



# **Certification Report**

Target of Evaluation	
Application date/ID	<u>May_11, 2004 (ITC-4027)</u>
Certification No.	C0019
Sponsor	Konica Minolta Business Technologies, Inc.
Name of TOE	Japan: bizhub PRO 1050 zentai seigyo
	software
	Overseas: bizhub PRO 1050 control software
Version of TOE	Image control program (Image control I1) :
	11-0000
	Controller control program (IP control P1) :
	10-0000
PP Conformance	None
Conformed Claim	EAL3
TOE Developer	Konica Minolta Business Technologies, Inc.
<b>Evaluation Facility</b>	Japan Electronics and Information
	Technology Industries Association,
	Information Technology Security Center

This is to report that the evaluation result for the above TOE is certified as follows. February 9, 2005

> TABUCHI Haruki, Technical Manager Information Security Certification Office IT Security Center Information-Technology Promotion Agency, Japan

**Evaluation Criteria, etc.:** This TOE is evaluated in accordance with the following criteria prescribed in the "General Requirements for IT Security Evaluation Facility".

- Common Criteria for Information Technology Security Evaluation Version 2.1
- Common Methodology for Information Technology Security Evaluation Version 1.0
- CCIMB Interpretations-0210

## **Evaluation Result: Pass**

"Japan: bizhub PRO 1050 zentai seigyo software(Gazou seigyo program (Gazou seigyo I1) : 11-0000, Controller seigyo program (IP control P1) : 10-0000), Overseas: bizhub PRO 1050 control software(Image control program (Image control I1) : 11-0000, Controller control program (IP control P1) : 10-0000)" has been evaluated in accordance with the provision of the "General Rules for IT Product Security Certification" by Information-Technology Promotion Agency, Japan, and has met the specified assurance requirements.

Notice:

This document is the English translation version of the Certification Report published by the Certification Body of Japan Information Technology Security Evaluation and Certification Scheme.

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## 1. Executive Summary

#### 1.1 Introduction

This Certification Report describes the content of certification result in relation to IT Security Evaluation of "Japan: bizhub PRO 1050 zentai seigyo software(Gazou seigyo program (Gazou seigyo I1): 11-0000, Controller seigyo program (IP control P1): 10-0000), Overseas: bizhub PRO 1050 control software(Image control program (Image control I1): 11-0000, Controller control program (IP control P1): 10-0000)" (hereinafter referred to as "the TOE") conducted by Japan Electronics and Information Technology Industries Association, Information Technology Security Center (hereinafter referred to as "Evaluation Facility"), and it reports to the sponsor, Konica Minolta Business Technologies, Inc..

The reader of the Certification Report is advised to read the corresponding ST and manuals (please refer to "1.5.9 Documents Attached to Product" for further details) attached to the TOE together with this report. The assumed environment, corresponding security objectives, security functional and assurance requirements needed for its implementation and their summary specifications are specifically described in ST. The operational conditions and functional specifications are also described in the document attached to the TOE.

Note that the Certification Report presents the certification result based on assurance requirements conformed to the TOE, and does not certify individual IT product itself.

Note: In this Certification Report, IT Security Evaluation Criteria and IT Security Evaluation Method prescribed by IT Security Evaluation and Certification Scheme are named CC and CEM, respectively.

#### 1.2 Evaluated Product

1.2.1 Name of Product

The target product by this Certificate is as follows:		
Name of Product: Japan: bizhub PRO 1050 zentai seigyo software		
	Overseas	bizhub PRO 1050 control software
Version:	Japan:	Gazou seigyo program (Gazou seigyo I1): 11-0000
		Controller seigyo program (IP control P1): 10-0000
	Overseas: Image control program (Image control I1): 11-0000	
		Controller control program (IP control P1): 10-0000
Developer:	Konica M	inolta Business Technologies, Inc.

## 1.2.2 Product Overview

This product (it is called "bizhub PRO 1050 control software(\*1)", hereafter.), that is installed with digital MFP (it is called "bizhub PRO 1050 series", hereafter.) manufactured by Konica Minolta Business Technologies, Inc., is a software product for the purpose of reducing the danger to be leaked the document data stored every user. bizhub PRO 1050 control software prevents the document data from leaking during the use of functions such as copier and printer. To protect the document data, it has a "user BOX" function and a variety of management capabilities, additional highly confidential HDD (Hard Disk Drive) with lock system (\*2) to store the document. Bizhub PRO 1050 control software is provided with bizhub PRO 1050 series.

