

# INDEPENDENT PRACTITIONER'S ASSURANCE REPORT

2020/BJ-xxxx  
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To the management of iTrusChina Co., Ltd ("iTrusChina"):

We have been engaged to perform a reasonable assurance engagement on the accompanying management's assertion of iTrusChina Co., Ltd ("iTrusChina") for its Certification Authority operations for the period from January 9, 2019 to January 8, 2020.

## Management's Responsibilities

iTrusChina's management is responsible for the preparation of the iTrus-CA management's assertion in accordance with [WebTrust Principles and Criteria for Certification Authorities – Version 2.2](#).

## Our Independence and Quality Control

We have complied with the independence and other ethical requirement of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our 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

It is our responsibility, to express an opinion on the iTrus-CA management's assertion based on our work performed.

We conducted our work in accordance with the International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information". This standard requires that we plan and perform our work to form the opinion.

A reasonable assurance engagement involves performing procedures to obtain sufficient appropriate evidence whether the iTrus-CA management's assertion is prepared, in all material respects, in accordance with [WebTrust Principles and Criteria for Certification Authorities – Version 2.2](#). The extent of procedures selected depends on the practitioner's judgment and our assessment of the engagement risk. Within the scope of our work we performed amongst others the following procedures:

## Independent practitioner's assurance report (Continued)

- (1) obtaining an understanding of iTrusChina's key and certificate lifecycle management business and information privacy practices and procedures, and its controls over key and certificate 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 system integrity;
- (2) selectively testing transactions executed in accordance with disclosed key and certificate lifecycle 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 the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

The relative effectiveness and significance of specific controls at iTrusChina 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 Limitation**

We draw attention to the fact that [WebTrust Principles and Criteria for Certification Authorities – Version 2.2](#) include certain inherent limitations that can influence the reliability of the information.

Because of the nature and inherent limitations of controls, iTrusChina's ability to meet the aforementioned criteria may be affected. For example, controls may not prevent, or detect and correct, error, fraud, unauthorized access to systems and information, or failure to comply with internal and external policies 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, the iTrus-CA management's assertion, for the period from January 9, 2019 to January 8, 2020, is prepared, in all material respects, in accordance with [WebTrust Principles and Criteria for Certification Authorities – Version 2.2](#).

## Independent practitioner's assurance report (Continued)

### Emphasis of Matters

Without modifying our conclusion, we draw attention to the fact that this report does not include any representation as to the quality of iTrusChina's services beyond those covered by the [WebTrust Principles and Criteria for Certification Authorities – Version 2.2](#), nor the suitability of any of the iTrusChina's services for any customer's intended purpose.

### Use of the WebTrust Seal

iTrusChina's use of the WebTrust for Certification Authorities 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.

### Purpose and Restriction on Use and Distribution

Without modifying our opinion, we draw attention to the fact that the iTrus-CA management's assertion was prepared for obtaining and displaying the WebTrust Seal<sup>1</sup> on its website using WebTrust Principles and Criteria for Certification Authorities – Version 2.2 designed for this purpose. As a result, the iTrus-CA management's assertion may not be suitable for another purpose. This report is intended solely for the management of iTrusChina in connection with obtaining and displaying the WebTrust Seal on its website after submitting the report to the related authority in connection with WebTrust Principles and Criteria for Certification Authorities – Version 2.2 and should not be distributed to or used by any other parties for any other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

**PricewaterhouseCoopers Zhong Tian LLP Beijing Branch**  
Beijing, China  
March 20, 2020

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<sup>1</sup> The maintenance and integrity of the iTrusChina website is the responsibility of the directors. The work carried out by the assurance provider does not involve consideration of these matters and, accordingly, the assurance provider accepts no responsibility for any differences between the accompanying assertion by the management of iTrusChina on which the assurance report was issued or the assurance report that was issued and the information presented on the website.

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April 9, 2019

Dear Members of the Firm,

**Assertion by Management of iTrusChina Co., Ltd. Regarding its Disclosure of Business Practices and its Controls Over its Certification Authority Operations during the period of January 9, 2019 through January 8th, 2020.**

iTrusChina Co.,Ltd. (“iTrusChina”) operates the Certification Authority (CA) services known as listed in the **Appendix**, and provides the following CA services:

- Subscriber registration
- Certificate renewal
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate status information processing

Management of iTrusChina is responsible for establishing and maintaining effective controls over its Certification Authority operations, including CA business practices disclosure, CA service integrity (including key and certificate lifecycle 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 internal controls can only provide reasonable assurance with respect to iTrusChina’s Certification Authority operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

