



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

## Validator Observation Report-EAL 2

### Project ID

### Validation report on ST evaluation

#### A. Context of validation

1. Project Details:

Project ID:

Target EAL: **EAL 2**

PP reference:

Validation objects:

a. Reference Evaluation evidence (from the developer):

Developer's doc/ artefact:

Document Identification:

Version:

Date of release:

b. Reference Evaluators' report:

Evaluator's report:

#### B. Validation results

1. Validator's comment on "application of all ASE work units":

#	Assurance components	Evaluator action elements	Validator's comment
1	ASE_INT.1: ST Introduction	<b>ASE_INT.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence	
		<b>ASE_INT.1.2E</b> The evaluator <i>shall confirm</i> that the TOE reference, the TOE overview, and the TOE description are consistent with each other	
2	ASE_CCL.1 Conformance claims	<b>ASE_CCL.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all	



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

		requirements for content and presentation of evidence	
3	ASE_SPD.1 Security problem definition	<b>ASE_SPD.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
4	ASE_OBJ.2 Security objectives	<b>ASE_OBJ.2.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence	
5	ASE_ECD.1 Extended components definition	<b>ASE_ECD.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
		<b>ASE_ECD.1.2E</b> The evaluator <i>shall confirm</i> that no extended component can be clearly expressed using existing components.	
6	ASE_REQ.2 Derived security requirements	<b>ASE_REQ.2.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence	
7	ASE_TSS.1 TOE summary specification	<b>ASE_TSS.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all	



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

	requirements for content and presentation of evidence.	
	<b>ASE_TSS.1.2E</b> The evaluator <i>shall confirm</i> that the TOE summary specification is consistent with the TOE overview and the TOE description.	

Summary of 'TOE reference'	Summary of 'TOE overview'	Summary of 'TOE description'

2. Validator's comment on evaluation for "TOE type and its usage":

3. Validator's comment on evaluation for "TOE and its boundary":

**Physical boundary:**  
**Logical boundary:**

4. Validator's comment on evaluation for "TOE operational environment":

the intended operational environment for the evaluated TOE assumes that

5. Validator's comment on evaluation for "IT asset to be protected by the TOE":

6. Validator's comment on evaluation for **identified threats** (their relevance and justification):

Sl. No	Threat	Description and justification



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

**Validator Observation Report-EAL 2**

--	--	--

1. Security functions:
2. Overall verdict:
3. Validation done by:



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

## Validator Observation Report-EAL 2

### **Validation report on ADV evaluation**

#### **A. Context of validation**

##### 1. Project Details:

Project ID:

Target EAL: [EAL 2](#)

PP reference: Validation objects:

##### a. Reference Evaluation evidence (from the developer):

Developer's doc/artefact:

1. For ADV\_ARC.1:
2. For ADV\_FSP.2:

##### b. For ADV\_TDS.1: Reference Evaluators' report:

Evaluator's report:

1. For ADV\_ARC.1:
2. For ADV\_FSP.2:
3. For ADV\_TDS.1:



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

B. Validation results

1. Validator's comment on "application of all ADV work units":

#	Assurance components	Evaluator action elements	Validator's comment
1.	ADV_ARC.1: Security architecture description	<b>ADV_ARC.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
2.	ADV_FSP.2: Security-enforcing functional specification	<b>ADV_FSP.2.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
		<b>ADV_FSP.2.2E</b> The evaluator <i>shall determine</i> that the functional specification is an accurate and complete instantiation of the SFRs.	
3.	ADV_TDS.1 Basic Design	<b>ADV_TDS.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
		<b>ADV_TDS.1.2E</b> The evaluator <i>shall determine</i> that the design is an accurate and complete instantiation of all security	



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

		functional requirements.	
--	--	--------------------------	--

2. Validator's comment on evaluation for "ADV\_ARC.1: Security architecture description":

2a. Comments on security architecture description in respect of 'Security domains' maintained by the TSF.

