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Management of TrustFactory TrustFactory (Pty) Ltd Firestation 6th Floor 16 Baker Street Rosebank Johannesburg 2196 Your ref TrustFactory Independent Assurance Report Our ref 1013225 \_TrustFactory\_ISAE 3000 WebTrust Letter\_ Standard CAs Contact Devon C Duffield (+27832867588)

14 December 2018

Independent Assurance Report

To the management of TrustFactory (Pty) Ltd ("TrustFactory"):

## Scope

We have been engaged to perform a reasonable assurance engagement on TrustFactory management's assertion that, for its Certification Authority operations at Firestation, Rosebank, Johannesburg, throughout the period 08 August 2018 to 07 October 2018 for the:

- TrustFactory Client Root Certificate Authority;
- TrustFactory Client Issuing Certificate Authority;
- TrustFactory SSL Root Certificate Authority; and
- TrustFactory SSL Issuing Certificate Authority (CA)

TrustFactory has:

 disclosed its business, key lifecycle management, certificate life cycle management and CA environmental control practices in its applicable Certificate Policy and Certificate Practice Statement located at <u>https://www.trustfactory.net/repository/</u>;

> KPMG Inc, a company incorporated under the South African Companies Act and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

KPMG Inc is a Registered Auditor, in public practice, in terms of the Auditing Profession Act, 26 of 2005.

Registration number 1999/021543/21

Chairman: W Nkuhlu Directors: Full list on website

The company's principal place of business is at KPMG Crescent, 85 Empire Road, Parktown, where a list of the directors' names is available for inspection.



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- maintained effective controls to provide reasonable assurance that:
  - TrustFactory's Certificate Practice Statements are consistent with its Certificate Policy;
  - TrustFactory provided its services in accordance with its Certificate Policy and Certificate Practice Statements; and
- maintained effective controls to provide reasonable assurance that:
  - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
  - subscriber information is properly authenticated (for the registration activities performed by TrustFactory); and
- maintained effective controls to provide reasonable assurance that:
  - logical and physical access to CA systems and data is restricted to authorised individuals;
  - the continuity of key and certificate management operations is maintained;
  - CA systems development, maintenance, and operations are properly authorised and performed to maintain CA systems integrity

in accordance with the WebTrust *Trust Service Principles and Criteria for Certification Authorities v2.1, ISO/SANS 21188 and Electronic Communication and Transactions Act of 2002 Accreditation Regulations.* 

TrustFactory does not escrow its CA keys, does not provide subscriber key generation services, and does not provide certificate suspension services. Accordingly, our procedures did not extend to controls that would address those criteria.

## Certification authority's responsibilities

TrustFactory's management is responsible for its assertion, including the fairness of its presentation, and the provision of its described services in accordance with the WebTrust *Trust Service Principles and Criteria for Certification Authorities v2.1, ISO/SANS 21188 and Electronic Communication and Transactions Act of 2002 Accreditation Regulations.* 

## Our independence and quality control

We have complied with the independence and other ethical requirements of the *Code of Professional Conduct* for Registered Auditors, issued by the Independent Regulatory Board for Auditors (IRBA), that is consistent with the International Ethics Standards Board for Accountants *Code of Ethics for Professional Accountants* (Parts A and B), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.



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The firm applies International Standard on Quality Control 1, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## Practitioner's responsibilities

Our responsibility is to express an opinion on management's assertion based on our procedures. We conducted our procedures in accordance with International Standard on Assurance Engagements 3000 (Revised), *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform our procedures to obtain reasonable assurance about whether, in all material respects, management's assertion is fairly stated, and, accordingly, included:

- obtaining an understanding of TrustFactory's key and certificate lifecycle management business practices and its controls over key and certificate integrity, over the authenticity and confidentiality of subscriber and relying party information, over the continuity of key and certificate lifecycle management operations and over development, maintenance and operation of systems integrity;
- selectively testing transactions executed in accordance with disclosed key and certificate lifecycle management business practices;
- testing and evaluating the operating effectiveness of the above controls; and
- performing such other procedures as we considered necessary in the circumstances.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## **Relative effectiveness of controls**

The relative effectiveness and significance of specific controls at TrustFactory 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.

## Inherent limitations

Because of the nature and inherent limitations of controls, TrustFactory's ability to meet the aforementioned criteria may be affected. For example, controls may not prevent, or detect and correct, error, fraud, unauthorised access to systems and information, or failure to comply with internal and external policies



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or requirements. Also, the projection of any conclusions based on our findings to future periods is subject to the risk that changes may alter the validity of such conclusions.

