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C130 Certification Report PQTunnel v1.1.5

5 March 2024 ISCB Department

CyberSecurity Malaysia

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Foreword

The Malaysian Common Criteria Evaluation and Certification (MyCC) Scheme has been established under the 9th Malaysian Plan to increase Malaysia's competitiveness in quality assurance of information security based on the Common Criteria (CC) standard and to build consumers' confidence towards Malaysian information security products.

The MyCC Scheme is operated by CyberSecurity Malaysia and provides a model for licensed Malaysian Security Evaluation Facilities (MySEFs) to conduct security evaluations of ICT products, systems and protection profiles against internationally recognised standards. The results of these evaluations are certified by the Malaysian Common Criteria Certification Body (MyCB) Unit, a unit established within Information Security Certification Body (ISCB) Department, CyberSecurity Malaysia.

By awarding a Common Criteria certificate, the MyCB asserts that the product complies with the security requirements specified in the associated Security Target. A Security Target is a requirements specification document that defines the scope of the evaluation activities. The consumer of certified IT products should review the Security Target, in addition to this certification report, in order to gain an understanding of any assumptions made during the evaluation, the IT product's intended environment, its security requirements, and the level of confidence (i.e., the evaluation assurance level) that the product satisfies the security requirements.

This certification report is associated with the certificate of product evaluation dated 13 Mar 2024, and the Security Target (Ref [6]). The certification report, Certificate of product evaluation and security target are posted on the MyCC Scheme Certified Product Register (MyCPR) at https://iscb.cybersecurity.my/mycc/certified-products-and-systems-5 and the Common Criteria Portal (the official website of the Common Criteria Recognition Arrangement).

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Disclaimer

The Information Technology (IT) product identified in this certification report and its associate certificate has been evaluated at an accredited and licensed evaluation facility established under the Malaysian Common Criteria Evaluation and Certification (MyCC) Scheme using the Common Methodology for IT Security Evaluation, version 3.1 revision 5 (Ref [3]), for conformance to the Common Criteria for IT Security Evaluation, version 3.1 revision 5 (Ref [2]). This certification report and its associated certificate apply only to the specific version and release of the product in its evaluated configuration. The evaluation has been conducted in accordance with the provisions of the MyCC Scheme and the conclusions of the evaluation facility in the evaluation technical report are consistent with the evidence adduced. This certification report and its associated certificate is not an endorsement of the IT product by CyberSecurity Malaysia or by any other organisation that recognises or gives effect to this certificate, is either expressed or implied.

Document Change Log

RELEASE	ELEASE DATE		REMARKS/CHANGE REFERENCE
d 1	15 February 2024	All	Initial draft
v۱	5 March 2024	All	Final version

Executive Summary

The Target of Evaluation (TOE) is PQTunnel v1.1.5 which is software application and a nextgeneration, Client-to-Client Virtual Private Network (VPN). The TOE provide connections based on Post-Quantum Cryptography (PQC) with Zero Trust Architecture to provide an E2EE secure tunnelling channels from the user's device to respective backend resources that are resistant to quantum attacks.

The TOE provides protection of data in transit across a shared or public network. The TOE employs quantum-resistant cryptographic algorithms that are recognised by National Institute of Standards and Technology (NIST).

The TOE provides security functions such as Identification and authentication, cryptographic support, security management, trusted path/channels, security audit and TOE access.

The scope of the evaluation is defined by the Security Target (Ref [6]) which identifies the intended environment for the TOE, the security functional requirements, and the evaluation assurance level at which the product is intended to satisfy the security requirements. Prospective consumers are advised to verify that their operating environment is consistent with the evaluated configuration, and to give due consideration to the comments, observations and recommendations in this certification report.

This report confirms the findings of the security evaluation of the TOE to the Common Criteria (CC) Evaluation Assurance Level 1(EAL1). This report confirms that the evaluation was conducted in accordance with the relevant criteria and the requirements of the Malaysia Common Criteria Evaluation and Certification (MyCC) Scheme (Ref [4]).