--

2b. Comments on security architecture description in respect of 'how the TSF initialisation process is secure'

--

2c. Comments on security architecture description in respect of 'how the TSF protects itself from tampering'

--

2d. Comments on security architecture description in respect of 'how the TSF prevents bypass of SFR-enforcing functionalities'

--

2e. Overall verdict on AD\_ARC.1

--

3. Validator's comment on evaluation for "ADV\_FSP.2 Security-enforcing functional specification":

3a. Description of TSFIs:

Sl. No.	Interface	SFR-Enforcing actions	Comments on the evaluator's examination on the description of TSFI, as per the requirement of EAL/cPP
1			



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

**Validator Observation Report-EAL 2**


**3b. SFR enforcing action of the TSFIs and their error message**

Sl. No.	Interface	TSFs	Comments on the evaluator's examination on correctness and completeness of the description of the SFR-enforcing actions of the TSFI and associated Direct error message

**3c. Mapping of TSFIs with SFR**

Sl. No.	SFR	TSFI	Comments

**3d. Overall verdict of ADV\_FSP.2**

**4. Validator's comment on evaluation for "ADV\_TDS.1 Basic Design":**

4a. On Identification and description of the subsystems those responsible for realization of the TSFs

4b. On the behaviour summary of each SFR-supporting or SFR-non-interfering TSF subsystem



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

**Validator Observation Report-EAL 2**

4c. On the summary of the SFR-enforcing behaviour of the SFR-enforcing subsystem(s)

4d. On the interaction between the SFR-enforcing subsystems

4e. On the interaction of the SFR-enforcing subsystems with other subsystems

4f. On tracing of the TSFIs to the behaviour of SFR enforcing subsystem

4g. **Overall verdict on ADV\_TDS.1**

A. Overall verdict on ADV_TDS.1
B. Validation done by:



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

**Validation report on AGD evaluation**

**A. Context of validation**

**1. Project Details:**

Project ID:

Target EAL: [EAL 2](#)

PP reference:

**Validation objects:**

**a. Reference Evaluation evidence (from the developer):**

Developer's doc/artefact:

1. For AGD\_PRE.1:
2. For AGD\_OPE.1:

**b. Reference Evaluators' report:**

Evaluator's report:

1. For AGD\_PRE.1:
2. For AGD\_OPE.1:

**B. Validation results**

**1. Validator's comment on "application of all AGD work units":**

#	Assurance components	Evaluator action elements	Validator's comment
4.	AGD_PRE.1: Preparative procedures	<b>AGD_PRE.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

		<b>AGD_PRE.1.2E</b> The evaluator <i>shall apply</i> the preparative procedures to confirm that the TOE can be prepared securely for operation.	
5.	AGD_OPE.1: Operational user guidance	<b>AGD_OPE.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	

**2. Validator's comment on evaluation for "AGD\_PRE.1: Preparative procedures":**

2.a. On steps for secure acceptance of the delivered TOE

2.b. On steps for secure installation of the TOE

2.c. On secure preparation of the operational environment as per ST

2.d. On application of the documented preparatory procedure for ATE\_IND and AVA\_VAN activities

**3. Validator's comment on evaluation for "AGD\_OPE.1: Operational user guidance":**

Overall verdict:

Validation done by:



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

## Validator Observation Report-EAL 2

### Validation report on ALC evaluation

#### A. Context of validation

##### 1. Project Details:

Project ID:

Target EAL: [EAL 2](#)

PP reference:

##### 2. Validation objects:

###### a. Reference Evaluation evidence (from the developer):

Developer's doc/artefact:

1. For ALC\_CMC.2:
2. For ALC\_CMS.2:
3. For ALC\_DEL.1:

###### b. Reference Evaluators' report:

Evaluator's report:

1. For ALC\_CMC.2:
2. For ALC\_CMS.2:
3. For ALC\_DEL.1:

#### B. Validation results

##### 1. Validator's comment on "application of all ALC work units":

#	Assurance components	Evaluator action elements	Validator's comment
6.	ALC_CMC.2: Use of a CM system	<b>ALC_CMC.2.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
7.	ALC_CMS.2: Parts of the TOE CM coverage	<b>ALC_CMS.2.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

8.	ALC_DEL.1: Delivery procedures	<b>ALC_DEL.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
----	--------------------------------------	---	--

**2. Validator's comment on evaluation for "ALC\_CMC.2: Use of a CM system":**

2.a. On unique identification of TOE and all other configuration items

2.b. On the documented method used for unique identification of TOE and all other configuration items

