

Doküman No

BTBD-03-01-FR-01

CCCS CERTIFICATION REPORT

Yayın Tarihi Revizyon Tarihi 30/07/2015

29/04/2016

**No** 05





## Certification Report

## EAL 4+ (ALC\_FLR.2) Evaluation of NETCAD YAZILIM A.Ş.

**NETCAD – Enterprise Products Platform v1.0** 

issued by

Turkish Standards Institution Common Criteria Certification Scheme

Certificate Number: 21.0.03/TSE-CCCS-53



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#### BİLİŞİM TEKNOLOJİLERİ TEST VE BELGELENDİRME DAİRESİ BAŞKANLIĞI / INFORMATION TECHNOLOGIES TEST AND CERTIFICATION DEPARTMENT

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## DOCUMENT INFORMATION

Date of Issue	September 10, 2018
Approval Date	September 10, 2018
Certification Report Number	21.0.03/18-006
Sponsor and Developer	Netcad Yazılım A.Ş.
Evaluation Facility	Beam Technology Test Center
TOE	NETCAD – Enterprise Products Platform v1.0
Pages	15

Prepared by	Cem ERDÍVAN Common Criteria Inspection Expert
Reviewed by	Zümrüt MÜFTÜOĞLU Common Criteria Technical Responsible (Hardware Product Group)

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	September 10, 2018	All	First Release



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#### **DISCLAIMER**

This certification report and the IT product 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 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.



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#### **CCCS CERTIFICATION REPORT**

#### **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 Technology Testing Facility, which is a commercial 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 NETCAD – Enterprise Products Platform v1.0 whose evaluation was completed on May 5, 2018 and whose evaluation technical report was drawn up by Beam Technology (as CCTL), and with the Security Target document with version no 2.3 of the relevant product.

The certification report, certificate of product evaluation and security target document 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).



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#### 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.



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## 1 - EXECUTIVE SUMMARY

#### 1.1 TOE Overview

TOE consists of web applications which are installed onto the operating system in a computing platform.

These web applications are assembled in three groups:

#### Netigma

Netigma is the web application which end users mainly use. Netigma web application provides view and modification operations on TSF data. Also dynamic reports and queries are presented on Netigma. End users also reach map data and spatial data using Netigma. Reports, queries and objects which are related to TSF data can be managed by administrator users on development pages.

#### • NetGIS Server

NetGIS Server is the web application consisting of web services which provides map data and map drawings as partial according to related coordinates. NetGIS Server also has a configuration interface.

#### NetCad Base

NetCad Base consists of three types of web applications. Those are:

- o Parameter Server: Provides management of configuration parameters by administrator users for all applications
- o Log Server: Provides log review and filtering by administrator users for all applications.
- Authentication Server: Manages access control for all applications using single sign-on mechanism, authorization of users and verification of user-rights for all applications. User, group, role and authorization management is also done by administrator users on authentication server.

Web Server(s) which TOE components are hosted on, Database Server(s) which TOE should use to store data, BIOS and other firmware, the operating system kernel, and other systems software (and drivers) provided as part of the platform are outside the scope of this evaluation.

#### 1.2 Threats

Threats	Definition
T. MASQUERADE	An unauthorized user, process or external IT entity may masquerade as an authorized entity to gain access to data or TOE resources.
T. NETWORK_ATTACK	An attacker is positioned on a communications channel or elsewhere on the network infrastructure. Attackers may engage in communications with the application software or alter communications between the application software and other endpoints in order to compromise it.
T. NETWORK_EAVESDROP	An attacker is positioned on a communications channel or elsewhere on the network infrastructure. Attackers may monitor and gain access to data exchanged between the application and other endpoints.



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#### **2 CERTIFICATION RESULTS**

#### 2.1 Identification of Target of Evaluation

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Certificate Number	21.0.03/TSE-CCCS-53		
TOE Name and Version	NETCAD – Enterprise Products Platform v1.0		
Security Target Title	NETCAD – Enterprise Products Platform v1.0 Security Target		
Security Target Version	V2.3 ST-Lite		
Security Target Date	27.07.2018		
Assurance Level	EAL4+ (ALC_FLR.2)		
Criteria	• Common Criteria for Information Technology Security Evaluation, Part 1: Introduction and General Model; CCMB- 2012-09-001, Version 3.1, Revision 5, April 2017		
	• Common Criteria for Information Technology Security Evaluation, Part 2: Security Functional Components; CCMB- 2012-09-002, Version 3.1 Revision 5, April 2017		
	• Common Criteria for Information Technology Security Evaluation, Part 3: Security Assurance Components; CCMB- 2012-09-003, Version 3.1 Revision 5, April 2017		
Methodology	Common Criteria for Information Technology Security Evaluation, Evaluation Methodology; CCMB-2012-09-004, Version 3.1, Revision 5, April 2017		
Protection Profile Conformance	NONE		
Common Criteria Conformance	Common Criteria for Information Technology Security Evaluation, Part 1: Introduction and General Model, Version 3.1, Revision 5, April 2017		
	• Common Criteria for Information Technology Security Evaluation, Part 2: Security Functional Components, Version 3.1, Revision 5, April 2017, conformant		
	• Common Criteria for Information Technology Security Evaluation, Part 3: Security Assurance Components, Version 3.1, Revision 5, April 2017, conformant		
Sponsor and Developer	NETCAD Yazılım A.Ş.		
Evaluation Facility	Beam Technology Test Center		
Certification Scheme	TSE CCCS		