Fig 1-1 shows the expected operating environment with bizhub PRO 1050 series in office.

- (\*1) "bizhub PRO 1050 zentai seigyo software" for Japan and "bizhub PRO 1050 control software" for overseas are the same product with different calling name.
- (\*2) HDD has the password so that the hard disk cannot be removed and read in other equipment. HDD lock password is set in the hard disk lock system.



Figure 1-1 Operating Environment of bizhub PRO 1050 series

Bizhub PRO 1050 series including the TOE is connected with the internal network and public telephone line network as shown in Figure 1-1.

#### 1.2.3 Scope of TOE and Overview of Operation

Figure 1-2 shows the structure of bizhub PRO 1050 series including the TOE.



Figure 1-2 TOE Structure

Bizhub PRO 1050 series consists of the hardware and bizhub PRO 1050 control software. The components of bizhub PRO 1050 control software are the image control program and the controller control program. The hardware consists of bizhub 1050 PRO series main unit, print controller, HDD1, HDD2, operation panel, and network card. The HDD1 is the storage device that stores the data (temporary storage is also possible.). The HDD2 is the storage device that stores temporarily the data. The TOE is bizhub PRO 1050 control software and it operates with OS (VxWorks 5.4).

The hatching parts in Fig.1-2 show the control range of TOE, namely, each function included in the TOE and the area of data extension created by the TOE.

## 1.2.4 TOE Functionality

The TOE consists of "basic function" that operates the document data stored in the document data file of user BOX, "management function" that sets the TOE by the administrator, and "CE function" that executes the initial setting of TOE (Registration of administrator and Installation of TOE) by CE(\*3).

(\*3) Customer Engineer is a person who is enrolled at the company undertaken the maintenance of bizhub PRO 1050 series, and carries out the maintenance of bizhub PRO 1050 series.

#### 1.2.4.1 Basic function of TOE

Basic functions are used to operate the document data. The user BOX is identified by the user BOX identifier, and the user BOX password is set for every user BOX so as to confirm the validity as the owner (general user) of each user BOX. The valid owner of user BOX can access all the document data in his/her user BOX. Fig 1-3 shows the processing overview of basic functions.

The sub BOX is created in the user BOX, and the document data is stored together into the sub BOX.



Figure 1-3 Processing Architecture of Basic Function

The followings are the details of each function.

(1) Scanning function

By operating from the operation panel, the information of paper document is read from the scanner, converted to the document data, and stored into the HDD1 temporary storage or DRAM temporary storage.

(2) PC data receiving function

The document data from the client PC is stored into the HDD2 temporary storage, executed the data exchange, and stored into the HDD1 temporary storage or DRAM temporary storage.

(3) BOX storage function

The temporary document data in the HDD1 temporary storage or in the DRAM temporary storage is stored into the user BOX additionally.

#### (4) BOX readout function

The document data in the user BOX is temporarily read out to the HDD1 temporary storage or DRAM temporary storage.

(5) Printing function

The temporary document data in the HDD1 temporary storage or in the DRAM temporary storage is printed out.

(6) Email function

The document data gotten by the scanning function, which is stored temporarily into the HDD1 temporary storage or DRAM temporary storage, is attached to a mail via the HDD2 temporary storage, and sent to the mail server.

(7) FTP function

The document data gotten by the scanning function, which is stored temporarily into the HDD1 temporary storage or DRAM temporary storage, is sent to the FTP server via the HDD2 temporary storage.

#### (8) SMB function

The document data gotten by the scanning function, which is stored temporarily into the HDD1 temporary storage or DRAM temporary storage, is sent to the shared folder of PC that is connected with the internal network via the HDD2 temporary storage.

(9) Deletion function

The document data in the use BOX, associated with the user BOX identifier is deleted.

#### 1.2.4.2 Management function

The administrator conducts the operational setting for the TOE functions through this management function. Moreover the management function controls the related information for the operation of digital MFP, such as the creation/attribution change/deletion of user BOX, the printing of audit information, the initialization process of HDD1 and HDD2 (setting of HDD lock password), the management of troubleshooting/toner/number of prints.

#### 1.2.4.3 CE function

The following function is provided so that the CE can execute the initial setting and the maintenance for the TOE.

