



ONLINE TESTING SERVICE SLA

World's first selected online testing service which caters virtual assessments along with easy to use browser and supports all OS's.

"Business has only two functions – marketing and innovation."
- Milan Kundera

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Service Level Agreement (SLA)

between Quest Solutions, Inc. (1) and Marietta Institute of Technology (2)

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Approval

Approvers	Role	Signed	Approval Date
Agency (1)	Service Provider	Charles Brown Thomas Sawyer Jonathan Doe	10/07/17
Agency (2)	Customer	Jane Eyre Marge Simpson Sally Brown	10/07/17

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Service Level Agreement

1. Introduction

1.1 Agreement Overview

This service level agreement (hereafter “SLA”) is to document the IT service detailed herein by *Quest Solutions, Inc.* (“Service Provider”) to *Marietta Institute of Technology* (“Customer”).

The purpose of this agreement is to provide a clear source of reference for the IT service provisions, roles and responsibilities, and parameters of the mutual agreement.

This agreement will be in effect as of the date of the signatures below and shall remain valid for a contract term of one year or until a revision or termination is approved by both parties.

1.2 Introduction of Service

The web service provided by Quest Solutions shall enable MIT students to take the exit exam and exit survey online, view their scores online, and enable the faculty/school officials to access the exam and survey results and statistical reports online.

1.3 Stakeholders

Service Provider	Quest Solutions, Inc.	5678 Technology Drive Atlanta, GA 30000 www.questsolutions.com
CEO	Charles Brown	cbrown@questsolutions.com
CTO	Thomas Sawyer	tsawyer@questsolutions.com
Project Manager	Jonathan Doe	jdoe@questsolutions.com

Customer	Marietta Institute of Technology	9000 Education Avenue Marietta, GA 33333 www.mit.edu
President	Jane Eyre	jeyre@mit.edu
CIO	Marge Simpson	msimpson@mit.edu
Academic Dean	Sally Brown	sbrown@mit.edu

1.4 Signatures

Both parties have read and understood, agree and approve the terms and conditions in this Agreement with the signatures below in witness of the stakeholders appertaining thereunto.

Quest Solutions, Inc.

Marietta Institute of Technology

Charles Brown, CEO

Jane Eyre, President

Date

Date

2. Service Description

Service Provider develops, hosts and maintains a web-based service that enables authorized users of the Customer to take the exit exam and exit survey online and access the results online. The service also provides online access to faculty/school officials to view results of the exam and survey as well as to query and view a variety of reports on the data.

2.1 Key Function Deliverables

- Two user views:

(1) Student view

Permits students to take exit exam and exit survey online, and view current and previous scores.

Provides online test proctoring functions such as lock-down-browser and exam availability management during the designated exam week in each semester.

Provides study guides for a designated period as an enhancing service.

(2) Faculty view

Permits year-round online access for faculty to view individual and group results, query and view reports on statistical data based on various factors such as major, gender, age, race, number of attempts, averages, range of scores, trends, and quarterly status reports.

- User authentication and access:

(1) Double tier authentication for student users where first tier is user ID and password, and second tier is a unique test access code.

(2) Single tier authentication for faculty users with user ID and password.

- Randomly generate 100 multiple choice questions from a database of 500 questions for every exam attempt.
- Collect and maintain historical data on exam scores, survey responses, and information about the users, group trends, averages, and ranges.
- Data analytics and query function.
- Propagate reports required each semester and well as real-time results.
- Secure and stable web-based environment for exam and survey, as well as for data storage and retrieval.
- Compliance to Customer's institutional policies as well as FERPA regulations.