The evaluation was performed by Digiforen (M) Sdn Bhd and the evaluation was completed on 14 February 2024.

The Malaysia Common Criteria Certification Body (MyCB), as the MyCC Scheme Certification Body, declares that the TOE evaluation meets all the Arrangements on the Recognition of Common Criteria certificates and the product will be listed in the MyCC Scheme Certified Products Register (MyCPR) and the Common Criteria portal (the official website of the Common Criteria Recognition Arrangement) at <u>http://www.commoncriteriaportal.org</u> It is the responsibility of the user to ensure that PQTunnel v1.1.5 meets their requirements. It is recommended that a potential user of the TOE refer to the Security Target (Ref [6]) and this Certification Report prior to deciding whether to purchase the product.

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1 Target of Evaluation

1.1 TOE Description

- The Target of Evaluation (TOE) is PQTunnel v1.1.5. This software application represent a next-generation Virtual Private Network (VPN) provides end-to-end secure tunnelling channels that are resistant to quantum attacks from the user's device to respective backend resources.
- 2 The TOE provides protection of data in transit across shared or public network.
- 3 Compared to traditional VPNs, the TOE utilizes National Institute of Standards and Technology (NIST) PQC-KEM (Post Quantum Cryptographic Key Encapsulation Mechanism) to assist in establishing a shared secret between two endpoints. This approach effectively protects against quantum computer attacks.
- 4 Moreover, the TOE prevent security incidents such as lateral movement through zero trust architecture and provide virtual IPs for each backend resources. The TOE can also limit the exposure in case of security exploitations due to the micro-segmentation of the backend resources and multi-layered identity authentication.
- 5 The key features of the TOE are listed as below:
 - Support quantum-resistant secure channels for users to communicate remotely with their targeted endpoints;
 - Support various deployment environment such as on-premises or on cloud;
 - Provide direct, end-to-end connections between user devices and backend resources;
 - Micro-segmentation of backend resources which reduces the impacted range by cyber-attacks such as malwares and ransomwares; and
 - Two-Factor Authentication (2FA) which provide additional layer of security to access.

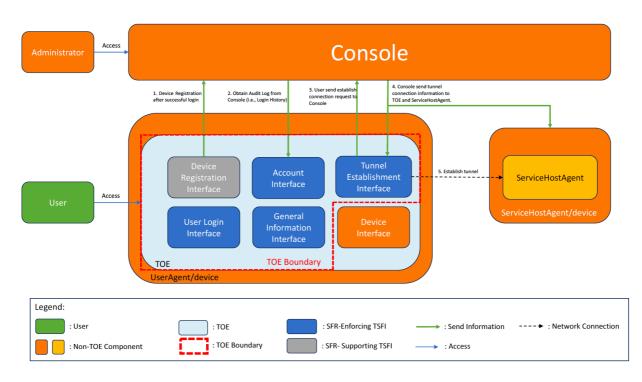




Figure 1 shows the implementation diagram of how the TOE is accessed and utilised to perform tunnel establishment. The TOE is installed on the user device (i.e., platform or UserAgent/device) such as desktop, laptop and so on. Next, the Console is accessible through a browser and is located on the cloud, it's used to manage the access control policy of the TOE. However, only the administrator has access to the Console and this evaluation do not include the Console into the scope. Lastly, the ServiceHostAgent (i.e., endpoint or host) is installed on backend resources (i.e., ServiceHostAgent/device) such as computer, server, databases, etc. to verify and accept connection establishment from the TOE.