- Service setting mode

By operating from the operation panel, the CE executes the registration and change of the administrator password by using the function of service setting mode.

#### 1.3 Conduct of Evaluation

Based on the IT Security Evaluation/Certification Program operated by the Certification Body, TOE functionality and its assurance requirements are being evaluated by evaluation facility in accordance with those publicized documents such as "Guidance for IT Security Certification Application, etc."[2], "General Requirements for IT Security Evaluation Facility" [3] and "General Requirements for Sponsors and Registrants of IT Security Certification" [4].

Scope of the evaluation is as follow.

- Security design of the TOE shall be adequate;
- Security functions of the TOE shall be satisfied with security functional requirements described in the security design;
- This TOE shall be developed in accordance with the basic security design;
- Above mentioned three items shall be evaluated in accordance with the CC Part 3 and CEM.

More specific, the evaluation facility examined "Multi functional printer (digital copier) bizhub PRO 1050 Series Security Target Version 10" as the basis design of security functions for the TOE (hereinafter referred to as "the ST")[1], the evaluation deliverables in relation to development of the TOE and the development, manufacturing and shipping sites of the TOE. The evaluation facility evaluated if the TOE is satisfied both Annex C of CC Part 1 (either of [5], [8], [11] or [14]) and Functional Requirements of CC Part 2 (either of [6], [9], [12] or [15]) and also evaluated if the development, manufacturing and shipping environments for the TOE is also satisfied with Assurance Requirements of CC Part 3 (either of [7], [10], [13] or [16]) as its rationale. Such evaluation procedure and its result are presented in "bizhub PRO 1050 control software Evaluation Technical Report" (hereinafter referred to as "the Evaluation Technical Report") [22]. Further, evaluation methodology should comply with the CEM Part 2 (either of [17], [18] or [19]). In addition, the each part of CC and CEM shall include contents of interpretations [20] and [21].

#### 1.4 Certificate of Evaluation

The Certification Body verifies the Evaluation Technical Report and Observation Report prepared by the evaluation facility and evaluation evidence materials, and confirmed that the TOE evaluation is conducted in accordance with the prescribed procedure. Certification review is also prepared for those problems found in the certification process. Evaluation is completed with the Evaluation Technical Report dated December, 2004 submitted by the evaluation facility and those problems pointed out by the Certification Body are fully resolved and confirmed that the TOE evaluation is appropriately conducted in accordance with CC and CEM. The Certification Body prepared this Certification Report based on the Evaluation Technical Report submitted by the evaluation facility and concluded fully certification activities.

## 1.5 Overview of Report

## 1.5.1 PP Conformance

There is no PP to be conformed.

## 1.5.2 EAL

Evaluation Assurance Level of TOE defined by this ST is EAL3 conformance.

1.5.3 SOF

This ST claims "SOF-basic" as its minimum strength of function.

This TOE assumes the attack capability of general user to be low level. It is assumed that this TOE is operated under the condition that secures the adequate security in terms of physical and human. Therefore, SOF-Basic that can adequately resist for attacking from the threat agent with the attack capability of low level is valid for the security strength.

## 1.5.4 Security Functions

Security functions of the TOE are as follow.

## (1) Identification and authentication

IA.ADM_ADD Registration of administratorOnly the CE can operate it. The administrator is registered in the TOE by registering the administrator password. The administrator is registered if the password obeys the specification, and it is rejected if not so.IA.ADM_AUTH Identification and authentication of administratorBefore the operator uses the TOE, he/she is identified to be the registered administrator in the TOE and authenticated to be the valid administrator. The operations of all the management functions are not permitted before the identification and authentication of administrator. By accessing the interface for the authentication of administrator by the operator, he/she is identified to be the valid administrator using the entered password. In case of unsuccessful authentication, the access is prohibited for five seconds.IA.CE_AUTH Identification and authentication of CEBefore the operator uses the TOE, he/she is identified to be the registered CE in the TOE and authenticated to be the valid CE. The operations of all the CE functions are not permitted before the identification and authentication of CE. By using the interface for the authentication of CE and the enter-ed password by the operator, he/she is authentication of CE. By using the interface for the authentication of CE and the enter-ed password by the operator, he/she is authenticated to be the valid CE. In case of unsuccessful authentication, the access is prohibited for five seconds.IA.PASS Charse of nearwordThe passwords of administrator, CE, and user	Function title	Security function
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The interface for password change is provided
and entering the new password is required.
The following shows the changeable passwords
by the type of user.
CE : CE password, Administrator password
Administrator : Initial setting of user BOX
password
General user who owns user BOX : User BOX
password of his/ her own user BOX
The password is changed if it obeys the
specification, and it is rejected if not so.

