

Questionmark OnDemand for Government

Trustable and secure assessment
management in the cloud for the
U.S. Government

Contents

Introduction	3
Questionmark Assessment Management System	5
Background	5
Questionmark Assessment Management System	5
How Questionmark Software Can Help	7
Deployment Options	8
Questionmark Security Accreditations	10
Questionmark's Approach to Developing Secure Software	11
Application Security Model	12
Questionmark OnDemand for Government	13
Overview	13
FedRAMP and Department of Defense Requirements	13
Microsoft Azure Government	14
Questionmark OnDemand for Government	16
Technical Support	17
Service Continuity	18
Security of Questionmark OnDemand for Government	20
Table Showing Compliance With FedRAMP Controls	20
Further Reading	26
Glossary	27
Appendix	30
About Questionmark	32





Introduction

This white paper describes how Questionmark OnDemand for Government meets the Federal Risk and Authorization Management Program FedRAMP and U.S. Department of Defense requirements for U.S. government agencies to provide a cloud-based Assessment Management System.

FedRAMP is a US government-wide program that provides a standardized approach to security assessment, authorization and continuous monitoring for cloud products and services. Questionmark's Assessment Management System is a software suite to allow users to create and maintain quizzes, tests, surveys and exams within an item bank (or question database), publish these to a delivery system and then report on the results.

Many government agencies have the need to assess their people to check they are competent and as part of training. Key reasons for using assessments are:

- Did they like it? Course evaluations and other surveys measure the impact of training.
- Did they learn it? Quizzes provide formative help during the learning process and help instructors and learners confirm whether the learning was understood. Tests and exams measure knowledge and skills which can be used to certify an individual's level of competence.
- Can they do it? Observational assessments help check the level of competency of an individual as they perform a task.
- Can you prove it? Assessment results provide evidence to stakeholders of an individual's level of competence.

Questionmark has been providing assessment management software to the U.S. government since the 1990s and around 70 government agencies currently use Questionmark's installable software, Questionmark Perception. Using an assessment management service in the "cloud" provides many benefits – you can focus on creating, delivering and reporting on assessments and delegate the setup, management and operation of the service to Questionmark.

Questionmark has offered a commercial Software as a Service (SaaS) solution, Questionmark OnDemand, for many years. In partnership with Microsoft and their FedRAMP certified Azure Government service, Questionmark provides a Software as a Service solution which provides the Questionmark OnDemand service in a way that has been audited and authorized to meet FedRAMP controls and allow government agencies to use the service. This service is called Questionmark OnDemand for Government (OD4G) and is described in this report.

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- Gain the benefits of the Questionmark assessment management system
 - Delegate the setup, operation, updates and security of the system to Questionmark
 - Will be compliant with their agency's security requirements

Questionmark OnDemand for Government is authorized for FedRAMP Moderate and is seeking a sponsor for U.S. Department of Defense Impact Level 4 (IL4) authorization.



Questionmark Assessment Management System

Background

We provide an assessment management system widely used for creating, delivering and reporting on assessments – tests, quizzes, surveys and exams.

We supply technologies and services that enable organizations to measure knowledge, skills, and attitudes securely and achieve successful learning outcomes. Our solutions enable reliable, valid and defensible assessments by empowering learning and testing professionals with collaborative authoring tools, accommodating participant needs with blended and multilingual delivery and informing stakeholders through timely reporting and meaningful analytics.

Questionmark Corporation is owned by Questionmark Computing Limited, a UK company, with primarily U.S. and UK owners. Neither company have any owners or employees located in embargoed countries nor who are Specially Designated Nationals blocked by the U.S. Government. Questionmark has been supplying assessment software to the Department of Defense and other government agencies since the 1990s.

Around 70 agencies currently use Questionmark software including all five branches of the armed forces – the Air Force, Army, Coast Guard, Marine Corps and Navy. We are listed with the U.S. General Services Administration (GSA) federal supply list as a provider of testing and assessment technologies and services. Questionmark's contract number is GS-35F-0380Y.

Assessment Management System

Questionmark provides the world's leading assessment management system to help customers to improve their performance and safely meet their compliance requirements.