2.c. On the CM system(s) used

Configuration Item	CM System
TOE Binaries	
TOE Source Code	
TOE Manuals	
CC Documentation	

**3. Validator's comment on evaluation for "ALC\_CMS.2: Parts of the TOE CM coverage":**

3. a. On coverage of configuration items

3.b. On the identification of the developer involved in all configuration items relevant to the TSF (if more than one developer)

**4. Validator's comment on evaluation for "ALC\_DEL.1: Delivery procedures":**

Overall verdict:

Validation done by:



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

**Validation report on ATE evaluation**

A. Context of validation

**3. Project Details:**

Project ID:

Target EAL: EAL 2

PP reference:

**4. Validation objects:**

a. Reference Evaluation evidence (from the developer):

Developer's doc/ artefact:

1. For ATE\_FUN.1:
2. For ATE\_COV.1:
3. For ATE\_IND.2:

**The TOE (Product):**

**TOE Environment:**

4. TOE Version:

- a. For ATE\_FUN:
- b. For ATE\_IND:

b. Reference Evaluators' report:

Evaluator's report:

1. For ATE\_FUN.1:
2. For ATE\_COV.1:
3. For ATE\_IND.2:

B. Validation results

**1. Validator's comment on "application of all ATE work units":**

#	Assurance components	Evaluator action elements	Validator's comment
1	ATE_FUN.1: Functional Testing	<b>ATE_FUN.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

2	ATE_COV.1: Evidence of coverage	<b>ATE_COV.1.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
3	ATE_IND.2: Independent testing - sample	<b>ATE_IND.2.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
		<b>ATE_IND.2.2E</b> The evaluator <i>shall execute</i> a sample of tests in the test documentation to verify the developer test results.	
		<b>ATE_IND.2.3E</b> The evaluator <i>shall test</i> a subset of the TSF to confirm that the TSF operates as specified.	

**2. Validator's comment on evaluation for "ATE\_FUN.1: Functional Testing":**

2a. On consistency of TOE Test configuration with ST

2b. On developer's test effort for multiple configurations of the TOE, if defined in ST:

2c. On issue of ordering dependency of developer's test

2d. On the consistency of developer's test environment vis-à-vis the Operational environment of TOE defined in ST:

2e. On evaluator's examination on expected results reported on developer's test report



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

2f. On evaluator' reporting to ETR in respect of (1) TOE Test Configuration (2) Testing Approach & (3) Test Results

The evaluator proposes to report the following in ETR.

2g. Overall verdict on "ATE\_FUN.1: Functional Testing"

3. Validator's comment on evaluation for "ATE\_COV.1: Evidence of coverage":

3a. On evaluator's consultation of Security Target and Functional specification document, while evaluating ATE\_COV.1:

3b. On coverage of all externally visible interfaces of the TOE:

3c. Overall verdict on "ATE\_COV.1: Evidence of coverage":

4. Validator's comment on evaluation for "ATE\_IND.2: Independent testing - sample":

4a. Validator's analysis on derivation of evaluator's test cases from ST/Functional spec./Design:

Sample test scenarios identified by the validator	Relevant evaluator's Test case(s)

4b. On use of AGD\_PRE.1 document for evaluator's tests

4c. On witnessing of evaluator's test

The objectives of the tests	Test Case ID	Remarks

4d. Overall verdict on "ATE\_IND.2: Independent testing - sample":



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
*MeitY, Government of India*

**Validator Observation Report-EAL 2**

Overall verdict on ATE\_\*:

**Validation done by:**



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

**Validation report on AVA evaluation**

A. Context of validation

**1. Project Details:**

Project ID:

Target EAL: EAL 2

PP reference:

**2. Validation objects:**

a. Reference Evaluation evidence (from the developer):

Developer's doc/ artefact: For AVA\_VAN.2:

**The TOE (Product):**

**TOE Environment:**

b. Reference Evaluators' report:

Evaluator's report:

1. For AVA\_VAN.2:

B. Validation results

**1. Validator's comment on "application of all AVA work units":**

#	Assurance components	Evaluator action elements	Validator's comment
1	AVA_VAN.2: Vulnerability analysis	<b>AVA_VAN.2.1E</b> The evaluator <i>shall confirm</i> that the information provided meets all requirements for content and presentation of evidence.	
		<b>AVA_VAN.2.2E</b> The evaluator <i>shall perform</i> a search of public domain sources to identify potential vulnerabilities in the TOE.	



