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Titel

WS4Dsec - Reliably Secure Web Services for Devices

Summary

The increasing number of small and spontaneous interacting devices offering services for data processing in a distributed manner accelerates the need to ensure a reliably secured data handling. Nowadays, embedded systems are powerful enough to provide Web Services and thus enabling ad-hoc device connections as interoperable cross domain solutions. Therefore, it is inevitable to handle data confidentially and to ensure that service based interactions are verifiable regarding their secure data exchange. The proposed project WS4Dsec faces this challenge of security issues related to **Web Services for Devices (WS4D)**. We will realize a toolkit called WS4Dsec that enables a combined development and verification process for WS4D-enabled devices ensembles. Moreover, it will include capabilities for automatic code generation to reduce the complexity for the development of reliably secured service interactions. Thereby, the special requirements of dynamically connected devices differ from those used for traditional static Web Service systems in the enterprise domain. The combination of volatile network characteristics and a high demand on flexibility raises the need for new verifiable security concepts for stateful service interactions on constrained devices. Therefore, WS4Dsec will provide mechanisms that enable a formal verification of secure and stateful interacting devices ensembles.

Project period

- 24 months: 01.10.2010 - 30.09.2012

Research grant

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Principal investigators



Prof. Dr.-Ing. Dirk Timmermann

E-Mail

Tel.: +49 381 498 7250

Fax: +49 381 498 118 7251

Raum: W1205



Prof. Dr. rer. nat. habil Karsten Wolf

E-Mail

Tel.: +49 381 498 7670

Büro: 225

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Links

- Official web site: www.ws4dsec.org
- Web Services for Devices (WS4D, www.ws4d.org), an initiative of the University of Rostock, supplying open source software stacks and tools for easy migration to WS4D
- Devices Profile for Web Services (DPWS) is a defined subset of Web Services suitable for resource constrained embedded devices, supported by Microsoft in Vista and Windows 7
- In 2009, DPWS 1.1 has been approved as an OASIS standard called WS-DD, driven by the OASIS Web Services Discovery and Web Services Devices Profile (WS-DD) Technical Committee

Suchbegriff...



Mitarbeitersuche...



Förderung

DFG

Principal investigators

Prof. D. Timmermann

Prof. K. Wolf

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