2.2 Function Details

- During registration, student users will be requested to create a user account along with the user profile details such as full name, gender, age, race, major, email, and profile picture.
- During registration, faculty users will be requested to create a user account along with the details such as full name, email, faculty access code, and profile picture.
- Two different access points
 - Student view:
 - User ID and a strong password to login to access study guide and any applicable previous exam scores.
 - Just before the exam, student user would be prompted to enter the unique test access code provided by the school.
 - Students may access the study guide, attempt exit exams, view current and previous scores, and complete the exit survey.
 - Faculty view:
 - User ID and a strong password provided by the school.
 - Faculty may query and view the results of the exit exam and exit survey for individual students or as a report on a group or quarterly results.
 - Faculty may access the Provider's service report.
- The exam will be administered through a lock-down-browser. Lock-down-browser blocks the student from browsing the web or leaving the exam site.
- The time limit for every attempt of the exam shall be 2 hours and 30 minutes. If the student has not submitted the exam before the time limit ends, then the system will automatically submit the exam as is and generate the report.
- The exam period will commence 1 week after the end of each quarter and will be available for 7 days. Students will have unlimited attempts during the designated exam week.
- The study guide, provided by the Customer to the Provider, will be available via the student view 24/7 for 2 weeks after the end of each quarter.
- After completion of each exam (prior to the expiration of the exam period), the student will be prompted to select if he/she would like additional attempts or submit this attempt as the final attempt.
- Upon submission of the exam as the last attempt, the student will be redirected to the system generated exit survey form. The survey submission would be mandatory to submit the final attempt.
- Faculty view shall provide faculty users to query and view reports online, year-round on student information such as number of attempts taken, the score received in each attempt, time taken for each attempt, along with student profile information.
- After the exam period in each quarter, the system shall generate and provide online faculty access to the cumulative class performance reports including the range of scores received by each student, averages, and comparisons with previous quarters with various student profile variables (such as major, gender, age, etc.). Reports can be queried and viewed in different statistical trends.

- The system will select the highest exam score from all attempts as the student's final exam score.

2.3 Impact and Relevance to Business

In the Customer's business, as an academic institution, providing a convenient and efficient means to facilitate students in completing a core requirement for graduation is an important priority. Of equal priority for the Customer is the ability or means to promptly, efficiently and reliably access both raw data and analytic data on exit exam and exit surveys for Quality Enhancement Programs (QEP) as well as for accreditation reporting.

Since exit exams may be taken during the designated week following every semester and students are granted unlimited attempts to take the exit exam, this online service will ensure a convenient and efficient means for hundreds of students to complete this graduation requirement. Also, this service will connect students to the exit survey immediately following their last attempt of the exam, and thereby increase the survey completion rates along with convenience.

The online faculty view provision of this service also allows the school to better allocate significant personnel resources throughout the year from coordinating logistics (exam time, location, question generation), proctoring, grading, data entry, and manual data analysis to higher functions.

A disruption or a critical failure of service will directly affect student graduation timelines and may adversely impact the graduation rate of that year, as well as the professional image of the Customer's business as an academic institution.

3. Scope of Agreement

3.1 General SLA

Quest Solutions offers multiple service level agreements for testing services. Coverage depends on the service purchased and listed on the contract.

- Testing services will not be available in other regions than North America.
- MIT is entitled to maintenance service every quarter per calendar year.
- Quest Solutions will notify MIT when maintenance is due to prevent any service or outage issues.

Note: This SLA does not explicitly outline details of the security measures and the software licenses, as the security package and requisite software licenses are built-in to the service provided by Quest Solutions.

3.2 Severities

Quest Solutions is responsible for completing correction of errors in agreement with the following schedule:

- Severity 1: System crash or service outage;
- Severity 2: Service and features do not function as documented;
- Severity 3: Service is under maintenance;
- Severity 4: Enhancement request

Incident Severity	Priority	Time to Respond	Time to Escalate	Time to Resolve	Customer update call
Severity 1	Critical	5 Min	30 Min	95% in 2 Hours	Every Hour
Severity 2	Urgent	10 Min	60 Min	90% in 4 hours	Every 2 Hours
Severity 3	Normal	15 Min	120 Min	80% in 10 Hours	Every 4 Hours
Severity 4	Low	60 Min	120 Min	80% in 18 Hours	Upon Closure

4. Service Hours

4.1 A description of the service that customers can expect from the service to be provided.

- This service offers students the means to take the exit exam and exit survey a week after the quarter ends, but the application will be available to all users any time of the year. Customer support services will be available to all users 24/7.
- Students will have access to the study guide material for two weeks beginning one week prior to the exit exam.