# (2) Access control

Function title	Security function
ACL.USR Access rule and control to general user	The general user who owns user BOX is identified and authenticated. After he/she is authenticated to be the valid user, the operable coverage for the general user is limited according to the following access rules. The general user who owns user BOX is identified and authenticated by the user BOX identifier and user BOX password. The following operation is permitted for only the user BOX that corresponds to the user BOX identifier of the general user who owns user BOX. - Reading out and printing of document In case of unsuccessful identification and authentication, the access is prohibited for five seconds.

# (3) Audit

Function title	Security function
AUD.LOG	The audit information regarding the action of
Record of audit	security functions is recorded.
information	Auditable events are as follows.
	- Startup and shutdown of audit functions
	- Success and failure in identifying and
	authenticating of administrator, CE, general
	user who owns user BOX
	- Success in registering password of
	administrator and general user who owns user
	BOX
	- Success in changing password and HDD lock
	password of administrator, CE, and general user
	who owns user BOX
	- Success in reading out of document data
AUD.MNG	The area of audit storage is controlled in order to
Management of audit	create and store the audit information.
area	

## (4) Management support

Function title	Security function
MNG.MODE	Only the administrator is permitted the function
Setting of security reinforcement mode	to stop the security reinforcement mode.
MNG.ADM	The following operations are permitted and
Management support	executed by only the administrator.
function	- Creation of user BOX, registration of user BOX
(Administrator)	identifier, and setting of user BOX password
	- Inquiry of audit information
	The registration is executed if the user BOX
	password obeys the specification, it is not
	rejected if not so.
MNG.HDD	The following operations are permitted and
HDD lock password	executed by only the administrator.
function	- Change of HDD lock password
	The HDD lock password is set and changed to
	HDD device if the user BOX password obeys the
	specification, they are rejected if not so.

## 1.5.5 Threat

This TOE assumes such threats presented in Table 1-1 and provides functions for countermeasure to them.

## **Table 1-1 Assumed Threats**

Identifier	Threat
T.ACCESS	When a general user uses the user function from
(Unauthenticated	the operation panel, there is a possible threat of
access to the BOX)	disclosing the document data that the other
	general user owns in his/her User BOX.
T.HDDACCESS	- When a general user connects the HDD1 with an
(Unauthenticated	illegal device, there is a possible threat of
access to the HDD)	disclosing the document data in the HDD1.
	- When a general user connects the HDD2 with an
	illegal device, there is a possible threat of
	disclosing the document data in the HDD2.
T.IMPADMIN	- When a general user uses illegally the interfaces
(Impersonation of the	for CE function and administrator function, there
CE and	is a possible threat of disclosing the document
administrator)	data.

# 1.5.6 Organisational Security Policy

There is no the required security policy of the organization upon use of the TOE.

## 1.5.7 Configuration Requirements

The TOE is a software product installed to bizhub PRO 1050 series. The TOE is installed as a security function at time of bizhub PRO 1050 series shipping.

1.5.8 Assumptions for Operational Environment

Assumptions required in environment using this TOE presents in the Table 1-2. The effective performance of the TOE security functions are not assured unless these preconditions are satisfied.

Identifier	Assumptions
ASM.PLACE	The TOE shall be installed in the area where only
(Installation condition for	the product-related person(*4) can operate.
the TOE)	
ASM.NET (Setting	The TOE shall be connected with the internal
condition for the internal	network that the disclosure of document data will
network)	not occur.
ASM.ADMIN	The administrator shall not carry out an illegal
(Reliable administrator)	act.
ASM.CE (Personal	The CE shall not carry out an illegal act.
condition for the CE)	
ASM.USR (Management	The general user shall not disclose his/her own
of the general user)	User BOX password.

Table 1-2 Assumptions in Use of the TOE

(\*4): general user, administrator, and CE

1.5.9 Documents Attached to Product

Documents attached to the TOE are listed below.