1.2 TOE Identification

7 The details of the TOE are identified in table below.

Evaluation Scheme	Malaysian Common Criteria Evaluation and Certification (MyCC) Scheme		
Project Identifier	C130		
TOE Name	PQTunnel		
TOE Version	v1.1.5		
Security Target Title	Chelpis PQTunnel v1.1.5 Security Target		
Security Target Version	v1.9		
Security Target Date	29 January 2024		
Assurance Level	Evaluation Assurance Level 1		
Criteria	Common Criteria for Information Technology Security Evaluation, April 2017, Version 3.1, Revision 5 (Ref [2])		
Methodology	Common Methodology for Information Technology Security Evaluation, April 2017, Version 3.1, Revision 5 (Ref [3])		
Protection Profile Conformance	None		
	CC Part 2 Conformant		
Common Criteria Conformance	CC Part 3 Conformant		
	Package conformant to EAL 1		
Sponsor	Digiforen Technology Co. Ltd. 4 th Floor, NSTC Cyber Security & Smart Technology R&D Building No. 6, Section 1, Gueiren 13 th Road, Gueiren District, Tainan City 711, Taiwan.		
Developer	Chelpis Quantum Tech Co. Ltd. 4F., No. 200, Sec. 2, Jinshan S. Rd., Da'an Dist., Taipei City 106, Taiwan (R.O.C).		
Evaluation Facility	Digiforen (M) Sdn Bhd 1-4B, Incubator 3,		

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Table 1: TOE Identification

1.3 Security Policy

8 No Organisational Security Policy (OSP) declared for the TOE.

1.4 TOE Architecture

9 The TOE consist of logical and physical boundaries which are described in Section 1.7 of the Security Target (Ref [6]).

1.4.1 Logical Boundaries

10 The logical boundary of the TOE is summarized below:

• Identification and authentication

The TOE users are required to provide their Account, Password and Domain before able to gain access to the TOE and initiate secure connections to backend resources. The TOE also require the user to utilise credentials with certain level of quality, and the login attempts are limited to 20 tries within 10 minutes.

• Cryptographic support

The TOE provide the full lifecycle of cryptographic key generation, key destruction, and key operation for different operations for establishing and maintaining secure tunnel channels.

• Trusted path/channels

The TOE provide secure path and channels for data in-transit during communications between local user and the TOE, and between the TOE and other trusted IT entities. This security is to prevent unauthorised disclosures and modifications for the data in-transit.

• Security management

The TOE provide security management capability for the TOE user to reset their password, setup and reset the Two-Factor Authentication of the TOE through the Account Interface.

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• Security audit

The TOE allows the TOE user to view their login history including the device used by the TOE user, location, the date, and time of last accessed and the operations of the TOE user on the TOE and shown through the Account Interface. This information is obtained from the Console.

• TOE access

The TOE allow the user to terminate their own interactive session. This is performed by the user's own action through pressing the "logout" button through the General Information Interface or Account Interface, or by pressing the "terminate" button through the Account Interface, under the "Operations" column.

1.4.2 Physical Boundaries

- 11 The TOE is a next-generation Virtual Private Network (VPN), a software application which provides end-to-end secure tunnelling channels that are resistant to quantum attacks from the user's device to respective backend resources.
- 12 The non-TOE comprise of the following:
 - **Transport Layer Security.** Cryptography of the communication channel between users to the TOE; and from TOE to backend resources with TLS version 1.2 and 1.3, which is provided by:
 - o https://pkg.go.dev/crypto/tls (go1.20.5)
 - https://boringssl.googlesource.com/boringssl
 - Secret Code Authentication Scheme. Two-Factor Authentication that provides secret code by external authentication schemes, which includes:
 - Time-Based One Time Password (TOTP) from preferred authenticator application.
 - EZAuth which is an authenticator application developed by Chelpis that provides additional authentication method through a separate user device.

NOTE: The evaluation of the 2FA TOE component is performed on G2FA for TOTP and EZAuth Authenticator for EZAuth.