4.2 During the holidays and weekends, the services will not be available. However, students may take their exams during the weekend at any time except during the maintenance window of 7PM – 6AM EST last Saturday every month.

- Details of any pre-agreed maintenance periods, of those impacts on service hours as mentioned above.
 - Services will be unavailable and test cannot be taken during those specific times scheduled for maintenance.
- Procedures for requesting temporary or permanent changes to the service hours (e.g., who to contact, how much notice the service provider needs)
 - In the case of a change to the service hours, our customer support is always available to answer any service or application related questions 24/7.

Services	Availability	Users
Exam	Every quarter for 7 days after the semester ends	Students
Customer Support	Email – 24 hours, 7 days Phone – 24 hours, 7 days	Applicable to all users
Maintenance	Last Saturday of every month	Service down to all users
Study Guide	Every Quarter for 2 weeks	Students
Exam Results	Immediately	Students
Batch Reports	Every quarter	MIT faculty

5. Service Availability

The main goal of the web service is to provide high quality reliable service with 24/7 customer service. The following table details the availability for specific service items.

Service	Availability
Quest Solutions	24/7 availability for users.
Device	The service is only available on desktops and laptops.
Authentication	Available at registration and at login.
Lock-down-browser	Every time the exam is attempted.
Exam	Every quarter for 7 days after the semester ends.
Exam Attempts	Unlimited attempts within the designated exam week.
Survey	One time after the last exam attempt.
Exam Score Report	One generated after every exam for student view.
Report(s) for Faculty	At close of the exam period, the system generates cumulated data. Is available for faculty view year-round thereafter.
Study Guide	Available for 2 weeks from the end of quarter.
Scheduled Maintenance	Service maintenance. Last Saturday of every month from 7 pm – 6 am.
Customer Support	Email – 24 hours, 7 days Phone – 24 hours, 7 days

6. Reliability

Quest Solutions has promised to provide 24/7 service for smooth flow of data with close to no break in the flow of the system. Risk assessment will be up to date and regularly performed. The MTBSI (Mean Time between System Incidents) for any major service breakdown should not exceed one occurrence per calendar year. In the event of a major service breakdown (i.e. - a

Critical Service Failure) recurrence within a calendar year, services from Quest Solutions may be withdrawn or penalties may be imposed on the Provider, depending on the breakdown.

- **Allowable Service Breaks:** The maximum number service breakdowns allowable within a year shall be 4 times and not more than once per quarter. The service breakdown shall be defined as the event when users (both student and faculty) are not able to login into the service and/or not able to use any services provided by Quest Solutions. A service breakdown can also be termed as a Critical Service Failure.
- **Planned Service Breaks:** Quest Solutions will commit their best efforts in serving the Customer. There will be 12 planned maintenances (on the last Saturday of every month from 7:00pm – 6:00am) per every calendar year. In anticipation of high volume usage, planned maintenances should not be scheduled during the designated exam weeks.

For every service breakdown, both planned and unplanned, the Provider shall inform the Customer via email about the incidences. In addition, the Provider shall be responsible for risk assessment, backups, and recovery plans.

7. Customer Support

Quest Solutions ensures predictable performance and availability for all services by monitoring servers, resources, network, and services. As part of the commercial agreement, we commit our best efforts to ensure all data stored will be backed up daily and weekly. The user is responsible for backing up data for the purpose of subsequent personal use or to compare results.

7.1 Performance Monitoring

Service	Performance Level
Antivirus Effectiveness	100% protection
Antivirus Accuracy	99.9% accuracy
Anti-spam Effectiveness	99% spam capture
Malware Detection	100% known malware
Time to Open Web Service Page	Opens 100% in given time, with valid user ID & password
Availability	100% service uptime
Web Page Scanning Time	6 seconds
Patches	100% in applying patches to secure the system

7.2 Customer Support

Customer support can be reached 24 hours a day, 7 days a week. When customer needs support, they need to create a ticket. Customer is solely responsible for reporting problems with the service provider. Customer is responsible to give details about the issue and mention the severity of the request.