Within a secure framework, you can create, deliver and analyze quizzes, tests, exams and surveys.

Distributed and collaborative authoring

Questionmark's authoring software provides a collaborative environment for geographically dispersed authors and SMEs (subject matter experts) to create, review and deploy items and tests in shared repositories. Questions can be organized by topics and sub-topics, and classified by



difficulty levels and other criteria.

Blended delivery

Questionmark software's responsive design capabilities take the guesswork out of blended delivery. You can author an assessment once and then deliver it via many different types of devices – from PCs, Macs, tablets, and smartphones.

With so many learners frequently on the go, smartphones and other handheld devices are ideal for delivering low-stakes assessments, for example, quick follow-up quizzes and surveys or course evaluations and to assess people in the field.

Flexible delivery options make it easy to deliver observational assessments. Assessments may also be delivered via integration with other systems or can be printed for scanning in participant's answers.

Secure delivery

Questionmark provides a range of different security capabilities and allows you to use them as needed to deliver formative quizzes and course evaluations with very little security and as well as higher stakes exams which requires strong security.

It's also possible to use Questionmark's lock-down browser "Questionmark Secure" as an add-on to the assessment management system. This is designed to help you provide a secure environment in which to deliver high stakes assessments such as tests and exams by "locking down" the participant's PC, disabling the keys and functions used to print, screen capture, and task-switch. Questionmark Secure can significantly reduce the risk of cheating when deployed along with other defenses to combat impersonation, content theft and cheating deployed along with other defenses to combat impersonation and content theft.

It's also possible to set an assessment to need monitoring so that "dual" login is needed for proctored testing environments.

Questionmark has strong support for interoperability standards such as SCORM and AICC, which make it possible to launch and track Questionmark assessments via learning management systems and other enterprise systems.

Reporting and analytics

Questionmark software offers many predefined reports and analytics – including item analysis, test analysis, survey reporting and more – that enable you to analyze and share results with stakeholders. Questionmark's reporting and analytics help learning and training professionals determine:

- What did participants think of the learning experience?
- What did participants learn from the training or course?
- How do I coach test takers to improve performance?
- Are my questions valid and reliable?
- How did one group of test takers compare to another?

How Questionmark Software Can Help

Questionmark provides the world's leading assessment management system to help customers to improve their performance and safely meet their compliance requirements.

Assessments let you check:



Did they learn it?



Can they do it?



Can you prove it?

Common applications for assessments in government and the military include:

- Surveys and course evaluations to measure learner satisfaction and get feedback on the training and on trainers
- Formative quizzes during learning to let learners and instructors gauge progress
- Post course tests for classroom and distance learning to measure learning and check understanding
- Job task analyses to identify the most important tasks within a job area to ensure that your test's and exam's validly measure job competence

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- Advancement exams to fairly identify appropriate candidates for promotion
 - Competence for service people who maintain or use equipment
 - Internal certifications to qualify people for specific skills and competences
 - Health & safety and medical training tests
 - Observational assessments where an observer watches a participant conduct a practical task (e.g. examine a patient, use or maintain machinery) and rate the participant's performance against a checklist. Observational assessments are often delivered on smartphones and tablets

If you are relying on assessment results to make the right decision about someone's training, competence or performance, it's vital that your assessments are trustable.

Trustable assessments need to be reliable (consistent) and valid (measure what they intend to measure). Using a professional assessment management system like Questionmark's allows you the capability to set in place the trustable processes you need to author, deliver and report on trustable assessments.

You can learn more about trustable assessments in Questionmark's report, "Assessment Results You Can Trust", available at questionmark.com/resources/reports.

Deployment Options

There are three ways to deploy Questionmark's assessment management system:

- Questionmark OnPremise. This is our installable assessment management system (previously called Questionmark Perception) which can be downloaded and installed behind your organization's firewall for your exclusive use.
- Questionmark OnDemand. This is our commercial multi-tenant SaaS offering hosted in a commercial data center. This is widely used by commercial organizations, but U.S. government and military agencies may prefer Questionmark OnDemand for Government.
- Questionmark OnDemand for Government. This is our SaaS offering hosted in a FedRAMP and Department of Defense compliant data center dedicated for U.S. government use.

