



TÜRK STANDARDLARI ENSTİTÜSÜ

BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT



Certification Report

EAL 2 Evaluation of

Republic of Turkey Ministry of Health

Security Module of e-Nabız Personal Healthcare System v2.0

issued by

Turkish Standards Institution

Common Criteria Certification Scheme

Certificate Number: 21.0.03/TSE-CCCS-73



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

TABLE OF CONTENTS

TABLE OF CONTENTS	2
DOCUMENT INFORMATION	3
1. EXECUTIVE SUMMARY	6
1.1 BRIEF DESCRIPTION	6
1.2 MAJOR SECURITY FEATURES	6
1.3 THREATS	7
2. CERTIFICATION RESULTS	8
2.1 IDENTIFICATION OF TARGET OF EVALUATION	8
2.2 SECURITY POLICY	9
2.3 ASSUMPTIONS AND CLARIFICATION OF SCOPE	9
2.4 ARCHITECTURAL INFORMATION	9
2.5 DOCUMENTATION	11
2.6 IT PRODUCT TESTING	11
2.7 EVALUATED CONFIGURATION	11
2.8 RESULTS OF THE EVALUATION	12
2.9 COMMENTS / RECOMMENDATIONS	14
3. SECURITY TARGET	15
4. GLOSSARY	15
5. BIBLIOGRAPHY	16
6. ANNEXES	17



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

DOCUMENT INFORMATION

Date of Issue	25.03.2021
Approval Date	26.03.2021
Certification Report Number	21.0.03/21-005
Sponsor and Developer	REPUBLIC OF TURKEY MINISTRY OF HEALTH
Evaluation Facility	BEAM TEKNOLOJİ A.Ş.
TOE name	SECURITY MODULE OF E-NABIZ PERSONAL HEALTHCARE SYSTEM V2.0
Pages	22

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This report has been prepared by the Certification Expert and reviewed by the Technical Responsible of which signatures are above.

DOCUMENT CHANGE LOG

Release	Date	Pages Affected	Remarks/Change Reference
1.0	26.03.2021	All	First Release

DISCLAIMER

This certification report and the IT product defined in the associated Common Criteria document has been evaluated at an accredited and licensed evaluation facility conformance to Common Criteria for IT Security Evaluation, version 3.1, revision 5, using Common Methodology for IT Products Evaluation, version 3.1, revision 5. This certification report and the associated Common Criteria document apply only to the identified version and release of the product in its evaluated configuration. Evaluation has been conducted in accordance with the provisions of the CCCS, and the conclusions of the evaluation facility in the evaluation report are consistent with the evidence adduced. This report and its associated Common Criteria document are not an endorsement of the product by the Turkish Standardization Institution, or



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI CCCS CERTIFICATION REPORT

any other organization that recognizes or gives effect to this report and its associated Common Criteria document, and no warranty is given for the product by the Turkish Standardization Institution, or any other organization that recognizes or gives effect to this report and its associated Common Criteria document.

FOREWORD

The Certification Report is drawn up to submit the Certification Commission the results and evaluation information upon the completion of a Common Criteria evaluation service performed under the Common Criteria Certification Scheme. Certification Report covers all non-confidential security and technical information related with a Common Criteria evaluation which is made under the ITCD Common Criteria Certification Scheme. This report is issued publicly to and made available to all relevant parties for reference and use.

The Common Criteria Certification Scheme (CCSS) provides an evaluation and certification service to ensure the reliability of Information Security (IS) products. Evaluation and tests are conducted by a public or commercial Common Criteria Evaluation Facility (CCTL = Common Criteria Testing Laboratory) under CCCS' supervision.

CCEF is a facility, licensed as a result of inspections carried out by CCCS for performing tests and evaluations which will be the basis for Common Criteria certification. As a prerequisite for such certification, the CCEF has to fulfill the requirements of the standard ISO/IEC 17025 and should be accredited by accreditation bodies. The evaluation and tests related with the concerned product have been performed by BEAM TEKNOLOJİ A.Ş., which is a public CCTL.