Support Center: (777) 777-7777, Ext. 911 or support@questsolutions.com

8. Contacts Points and Escalations

Quest Technical Tier 1 team will handle the initial request, logging the service request or incident reported by the client. Customer support is to assist and solve service related problems.

In case the issue is unresolved by Tier 1 support, it will be assigned to Tier 2 mentioning the priority and severity of the request.

Support Center: (777) 777-7777, Ext. 911 or support@questsolutions.com

Technical Support: (777) 777-7777, Ext.123

Samantha, Manager: (777) 777-7777, Ext.234

8.1 Prioritization Matrix

The Provider offers a three-tiered support system in addition to helpdesk software to monitor problems and resolve trouble tickets. Details of each support tier are outlined in the table below.

Support Tier	Responsibility	Goals
Tier 1	Support desk calls, log trouble tickets, attempt to resolve the ticket for 30 minutes, and if unresolved, escalate to tier 2 and document.	Resolution of 50% of incoming calls.
Tier 2	Monitor calls, manage network, take over calls from tier 1, customer and escalate to tier 3 if warranted.	Resolution of 100% of calls at tier 2 level.
Tier 3	Provide immediate support to tier 2 for all priority 1 problems, agree to help with the problems unsolved by tier 2.	Direct ownership not considered.

8.2 The escalation matrix

In order to ensure that resources are properly allocated to problems according to their priority, the following escalation matrix is provided.

Priority	Severity	Explanation	Initial Response Time	Expected Resolution Time
1	Critical	Issue which completely interrupts the service.	30 min	2 hours
2	Substantial	Issue which severely impacts certain parts of the service.	1 hour	4 hours
3	Moderate	Failure of one minor function by workaround in place to handle the situation.	4 hours	7 hours
4	Minor	Issue is related to negligible influence on the service.	12 hours	24 hours

9. Service Performance

As part service continuity, Quest Solutions supports overall business continuity management by ensuring that the required IT Technical and service facilities can be resumed within required and business time scale during “disaster and non-disaster data recovery.” Quest Solutions will provide backup servers to the present running servers to make the service available to the customers by routing the data to the servers in a different location to ensure that the application is up and running during disaster recovery.

- Improve availability of services through proactive measures.
- Assess the impact of all changes to recovery plan.
- Support and monitor all scheduled outages.
- Provide service continuity to customers.
- Provide active-active infrastructure by having data centers at two different locations in case of any disasters.

10. Batch Turnaround Times

Our batch processing turnaround times are as follows:

- Our standard turnaround for student’s performance reports are immediately after the test has been taken which is provided to students file and uploaded by 8PM EST.

- Batch processing of cumulative quarterly performance reports will be available to MIT faculty online.
- Batch reports are available to view for MIT, which allows MIT to view performance on a monthly, weekly and annual bases.

11. Service Continuity

As part service continuity, Quest Solutions supports overall business continuity management by ensuring that the required IT Technical and service facilities can be resumed within required and business time scale during “disaster and non-disaster data recovery.” Quest Solutions will provide backup servers to the present running servers to make the service available to the customers by routing the data to the servers in a different location to ensure that the application is up and running during disaster recovery.

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- Assess the impact of all changes to recovery plan.
- Support and monitor all scheduled outages.
- Provide service continuity to customers.
- Provide active-active infrastructure by having data centers at two different locations in case of any disasters.

12. Security

In order to ensure security, Quest Solutions will provide MIT services with SSH (Secure Shell) for all round security of the data. In addition, Quest Solutions will also deliver the following security measures:

- Encryption of the MIT data.
- Regular upgrades based on new versions of applications on the market.
- Backup of data.
- Regular follow-up tests (functional test, stress test, scenario test and performance test) to ensure proper flow of applications.
- Regular risk analysis performed every quarter.
- Any and all changes to the service made only with explicit written prior consent of MIT.
- Security breach and risk monitoring, immediate notification to Customer upon incidence, and a solution delivered within 72 hours.
- Responsibility for loss of data due to a virus.
- Compliance to FERPA regulations and Customers institutional policies.