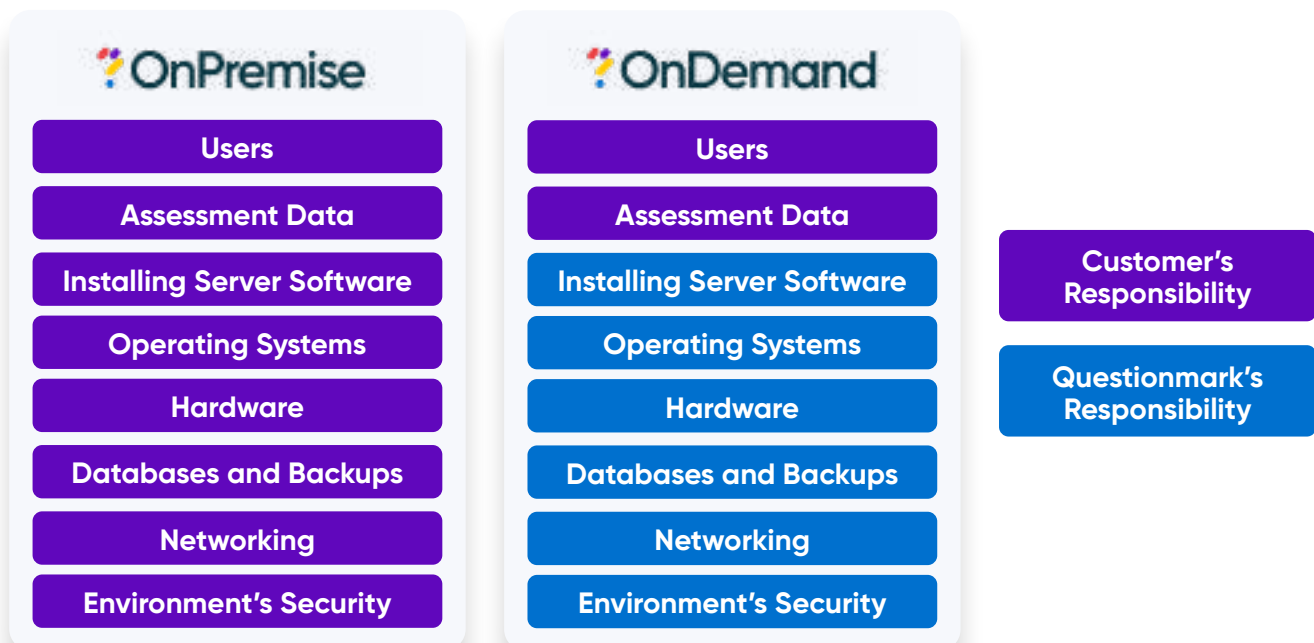
All deployment options for Questionmark use cryptographic code that meet the FIPS 140-2 standard (Federal Information Processing Standards).

The huge benefit of using a SaaS solution is that you delegate most of the work in setting up, running and upgrading the service to the cloud provider. NIST¹ define Software as a Service (SaaS) as:

"The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user specific application configuration settings."

Your agency's personnel use the Questionmark's SaaS with a web browser. The system is provided to you with all technical configuration already done, ready for you to create users and create assessment data.

The diagram below illustrates the benefit of Software as a Service. If you are using installable software like Questionmark OnPremise or the older Perception, you need to install the software, manage the operating system, purchase and maintain the hardware, configure and backup the database, run and secure the network and set up the whole environment for robustness and security. If you use a SaaS, you can focus on your users and your assessment data and Questionmark will do the other work.



Questionmark Security Accreditations

In addition to our FedRAMP moderate authorization, Questionmark meets:



ISO/IEC 27001:2013 is an internationally recognized information security management standard which ensures organizations apply a framework to business processes to help identify, manage and reduce risks to information security.



ISO 27001 ensures that process, technical and people controls are in place and audited to protect confidentiality, integrity and availability of data on an ongoing basis. Questionmark has achieved ISO 27001 certification, after in-depth assessment by a third-party accredited team of auditors at British Standards Institution (BSI).



Questionmark's commercial US OnDemand service is compliant with the Health Insurance Portability and Accountability Act (HIPAA) which sets the standard for dealing with protected health information (PHI) and ensures physical, network, and process security measures are in place and followed.