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

	<b>AVA_VAN.2.3E</b> The evaluator <i>shall perform</i> an independent vulnerability analysis of the TOE using the guidance documentation, functional specification, TOE design and security architecture description to identify potential vulnerabilities in the TOE.	
	<b>AVA_VAN.2.4E</b> The evaluator <i>shall conduct</i> penetration testing, based on the identified potential vulnerabilities, to determine that the TOE is resistant to attacks performed by an attacker possessing Basic attack potential.	

**2. Validator's comment on evaluation for "AVA\_VAN.2: Vulnerability analysis":**

2a. On evaluator's effort in performing a search of public domain sources to identify potential vulnerabilities in the TOE

2b. On evaluator's effort in performing an independent vulnerability Analysis of the TOE, using Guidance documentation, Functional specification, TOE design and Security Architecture description to identify potential vulnerabilities in the TOE

2c. On conduction of penetration testing, based on the identified potential vulnerabilities to determine that the TOE is resistant to attack with 'Basic' attack potential

2d. On residual vulnerabilities of the TOE which can be exploited with attacks having higher attack potential than 'Basic'



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
*MeitY, Government of India*

**Validator Observation Report-EAL 2**

Overall verdict:

**Validation done by:**



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

**Validation report on ETR**

A. Context of validation

1. Project Details:

Project ID: Target EAL: EAL 2 PP reference:

2. Validation objects:

- a. Reference Evaluators' report:  
Evaluator's report:

B. Validation results

1. Validator's comment on the minimum content of the ETR for a TOE evaluation [ref. CEM ver. 3.1, §para 112, CCMB-2017-04-004]

#	Requirements as per CEM	Ref. section of ETR under validation	Validator's comment
<b>INTRODUCTION</b>			
1	The evaluator <b>shall report</b> evaluation scheme identifiers		
2	The evaluator <b>shall report</b> ETR configuration control identifiers		
3	The evaluator <b>shall report</b> ST and TOE configuration control identifiers		
4	The evaluator <b>shall report</b> the identity of the developer		
5	The evaluator <b>shall report</b> the identity of the sponsor		
6	The evaluator <b>shall report</b> the identity of the evaluator		
<b>ARCHITECTURAL DESCRIPTION OF THE TOE</b>			
7	The evaluator <b>shall report</b> a high-level description of the TOE and its major components based on the		



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

	evaluation evidence described in the CC assurance family entitled TOE design (ADV_TDS), where applicable.		
<b>EVALUATION</b>			
8	The evaluator <b>shall report</b> the evaluation methods, techniques, tools and standards used.		
9	The evaluator <b>shall report</b> any constraints on the evaluation, constraints on the distribution of evaluation results and assumptions made during the evaluation that have an impact on the evaluation results.		
<b>RESULT OF THE EVALUATION</b>			
10	For each activity on which the TOE is evaluated, the evaluator <b>shall report</b> : <ul style="list-style-type: none"> <li>the title of the activity considered</li> <li>a verdict and a supporting rationale for each assurance component that constitutes this activity, as a result of performing the corresponding CEM action and its constituent work units.</li> </ul>		
11	The evaluator <b>shall report</b> all information specifically required by a work unit.  [For the AVA and ATE		



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2

	activities, work units that identify information to be reported in the ETR have been defined ]		
<b>CONCLUSIONS AND RECOMMENDATIONS</b>			
1 2	The evaluator <b>shall report</b> the conclusions of the evaluation, which will relate to whether the TOE has satisfied its associated ST		
<b>LIST OF EVALUATION EVIDENCE</b>			
1 3	The evaluator <b>shall report</b> for each item of evaluation evidence the following information: <ul style="list-style-type: none"> <li>the issuing body (e.g. the developer, the sponsor);</li> <li>the title;</li> <li>the unique reference (e.g. issue date and version number).</li> </ul>		
<b>LIST OF ACRONYMS/GLOSSARY OF TERMS</b>			
1 4	The evaluator <b>shall report</b> any acronyms or abbreviations used in the ETR.		
<b>OBSERVATION REPORTS</b>			
1 5	The evaluator <b>shall report</b> a complete list that uniquely identifies the ORs raised during the evaluation and their status.		

