PeopleCert

All talents, certified.

PeopleCert ExamShield

Brief Overview & Technical Information

February 2022

Version 4.0

Public

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Document Revision History		
Version	**Date**	**Description of Change**
4.0	**24/02/2022**	Updates on Technical Details and on paragraph 7, section 4
3.0	**26/11/2021**	Content review and recoding from PIS_D_01-15 to ECS_D_36
02.0	**23/06/2021**	Update System Requirements and Technical Details
01.1	**17/03/2021**	Revision
01.0	**08/01/2021**	Initial Version

1 About PeopleCert

PeopleCert is a global leader in the assessment and certification of professional and language skills, partnering with multi-national organisations and government bodies to develop and deliver market leading exams worldwide. PeopleCert is sole Examination Institute for the delivery of **AXELOS Accreditation and Examination** services worldwide and has been appointed by the UK Visa and Immigrations office, to deliver to deliver Home Office approved **Secure English Language Tests (SELT)** in the UK and globally.

PeopleCert develops state-of-the-art assessment technology under its 4 core values: **Quality, Innovation, Passion and Integrity**.

PeopleCert has served over 5.5M, candidates delivering Web & Paper based exams delivered in 25 languages across 200+ countries, with a portfolio of 600 qualifications. It offers Online Proctored services providing exams at any place, any time, 24/7/365, since 2014.

2 PeopleCert's Quality Management System

PeopleCert is a Certification Body accredited and regularly audited by the National Hellenic Accreditation System (E.SY.D., equivalent to the American National Standards Institute), according to:

ISO 17024
Certification of Persons

PeopleCert's Integrated Management System covers the whole range of its operations, including the exam processes and the assessment technology used, and is certified and regularly audited by Lloyds Register (UK) according to:

ISO 9001	ISO 10002	ISO 14001	ISO 27001	ISO 23988	ISO 22301	Cyber Essentials
Quality Management	Customer Satisfaction & Complaints Handling	Environmental Management	Information Security	Use of IT in the Delivery of Assessments	Business Continuity	Cyber Essentials

3 PeopleCert ExamShield for Online Proctored exams

Every year hundreds of thousands PeopleCert Online Proctored exams are delivered to Fortune 500 companies, Corporates, Government and Academic organizations around the world, through PeopleCert's proprietary software solution, namely ExamShield.

ExamShield has been developed and operates under **PeopleCert's Quality Management System** which is certified and annually audited according to ISO 27001: Information Security, ISO 23988: Use of IT in the Delivery of Assessments, ISO 17024: Certification of Persons, and Cyber Essentials.

All PeopleCert software is developed in accordance with **Software Development Life Cycle** procedures based on Microsoft Security Development Lifecycle (SDL) towards increasing reliability and software security.

PeopleCert systems are subject to internal (by PeopleCert) and external (by 3rd parties) penetration testing and vulnerability assessment, at least one per year and after every major release.

ExamShield is approved for publishing on the Microsoft Store, having successfully passed Microsoft's rigorous app certification process, which includes security tests, technical compliance tests, as well as content compliance checks.

PeopleCert submits every ExamShield release to the **top 10 Security software companies** for whitelisting, namely:

- McAfee
- Webroot
- Bitdefender
- Kaspersky
- Avast
- Symantec Norton
- ESET
- F-Secure
- Avira
- AVG

4 ExamShield Features

ExamShield provides a secure exam environment for **preventing and mitigating any candidate actions towards cheating** and importantly protecting the **integrity of the exam content** (content theft). More specifically:

- Upon initiation of the exam, ExamShield allows only the absolutely necessary for exam taking candidate actions, prohibiting any candidate navigation or action not related to the exam (e.g., change active window or important Key Combinations).
- ExamShield provides a series of exam infringement prevention features such as terminating or requiring termination of blacklisted applications like screen capture, keyloggers or communication software, preventing execution on virtual machines, preventing simultaneous tests from running and usage of multiple monitors.

ExamShield also acts as the communication bridge between the candidate and PeopleCert's certified proctor team. Additionally, through ExamShield, PeopleCert certified Proctors can adjust camera and microphone settings to ensure the highest possible communication environment with the candidate.

PeopleCert proctors have no further access to the candidate's system.

ExamShield does not remotely control candidate's Desktop, Mouse, or Keyboard.

5   System Requirements

ExamShield is available for Windows and Mac OS, specifically:

- Windows 8 and higher with JavaScript in Internet Explorer enabled (Windows 10S not supported)
- macOS Sierra 10.12 and higher

Further system requirements:

- Dual-core 2.4GHz CPU or faster with 4GB of RAM (recommended)
- Active Full-Time/Broadband internet connection of at least 512/512 kbps (up/down)
- 16-bit monitor (at least 15") with screen resolution 1024 x 768 or higher
- Speakers and microphone (the use of headsets is only allowed during onboarding)
- Keyboard and mouse or another pointing device
- A single web camera (embedded or external) you can rotate

6   Technical Details

ExamShield might require elevated rights upon installation in order to install proper firewall rules.