#### 2.2 Security Policy

TOE Security Policy consists of security functions described in section 2.4.1 Logical Scope.

#### 2.3 Assumptions and Clarification of Scope



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Policy	Definition	
P.CONF_KEY	Keys that are used to encrypt and export confidential data are under administrator's responsibility. Administrator should keep that keys safe and never share with anybody.	
P.FULL_LOG_ACTION	It is administrator's responsibility to take action when the informative mail about the reached log limit is sent by the TOE.	

Table 2: Organizational Security Policies

Assumption	Definition
A. PLATFORM	The TOE relies upon a trustworthy computing platform for its execution. This includes isolation of the TOE Application from other applications on the platform.
A. PROPER_USER	The user of the application software is not willfully negligent or hostile, and uses the software in compliance with the applied enterprise security policy.
A. PROPER_ADMIN	The administrator of the application software is not careless, willfully negligent or hostile, and administers the software within compliance of the applied enterprise security policy.
A. PROPER_DB_ADMIN	The administrator of the database(s) which application software uses, is not careless, willfully negligent or hostile, and administers the database within compliance of the applied enterprise security policy.
A.SECURE_NETWORK	The network connection between TOE parts is secure and uninterrupted.

Table 3: Assumptions

#### 2.4 Architectural Information

#### 2.4.1 Logical Scope

**Audit:** TOE generates audit logs that consist of various auditable events. Those logs include information about actions like user login/log out events, meta data changes, rule changes and errors. User IP, application name, log description, database table name, old and new values for modified data attributes and date and time of events are recorded. TOE allows authorized administrators to filter, search and review all the recorded logs stated above.

**Cryptographic Support:** TOE uses AES-256 algorithm and cryptographic key sizes 256 bits that meet the following: FIPS 197 (for AES) for encryption and decryption of session data and encryption of user passwords.

Cryptographic keys are generated and destructed using mechanisms provided by IIS, they can be generated by using manual or automatic triggers that can be configured by Administrator.



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**Identification, Authentication and Authorization:** TOE provides an identification and authentication layer with a login page as a part of GUI. Since TOE consists of 3 different applications, each application requires different logins although they can be used with same credentials.

TOE includes administrator defined role groups and provides authentication before any action. This security feature acts to protect and prevent access by unauthorized users to the system.

TOE also provides configurable authentication failure handling by locking users after an administrator defined number of unsuccessful login attempts.

Authorized administrators are granted the ability to set the idle timeout threshold after which an authorized user would be automatically logged out of his active session.

**Data Protection:** TOE provides access control to TOE functions and Information flow control for TSF Data. The access control function permits a user to access a protected resource only if the role group of the user is given permission to perform the requested action on the resource by Administrator.

**Security Management:** Although TOE includes static authorizations ,authorized administrator can also create dynamic authorizations.

Administrator can create role groups and bind static and dynamic authorizations to those role groups. After creating role groups administrator can assign role groups to users to define functions or resources that they are allowed to perform

Additional functionalities such as modifying access privileges and unlocking password for users are also accessible by authorized administrator.



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#### 2.4.2 Physical Scope

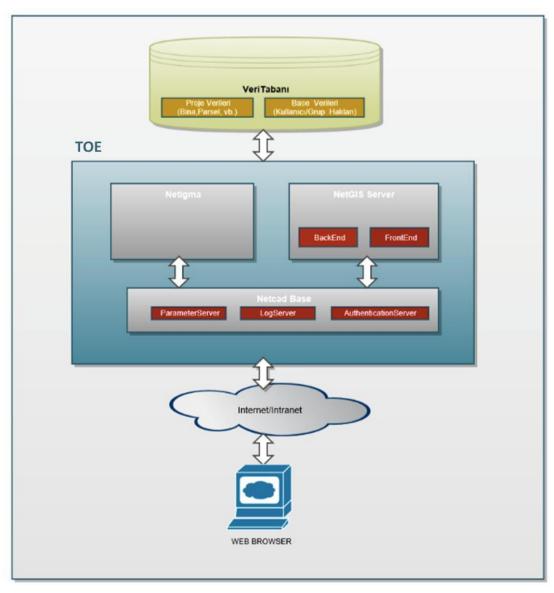


Figure 1 TOE Scope

TOE is delivered to customers by a sales representative. Deliverables are listed below:

- Netigma.exe: Netigma installation file
- Netcad Base.exe: Netcad Base installation file
- Webgis SDK.exe: Netgis SDK installation file
- Netgis Server.exe : Netgis Server installation file
- Install manual.pdf: Installation manual for TOE
- Usage manual.pdf: User guide for TOE
- Security Helper.exe : Application used for applying CC configurations
- License key files

3rd party extensions needed by TOE are included in installation files. Other dependencies based on Windows version of the system are provided by the OS.