- Japanese version
- <Manuals for CE>
- bizhub PRO 1050 Installation Manual 56UA97360
  - It describes the installation procedures for the main unit.
- bizhub PRO 1050/1050P Service Manual Field Service 2004.09 (1) It describes the registration of administrator with the adjustment method of hardware etc.
- <Manuals for Administrator and General User >
- bizhub PRO 1050 User's Guide Copier 2004.09 (1)

It describes the usage method of copier function.

- bizhub PRO 1050 User's Guide Network Scanner 2004.09 (1)

It describes the usage method of document box, and the usage method of bizhub PRO 1050 main unit in connecting to network and using scanner function.

- bizhub PRO 1050 User's Guide POD Administrator's Reference 2004.09 (1)

It describes the mechanical adjustment method of main unit and the method of management function etc.

bizhub PRO 1050 User's Guide Security 2004.09 (1)
 It describes the operational method of bizhub PRO 1050 control software, the useable function, and the security function.

- Overseas version
- <Manuals for CE>
- bizhub PRO 1050 INSTALLATION MANUAL 56UA97360 It describes the installation procedures for the main unit.
- bizhub PRO 1050/1050P SERVICE MANUAL Field Service 2004.10 (1)
  - It describes the registration of administrator with the adjustment method of hardware etc.
- <Manuals for Administrator and General User>
- bizhub PRO 1050 User's Guide Copier 2004.09 (1)
- It describes the usage method of copier function.
- bizhub PRO 1050 User's Guide Network Scanner 2004.09 (1) It describes the usage method of bizhub PRO 1050 main unit in connecting to network and using scanner function.
- bizhub PRO 1050 User's Guide POD Administrator's Reference 2004.09 (1)
  It describes the mechanical adjustment method of main unit and the method of management function etc.
- bizhub PRO 1050 User's Guide Security 2004.09 (1)
  - It describes the operational method of bizhub PRO 1050 control software, the useable function, and the security function.

## 2. Conduct and Results of Evaluation by Evaluation Facility

## 2.1 Evaluation Methods

Evaluation was conducted by using the evaluation methods prescribed in CEM Part 2 in accordance with the assurance requirements in CC Part 3. Details for evaluation activities are report in the Evaluation Technical Report. It described the description of overview of the TOE, and the contents and verdict evaluated by each work unit prescribed in CEM Part 2.

## 2.2 Overview of Evaluation Conducted

The history of evaluation conducted was present in the Evaluation Technical Report as follows.

Evaluation has started on May, 2004 and concluded by completion the Evaluation Technical Report dated December, 2004. The evaluation facility received a full set of evaluation deliverables necessary for evaluation provided by developer, and examined the evidences in relation to a series of evaluation conducted. Additionally, the evaluation facility directly visited the development and manufacturing sites on October, 2004 and examined procedural status conducted in relation to each work unit for configuration management, delivery and operation and lifecycle by investigating records and staff hearing. Further, the evaluation facility executed sampling check of conducted testing by developer and evaluator testing by using developer testing environment at developer site on October, 2004.

Problems found in evaluation activities for each work unit were all issued as Observation Report and were reported to developer. These problems were reviewed by developer and all problems were solved eventually.

As for problem indicated during evaluation process by the Certification Body, the certification review was sent to the evaluation facility. These were reflected to evaluation after investigation conducted by the evaluation facility and the developer.

## 2.3 Product Testing

Overview of developer testing evaluated by evaluator and evaluator testing conducted by evaluator are as follows.

- 2.3.1 Developer Testing
  - 1) Developer Test Environment

Figure 2-1 shows the structure of the test system executed by the developer.



bizhub PRO 1050 Series

Figure 2-1 Configuration of Developer Testing

2) Outlining of Developer Testing

The outline of the test executed by the developer is as follows.

a. Test structure

Figure 2-1 shows the test structure executed by the developer.

- TOE (bizhub PRO 1050 control software (Image control program (Image control I1) 11-0000, Controller control program (IP control P1) 10-0000)) is installed to bizhub PRO 1050 series.
- Bizhub PRO 1050 is connected to the internal network (10baseT).
- Bizhub PRO 1050 is connected to client PC, mail server, FTP server, SMB server and CSRC terminal through the internal network.

CSRC is connected only by LAN in the test structure, however, it does not have an influence on the test results of security functions because it is non security function. Even if only one of the structure described in the ST is selected as the test structure (ST describes that CSRC terminal is selectable either RS232C interface or E-mail interface connected by LAN.), it is consistent with the structure identified in the ST.