FERPA is a US federal law protecting the privacy of student information.

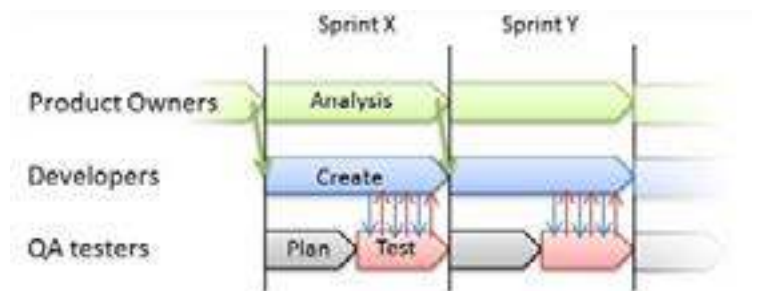
Questionmark's commercial US OnDemand service offers contract terms that include specific FERPA commitments and allows customers to administer assessments and store data in compliance with FERPA.

You can see more information about Questionmark's security accreditations by visiting our trust center at questionmark.com/trust-center.

Questionmark's Approach to Developing Secure Software

Questionmark uses the SCRUM/Agile software development methodology:

- The team pursues assigned tasks during two-week 'sprints'
- Tasks are prioritized and assigned by the Product Owner
- Quality Assurance teams test the development work using automated, service layer, and black-and-white box testing and do security testing
- Questionmark believes in quality from the outset and because of this we use automated regression testing, build and deployment testing, UI testing and service-level testing
- Once approved, the application is released for production use



All developers are trained and coached to ensure coding follows best practices. This ensures the developers:

- Are up-to-date with the latest techniques
- Understand how to mitigate known issues
- Provide feedback to others about new/additional issues they have found

The development teams follow the Agile Secure Development Lifecycle best practices with regards to building functionality and features.



Application Security Model

Questionmark's security model is role based, with customer personnel assigned to roles based on their functions.

Participants (test takers) will usually use SAML to login but can also directly login to the Questionmark system or be routed via external Learning Management Systems (LMSs).

Questionmark supports commonly used protocols for LMSs to call content and assessments including AICC HACP and ADL SCORM 1.2 and 2004. Participants who login directly need to be registered in the system and scheduled to an assessment. Before they take an assessment, they will be asked to enter their username and password.

Customer Administrators also need to be registered on the system and will login via SAML or provide a username and password to enter. The information that someone sees and the actions that they can take is moderate by role. Roles can be different for Authoring, Delivery and Analytics.

Questionmark allows strong password policies that conform with FedRAMP controls. It also is possible to use CAC cards through SAML 2.0 and your own Third Party Identity Provider as part of the authentication process to Questionmark OnDemand for Government.

Questionmark OnDemand for Government

Overview

Questionmark OnDemand for Government runs within the secure and certified Microsoft Azure Government platform as described in detail in the following sections.



Questionmark OnDemand for Government is available to all U.S. government and military agencies and departments (federal, state and local). It can be used by these agencies and departments for delivering assessments to participants of any nationality, located within and outside the U.S.

Section 3.2 below introduces the FedRAMP requirements themselves and section 3.3 describes Microsoft Azure Government. We then describe our own service, Questionmark OnDemand for Government in section 3.4 and go on to fill in more details on the support and business continuity.

Section 4 gives a more detailed table of how the service meets FedRAMP requirements.

FedRAMP and Department of Defense Requirements

The Federal Risk and Authorization Management Program (FedRAMP) is a U.S. government program that provides a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services.

The concept behind FedRAMP is a “do once, use many times”, so that a security assessment can be done once without every agency having to redo it for the same service. The U.S. Department of Defense builds on FedRAMP with additional requirements.

Questionmark OnDemand for Government is targeted and authorized for FedRAMP Moderate and is seeking a sponsor for U.S. Department of Defense Impact Level 4 (IL4) authorization.

Most use of assessments will fall into this category, but agencies with assessment material that is at IL5 or higher should consider Questionmark’s OnPremise solutions and cannot at this time use Questionmark OnDemand for Government.