Upon running, ExamShield application needs to have access to write to the following application folders:

1. C:\Users\[user] \AppData\Roaming\PeopleCert\ and its subfolders
2. C:\Users\[user]\AppData\Local\ExamShield

ExamShield requires access to the following end points. We suggest using the Server URLs, since IPs may be subject to change.

Server URL	Client Port	Server Port	Server IP	Traffic type	Protocol
https://passport.peoplecert.org		443	45.60.47.233	Outbound	HTTPS
https://download.peoplecert.org		443	45.60.47.233	Outbound	HTTPS
http://m2m-routingservice.peoplecert.org		80	52.164.241.201	Outbound	HTTP
https://webates.peoplecert.org		443	20.67.169.208	Outbound	HTTPS
https://webates-us.peoplecert.org		443	40.84.236.215	Outbound	HTTPS
https://webates-au.peoplecert.org		443	13.75.153.155	Outbound	HTTPS
https://webates-eu.peoplecert.org		443	52.138.181.169	Outbound	HTTPS
https://webates-eu2.peoplecert.org		443	40.69.205.191	Outbound	HTTPS
https://webates-eu3.peoplecert.org		443	162.13.64.0	Outbound	HTTPS
https://webates-hk.peoplecert.org		443	52.175.14.177	Outbound	HTTPS
https://webates-in.peoplecert.org		443	104.211.90.99	Outbound	HTTPS
https://webates-cn.peoplecertcn.org.cn		443	47.254.147.44 (China) 101.201.35.139 (RW)	Outbound	HTTPS
https://candidate.peoplecert.org		443	45.60.47.233	Outbound	HTTPS

Server URL	Client Port	Server Port	Server IP	Traffic type	Protocol
http://streaming1.peoplecert.org		80	13.79.240.110	Outbound	HTTP
http://streaming1.peoplecert.org	1853, 5072-5074, 8200	560, 570	13.79.240.110	Inbound & Outbound	UDP
http://streaming2.peoplecert.org		80	52.169.233.103	Outbound	HTTP
https://streaming2.peoplecert.org		443	52.169.233.103	Outbound	HTTPS
http://streaming2.peoplecert.org	1853, 5072-5074, 8200	560, 570	52.169.233.103	Inbound & Outbound	UDP
http://streaming3.peoplecert.org		80	52.236.175.56	Outbound	HTTP
http://streaming3.peoplecert.org	1853, 5072-5074, 8200	560, 570	52.236.175.56	Inbound & Outbound	UDP
http://streaming3b.peoplecert.org		80	52.236.175.56	Outbound	HTTP
https://streaming3b.peoplecert.org		443	52.236.175.56	Outbound	HTTPS
http://streaming3b.peoplecert.org	1853, 5072-5074, 8200	560, 570	52.236.175.56	Inbound & Outbound	UDP
http://streaming4.peoplecert.org		80	13.81.107.91	Outbound	HTTP
http://streaming4.peoplecert.org	1853, 5072-5074, 8200	560, 570	13.81.107.91	Inbound & Outbound	UDP
http://streaming4b.peoplecert.org		80	13.81.107.91	Outbound	HTTP
http://streaming4b.peoplecert.org	1853, 5072-5074, 8200	560, 570	13.81.107.91	Inbound & Outbound	UDP
https://streaming-cn.peoplecertcn.org.cn		80	47.91.93.9 (China) 47.91.93.99 (RW)	Outbound	HTTP
https://streaming-cn.peoplecertcn.org.cn	1853, 5072-5074, 8200	560, 570	47.91.93.9 (China) 47.91.93.99 (RW)	Inbound & Outbound	UDP
http://streaming-uk.peoplecert.org		80	162.13.64.3	Outbound	HTTP
http://streaming-uk.peoplecert.org	1853, 5072-5074, 8200	560, 570	162.13.64.3	Inbound & Outbound	UDP

Process: Manage and Support Exams
ID No: ECS_D_36 ExamShield Technical Details ver4.0 | 24/02/2022