Therefore, it can be judged that the developer test is executed in the same TOE testing environment with the TOE structure identified in the ST.

## b. Test method

For the testing, following approach was used.

- 1. The operation of security functions is confirmed by the operation of TSFI.
- 2. If testing of TSFI and subsystem interface cannot be performed by the operation through the external interface directly connected to bizhub PRO 1050 series, it is performed with methods by indirectly stimulating the interface.
- 3. For the observation of test behavior, the direct confirmation is performed if it can be confirmed by the external TSFI, the behavior of test results is confirmed by using a measuring equipment if it can not be observed.
- 4. By comparing the expected behavior with the actual test results obtained at test execution, whether the test objects are achieved or not, is determined.
- c. Scope of Testing Performed

The developer tests are set for the following test volume/coverage.

- 1. Test items are set so that they covered all of the security functions and TSFI, based on Function Specifications.
- 2. Test items are set so that all of subsystems are tested or all of subsystem interfaces are executed at least once even if they are tested indirectly, based on bizhub PRO 1050/1050P Functional Analysis Report.
- 3. 23 test items are set based on the above-mentioned conditions, and all TSFI items of 26 TSF interfaces are directly tested.
- 4. For the behavior of test results, it is observed directly by bizhub PRO 1050 series. For 2 items that cannot be observed, they are observed by connecting HDD to another equipment.
- 5. All of TSFI are tested.
- 6. All of 3 subsystems and all of 64 subsystem interfaces are tested.
- The coverage analysis has been executed and it was verified that all the security functions and external interfaces stipulated in the function specifications have been adequately tested. The depth analysis has been executed and it was verified that all the subsystems and subsystem interfaces stipulated in the high level design have been adequately tested.
- d. Result

The test results by the developer confirmed that the expected test results and the actual test results are consistent. The evaluator confirmed the execution method of the developer test and the legitimacy of the executed items, and confirmed that the execution method and execution results are consistent with those shown in the test plan.

## 2.3.2 Evaluator Testing

1) Evaluator Test Environment

The system structure of the test executed by the evaluator has the same structure as the developer test..

#### 2) Outlining of Evaluator Testing

The outline of the test executed by the evaluator is as follows.

- a. Test structure
  - Figure 2-1 shows the test structure executed by the evaluator.
  - TOE (Image control program (Image control I1) 11-0000, Controller control program (IP control P1) 10-0000) is installed to bizhub PRO 1050 series.
  - Bizhub PRO 1050 is connected to the internal network (10baseT).
  - Bizhub PRO 1050 is connected to client PC, mail server, FTP server, SMB server and

CSRC terminal through the internal network.

CSRC is connected only by LAN in the test structure, however, it does not have an influence on the test results of security functions because it is non security function. Even if only one of the structure described in the ST is selected as the test structure (ST describes that CSRC terminal is selectable either RS232C interface or E-mail interface connected by LAN.), it is consistent with the structure identified in the ST. Moreover, for the authentication test of HDD lock password, testing environment, that HDD validates or invalidates its HDD password, or accesses by unauthenticated lock password, is used. This testing environment does not have an influence on the test of security functions because the structure does not relate to the operation of TOE.

Therefore, it can be judged that the developer test is executed in the same TOE testing environment with the TOE structure identified in the ST.

#### b. Test methods

<Independent test>

The following methods are used for the independent test.

- 1. The security functions are stimulated (operated) by the operation of TSFI and the test behavior is observed by TSFI.
- 2. All of security functions are stimulated (operated) by the operation of TSFI.
- 3. The subsystem interface is tested by the operation through the external interface connected to bizhub PRO 1050 series.
- 4. For the test behavior that cannot be observed by TSFI, the test results are confirmed by using tool.
- 5. By comparing the expected behavior with the actual test results obtained at test execution, whether the test objects are achieved or not, is determined.

<Penetration test>

The penetration test is executed by the following policy;

Penetration test is executed to confirm that there is no vulnerability possible to be abused by attacker of low level in the TOE or whether there is the remaining vulnerability in the operating environment regulated in the ST.

#### c. Range of the executed test

<Independent test>

- The independent tests are set for the following test volume/coverage.
- 1. Verification of the execution results of tests executed by developer. (13 items) The overall TOE functions are verified and 13 items of 26 developer tests are selected and executed.