The management of iTrusChina has assessed the controls over its CA services. The key and certificates covered in our assessment are listed in the **Appendix** of this letter. Based on that assessment, in iTrusChina management’s opinion, in providing its CA services at Mainland China, during the period of October 8th, 2018 through January 8th, 2019,

iTrusChina has:

- disclosed its key and certificate lifecycle management business and information privacy practices in its:
  - [ITRUSCHINATM CERTIFICATION PRACTICE STATEMENT-v1.3.1](#); and
  - [ITRUSCHINATM CERTIFICATIE POLICY-v1.3](#)
- maintained effective controls to provide reasonable assurance that:
  - [ITRUSCHINATM CERTIFICATION PRACTICE STATEMENT-v1.3.1](#) is consistent with its [ITRUSCHINATM CERTIFICATIE POLICY-v1.3](#)
  - iTrusChina provides its services in accordance with its [ITRUSCHINATM CERTIFICATIE POLICY-v1.3](#) and [ITRUSCHINATM CERTIFICATION PRACTICE STATEMENT-v1.3.1](#)
- maintained effective controls to provide reasonable assurance that:
  - subscriber information is properly authenticated (for the registration activities performed by iTrusChina); and
  - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
- maintained effective controls to provide reasonable assurance that:
  - subscriber and relying party information is restricted to authorized individuals and protected from uses not specified in the CA's business practice disclosure;
  - the continuity of key and certificate lifecycle management operations is maintained; and
  - CA system development, maintenance and operations are properly authorized and performed to maintain CA system integrity

in accordance with [WebTrust Principles and Criteria for Certification Authorities v2.2](#), 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

iTrusChina Representative

March 20, 2020

## Appendix

The list of keys and certificates covered in the management assessment is as follow:

Key Name	Key Type	Key Size	Algorithm	Certificates (SHA256 fingerprint)	Certificate signed by
vTrus Root CA	Root Key	4096 bits	sha256RSA	8A:71:DE:65:59:33:6F:42:6C:26:E5:38:80:D0:0D:88:A1:8D:A4:C6:A9:1F:0D:CB:61:94:E2:06:C5:C9:63:87	vTrus Root CA
vTrus OV SSL CA	Signing Key	2048 bits	sha256RSA	A5:3B:5C:9B:B5:AD:92:70:3D:C4:F7:7F:E6:4D:91:3A:23:9F:D3:72:07:3A:48:E2:7A:04:81:58:0A:56:37:C4	vTrus Root CA
vTrus EV SSL CA	Signing Key	2048 bits	sha256RSA	F3:AA:6D:71:2A:15:F6:3F:83:50:80:49:79:DB:54:24:19:A6:1B:2B:1D:22:E7:56:C4:17:AB:FE:8D:74:A3:CA	vTrus Root CA
vTrus DV SSL CA	Signing Key	2048 bits	sha256RSA	5F:7E:8B:4A:8C:11:BA:F2:CB:E6:45:9B:47:FD:B6:D5:0C:02:85:C4:A9:94:F4:EE:F2:FE:51:60:AA:0A:B7:8A	vTrus Root CA
vTrus ECC Root CA	Root Key	ECC(384 bits)	sha384ECD SA	30:FB:BA:2C:32:23:8E:2A:98:54:7A:F9:79:31:E5:50:42:8B:9B:3F:1C:8E:EB:66:33:DC:FA:86:C5:B2:7D:D3	vTrus ECC Root CA
vTrus ECC OV SSL CA	Signing Key	ECC(256 bits)	sha256ECD SA	23:58:1E:F1:92:1D:F2:F9:29:0D:BA:0D:4D:4F:48:A9:7F:98:AE:AE:FB:5E:33:50:B3:F7:05:82:E8:CD:BE:78	vTrus ECC Root CA
vTrus ECC EV SSL CA	Signing Key	ECC(256 bits)	sha256ECD SA	BD:30:Co:D1:E7:AC:B8:3E:FC:4F:5F:6C:62:F8:F3:A5:79:BA:B2:75:27:AF:AE:66:6C:69:6C:3A:86:71:75:F1	vTrus ECC Root CA
vTrus ECC DV SSL CA	Signing Key	ECC(256 bits)	sha256ECD SA	C9:7E:36:CE:BF:15:80:AB:1B:DA:D6:1C:1D:53:Bo:5C:75:81:9E:85:D9:37:21:4B:E6:84:C8:59:B2:2D:45:E0	vTrus ECC Root CA