



HSCLOUD: CLOUD ARCHITECTURE FOR SUPPORTING HOMELAND SECURITY

M. Fazio, M. Paone, A. Puliafito and M. Villari

Faculty of Engineering

University of Messina

Messina, Italy

Email: mfazio{mpaone, apuliafito, mvillari}@unime.it

Submitted: Feb. 21, 2012 Accepted: Feb. 22, 2012 Published: Mar. 1, 2012

Abstract- Governmental institutions all over the world are trying to increase the level of security of their countries emphasizing the usage Information Technology solutions. We believe that Cloud Computing may strongly help Homeland Security, since it offers a very flexible support for organizing and managing heterogeneous systems, providing huge amount of processing, storing and sensing resources. In this work we introduce a new Cloud architecture able to virtualize different types of sensing environments in virtual sensing elements, logically belonging to Cooperating Clouds. It

represents a very flexible solution, which offers seamless, secure and advanced services to support Homeland Security.

Index terms: Homeland Security, Cloud Computing, Dangerous Goods, Virtual Sensing.