Microsoft Azure Government

Questionmark OnDemand for Government is hosted within Microsoft Azure Government.

This is a cloud platform designed solely to meet U.S. government demands. Microsoft Azure Government can only be used for government applications and customers.

Azure Government has two data centers in the Continental United States, one in Virginia and one in Iowa, separated by greater than 500 miles to give resilience against disasters. It is isolated from other systems and networks and operated by screened US persons.



Azure Government has physical controls and environmental including:

- 24x7 security staff
- Physical barriers and fencing
- Seismic bracing
- Camera monitoring and alarms
- Two-factor authentication required for access to computer rooms
- Days of backup power

Its network controls include:

- Real time anti-virus/anti-malware
- Intrusion detection
- Threat detection including protection from DDoS
- System monitoring and logging
- Network isolation, inbound traffic only permitted if specifically enabled for a machine

Microsoft Azure Government has achieved FedRAMP Provisional Authority to Operate (P-ATO) at the High Impact Level, the highest bar for FedRAMP accreditation, which authorizes the use of Azure Government to process highly sensitive data.

Microsoft Azure Government has been granted by DISA Cloud Service Support a DoD Impact Level 4 PA (Provisional Authorization) for Microsoft Azure Government.

As well as FedRAMP and DISA authorization, Microsoft Azure compliance in place with ECSB, CJIS, ECSB, HIPAA, IRS Publication 1075 and others.



Questionmark are Microsoft gold partners and have a long history of working with Microsoft. The Microsoft Azure Government is a robust, secure platform on which it makes good sense to place a government assessment management system.



Applications of SJAs

Questionmark OnDemand for Government

Questionmark OnDemand for Government is a service offered by Questionmark to U.S. government agencies.

The service is only operated for U.S. government customers and data from different agencies within the government is logically separated from data from other agencies. Microsoft ensure that only applications for the U.S. government are used within the data center.

The process of setting up the service for a new customer works as follows:

1. Customer orders service
2. Questionmark set up and configure the customer service
3. Questionmark provides credentials to customer
4. Questionmark can assist with templates and configuration
5. Customer creates users who can then use the system via HTTPS within their browser

Questionmark monitors the service to ensure uptime, security and scalability. Because we are using Azure which is a scalable service, the system is easily scalable by powering up additional resources. We also apply regular upgrades, both functional and security related.

We also deploy necessary security updates to system software and our own software, and perform all the monitoring and testing required by FedRAMP which includes monthly vulnerability scans.

We perform three kinds of maintenance:

1. **Routine maintenance.** This is performed at low volume periods while the system is up, without disrupting service. Routine maintenance can cause slight reductions in service speed as we switch individual servers in the cluster in and out of the system
2. **Scheduled maintenance.** Rarely and no more than once per month, Questionmark will need to perform scheduled maintenance which requires the system to be offline for a short period of time. We will provide notice in advance of scheduled maintenance
3. **Emergency maintenance.** Additionally, in the unforeseen case where Questionmark becomes aware of a serious event requiring immediate action or a security issue arises, an emergency maintenance session may be scheduled. Questionmark will provide notice as soon as it becomes aware of the need for such a window

The Questionmark personnel who act as system administrators to the service or who have access to any customer data are all U.S. nationals.



Technical Support

Questionmark's goal is to provide a first-class customer experience.

We provide extensive online documentation, including quick-start guides, manuals, reports, best practice guides and communications from our customer support teams. Commercial and "how-to" information is provided by Questionmark's Customer Care teams and more detailed technical information is provided by Technical Support.

The following support services for Questionmark OnDemand for Government are available:

Service Name	Description	Service Offering
Questionmark OnDemand for Government	All of the services provided by people 24 x 7 to maintain the OnDemand service uptime.	Provided by Questionmark and/or its sub-contractors 24 x 7.
Customer Care	Assistance provided by phone and email to customers to help them understand and use any part of the Questionmark OnDemand Services.	Available from Questionmark's Customer Care teams during normal business hours.
1st Line Technical Support	Assistance provided by phone and email to designated contacts to resolve technical issues that might result in resetting services, keeping people informed of service status, and answering questions as to where the answers could be found in the Questionmark manuals or knowledge base items.	Provided by Questionmark during regular working hours as standard and 24x7 for an additional fee.
2nd Line Technical Support	Assistance provided by phone and email to designated contacts to resolve technical issues where answers could not be found in the manuals or knowledge base items.	Provided by Questionmark during regular working hours as standard and 24x7 for an additional fee.