Overall verdict:



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
*MeitY, Government of India*

Validator Observation Report-EAL 2

Validation done by:



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

Validator Observation Report-EAL 2



IndianCCCertificationScheme(IC3S)

CertificationReport

**ReportNumber** :  
Product/system :

**Dated:**

**Version:**

**GovernmentofIndia**  
**Ministryof Electronics & Information Technology**  
**Standardization, Testingand Quality Certification Directorate**  
**6.CGOCComplex, LodiRoad, NewDelhi– 10003 India**



IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
*MeitY, Government of India*

Validator Observation Report-EAL 2



ReportNo:

**Product developer:**

**TOE evaluation sponsored by:**

**Evaluation facility:**

**Evaluation Personnel:**

**Evaluation report:**

**Validation Personnel:**

## Table of Contents

### Contents

PART A: CERTIFICATION STATEMENT AND BACKGROUND OF THE CERTIFICATION BODY .....	4
A1 Certification Statement .....	4
A2. AbouttheCertificationBody.....	4
A3 SpecificationsoftheCertification Procedure.....	5
A4 ProcessofEvaluation andCertification.....	5
A5 Publication .....	5
PARTB:CERTIFICATIONRESULTS .....	6
B.1 Executive Summary.....	6
B2 IdentificationofTOE.....	7
B3 Security policy .....	7
B.4 Assumptions .....	7
B.5 Evaluated configuration.....	8
B6 Document Evaluation .....	8
B7 Product Testing.....	9
B 8 EvaluationResults.....	12
B 9 ValidatorComments .....	13
B 10 ListofAcronyms .....	13
B 11References .....	14

**PART A: CERTIFICATION STATEMENT AND BACKGROUND OF THE CERTIFICATION BODY**

**A1 Certification Statement**

<b>The product below has been evaluated under the terms of the Indian Common Criteria Certification Scheme(IC3S) and has met the stated Common Criteria requirements. The scope of the evaluation and the assumed usage environment are specified in the body of this report</b>	
Sponsor	
Developer	
The Target of Evaluation (TOE)	
Security Target	
Brief description of product	
CCPart2[CC-II]	
CCPart3[CC-III]	
EAL	EAL2
Evaluation Lab	
Date Authorized	

**A2. About the Certification Body**

STQC IT Certification Services, the IT Certification Body of Standardization Testing and Quality Certification–was established in 1998 and offers a variety of services in the context of security evaluation and validation. It is the first Certification Body in India for BS7799/ISO27001 certification of Information Security Management Systems (ISMS). The Indian CC Certification Scheme(IC3S) is the IT security evaluation & certification Scheme based on Common Criteria standards, it is established by Govt. of India under Department of Information Technology, STQC Directorate to evaluate & certify the trust worthiness of security features in Information Technology(IT) products and systems. The IC3S is an Indian independent third party evaluation and certification scheme for reevaluating the security functions or mechanisms of the IT products. It also provides frameworkfortheInternationalMutualRecognitionofsuchcertificateswiththemembercountriesofCCRA (Arrangement on the Recognition of Common Criteria Certificates in the field of Information Technology Security).The principal participants in the scheme are:

- a) Applicant(Sponsor/Developer) of IT security evaluations;
- b) STQC Certification Body(STQC/MeitY/Govt.ofIndia);
- c) Common Criteria Testing Laboratories (CCTLs).

### A3 Specifications of the Certification Procedure

The certification body operates under the official administrative procedures according to the criteria and procedures laid down in the following:

- ISO/IEC Guide 17065, and the requirements laid down in Annex C of CCRA
- Indian Common Certification Scheme (IC3S)
- STQC/CC/DO2: Standard Operating Procedure(SOP)for Certification Body- Quality Manual- describes the quality management system for the Scheme.
- Common Criteria for Information Technology Security Evaluation(CC)part1-3,Version3.1
- Common Evaluation Methodology(CEM)Version3.1.