The standards by sampling are as follows:

- In each of 26 functional specifications (TSFI), 1 item at least is selected.
- In the related item to all users and interfaces, 1 item at least is selected.

- (2) Verification of the insufficiency in function tests executed by developer. (Items added by evaluator: 14 items)
  - A series of operations related to FTP server and mail server
  - Operation related to on/off/on of security reinforcement mode
  - Confirmation of the writing condition of audit data

<Penetration test>

The evaluator makes and executes the plan for the penetration test of 6 items based on the vulnerability analysis by developer. The made penetration test items are valid.

## d. Results

All the executed evaluator tests have been properly completed and the behavior of the TOE was confirmed. The evaluator confirmed that all of the test results were consistent with the expected behavior. From the results of penetration test by evaluator, it was confirmed that there was no obvious vulnerability with possibility to be abused in the environment that the TOE intends.

2.4 Evaluation Result

The evaluator had the conclusion that the TOE satisfies all work units prescribed in CEM Part 2 by submitting the Evaluation Technical Report.

3. Conduct of Certification

The following certification was conducted based on each materials submitted by evaluation facility during evaluation process.

- 1. Contents pointed out in the Observation Report shall be adequate.
- 2. Contents pointed out in the Observation Report shall properly be reflected.
- 3. Evidential materials submitted were sampled, its contents were examined, and related work units shall be evaluated as presented in the Evaluation Technical Report.
- 4. Rationale of evaluation verdict by the evaluator presented in the Evaluation Technical Report shall be adequate.
- 5. The Evaluator's evaluation methodology presented in the Evaluation Technical Report shall conform to the CEM.

Problems found in certification process were prepared as certification review, which were sent to evaluation facility.

The Certification Body confirmed such problems pointed out in Observation Report and certification review were solved in the ST and the Evaluation Technical Report.

# 4. Conclusion

## 4.1 Certification Result

The Certification Body verified the Evaluation Technical Report, the Observation Report and the related evaluation evidential materials submitted and confirmed that all evaluator action elements required in CC Part 3 are conducted appropriately to the TOE. The Certification Body verified the TOE is satisfied the EAL3 assurance requirements prescribed in CC Part 3.

## 4.2 Recommendations

None

# 5. Glossary

The abbreviations used in this report are listed below.

CC:	Common Criteria for Information Technology Security Evaluation
CEM:	Common Methodology for Information Technology Security Evaluation
EAL:	Evaluation Assurance Level
PP:	Protection Profile
SOF:	Strength of Function
ST:	Security Target
TOE:	Target of Evaluation
TSF:	TOE Security Functions

The glossaries used in this report are listed below.

Document data:	This is the electronic data converted from the information such as characters and figures
User BOX:	This is the directory to store the document data
Paper document:	This is the paper document with the information such as characters and figures
Operation panel:	This is the touch panel display with each operation buttons, attached to the main frame of bizhub PRO 1050 series
Internal network:	This is the LAN in an office which introduces bizhub PRO 1050 series, and is connected with the client PC and several servers such as mail server and FTP server
External network:	This is the network (like internet) except the internal network
SMB:	This is the application protocol to communicate bet- ween the computers on the network under Microsoft-OS series
CSRC:	This is the function for gets the information for the hardware maintenance such as the number of prints, jam frequency, and out of toner, by accessing bizhub PRO 1050 series from the computer connected through the public line network or the Internet. CSRC is executed with RS232C interface or Email interface.

HDD with lock system:

- HDD has the password so that the hard disk cannot be removed and read in another equipment. HDD lock password is set in the hard disk lock system.
- General user: General user enrolled at the organization that bizhub PRO 1050 series is installed, uses the user function regarding the capabilities such as copier and printer.
- Administrator: Administrator enrolled at the organization that bizhub PRO 1050 series is installed, carries out the operation and management of bizhub PRO 1050 series.
- CE: CE enrolled at the company undertaken the maintenance of bizhub PRO 1050 series, carries out the maintenance of bizhub PRO 1050 series using the function of the maintenance and management that bizhub PRO 1050 series provides.
- Responsible person: Responsible person enrolled at the organization that bizhub PRO1050 series is installed, appoints the administrator.

Product-related persons: general user, administrator, and CE

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