

## Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft

Mittlerer Pfad 15 70499 Stuttgart Postfach 31 16 20 70476 Stuttgart www.de.ey.com

Telefon +49 711 9881 0 Telefax +49 711 9881 550

July 21, 2012

## Independent Auditor's Report

## To the Management of T-Systems International GmbH

We have examined the <u>assertion</u> by the management of T-Systems International GmbH ("T-Systems") that in providing its Certification Authority ("CA") services at Netphen and Bamberg, Germany, for the

- Root CA "Deutsche Telekom Root CA 2"
- Root CA "T-TeleSec GlobalRoot Class 2"
- Root CA "T-TeleSec GlobalRoot Class 3" and

during the period from June 22, 2011 through June 21, 2012 T-Systems has —

- Disclosed its <u>key and certificate life cycle management business and information privacy</u> practices and provided such services in accordance with its disclosed practices;
- Maintained effective controls to provide reasonable assurance that:
  - Subscriber information was properly authenticated (for the registration activities performed by T-Systems);
  - The integrity of keys and certificates it managed was established and protected throughout their life cycles;
  - Subscriber and relying party information was restricted to authorized individuals and protected from uses not specified in the CA's business practices disclosure;
  - The continuity of key and certificate life cycle management operations was maintained;
    and
  - CA systems development, maintenance and operations were properly authorized and performed to maintain CA systems integrity

based on the <u>AICPA/CICA WebTrust for Certification Authorities Criteria</u> and the <u>IDW WebTrust for Certification Authorities Criteria</u> (IDW PS 890 "Die Durchführung von WebTrust-Prüfungen").

T-Systems' Management is responsible for its assertion. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with auditing standard PS 890 established by the IDW. This standard requires that we plan and perform our examination to obtain reasonable assurance that management's assertion is not materially misstated. Our examination included (1) obtaining an understanding of T-Systems CAs' key and certificate life cycle management business and information privacy practices and its controls over key and certificate



Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft Page 2 July 21, 2011

integrity, over the authenticity and privacy of subscriber and relying party information, over the continuity of key and certificate life cycle management operations, and over development, maintenance and operation of systems integrity; (2) selectively testing transactions executed in accordance with disclosed key and certificate life cycle management business and information privacy practices; (3) testing and evaluating the operating effectiveness of the controls; and (4) performing such other procedures as we considered necessary in the circumstances. We believe that our examination provides a reasonable basis for our opinion.

In our opinion, for the period from June 22, 2011 through June 21, 2012, T-Systems management's assertion, as set forth in the first paragraph, is fairly stated, in all material respects, based on the IDW WebTrust for Certification Authorities Criteria.

Because of inherent limitations in controls, errors or fraud may occur and not be detected. Furthermore, the projection of any conclusions, based on our findings, to future periods is subject to the risk that (1) changes made to the system or controls, (2) changes in processing requirements, (3) changes required because of the passage of time, or (4) degree of compliance with the policies or procedures may alter the validity of such conclusions.

The relative effectiveness and significance of specific controls at T-Systems and their effect on assessments of control risk for subscribers and relying parties are dependent on their interaction with the controls, and other factors present at individual subscriber and relying party locations. We have performed no procedures to evaluate the effectiveness of controls at individual subscriber and relying party locations.

This report does not include any representation as to the quality of T-Systems' services beyond those covered by the WebTrust for Certification Authorities Criteria, nor the suitability of any of T-Systems' services for any customer's intended purpose.

The WebTrust seal of assurance for Certification Authorities on T-Systems' Web site constitutes a symbolic representation of the contents of this report and it is not intended, nor should it be construed, to update this report or provide any additional assurance.

July 17, 2012

Ernst &Young GmbH Wirtschaftsprüfungsgesellschaft Stuttgart, Germany

Olaf Riedel Partner Herbert Engelbrecht Partner

- signed -

T-Systems International GmbH Trust Center Services Untere Industriestraße 20 57250 Netphen Germany

July 21, 2012

Assertion of Management as to its Disclosure of its Business Practices and its Control Over its Certification Authority (CA) Operations during the period from June 22, 2011 through June 21, 2012

T-Systems International GmbH ("T-Systems") operates a Trust Center in Netphen and Bamberg, Germany, providing certification services for the following CA:

- Root CA"Deutsche Telekom Root CA 2"
- Root CA "T-TeleSec GlobalRoot Class 2" and
- Root CA "T-TeleSec GlobalRoot Class 3"

T-Systems' Trust Center provides the following certification authority activities:

- Subscriber Registration,
- Certificate Renewal,
- Certificate Rekey,
- Certificate Issuance,
- Certificate Distribution,
- Certificate Revocation, and
- Certificate Status Information Processing.

Management of T-Systems is responsible for establishing and maintaining effective controls over its CA operations, including CA business practices disclosure in its certificate repository, service integrity (including key and certificate life cycle management controls), and CA environmental controls. These controls contain monitoring mechanisms, and actions are taken to correct deficiencies identified.

There are inherent limitations in any controls, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even effective controls can provide only

reasonable assurance with respect to T-Systems Certification Authority operations. Furthermore because of changes in conditions, the effectiveness of controls may vary over time.

Management has assessed the controls over its CA operations. Based on that assessment, in T-Systems Management's opinion, in providing its CA services at Netphen and Bamberg, Germany, during the period from June 22, 2011 through June 21, 2012, T-Systems has:

- Disclosed its key and certificate life cycle management business and information privacy practices and provided such services in accordance with its disclosed practices
- Maintained effective controls to provide reasonable assurance that:
  - Subscriber information was properly authenticated (for the registration activities performed by T-Systems) and
  - The integrity of keys and certificates it managed was established and protected throughout their life cycles
- Maintained effective controls to provide reasonable assurance that:
  - Subscriber and relying party information was restricted to authorized individuals and protected from uses not specified in the CA's business practices disclosure;
  - The continuity of key and certificate life cycle management operations was maintained; and
  - CA systems development, maintenance and operations were properly authorized and performed to maintain CA systems integrity

based on the AICPA/CICA WebTrust for Certification Authorities Criteria and the IDW Web-Trust for Certification Authorities Criteria (IDW PS 890 "Die Durchführung von WebTrust-Prüfungen") including the following:

- CA Business Practices Disclosure
- Service Integrity
  - o Key Life Cycle Management Controls
    - CA Key Generation
    - CA Key Storage, Backup, and Recovery
    - CA Public Key Distribution
    - CA Key Usage
    - CA Key Destruction
    - CA Key Archival

Ŧ

- CA Cryptographic Hardware Life Cycle Management
- CA-Provided Subscriber Key Management Services (Subscriber key generation only)
- o Certificate Life Cycle Management Controls
  - Subscriber Registration
  - Certificate Renewal
  - Certificate Issuance
  - Certificate Distribution
  - Certificate Revocation
  - Certificate Status Information Processing
  - Integrated Circuit Card Life Cycle Management
- CA Environmental Controls
  - Certification Practice Statement and Certificate Policy Management
  - Security Management
  - Asset Classification and Management
  - Personnel Security
  - Physical and Environmental Security
  - Operations Management
  - System Access Management
  - Systems Development and Maintenance
  - Business Continuity Management
  - Monitoring and Compliance
  - Event Journaling

Dil

July 21, 2012

Detlef Dienst

Head of Trust Center Notary Services

Axel Treßel, M.Comp.Sc.

Head of Trust Center Applications