### A4 Process of Evaluation and Certification

The certification body monitors each individual evaluation to ensure uniform procedures, interpretation of the criteria, and ratings. The TOE has undergone the certification procedure at **STQCIT Certification Body**. The evaluation of the product was conducted by the evaluation body Common Criteria Test Laboratory (CCTL), Hereafter this has been referred as CCTL. The evaluation facility is recognized under the IC3S scheme of STQCIT Certification Body.

and sponsor of the TOE evaluation.

The certification process is concluded with the completion of this certification report.

This evaluation was completed on


after submission of [ETR] to the certification body. The confirmation of the evaluation assurance level (EAL) only applies on the condition that

- all stated conditions regarding configuration and operation, as given in part B of this report, are observed,
- The product is operated—where indicated—in the environment described.

This certification report applies only to the version and release of the product indicated here. The validity of the certificate can be extended to cover new versions and releases of the product, provided the applicant applies for re-certification of the modified product, in accordance with the procedural requirements, and provided the evaluation does not reveal any security deficiencies.

### A5 Publication

The following Certification Results consist of Sections B1 to B11 of this report. The TOE will be included in the list of the products certified under IC3S Scheme of STQCIT Certification Body. The list of certified products is published at regular intervals in the Internet at <http://www.commoncriteria-india.gov.in>. Further copies of this certification report may be ordered from the sponsor of the product. The certification report may also be obtained in electronic form on request to the Certification Body.

 <p>STQC    गुणोत्कर्षे समृद्धिः   </p>	 <p>CC Certification Body, STQC Directorate, Indian Common Criteria Certification Scheme (IC3S), MeitY, Government of India</p>
<b>Validator Observation Reports</b>	

## PART B: CERTIFICATION RESULTS

### B.1 Executive Summary

#### B.1.1 Introduction

The Certification Report documents the outcome of Common Criteria security evaluation of the TOE. It presents the evaluation results and the conformance results. This certificate is intended to assist the prospective buyers and users when judging the suitability of the IT security of the product for specified requirements.

#### B 1.2 Evaluated product and TOE

#### B 1.3 Security Claims


#### B 1.4 Conduct of Evaluation

#### B 1.5 Independence of Certifier

The certifier did not render any consulting or other services for the company ordering the certification and there was no relationship between them, which might have an influence on this assessment.

#### B 1.6 Disclaimers

The certification results only apply to the version and release of the product as indicated in the certificate. The certificate is valid for stated conditions as detailed in this report. This certificate is not an endorsement of the IT product by the Certification Body or any other organization that recognizes or gives effect to this certificate. It is also not an endorsement of the target of evaluation (TOE) by any agency of the Government of India and no warranty of the TOE is either expressed or implied.

 <p>STQC    गुणोत्कर्षे समृद्धिः   </p>	<p style="text-align: center;"><b>IC3S</b> CC Certification Body, STQC Directorate, Indian Common Criteria Certification Scheme (IC3S), MeitY, Government of India</p>
<b>Validator Observation Reports</b>	

### B 1.7 Recommendations and conclusions

#### B2 Identification of TOE

**Table 1: TOE components along with users' manuals**

TOE Component	Description

#### Non-TOE Environment:

#### B3 Security policy

There are following organizational security policy(ies) that the TOE must meet.

**Table 2: Organizational Security Policies**

P.Type	Description

#### B.4 Assumptions

There are following assumptions exist in the TOE environment.

**Table 3: Assumptions**

A.Type	Description

 <p>STQC    गुणोत्कर्षे समृद्धिः   </p>	<p style="text-align: center;"><b>IC3S</b> CC Certification Body, STQC Directorate, Indian Common Criteria Certification Scheme (IC3S), MeitY, Government of India</p>
<p><b>Validator Observation Reports</b></p>	

## B.5 Evaluated configuration

### B6 Document Evaluation

#### B.6.1 Documentation

The list of documents, those were presented, a evaluation evidence to the evaluators at the evaluation facility, are given below:

1. **Security Target:**
2. **TOE Architecture:**
3. **TOE Functional Specification:**
4. **TOE Design description:**
5. **Preparative Guidance:**
6. **Operational Guidance:**
7. **Configuration Management Capability :**
8. **Configuration Management Scope:**
9. **TOE delivery:**
10. **Test cases, logs and coverage:**