- ServiceHostAgent. Also known as Endpoint or Host, which are endpoints that the user wants to communicate with remotely. The agent is installed on ServiceHostAgent/device to be activated and allow tunnel establishment to occur.
- ServiceHostAgent/device. This represents the underlying platform (e.g., computer, server, databases, etc.) of the Endpoint or Host. After an administrator authenticates with the Console using a ServiceHostAgent, the computer is registered to the device list of that service server.
- **Console.** The console is a software for VPN management which provides management functions such as access control policy, audit logs, host managements, and so on. Console is managed by administrator.
- Platform (i.e., UserAgent/device) for the TOE. It represents any system (e.g., computer) the user logs into. After a user authenticates with the Console through the TOE on any computer, the computer is registered to the user's device list. The underlying platform for the TOE is as below:
 - $_{\odot}$ Windows 10 (21H1) and above (x64/ arm64); or
 - \circ MacOS Big Sur 11 and above (x64/ arm64).

NOTE: The evaluation of the TOE component is performed on MacOS version 14.1.1, arm64.

• **Device Interface.** The device interface contains information related to the User's device, such as operating system and the virtual IP. This interface also outlines the TOE version, user device's public key and local event logs, which are not included in this evaluation.

1.5 Clarification of Scope

- 13 The TOE is designed to be suitable for use in accordance with user guidance that is supplied with the product.
- 14 Section 1.4 of this document describes the scope of the evaluation, which is limited to those claims made in the Security Target (Ref [6]).
- Potential consumers of the TOE are advised that some functions and services of the overall product have not been evaluated as part of this evaluation. Potential consumers of the TOE should carefully consider their requirements for using functions and services outside of the evaluated configuration.

1.6 Assumptions

16 This section is not applicable for EAL1.

1.7 Evaluated Configuration

- 17 This section describes the evaluated configurations of the TOE that are included within the scope of the evaluation.
- 18 As stated in Security Target (Ref Error! Reference source not found.), the TOE is a software application and next-generation, Client-to-Client Virtual Private Network (VPN).
- 19 The secure acceptance procedure for the evaluated configuration of the TOE is described in document "Chelpis PQTunnel v1.1.5 Preparative Guidance, v1.9".
- The TOE is installed in MacOS version 14.1.1, arm64 with screen lock mechanism enabled and the timestamp using Apple time server that is time.apple.com.
- 21 Upon downloading the application, the user can check that the downloaded TOE is not modified by unauthorised parties by performing file checksum. The updated installer file checksum is "f6040e54" for MacOS.
- The TOE is installed on devices that are accessible only to authorised personnel; and the endpoints in secure area accessible only to authorised personnel.
- The TOE is installed and operated by the evaluation and uses the software within compliance of the guidance.
- 24 The TOE is delivered as a software application by the developer in its known state.
- 25 Before the user are allowed the functions of the TOE, they required to perform necessary configurations which are:
 - a) Whitelisting the domain used for the user by admin;
 - b) Setting up accounts to be used for the user by admin; and
 - c) Setting up services and policies for the user by admin

1.8 Delivery Procedures

26 This section in not applicable for EAL1.

2 Evaluation

27 The evaluation was conducted in accordance with the requirements of the Common Criteria, version 3.1 Revision 5 (Ref [2]) and the Common Methodology for IT Security Evaluation (CEM), version 3.1 Revision 5 (Ref [3]). The evaluation was conducted at Evaluation Assurance Level 1. The evaluation was performed conformant to the MyCC Scheme Requirement (MyCC_REQ) (Ref [4]) and ISCB Evaluation Facility Manual (ISCB_EFM) (Ref [5]).

2.1 Evaluation Analysis Activities

28 The evaluation activities involved a structured evaluation of the TOE, including the following components:

2.1.1 Life-cycle support

- 29 The evaluator found that the TOE provided for evaluation is labelled with its reference.
- 30 The evaluator check that the TOE references used are consistent.
- The evaluator examine the configuration list to determine that it uniquely identifies each configuration item.
- 32 At the end, the evaluator confirmed that all the requirements for this class were fulfilled and passed.