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#### 2.5 Documentation

These documents listed below are provided to customer by the developer alongside the TOE:

Document Name	Version	Release Date
NETCAD – Enterprise Products Platform v1.0 Security	v2.3	July 27, 2018
User Manual	v1.6	May 15, 2018
Installation Procedures	v1.1	November 3, 2017

#### 2.6 IT Product Testing

- **Developer Testing:** All SFR-Enforcing TSFIs have been tested by developer. Developer has conducted 57 functional tests in total.
- Evaluator Testing: Evaluator has chosen a sample of 31 developer tests to conduct by itself. Additionally, evaluator has prepared 20 independent tests. TOE has passed all 51 functional tests to demonstrate that its security functions work as it is defined in the ST.
- **Penetration Tests:** TOE has been tested against common threats and other threats surfaced by vulnerability analysis. As a result, 16 penetration tests have been conducted. TOE proved that it is resistant to "Attacker with Enhanced-Basic Attack Potential".

#### 2.7 Evaluated Configuration

NETCAD – Enterprise Products Platform v1.0 does not have different configurations and installation steps are explained in NETCAD-AGD-PRE-v.1.1 Installation Procedures document which is handed to customer with TOE itself.

#### 2.8 Results of the Evaluation

The verdict for the CC Part 3 assurance components (according to EAL4+ (ALC\_FLR.2) and the security target evaluation) is summarized in the following table:

<b>Class Heading</b>	<b>Class Family</b>	Description	Result
ADV:	ADV_ARC.1	Security architecture description	PASS
Development	ADV_FSP.4	Complete functional specification	PASS
	ADV_IMP.1	Implementation representation of the TSF	PASS
	ADV_TDS.3	Basic modular design	PASS
AGD:	AGD_OPE.1	Operational user guidance	PASS
Guidance	AGD_PRE.1	Preparative procedures	PASS
Documents			
ALC:	ALC_CMC.4	Production support, acceptance procedures and automation	PASS
Lifecycle Support	ALC_CMS.4	Problem tracking CM coverage	PASS
	ALC_DEL.1	Delivery procedures	PASS
	ALC_DVS.1	Identification of security measures	PASS
	ALC_LCD.1	Developer defined life-cycle model	PASS
	ALC_TAT.1	Well-defined development tools	PASS



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<b>Class Heading</b>	<b>Class Family</b>	Description	Result
	ALC_FLR.2	Flaw reporting procedures	PASS
ASE:	ASE_CCL.1	Conformance claims	PASS
Security Target	ASE_ECD.1	Extended components definition	PASS
evaluation	ASE_INT.1	ST introduction	PASS
	ASE_OBJ.2	Security objectives	PASS
	ASE_REQ.2	Derived security requirements	PASS
	ASE_SPD.1	Security problem definition	PASS
	ASE_TSS.1	TOE summary specification	PASS
ATE:	ATE_COV.2	Analysis of coverage	PASS
Tests	ATE_DPT.1	Testing: basic design	PASS
	ATE_FUN.1	Functional testing	PASS
	ATE_IND.2	Independent testing - sample	PASS
AVA:	AVA_VAN.3	Focused vulnerability analysis	PASS
Vulnerability			
Analysis			

#### 2.9 Evaluator Comments / Recommendations

No recommendations or comments have been communicated to CCCS by the evaluators related to the evaluation process of "NETCAD - Enterprise Products Platform v1.0" product, result of the evaluation, or the ETR.



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#### 3 SECURITY TARGET

The security target associated with this Certification Report is identified by the following terminology:

Title: NETCAD – Enterprise Products Platform v1.0 Security Target

Version: v2.3

Date of Document: July 27, 2018

This Security Target describes the TOE, intended IT environment, security objectives, security requirements (for the TOE and IT environment), TOE security functions and all necessary rationale.



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#### **5 BIBLIOGRAPHY**

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- [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 8, 2016
- [4] ETR v3.2 of NETCAD Enterprise Products Platform v1.0, Rel. Date: May 28, 2018
- [5] NETCAD Enterprise Products Platform v1.0 Security Target, Version 2.3, Rel. Date: July 27, 2018