#### B.6.2 Analysis of document

The documents related to the following areas were analyzed using [CEM]. The summary of analysis is as below:

**Development process:** The evaluators analyzed the functional specification of the TOE and found that the TOE security function interfaces are described clearly and unambiguously. The evaluators also analyzed design and architectural descriptions of the TOE and determined that the only subsystem of the TOE (i.e. router subsystem) is clearly described in the design description. The evaluators determined that architectural description of the TOE includes secure initialization of the TOE and also means of protection of the TOE from tampering and bypassing.

**Guidance Documents:** The evaluators analysed guidance documents like preparative procedure and operational user guidance and determined that preparative procedure describes clear and unambiguous steps to bring the TOE to its secure state. The operational user guidance



# IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

## Validator Observation Reports

information were also clear and unambiguous.

**Life-cycle support documents:** The Life cycle support process document, containing information on Configuration Management and Delivery Procedure were evaluated.

**Configuration management:** The evaluators analyzed configuration management documentation and determined that the TOE and its associated documents are clearly identified as configurable items. The evaluators also analyzed access control measures defined in the documentation and found satisfactory.

**Delivery procedure:** The delivery procedure document was audited with the objective to ascertain whether it covers secure delivery of the TOE to the end-users. The secure delivery procedure has been described in the document and the same has been audited by the evaluators during their virtual site visit. The end-users can check integrity of the evaluated TOE using hash value of that, if felt necessary.

The final version of the respective evaluation evidences were found to comply with the requirements of CCv3.1 for EAL2.

### B7 Product Testing

Testing at EAL2 consists of the following three steps: Testing by developer, Independent Testing by Evaluation Team, and Penetration testing.

#### B 7.1 IT Product Testing by Developer

The evaluators verified that the developer has met their testing responsibilities by examining their test evidence, and reviewing their test results, as documented in the [ETR].

The evaluators analysed the developer's test coverage and found them to be complete and satisfactory. The correspondence between the tests identified in the developer's test documentation and the functional specification and TOE design was complete.

#### B7.2 IT Product Independent Testing by Evaluation Team

The evaluators' independent functional testing effort is summarized as below.

All testing was planned and documented to a sufficient level of detail to allow repeatability of the testing procedures and reproducibility of results.



# IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

## Validator Observation Reports

The evaluators have examined the TOE and it is found to be configurable as per the description given in the developer's preparative guidance document. It is also observed that the test configuration is consistent with the description as given in the security target document.

Highlights of Independent testing are given below:

The TOE has been installed properly as per the preparative procedure document.

The evaluators have repeated the developer's test at CCTL, confirm the reproducibility of the test results.

While making the test strategy for independent testing, consideration is given to cover the security requirements, as well as the security specification as defined in the security target, interfaces available to the users to cover each of security functional requirements, TOE design and security architecture information. Independent testing is designed to verify the correct implementation of security functionalities available to different levels of users and to check whether audit is being generated for auditable events.

The tests were designed to cover following TSFs and associated TSFIs of the TOE:

**a. Protected Communication**

To ensure that sensitive data is transmitted to and from the TOE the TOE will provide encryption for these communication paths between themselves and the endpoint. These channels are implemented using following standard protocols:

- 

**b. System Monitoring**

The TOE has the capability of generating audit data targeted at detecting administrative activities. Auditing of administrative activities provides information that may hasten corrective action should the system be configured incorrectly. Audit of select system events can provide an indication of failure of critical portions of the TOE (e.g., a cryptographic provider process not running), repeated failures to establish sessions or authenticate to the system) of a suspicious nature.

**c. TOE Administration**



# IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
MeitY, Government of India

## Validator Observation Reports

### d. TSF Self test

In order to detect some number of failures of underlying security mechanisms used by the TSF, the TSF performs self-tests.

### **B7.3 Vulnerability Analysis and Penetration testing**

Evaluation team has searched from the site <http://web.nvd.nist.gov/> , for publicly known security vulnerabilities using the keyword ' '.