Service Name	Description	Service Offering
3rd Line Technical Support	Fix technical issues with the OnDemand Services.	Provided by Questionmark during regular working hours.
Participant Support	Any assistance provided by phone, email, chat sessions, etc. to the participant to help them use any part of the Questionmark OnDemand Services and/or Products.	Available from Questionmark for an additional charge.
Proctor/Invigilator Support	Any assistance provided by phone, email, chat sessions, etc. to proctor/invigilators to help them with the proctoring/ invigilation process including but not limited to the use of Questionmark OnDemand Service.	Available from Questionmark for an additional charge.
Consulting Support	Assistance with template creation and modification to change the look-and-feel of an assessment, assessment content import, content transformations, custom development, support of custom development, consulting services, training services, data format changes, etc.	Defined within a Statement of Work and delivered for a fee that depends on the scale of the work required.

Service Continuity

Maintaining service continuity is a process of assessing threats, risks, and vulnerabilities and then managing these to maintain uptime and ensure continuation during minor and major events.

Many of Questionmark's processes, procedures and redundant systems are maintained in order to achieve the highest uptime possible. As mandated by FedRAMP, Questionmark engages in thorough contingency planning for the service.



The Azure Government service on which the platform is installed has a high degree of redundancy and resilience. There is also a second, alternate data center over 500 miles away for use in case of a catastrophe. Questionmark also architects the setup on Azure to mean that the service is resilient. Data is backed up (within Azure) to the alternate data center providing failover protection. We perform regular restore testing as mandated by FedRAMP controls.

Questionmark maintains several geographically dispersed systems to maintain communications with customers and employees, providing confidence that communications will still flow during a major outage. Communication systems that are not housed within the Azure Government data center include Questionmark's email system, website, blog and customer relationship management system.

In the event of a significant business disruption, employees will be able to use third-party systems (such as Microsoft Teams, instant messenger, mobile phones, internal twitter feeds, etc.) and calling trees to cascade information down to customers and employees. During a significant service disruption, employees will assess the best method to use and will keep customers informed and provide information as to the projected time to recover.

Questionmark uses highly-regarded and trusted third-party vendors to host its business records, with most systems using Microsoft technologies. Key business continuity files are replicated to employee computers who have a business continuity role making them available offline, even during a significant system outage, to aid the recovery processes.

Security of Questionmark OnDemand for Government

Table Showing Compliance With FedRAMP Controls

Questionmark OnDemand for Government can fully support user authentication via Agency Common Access Card (CAC) or Personal Identity Verification (PIV) credentials through SAML 2.0 and your own third-party identity provider.

It operates at eAuth Level 4 but is only currently sponsored for and authorized at FedRAMP moderate. Questionmark has the ability to consistently remediate High vulnerabilities within 30 days and Moderate vulnerabilities within 90 days. Also, Questionmark and the system meet Federal Records Management Requirements and use appropriate cryptography.

The table below shows a high level overview of how the Questionmark OnDemand for Government service meets key FedRAMP controls. The first column of the table shows the FedRAMP control area. The second column shows how Questionmark meets the responsibilities. The third column shows what customers need to do to meet their responsibilities.

This is an overview only as there are 100s of FedRAMP controls. More detail is available in Questionmark's System Security Plan which is available to government and military agencies on request through OMB MAX.

It's helpful to think about six key stages in assessment development as follows:

FedRAMP control area	Questionmark's responsibilities	Customer's responsibilities
Access Control (AC)	Manage access control accounts for its own personnel following principles of separation of duties and least privileges. Automated mechanisms to enforce technical controls. Questionmark software ensures customer personnel follow access control rules including locking out users on too many unsuccessful logins.	Control roles for their participants and administrators and conduct its own due diligence on access control.