2.1.2 Development

- 33 The functional specification shall describe the purpose and method of use for use for each SFR-enforcing and SFR-supporting TSFI.
- The evaluator examined the presentation of the TSFI to determine that it identifies all parameters associated with each SFR-enforcing and SFR-supporting TSFI.
- 35 The evaluator examined the rationale provided by the developer for the implicit categorization of interfaces as SFR non-interfering to determine that it is accurate.
- 36 The evaluator shall examine the functional specification to determine that it is a complete instantiation of the SFRs.
- 37 At the end, the evaluator confirmed that all the requirements for this class were fulfilled and passed.

2.1.3 Guidance documents

- 38 The evaluator examined the TOE preparative user guidance and operational user guidance, and determined that it sufficiently and unambiguously described how to securely transform the TOE into its evaluated configuration, and how to use and administer the product in order to fulfil the security objectives for the operational environment.
- 39 The evaluator examined and tested the preparative and operational guidance, and determined that they were complete and sufficiently detailed to result in a secure configuration.
- 40 The evaluator confirmed that the TOE guidance was fulfilled all the requirements and passed for this class.

2.1.4 IT Product Testing

41 Testing at EAL 1 consists of assessing developer tests, performing independent functional test, and conducting penetration tests. The TOE testing was conducted by Digiforen (M) Sdn Bhd. The detailed testing activities, including configurations, procedures, test cases, expected results and actual results are documented in a separate Test Plan Report (TPR).

2.1.4.1 Assessment of Developer Tests

The evaluators verified that the developer has met their testing responsibilities by repeating some developer test, as documented in the Evaluation Technical Report (Ref [7]) (not a public document because it contains information proprietary to the developer and/or the evaluator). The results of the evaluators tests are consistent with the developers test results defined in their evaluation evidences submitted.

2.1.4.2 Functional Testing

- 43 At EAL 1, provides an evaluation of the TOE as made available to the customer, including independent testing against a specification, and an examination of the guidance documentation provided. It is intended that an EAL1 evaluation could be successfully conducted without assistance from the developer of the TOE, and for minimal outlay.
- 44 An evaluation at this level should provide evidence that the TOE functions in a manner consistent with its documentation.

Test		Description	Security	TSFI	Results			
rest	Test Title	Description			Results			
Tisla	rest fille		Function					
Title								
TEST	GROUP A – Identifica	ation and Authentica	ation					
1.	A1. Account	To test whether	FIA_ATD.1,		Passed			
	Field	user able to perform	FIA_UID.2,					
2.	A2. Password	identification	FIA_UAU.2,					
۷.	Field	and	FAU_SAR.1					
		authentication						
3.	A3. Domain	functions to the TOE.						
	Field	TOL.						
				1. User Login				
4.	A4. Reset	To test whether		Interface	Passed			
	Password Less	the TOE allows	FIA_SOS.1	2. Account	Passed			
	Than 12	the user to reset						
	Characters and	password less		Interface				
	Maximum 32	than 12						
	Characters	characters and						
	Characters							
		maximum 32						
		characters.		_				
5.	A5. Authentication	To test whether the TOE locked	FIA_AFL.1		Passed			
	Attempts	the user after						
		more than 20						
		times attempts						
		within 10 minutes.						
	TEST GROUP B-Trusted Path/Channels							
6.	B1.	To test whether			Passed			
	Communication Protocol	the communication						
	between the User	protocol between		Tunnel				
	to TOE to	the user to TOE		Establishment				
	Backend	and TOE to						
		backend is using TLS version 1.2	FTP_TRP.1,	Interface				
		and 1.3.	FTP_ITC.1					