7   ExamShield Fact Sheet

Section 1: General

Is PeopleCert accredited?	PeopleCert is accredited under • ISO 17024 Certification of persons • ISO 9001 Quality Management System • ISO 10002 Customer Satisfaction & Complaints Handling • ISO 14001 Environmental Management • ISO 27001 Information Security Management System • ISO 23988 Use of IT in the Delivery of Assessments • ISO 22301 Business Continuity Management • TUV Cybersecurity Essentials PeopleCert's Online Proctoring is approved by the Hellenic Accreditation System (ESYD) based on ISO 17024
Who developed ExamShield?	ExamShield is developed exclusively internally by PeopleCert, following ISO 27001 controls
What is the Software Architecture?	ExamShield follows the Client-Service architecture, communicating with PeopleCert cloud servers.
Which Operating Systems are supported?	• Windows 8 and higher (Windows 10S not supported) • macOS Sierra 10.12 and higher
Can ExamShield be deployed on a virtualized environment?	ExamShield does not operate under any virtualized environment.
How is ExamShield downloaded?	The latest version of ExamShield can be downloaded from here, from candidate's account at peoplecert.org/overview, or directly from the Microsoft Store.
How to deploy ExamShield to Candidate computers?	Use the Microsoft Store version or download ExamShield from here and utilize your own methodologies and tools to automatically deploy to Candidate computers, such as Group policies, SCCM *or later*, MDM (e.g. Intune) etc. Manual deployment is also supported.
What are ExamShield's system requirements?	• Dual-core 2.4GHz CPU or faster with 4GB of RAM (minimum) • Active Full-Time/Broadband internet connection of at least 512/512 kbps (up/down) • 16-bit monitor (at least 15") with screen resolution

1024 x 768 or higher

- Speakers and microphone (the use of headsets is only allowed during onboarding)

- Keyboard and mouse or another pointing device

- A single web camera (embedded or external) you can rotate.

Section 2: Policies, Procedures and Compliances followed

Does PeopleCert have a documented information security framework in place?	PeopleCert is accredited and audited annually per ISO 27001 since 2010, that details the information security management system for both logical (systems and applications) and physical security
Has PeopleCert outsourced the software development for ExamShield to another third-party provider?	No, ExamShield is developed exclusively internally by PeopleCert, following ISO 27001 controls
Are PeopleCert employees required to sign a confidentiality agreement?	Yes, all employees sign Non-Disclosure Agreements during the hiring process
Are PeopleCert developers been trained in secure coding techniques?	All developers are trained to follow PeopleCert's Software Development Life Cycle procedures based on Microsoft's Security Development Lifecycle (SDL), towards increasing reliability and software security.
Does PeopleCert have a mandatory security awareness program in place for employees?	PeopleCert employs a comprehensive multifaceted security training schedule, which is mandatory during onboarding and conducted twice per year.
Are PeopleCert procedures in place for reporting and responding to possible security incidents?	PeopleCert employs security incident handling procedures in line with ISO 27001.

Section 3: Data Storage & Data Protection

Is there a requirement for data (Audio/Video/Screenshare/chat) to be transferred/stored elsewhere?	ExamShield transfers candidate's Audio, Video, Desktop and Chat streams, required for the exam sitting purposes, to PeopleCert cloud servers.
Does the system collect and retain logs of events such as user events and system events?	ExamShield collects and records user and system events towards ensuring exam integrity. All data are retained in accordance with PeopleCert's retention policy.
Who within PeopleCert organization has access to this data?	Access to the data is provided only to certified Role-based personnel.

Does ExamShield have access to Sensitive Personal Identifiable Data?	Towards ensuring exam integrity and verifying candidate's identity ExamShield records candidate's ID document and camera feed. No additional Sensitive Personal Identifiable data are collected or processed.

Section 4: Solution

Is ExamShield safe to use?	ExamShield is approved for publishing on the Microsoft Store and has undergone Microsoft's strict security tests, technical compliance tests, as well as content compliance checks.

PeopleCert submits every ExamShield release to the top 10 Security software companies for whitelisting, namely, McAfee, Webroot, Bitdefender, Kaspersky, Avast, Symantec Norton, ESET, F-Secure, Avira, AVG. |
| **Does PeopleCert conduct regular security testing of the solution?** | PeopleCert systems are subject to internal vulnerability assessments (by PeopleCert) at frequent intervals and external (by CREST accredited parties) penetration testing, at least one per year and after every major release. |
| **Does PeopleCert participate in any public vulnerability disclosure program?** | PeopleCert participates in a public vulnerability disclosure program with certified ethical hackers and researchers from 200 different countries.

PeopleCert also recently initiated a private bug bounty program and invited top-notch researchers to participate. |
| **Does PeopleCert require Remote access to the device the ExamShield is installed?** | No, PeopleCert and ExamShield do not remotely control candidate's desktop, mouse, or keyboard. |
| **Are elevated rights needed on the device the ExamShield is installed?** | In corporate networks, elevated rights might be needed depending on the enforced group policy. |

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