13. Responsibilities

13.1 The Provider's responsibilities in support of this agreement are as follows:

- Create an environment that is propitious to a mutual relationship between MIT and Quest Solutions to ensure the effective delivery of customer services provided.
- Clarify the details of services available and its levels that can be expected by customers.
- Initiate ticket system baseline concerning service requests and incidents managed within target response and resolution times.
- Outline processes to meet service level commitment.
- Generate quarterly reports for MIT regarding student performance and survey results.
- Provide a quarterly report of the service rendered with relevant statistical information such as volume and type of usage, summary of breaks and resolution times, results of scheduled maintenance/outages, results of security monitoring, risk analysis, customer support services summary.
- Supply the security package (anti-virus, firewall, SSH, encryption, patches, etc.).
- Maintain prompt and timely communication as needed with student users and MIT.

13.2 The Customer's responsibilities in support of this agreement are as follows:

- Understand and provide critical information within an hour of logging a request.
- Understand the Provider's security policies and procedures.
- Inform students on the expectations of the exit exam and exit survey.
Provide the test access code and information necessary to verify student and faculty status for user authentication.

14. Charging

Both parties hereby agree to the following fee for the IT service outlined herein this SLA for a period of one year commencing from the effective date of this agreement.

Services	No of hours	Cost
Development & Launch	200	\$8,000
Training (Step-by-step guides on line)	16	\$500
Service & Maintenance (backup)	variable	variable
Quarterly Report on Service	16	\$500
Security Package	40	\$1600
Customer Support	8	\$250
Total	280+	\$10,850

Payment

The Customer may opt to remit the payment of services in monthly instalments or balance in full. The Service Provider shall provide the Customer with an invoice in accordance with the payment option. Payment address, account number, payment due dates and late payment penalties shall be disclosed on the invoice. Any and all payments shall be due on or before the 20th day of the month. The first payment must be received by the Provider prior to the commencement of project development.

Penalties

The Service Provider agrees that in the event of a service breakdown or critical service failure exceeding the allowable service break time as specified in the Reliability section of this agreement, a penalty shall be imposed in the amount of \$500 per day for every day without services beyond the allowable service break time. The Customer shall provide the Provider with a written notice of penalty along with the payment address, account number, and due dates.

15. Service Reporting and Reviewing

As part of the key function of this service, the results of the exam will be available online to students in real-time as well as any applicable previous scores from previous attempts. Reports on the results per student along with information about the users, and cumulated data can be viewed and queried by faculty online through the faculty view year-round.

In addition to real-time reports available online, the Provider shall produce a report on this service entailing the various relevant statistics on the administration of this service (such as volume and type of usage, summary of breaks and resolution times, results of scheduled maintenance and unscheduled outages, summary of security breaches/attempts monitoring, risk analysis, network, backup servers) and provide an online access to the report for the Customer via the faculty view.

This SLA and/or service targets may be reviewed and revised upon request of the Customer as needed, but the terms and conditions set forth in this SLA shall remain effective until a subsequent revised version is in effect.

16. Glossary

Service	A business defined deliverable reinforced by one or more I.T. Systems, which supports the business to deliver its objectives
Penalties	Charged dependent on SLA breaches
Service Level Agreement (SLA)	Contract between provider and end-user

References

Symantec. “Symantec Protection Suite Add-On for Hosted Email Security.” 2010.
http://eval.symantec.com/mktginfo/enterprise/white_papers/b-sps_hosted_email_security_WP-21005054-1.en-us.pdf

Service Level Agreement Guide, difajolaqipehusi.ml/8420451/5676288/7ae676c-service-level-agreement-guide-e6b3d3

Purple Griffon Ltd. “Service Management Toolkit SLA.”
<https://purplegriffon.com/downloads/itil-templates/sla-template.pdf>