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Test		Description	Security	TSFI	Results	
	Test Title		Function			
Title	rest file		Function			
Title						
7.	B2. Trusted Path Establishment	To test whether trusted path			Passed	
		establishment				
		are using TLS				
		version 1.2 and				
TEST C	 GROUP C- Security M	1.3. Ianagement				
	1	-	l			
8.	C1. Reset Password	To test whether the user able to			Passed	
	Passworu	perform				
		management				
		functions which				
		is reset				
9.	C2. Enable 2FA	password.				
9.	for TOTP	To test whether the user able to	FMT_SMR.1,		Passed	
		perform	FMT_SMF.1			
		management	_	Account		
		functions which		Interface		
		is enable 2FA for				
10.	C3. Enable 2FA	TOTP. To test whether				
10.	for EZAuth	the user able to			Passed	
		perform				
		management				
		functions which				
		is enable 2FA for				
11.	C4. Reset 2FA	EZAuth. To test whether			Daccod	
		the user able to			Passed	
		perform				
		management				
		functions which				
TEST C	GROUP D – Security A	is reset 2FA. Audit				
	-					
12.	D1. Audit Review	To test whether the user able to	FAU_SAR.1	Account	Passed	
		read audit log.		Interface		
TEST GROUP E- TOE Access						
13.	E1. Logout	To test whether			Passed	
	Session from	the user able to				

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Test		Description	Security	TSFI	Results
	Test Title		Function		
Title	rest fille		Function		
	General Information Interface	terminate their interactive session by logout session from General Information Interface			
14.	E2. Terminate Session from Account Interface	To test whether the user able to terminate their interactive session by terminate session from Account Interface	FTA_SSL.4	1. Account Interface 2. General Information	Passed
15.	E3. End Session from Account Interface	To test whether the user able to terminate their interactive session by end session from Account Interface		Interface	Passed
TEST C	GROUP F- Cryptogra	phic Support			
16	F1. UUID Validation	To test whether the UUID generated is version 4	FCS_CKM.1(5)		Passed
17	F2. Cryptographic Key Generation (Authentication) and Cryptographic Operation (Authentication)	To test whether cryptographic key generation (authentication) is using Curve P- 256 and ECC key Pair Generation with 32 bytes key size and cryptographic operation (Authentication) is using Curve P- 256 and ECDSA with 32 bytes key size.	FCS_CKM.1(1)	N/A	Passed

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Test		Description	Security	TSFI	Results
	Test Title		Function		
Title					
18	F3. Key	To test whether	FCS_COP.1(1)		Passed
	Destruction	key destructed	105_001.1(1)		Passeu
	(Backend)	after the			
19	F4. Key	operation.			Passed
	Destruction				
TECT ((TOE)	ahia Sunnart			
	GROUP G-Cryptogra	onic Support			
20.	G1. AES Keys	To test whether	FCS_CKM.1(4)		Passed
	Generation	cryptographic			
21.	(BLAKE2s) G2. AES Keys	key generation (AES keys			Passed
	Generation	generation) is			Passed
	(HKDF)	using BLAKE2s			
		and HKDF with			
		32 bytes key size			
22.	G3. AEAD	To test whether	FCS_COP.1(4)	N/A	Passed
	Operation	cryptographic key operation is			
		using AEAD with			
		32 bytes key size			
23.	G4. Key	To test whether	FCS_CKM.4		Passed
	Destruction	key destructed			
		after the operation.			
TEST C	GROUP H-Cryptogra	· ·			
24.		- <u>-</u>			
24.	H1. Cryptographic	To test whether the			Passed
	Key Generation	cryptographic			
	(PQC Shared	key generation			
	Secret) and	(PQC Shared			
	Cryptographic	Secret) is using	FCS_CKM.1(2)		
	Operation (PQC-	CRYSTALS-Kyber	FCS_COP.1(2)	N/A	
	KEM)	768 Pair Generation with	$1 C_{2}COF.1(2)$		
		2,400 bytes of			
		key size and			
		cryptographic			
		operation			
		(PQC_KEM) is			
		using Kyber-768 with 32 bytes key			
		with 32 bytes key size.			