FedRAMP control area	Questionmark's responsibilities	Customer's responsibilities
Awareness and Training (AT)	Conduct security awareness training for its personnel operating the service, including data security training, role specific training, contingency planning training. Good records maintained and employees tested on data security at least annually.	Conduct security awareness training for its personnel.
Audit and accountability (AU)	Maintain comprehensive logging with weekly review. Audit logs copied into protected area and kept for at least 12 months. Time for all log events obtained accurately from Azure.	
Certification, Accreditation and Security Assessment (CA)	Maintain and plan security assessment and work with a third party organization to formally assess the security of the service. Continuous monitoring is undertaken and vulnerability assessment includes regular dynamic scans by a reputable third party.	Responsible for their own authorizations for the system
Consulting Support	Maintain comprehensive logging with weekly review. Audit logs copied into protected area and kept for at least 12 months. Time for all log events obtained accurately from Azure.	Defined within a Statement of Work and delivered for a fee that depends on the scale of the work required.
Configuration Management (CM)	Maintain baseline configurations which are regularly updated through Questionmark's configuration control plan.	Liaise with Questionmark on configuration for their use.



FedRAMP control area	Questionmark's responsibilities	Customer's responsibilities
Contingency Planning (CP)	Maintain, train and test contingency plan. Data is backed up weekly with daily incremental backups to the second Azure Government data center. The second Azure Government data center is our alternate processing site. There is regular restore testing. Azure Government has robust contingency plans including multiple access points to the Internet, and Questionmark has a contact within Microsoft to coordinate contingency planning with.	Provide a liaison point for Questionmark for contingency planning.
Identification and Authentication (IA)	Questionmark personnel use unique identifiers with multi-factor authentication to log in to administer and support the system. Questionmark software supports the ability for customers to create their own password policies and roles. It is possible to use CAC cards as an element of the authentication for customer personnel.	Define roles and allocate customer personnel to roles. Promote good practices in password selection and secrecy for their personnel.
Incident Response (IR)	Maintain, train and test an incident response plan. Liaise with Microsoft Azure to coordinate incident response.	Provide a liaison point for incident response.



FedRAMP control area	Questionmark's responsibilities	Customer's responsibilities
Maintenance (MA)	Maintenance of the hardware is performed by the Microsoft Azure team. Questionmark maintains the software remotely with authorized and trained personnel and notifies customers of times of scheduled maintenance.	
Media Protection (MP)	Removable media is not used.	Follow media protection rules with any data downloaded from Questionmark.
Physical and Environmental Protection (PE)	This is met by Azure Government.	
Planning (PL)	Provides a System Security Plan as part of its detailed documentation and planning for the service including rules of behavior for Questionmark personnel.	Define its own rules of behavior for use of the system.
Personnel Security (PS)	Questionmark HR procedures meet the FedRAMP requirements including screening employees and the other personnel procedures. Questionmark personnel with privileged access to Azure Government are US nationals. Apart from Microsoft, no third party personnel have privileged access to the service. Microsoft follow the FedRAMP controls with their Azure Government personnel.	Meet personnel requirements for its own employees and contractors.



FedRAMP control area	Questionmark's responsibilities	Customer's responsibilities
Risk Assessment (RA)	Maintain a risk assessment process which is regularly performed and reviewed. Run monthly vulnerability scans and include results in a monthly reporting. Vulnerabilities are remediated within 30 days if high risk and 90 days if medium risk.	Perform own risk assessments.
System and Services Acquisition (SA)	Questionmark's only direct service supplier for this service is Microsoft Azure, which is itself FedRAMP compliant. Questionmark only installs approved and licensed software and uses a secure development methodology for its software development (as described in section 2.5). The development team maintains security test plans and conducts security testing on Questionmark software.	Define roles and allocate customer personnel to roles. Promote good practices in password selection and secrecy for their personnel.



FedRAMP control area	Questionmark's responsibilities	Customer's responsibilities
System and Communication Protection (SC)	Employ properly configured firewalls which are reviewed monthly. All access to the system is via HTTPS (TLS). Software is compliant with FIPS 140-2 and this is enforced by operating system settings. Data is encrypted at rest.	Customer should also set up strong boundary protection and use up-to-date web browsers with strongest levels of encryption enabled.
System and Information Integrity (SI)	Subscribe to security information feeds and implement and test security patches promptly. Monitor system continuously using automated software. Deploy Microsoft anti-malware and third party anti-virus software on exposed servers. Code contains input validation and gives generic error messages to avoid disclosure of information.	Customer is responsible for anti-malware anti-virus on their computers.