A Common Criteria Certificate given to a product means that such product meets the security requirements defined in its security target document that has been approved by the CCCS. The Security Target document is where requirements defining the scope of evaluation and test activities are set forth. Along with this certification report, the user of the IT product should also review the security target document in order to understand any assumptions made in the course of evaluations, the environment where the IT product will run, security requirements of the IT product and the level of assurance provided by the product.

This certification report is associated with the Common Criteria Certificate issued by the CCCS for Security Module of e-Nabız Personal Healthcare System v2.0 whose evaluation was completed on 11.03.2021



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI CCCS CERTIFICATION REPORT

and whose evaluation technical report was drawn up by Beam Teknoloji A.Ş. (as CCTL), and with the Security Target with version no v2.20 of the relevant product.

The certification report, certificate of product evaluation and security target are posted on the ITCD Certified Products List at bilisim.tse.org.tr portal and the Common Criteria Portal (the official web site of the Common Criteria Project).

RECOGNITION OF THE CERTIFICATE

The Common Criteria Recognition Arrangement logo is printed on the certificate to indicate that this certificate is issued in accordance with the provisions of the CCRA.

The CCRA has been signed by the Turkey in 2003 and provides mutual recognition of certificates based on the CC evaluation assurance levels up to and including EAL2. The current list of signatory nations and approved certification schemes can be found on:

<http://www.commoncriteriaportal.org>.



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI CCCS CERTIFICATION REPORT

1. EXECUTIVE SUMMARY

This report constitutes the certification results by the certification body on the evaluation results applied with requirements of the Common Criteria for Information Security Evaluation.

Evaluated IT product name: Security Module of E-Nabız Personal Healthcare System

IT Product version: v2.0

Developer's Name: REPUBLIC OF TURKEY MINISTRY OF HEALTH

Name of CCTL: BEAM TEKNOLOJİ A.Ş.

Assurance Package: EAL 2

Completion date of evaluation: 11.03.2021

1.1 BRIEF DESCRIPTION

The TOE is web based and software-only product which serves as the security module of e-Nabız personal health record system that citizens and health professionals access to health data collected from healthcare facilities via internet and mobile devices. This security module provides secure communication between the different components of the e-Nabız system and other third party applications, allows auditing, identification and authentication of the users and manages access control mechanisms.

1.2 MAJOR SECURITY FEATURES

E-Nabız Security Module v2.0 has following security functions;

- **Audit:** TOE generates audit logs and stores in database.
- **Cryptographic Operation :** TOE stores passwords with both symmetric encryption and hashing
- **Secure Communication:** TOE uses TLS 1.2 for transmitting data between other components and TOE.
- **Identification and Authentication:** The TSF requires each user to be successfully identified and authenticated before any action.
- **Access Control Mechanism :** TOE provides access control mechanism to users depending on their roles



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

1.3 THREATS

The threats addressed by the TOE are;

- **T.DDOS:** An attacker may attempt to make service unavailable by overwhelming it with traffic from multiple sources.
- **T.Brute:** An attacker may repeatedly try to guess authentication data in order to attack TOE by using this information.
- **T.Comm:** An attacker may try to modify the data transmitted between the TOE and other components.
- **T.Password:** An attacker may gain access to the passwords in the database and authenticate to the TOE by using this passwords.
- **T.Access:** An unauthorized person may gain access to resources for which that user is not authorized.
- **T. Masquerade:** An unauthorized user may masquerade via privilege escalation as an authorized user to gain access to data or TOE resources.



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

2. CERTIFICATION RESULTS

2.1 IDENTIFICATION OF TARGET OF EVALUATION

Certificate Number	21.0.03/TSE-CCCS-73
TOE Name and Version	Security Module of e-Nabız Personal Healthcare System v2.0
Security Target Document	Security Module Of e-Nabız Personal Healthcare System Common Criteria Security Target
Security Target	v2.0
Security Target	08.03.2021
Assurance Level	EAL 2
Criteria	<ul style="list-style-type: none">• Common Criteria for Information Technology Security Evaluation, Part 1: Introduction and General Model; CCMB-2017-04-001, Version 3.1, Revision 5, September 2017• Common Criteria for Information Technology Security Evaluation, Part 2: Security Functional Components; CCMB-2017-04-001, Version 3.1, Revision 5, September 2017• Common Criteria for Information Technology Security Evaluation, Part 3: Security Assurance Components; CCMB-2017-04-001, Version 3.1, Revision 5, September 2017
Methodology	Common Criteria for Information Technology Security Evaluation, Evaluation Methodology; CCMB-2017-04-004, Version 3.1, Revision 5, September 2017
Protection Profile Conformance	No claim.
Common Criteria Conformance	Common Criteria 3.1 Revision 5 (2017)
Sponsor and Developer	Republic of Turkey, Ministry of Health
Evaluation Facility	BEAM TEKNOLOJİ A.Ş.
Certification Scheme	TSE CCCS

BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI CCCS CERTIFICATION REPORT

2.2 SECURITY POLICY

There are no policies defined in Security Target.

2.3 ASSUMPTIONS AND CLARIFICATION OF SCOPE

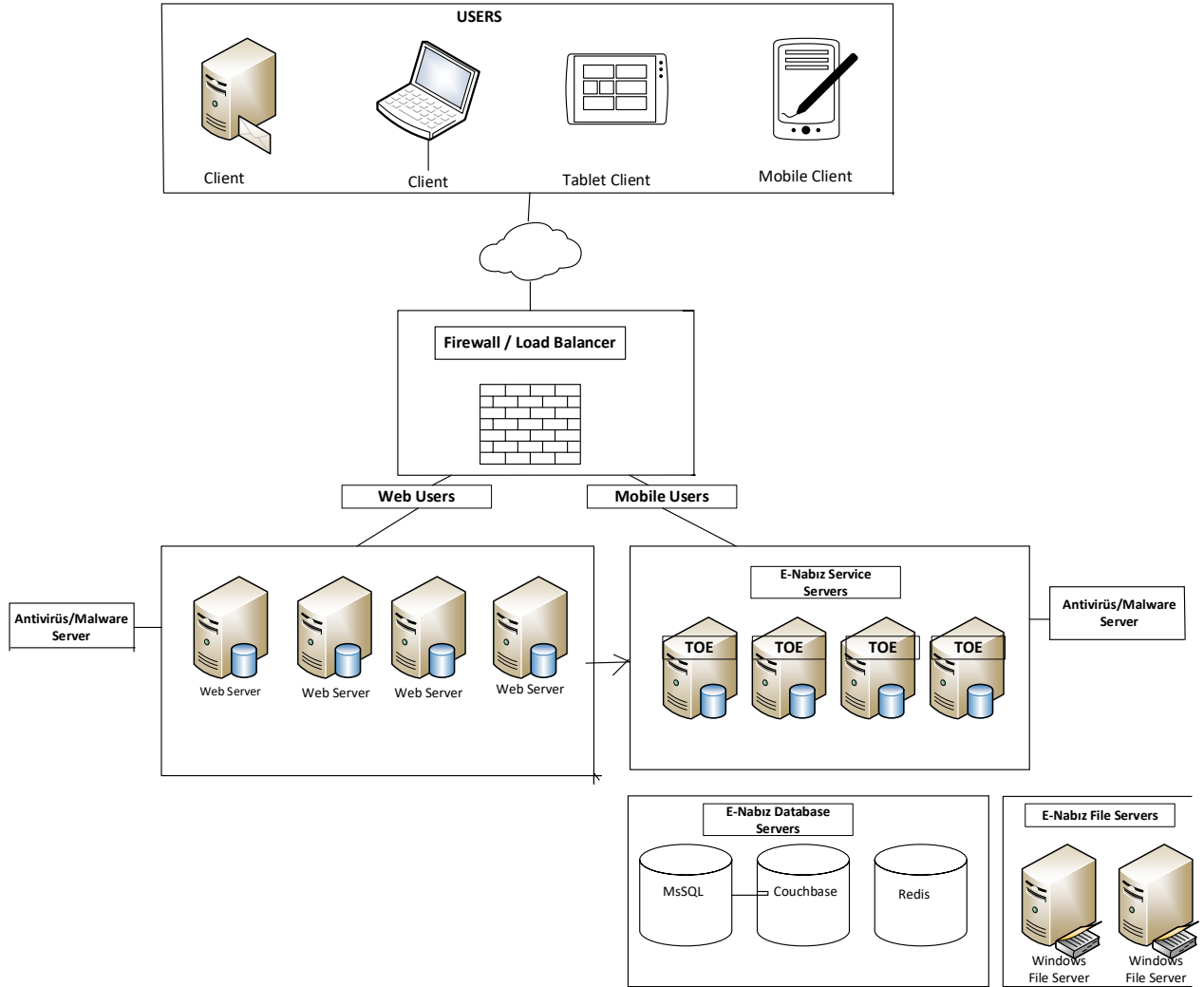
Assumptions for the usage and environment of the TOE are;