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Test	Test Title	Description	Security Function	TSFI	Results	
Title						
25.	H2. Key Destruction	To test whether key destructed after the operation.	FCS_CKM.4		Passed	
TEST C	TEST GROUP I- Cryptographic Support					
26.	I1. Cryptographic Key Generation (Shared Secret)	To test whether the cryptographic key generation (Shared Secret) is using Curve25519 Pair Generation with 32 bytes of key size	FCS_CKM.1(3) FCS_COP.1(3)	N/A	Passed	
27.	I2. Cryptographic Operation (Diffie- Hellman)	To test whether the cryptographic operation (Diffie- Hellman) is using X25519 with 32 bytes key size.			Passed	
28.	I3. Key Destruction	To test whether key destructed after the operation.	FCS_CKM.4	N/A	Passed	

Table 2: Functional Test

- 45 All testing was planned and documented to a sufficient level of detail to allow repeatability of the testing procedures and results. The results of the independent functional tests were recorded by the evaluators and are consistent with the expected test results in the test documentation.
- 46 All testing performed by evaluators produced the expected results and as such the TOE behaved as expected.

2.1.4.3 Vulnerability Analysis

47 The evaluators performed a vulnerability analysis of the TOE in order to identify potential vulnerabilities in the TOE. This vulnerability analysis considered public domain sources and an analysis of guidance documentation, functional specification, TOE design, and security architecture description.

- 48 From the vulnerability analysis, the evaluators conducted penetration testing to determine that the TOE is resistant to attack performed by an attacker possessing a Basic and Enhanced attack potential. The following factors have been taken into consideration during penetration tests:
 - a) Time taken to identify and exploit (elapsed time);
 - b) Specialist technical expertise required (specialised expertise);
 - c) Knowledge of the TOE design and operation (knowledge of the TOE);
 - d) Window of opportunity; and
 - e) IT hardware/software or other equipment required for exploitation
 - 2.1.4.4 Vulnerability testing
- 49 The penetration tests focused on:
 - a) SQL Injection (SQLi)
 - b) ARP Spoofing
 - c) Sniffing
- The result of the penetration testing noted that there is no residual vulnerability found. However, it is important to ensure that the TOE is use only in its evaluated configuration and in secure environment as specified in the Security Target (Ref [6]).

2.1.4.5 Testing Results

Tests conducted for the TOE produced the expected results and demonstrated that the product behaved as specified in its Security Target and its functional specification. Therefore, the certifiers confirmed that all the test conducted were PASSED as expected.

3 Result of the Evaluation

- 52 After due consideration during the oversight of the execution of the evaluation by the certifiers and of the Evaluation Technical Report (Ref [7]), the Malaysian Common Criteria Certification Body certifies the evaluation of PQTunnel v1.1.5 which is performed by Digiforen (M) Sdn Bhd.
- 53 Digiforen (M) Sdn Bhd found that PQTunnel v1.1.5 upholds the claims made in the Security Target (Ref [6]) and supporting documentations, and has met the requirements of the Common Criteria (CC) Evaluation Assurance Level 1.
- 54 Certification is not a guarantee that a TOE is completely free of exploitable vulnerabilities. There will remain a small level of risk that exploitable vulnerabilities remain undiscovered in its claimed security functionality. The risk is reduced as the certified level of assurance increases for the TOE.

3.1 Assurance Level Information

- 55 EAL 1 provides a basic level of assurance by a limited security target and analysis of the SFRs in that ST using a functional and interface specification and guidance documentation, to understand the security behaviour.
- The analysis is supported by a search for potential vulnerabilities in the public domain and independent testing (functional and penetration) of the TSF.
- 57 EAL 1 also provides assurance through unique identification of the TOE and the relevant evaluation documents.
- 58 This EAL provides a meaningful increase in assurance over unevaluated IT.

3.2 Recommendation

- 59 The Malaysian Certification Body (MyCB) is strongly recommended that:
 - a) Opinions and interpretations expressed herein are outside the scope of accreditation.
 - b) It is recommended that all guidance outlined in Preparative Guidance and Operational Guidance be followed to configure the TOE in the evaluated configuration.

