the Sandia Corporation (Sandia) under directions from Honeywell. No Sandia employee contributed to this invention and therefore there are no Sandia co-inventors. The Sandia Corporation is the M&O contractor for the Sandia National Laboratory (SNL), a government-owned, contractor-operated facility, subject to DOE contract number DE-AC04-94AL85000. Honeywell agreed to a purchase order with SNL under Subcontract 822898. As part of the purchase order/subcontract, Sandia agreed that the invention would not be assigned to Sandia.

The invention relates to a method for providing security in wireless communication networks associated with industrial control and automation systems. The security method uses link level or per-hop security in wireless sensor networks. This includes link level keys for sensor and data for multimode-multimode links and a network level key for general data and multimode-multimode links. This invention facilitates redundant, non-overlapping routing and security enhancements of hybrid wire and wireless networks.

This identified invention was developed under funding from the Department of Homeland Security (DHS), Science and Technology Directorate. The DHS funding was for testing "Secure and Reliable Wireless Networks for Critical Infrastructure Facilities." This technology was part of the broader DHS Cyber Security Research and Development (CSR) program led by Douglas Maughan, PhD, Program Manager, CID. Federal expenditures for this identified invention were limited to the salary of the Sandia employees when performing this purchase order, approximately \$346,000. Honeywell filed a provisional patent application for this identified invention on September 4, 2007, and a non-provisional patent application on January 25, 2008. Both of the filed USPTO applications are enabling and are considered effective constructive reduction to practice of the identified invention. Both applications were filed before Honeywell agreed to the purchase order/subcontract with Sandia on June 19, 2008. To date, all the patent filing

and prosecution expenses have been paid by Honeywell. Additional patent fees, including issue and maintenance fees will also be paid by Honeywell. US Patent 8,280,057 titled "Method and Apparatus for Providing Security in Wireless Communications Networks" covers the identified invention and issued on October 2, 2012.

The invention has been reviewed for Export Control and Classification, and has been determined to be unclassified and not controlled or sensitive under Section 148 of the Atomic Energy Act. Furthermore, the invention does not apply to the Naval Nuclear Propulsion Program or to the nuclear weapons programs or other nuclear or atomic energy defense activities of DOE. Honeywell, as part of this petition, has affirmatively agreed to the standard U.S. Competitiveness Clause. A waiver for an identified invention is the means by which Honeywell may properly obtain title to this invention and promote its use in the national infrastructure. This Petition has been filed in a timely manner.

Granting the waiver will promote the effective commercial utilization of this identified invention. The subject matter of the patented invention has been proposed by Honeywell for standardization to various standard development organizations such as the International Society of Automation (ISA). Honeywell has agreed to comply with ISA policy, that if a patented invention is adopted as a standard, the patent owner would provide written assurance that a license would be available without compensation or under reasonable terms and conditions free of any unfair discrimination. Furthermore, alternative proprietary algorithms are readily available if another manufacturer chooses not to adopt this proposed standard. The Honeywell Process Solutions (HPS) business unit will commercialize this invention. The identified invention is an enhancement of an established wireless product currently marketed by Honeywell. Honeywell seeks title through a petition for waiver of rights to an identified invention in order to promote and commercially market this invention and to advocate its use as an industry standard. The wireless security field is fast paced and well established. Technical advances occur regularly. Thus, it is believed that the grant of this waiver to Honeywell will not decrease competition, or put Honeywell in a preferred or dominant position. Also, grant of this waiver will not cause an undesirable concentration in the field of security for industrial wireless systems. Rather it will facilitate the transfer of this technology into the national infrastructure.

As a government (DHS) funded identified invention, the US government shall receive an irrevocable, non-exclusive, royalty-free license in connection with the research, development, production or supply of the patented invention, and to make, use and sell by or on their behalf the invention covered by the issued patent, and to have made on their behalf such invention as may be covered by a foreign patent in support of use by the government within the US.

As such, upon evaluation of the Waiver Petition in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.



Arthur N Trausch
Patent Attorney, DOE/NNSA

Based on the foregoing Statement of Considerations and the representations of the attached Waiver Petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above and, therefore, the waiver is granted.

CONCURRENCE:



Robert Webb
Associate General Counsel
Department of Homeland Security

Date: 11/26/2012

APPROVAL:



John Lucas
Assistant General Counsel
For Technology Transfer and
Intellectual Property (GC-62)
Department of Energy

Date: 11/26/2012