A scanning has been conducted on the TOE with

The evaluator has analyzed the evaluation evidences like, the ST, the Functional Specification, the TOE Design, the Security Architecture Description and the Guidance Documentation and as well as the operational environment, stated in the ST and then hypothesized the security vulnerabilities considering five categories of attack to the Security functions, viz. 'Bypassing', 'Tampering', 'Direct Attacks', 'Monitoring' and 'Misuse'.

Considering the type of the TOE and its intended use, the possibility of "Direct Attack" is negligible; evaluator's judgement is justified and supported by analysis. The evaluator has identified the following Attack scenarios.

#### **AT1.**

The attack potential for each of the vulnerabilities was calculated using guidance given in CEMv3.1 and considering various factors like the time to identify & exploit the vulnerability, expertise required, knowledge of the TOE, windows of opportunity and equipment requirement. The relevant attack potentials, corresponding to the identified vulnerabilities have been estimated considering various factors like the 'time to identify & exploit', 'expertise required', 'knowledge of the TOE', 'windows of opportunity' and 'equipment required'. The potential vulnerabilities with

 <p>STQC    गुणोत्कर्षे समृद्धिः   </p>	<p style="text-align: center;"><b>IC3S</b> CC Certification Body, STQC Directorate, Indian Common Criteria Certification Scheme (IC3S), MeitY, Government of India</p>
<p><b>Validator Observation Reports</b></p>	

'Basic' attack potential were considered for penetration testing. The calculated attack potentials are as follows:

**AT1.**

The evaluator conducted Penetration Testing (PT1 and PT2 respectively) for AT2 and AT3 and could not able to exploit the hypothesized Security vulnerabilities of the TOE evolved through analysis of evaluation objects.

Hence, it is concluded that the TOE does not contain any exploitable vulnerability for 'Basic Attack Potential'.

**B 8 EvaluationResults**

The evaluation results have been documented in the [ETR].

The TOE was evaluated through evaluation of its documentation, testing and vulnerability assessment using methodology stated in [CEM] and laboratory operative procedure [OP-07].

**Documentation evaluationresults:**

The documents for TOE and its development lifecycle were analyzed by the evaluator in view of the requirements of the respective work units of the [CEM]. The final versions of the documents were found to comply with the requirements of CCv3.1for EAL2.

**Testing:**

The developer's tests and the independent functional tests yielded the expected results, giving assurance that ' , behaves as specified in its [ST],functional specification and TOE design.

**Vulnerability assessment and penetration testing:**

The penetration testing with 'Basic' attack potential could not exploit the potential vulnerabilities identified through vulnerability assessment.



# IC3S

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
*MeitY, Government of India*

## Validator Observation Reports

### B 9 Validator Comments

The Validators have reviewed the Evaluation Technical Report[ETR] along with all relevant evaluation evidences, documents, records, etc. and are in agreement with the conclusion made in it i.e.

### B 10 Listof Acronyms

ACL: Access  
Control List  
CC: Common  
Criteria  
CCTL: Common Criteria Test  
Laboratory CEM: Common  
Evaluation Methodology DVS:  
Development security  
EAL: Evaluation Assurance  
Level  
ETR: Evaluation Technical  
Report FSP: Functional  
Specification  
IC3S: Indian Common Criteria Certification  
Scheme  
IT: Information Technology  
PP: Protection  
Profile ST:  
Security  
Target

**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
*MeitY, Government of India*

## Validator Observation Reports

TOE: Target of  
Evaluation

TDS: TOE Design  
Specification

TSF: TOE Security  
Function

TSFI: TOE Security Function Interface

### B 11 References

1. [CC-I]: Common Criteria for Information Technology Security Evaluation: Part 1: Version 3.1
2. [CC-II]: Common Criteria for Information Technology Security Evaluation: Part 2: Version 3.1
3. [CC-III]: Common Criteria for Information Technology Security Evaluation: Part 3: Version 3.1
4. [CEM]: Common Methodology for Information Methodology: Version 3.1
5. [ST]:
6. [ETR]: Evaluation Technical Report No. Report No:
7. [OP-07]:



**IC3S**

CC Certification Body, STQC Directorate,  
Indian Common Criteria Certification Scheme (IC3S),  
*MeitY, Government of India*

**Validator Observation Reports**