## Opinion

In our opinion, throughout the period 08 August 2018 to 07 October 2018, TrustFactory management's assertion, as referred to above, is fairly stated, in all material respects, in accordance with the WebTrust *Trust Service Principles and Criteria for Certification Authorities v2.1*, ISO/SANS 21188 and Electronic Communication and Transactions Act of 2002 Accreditation Regulations. This report does not include any representation as to the quality of TrustFactory services beyond those covered by the WebTrust *Trust Service Principles and Criteria for Certification Authorities v2.1*, *ISO/SANS 21188 and Electronic Communication and Transactions Act of 2002 Accreditation Regulations*, nor the suitability of any of TrustFactory services for any customer's intended purpose.

## Use of WebTrust's Seal for Certification Authorities

TrustFactory's use of the WebTrust for Certification Authorities Signing Seal 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.

## **Restriction on use**

As indicated, this report is for the purpose of providing information to the AICPA/CPA Web Trust Certification Authorities in order to obtain Web Trust Certification and may not be suitable for any other purpose. This report is also intended for customers who have used TrustFactory's services who have a sufficient understanding to consider it, along with other information including information about controls operated by customers themselves, when obtaining an understanding of customers' information systems.

Yours sincerely,

KPMG Inc.

Per Devon C Duffield Chartered Accountant (SA) Registered Auditor Director



# TrustFactory (Pty) Ltd Management's Assertion

TrustFactory (Pty) Ltd (hereafter referred to as "TrustFactory") operates the Certification Authorities services known as:

- TrustFactory Client Root Certificate Authority;
- TrustFactory Client Issuing Certificate Authority;
- TrustFactory SSL Root Certificate Authority; and
- TrustFactory SSL Issuing Certificate Authority (CA)

provides the following CA services:

- Subscriber registration
- Certificate renewal
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- . Certificate validation

The management of TrustFactory is responsible for establishing and maintaining effective controls over its CA operations, including its CA business practices disclosure on its Certification Practice Statement on its website, CA business practices management, CA environmental controls, CA key lifecycle management controls, subscriber key lifecycle management controls and certificate lifecycle management 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 only provide reasonable assurance with respect to TrustFactory's Certification Authority operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

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TrustFactory management has assessed its disclosures of its certificate practices and controls over its CA services. Based on that assessment, in TrustFactory management's opinion, in providing its Certification Authority (CA) services at Firestation, Rosebank, South Africa, throughout the period 08 August 2018 to 07 October 2018, TrustFactory has:

- disclosed its business, key lifecycle management, certificate life cycle management and CA environmental control practices in its applicable Certificate Policy and Certificate Practice Statement located at <u>https://www.trustfactory.net/repository/;</u>
- maintained effective controls to provide reasonable assurance that:
  - TrustFactory's Certificate Practice Statements were consistent with its Certificate Policy;
  - TrustFactory provided its services in accordance with its Certificate Policy and Certificate Practice Statements; and
- maintained effective controls to provide reasonable assurance that:
  - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
  - subscriber information is properly authenticated (for the registration activities performed by TrustFactory); and
- maintained effective controls to provide reasonable assurance that:
  - logical and physical access to CA systems and data is restricted to authorised individuals;
  - the continuity of key and certificate management operations is maintained; and
  - CA systems development, maintenance, and operations are properly authorised and performed to maintain CA systems integrity

in accordance with the WebTrust Trust Service Principles and Criteria for Certification Authorities v2.1, ISO/SANS 21188 and Electronic Communication and Transactions Act of 2002 Accreditation Regulations, including the following:

## **CA Business Practices Disclosure**

- Certification Practice Statement (CPS)
- Certificate Policy (CP)

## CA Business Practices Management

- Certificate Policy Management
- Certification Practice Statement Management
- CP and CPS Consistency



## **CA Environmental Controls**

- Security Management
- Asset Classification and Management
- Personnel Security
- Physical & Environmental Security
- Operations Management
- System Access Management
- System Development and Maintenance
- Business Continuity Management
- Monitoring and Compliance
- Audit Logging

## CA Key Lifecycle Management Controls

- CA Key Generation
- CA Key Storage, Backup, and Recovery
- CA Public Key Distribution
- CA Key Usage
- CA Key Archival and Destruction
- CA Key Compromise
- CA Cryptographic Hardware Lifecycle Management

## Subscriber Key Lifecycle Management Controls

Requirements for Subscriber Key Management

## **Certificate Lifecycle Management Controls**

- Subscriber Registration
- Certificate Renewal
- Certificate Rekey
- Certificate Issuance
- Certificate Distribution
- Certificate Revocation
- Certificate Validation



TrustFactory does not escrow its CA keys, does not provide subscriber key generation services, and does not provide certificate suspension services. Accordingly, our assertion does not extend to controls that would address those criteria.

TrustFactory (Pty) Ltd

Mr Jayesh Nana Chief Executive Officer 14 December 2018