Further Reading

Here is some further reading to help understand the capability and benefits of Questionmark OnDemand for Government.

These Questionmark reports are available for download at questionmark.com/resources/reports and give more information on the benefits of assessments and how to use them well:

Assessment Results You Can Trust

This paper explains what makes an assessment result trustable and explains how Questionmark's assessment management system helps you make your assessments valid and reliable and therefore trustable.

Assessments Through the Learning Process

The cornerstone of developing successful educational, training, and certification materials is the effective use of assessments. This paper explains how you can use assessments to improve the learning and measurement processes.

The Questionmark blog offers informative articles on assessment and the Questionmark trust center also has helpful information on Questionmark's security.

The following useful material on Microsoft Azure and Azure Government is available:

- A 100 page document about Microsoft Azure Government is available at docs.microsoft.com/pdfstore/en-us/Azure.azure-documents/live/azure-government.pdf
- Some more general information on Azure Government is at azure.microsoft.com/en-us/overview/clouds/government/
- General information on Azure compliance is available on the Microsoft Azure Trust Center at <http://azure.microsoft.com/en-us/support/trust-center/compliance/>
- Detailed information on Azure's FedRAMP compliance is confidential but can be obtained on request from Microsoft.



Glossary

ADL SCORM

A technical standard used by LMSs to call assessment and learning content, originally sponsored by the U.S. DOD.

AICC HACP

A technical standard used by LMSs to call assessment and learning content.

Azure

Microsoft's cloud computing platform.

Azure Government

A version of Azure designed for U.S. Government use, with its own data centers for use by government.

Certificate of Networthisness (CoN)

Evidence that a U.S. agency has evaluated technology and that it meets U.S. military security standards.

Controls

A security control defines a particular rule that must be followed to keep a system secure. A security system is often based on a large number of individual controls which together make a system resistant to threat.

DOD

U.S. Department of Defense.

FedRAMP

Federal Risk and Authorization Management Program, a government-wide program that provides a standardized approach to security for cloud applications.

FIPS

Federal Information Processing Standards announced by the U.S. federal government.

GSA

U.S. General Services Administration part of whose mission is to deliver value to the U.S. government in purchasing technology services.

**HTTPS**

Secure communications protocol used in the Internet.

IaaS

Infrastructure as a Service, cloud virtual machines made available for use on the Internet.

ISO 27001

International security management standard.

LMS

Learning Management System – a system that manages learning and can be used to call assessments.

NIST

Evidence that a U.S. agency has evaluated technology and that it meets U.S. military security standards.

Participant

Someone who takes an assessment.

Questionmark OnDemand

Questionmark's commercial Software as a Service assessment management system.

Questionmark OnDemand for Government

Questionmark's Software as a Service offering for the U.S. government.

Questionmark OnPremise

Questionmark's installable assessment management system.

Questionmark Perception

Questionmark's installable assessment management system (earlier name for Questionmark OnPremise).

Questionmark Secure

Questionmark's lockdown browser which aids test security.



SaaS

See Software as a Service.

SME

Subject Matter Expert.

Software as a Service

A method of distributing and using applications software where a service provider runs the software and customers access over the Internet.

TLS

Transport Layer Security, a cryptographic protocol used on the Internet to provide communications security. More secure successor to Secure Sockets Level (SSL).



| Appendix

Sources

1. National Institute of Science and Technology (NIST) Special Publication 800-145 at <http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf>



Appendix

Questionmark Resources

Best practice guidance from Questionmark

Questionmark publishes several other white papers giving best practice guidance, available from questionmark.com/resources/reports/. The following white papers are useful for follow-up reading:

- [Assessment Results You Can Trust](#)
- [Five Practical Approaches to Test Beyond Recall](#)
- [The Test Fraud Fallacy](#)

Upcoming Webinars

[Register today](#) for one of our upcoming sessions.

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Solutions and Integration

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