Annex A References

A.1 References

- [1] Arrangement on the recognition of Common Criteria Certificates in the field of Information Technology Security, July 2014.
- [2] The Common Criteria for Information Technology Security Evaluation, Version 3.1, Revision 5, April 2017.
- [3] The Common Methodology for Information Technology Security Evaluation, Version 3.1, Revision 5, April 2017.
- [4] MyCC Scheme Requirement (MYCC_REQ), v1b, July 2023.
- [5] ISCB Evaluation Facility Manual (ISCB_EFM), v3, January 2023.
- [6] Chelpis PQTunnel v1.1.5 Security Target, v1.9, 29th January 2024.
- [7] Digiforen (M) Sdn Bhd MP-230728-82 Evaluation Technical Report, v1.1,14th February 2024.

A.2 Terminology

A.2.1 Acronyms

Acronym	Expanded Term	
СВ	Certification Body	
СС	Common Criteria (ISO/IEC15408)	
CEM	Common Evaluation Methodology (ISO/IEC 18045)	
CCRA	Common Criteria Recognition Arrangement	
IEC	International Electrotechnical Commission	
ISO	International Organisation for Standardization	
ISCB	Information Security Certification Body	
МуСВ	CB Malaysian Common Criteria Certification Body	

Table 3: List of Acronyms

PUBLIC

FINAL

Acronym	Expanded Term
МуСС	Malaysian Common Criteria Evaluation and Certification Scheme
MyCPR	MyCC Scheme Certified Products Register
MySEF	Malaysian Security Evaluation Facility
PP	Protection Profile
ST	Security Target
ТОЕ	Target of Evaluation

A.2.2 Glossary of Terms

Table 4: Glossary of Terms

Term	Definition and Source	
CC International	An interpretation of the CC or CEM issued by the CCMB that	
Interpretation	is applicable to all CCRA participants.	
Certificate	The official representation from the CB of the certification of	
	a specific version of a product to the Common Criteria.	
Certification Body	An organisation responsible for carrying out certification	
	and for overseeing the day-today operation of an Evaluation	
	and Certification Scheme. Source CCRA	
Consumer	The organisation that uses the certified product within their	
	infrastructure.	
Developer	The organisation that develops the product submitted for CC	
	evaluation and certification.	
Evaluation	The assessment of an IT product, IT system, or any other	
	valid target as defined by the scheme, proposed by an	
	applicant against the standards covered by the scope defined	
	in its application against the certification criteria specified in	
	the rules of the scheme. Source CCRA and MS-ISO/IEC Guide	
	65	

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Term	Definition and Source
Evaluation and Certification	The systematic organisation of the functions of evaluation
Scheme	and certification under the authority of a certification body
	in order to ensure that high standards of competence and
	impartiality are maintained and that consistency is achieved. Source CCRA.
Interpretation	Expert technical judgement, when required, regarding the
	meaning or method of application of any technical aspect of
	the criteria or the methodology. An interpretation may be
	either a national interpretation or a CC international
	interpretation.
Certifier	The certifier responsible for managing a specific certification task.
Evaluator	The evaluator responsible for managing the technical aspects
	of a specific evaluation task.
Maintenance Certificate	The update of a Common Criteria certificate to reflect a
	specific version of a product that has been maintained under
	the MyCC Scheme.
National Interpretation	An interpretation of the CC, CEM or MyCC Scheme rules that
	is applicable within the MyCC Scheme only.
Security Evaluation Facility	An organisation (or business unit of an organisation) that
	conducts ICT security evaluation of products and systems
	using the CC and CEM in accordance with Evaluation and
	Certification Scheme policy
Sponsor	The organisation that submits a product for evaluation and
	certification under the MyCC Scheme. The sponsor may also
	be the developer.

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