- **A.TIMESTAMP:** The reliable timestamp is provided in the TOE operation environment.
- **A.HEALTHCARE_PERSONNEL:** It is assumed that admins, physicians and family physicians are educated and trained to use the TOE securely and will not share patients' records with other users.
- **A.SINGLE USER:** It assumed that the application is used physically securely by the end user on a single mobile device.

2.4 ARCHITECTURAL INFORMATION

TOE is a part of e-Nabız software, designed to serve as a security module that runs on a server.

Architectural visualization of the software can be observed in the following figures. As depicted in the figures, the end users can access the TOE directly via mobile app of e-Nabız, while users go through a service server if they are using a web browser.

**BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT**

**BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT****2.5 DOCUMENTATION**

Name of Document	Version No.
Security Module of E-Nabız v2.0 Security Target	v.2.20
Security Module of E-Nabız v2.0 Guidance Document	v.2.15
Security Module of E-Nabız v2.0 CMP (Configuration Management)	v.2.13

2.6 IT PRODUCT TESTING

During the evaluation, all evaluation evidences of TOE were delivered and transferred completely to CCTL by the developers. All the delivered evaluation evidences which include software, documents, etc. are mapped to the assurance families Common Criteria and Common Methodology; so the connections between the assurance families and the evaluation evidences has been established. The evaluation results are available in the final Evaluation Technical Report (ETR).

It is concluded that the TOE supports EAL 2. There are 19 assurance families which are all evaluated with the methods detailed in the ETR.

Developer has prepared TOE Test Document according to the TOE Functional Specification documentation, TOE Design documentation which includes TSF subsystems and its interactions. Developer has implemented 18 functional test scenarios in total and all tests were repeated by the evaluator as well.

In addition, 16 independent functional test scenarios were implemented by the evaluator to ensure all SFR enforcing TSFIs are tested. The evaluator has also conducted 11 penetration tests based on vulnerability analysis of the TOE.

2.7 EVALUATED CONFIGURATION

TOE does not provide configuration options and has a fixed configuration which is tailored to fit e-Nabız software. Documents used for the evaluation are as follows;

BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

Configuration Elements	Title	Version
TOE	Security Module of E-Nabız	v.2.0
Source Code	E-Nabız Security Module v.2.0	v.2.0
Security Target	E-Nabız Security Module v2.0-ST- v.2.20	v.2.20
Functional Specifications	E-Nabız Security Module v2.0-FSP- v.2.20	v.2.20
TOE Design	E-Nabız Security Module v2.0-TDS- v.2.17	v.2.17
Secuirty Architecture	E-Nabız Security Module v2.0-ARCH- v.2.7	v.2.7
User Guide	E-Nabız Security Module v2.0-GD-v.2.15	v.2.15
Attachement to Acceptance and Delivery Procedure	EK_1_BG.TL.02 Instructions for Accaptable Utilization of Assets	v.2.15
Attachement to User Guide	EK_2_Server Room Security Procedures	v.2.7
Config Management Plan	E-Nabız Security Module v2.0-CMP- v.2.13	v.2.13
Acceptance and Delivery Procedure	E-Nabız Security Module v2.0-PRE- v.2.7	v.2.7
Delivery Procedure	E-Nabız Security Module v2.0-DEL- v.2.4	v.2.4
Test Documentation	E-Nabız Security Module v2.0-TD_TK- v.2.11	v.2.11
Test Scenarios	E-Nabız Security Module v2.0-TS- v.2.8	v.2.8

2.8 RESULTS OF THE EVALUATION

Table below provides a complete listing of the Security Assurance Requirements for the TOE. These requirements consists of the Evaluation Assurance Level 2 (EAL 2) components as specified in Part 3 of the Common Criteria.

BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

Assurance Class	Component	Component Title
Development	ADV_ARC.1	Security Architecture Description
	ADV_FSP.2	Functional specification with complete summary
	ADV_TDS.1	Architectural Design
Guidance Documents	AGD_OPE.1	Operational User Guidance
	AGD_PRE.1	Preparative Procedures
Life-Cycle Support	ALC_CMC.2	Authorisation Controls
	ALC_CMS.2	Implementation Representation CM Coverage
	ALC_DEL.1	Delivery Procedures
Security Target Evaluation	ASE_CCL.1	Conformance Claims
	ASE_ECD.1	Extended Components Definition
	ASE_INT.1	ST Introduction
	ASE_OBJ.2	Security Objectives
	ASE_REQ.2	Derived Security Requirements
Security Target Evaluation	ASE_SPD.1	Security Problem Definition
	ASE_TSS.1	TOE Summary Specification
Tests	ATE_COV.1	Analysis of coverage
	ATE_FUN.1	Functional Testing
	ATE_IND.2	Independent Testing
Vulnerability Analysis	AVA_VAN.2	Vulnerability analysis

The Evaluation Team assigned a Pass, Fail, or Inconclusive verdict to each work unit of each EAL 2 assurance component. For Fail or Inconclusive work unit verdicts, the Evaluation Team advised the developer about the issues requiring resolution or clarification within the evaluation evidence. In this way, the Evaluation Team assigned an overall Pass verdict to the assurance component only when all of the work units for that component had been assigned a Pass verdict. So, for TOE “Security Module for e-Nabız Software v2.0”, the results of the assessment of all evaluation tasks are “Pass”.



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

2.9 COMMENTS / RECOMMENDATIONS

As a result of the evaluation process of “Security Module for e-Nabız Software v2.0” product following information may be considered significant for potential users;

- The tests regarding hashes are only implemented for user passwords as per developer’s decision to exclude the function for hashed storage of T.C. Identity No on the database from the scope.
- Users are recommended to be aware that database for audit logs is not inside the physical boundaries of TOE. Likewise, the protection and storage of the audit logs is not within the logical boundaries either. So these features are not included in either functional/ penetration tests or vulnerability analysis.



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

3. SECURITY TARGET

The Security Target associated with this Certification Report is identified by the following terminology:

Title: Security Module Of e-Nabız Personal Healthcare System Common Criteria Security Target

Version: 2.20

Date of Document: 08.03.2021

4. GLOSSARY

ADV : Assurance of Development

AGD : Assurance of Guidance Documents

ALC : Assurance of Life Cycle

ASE : Assurance of Security Target Evaluation

ATE : Assurance of Tests Evaluation

AVA : Assurance of Vulnerability Analysis

CC : Common Criteria (Ortak Kriterler)

CCCS : Common Criteria Certification Scheme (TSE)

CCMB: Common Criteria Maintenance Board

CCRA : Common Criteria Recognition Arrangement

CCTL : Common Criteria Test Laboratory

CEM :Common Evaluation Methodology

CMC : Configuration Management Capability

CMS : Configuration Management Scope



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

DEL : Delivery

DVS : Development Security

EAL : Evaluation Assurance Level

GUI: Graphical User Interface

OPE : Opretaional User Guidance

OSP : Organisational Security Policy

PP : Protection Profile

PRE : Preperative Procedures

PP : Protection Profile

SAR : Security Assurance Requirements

SFR : Security Functional Requirements

ST : Security Target

TOE : Target of Evaluation

TSF : TOE Secirity Functionality

TSFI : TSF Interface

5. BIBLIOGRAPHY

[1] Common Criteria for Information Technology Security Evaluation, Version 3.1 Revision 5, April 2017,

[2] Common Methodology for Information Technology Security Evaluation, CEM, Version 3.1 Revision 5, April 2017,

[3] BTBD-03-01-TL-01 Certification Report Preparation Instructions, Rel.Date: February 8th 2016



BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI
CCCS CERTIFICATION REPORT

[4] BTTM-CCE-051 DTR v.3.2 Değerlendirme Teknik Raporu (*ETR*)

6. ANNEXES

There is no additional information to this report.