SPECIFICATIONS

Notes:

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- Data Restoration Policy per restore fees are separately charged per chargeable restore incident.
- o Additional Storage Annual Fees are separately charged.

+ Blackboard Learn SaaS Standard:

- Initial Term Annual Fee for each solution includes 1 TB of storage (unless otherwise stated on the Order Form)
- Additional storage for each solution is separately charged
- Includes pre-installed set of Blackboard, Premier Partner, commercial, and open-source Building Blocks defined by Blackboard. Customer is limited to this
 pre-installed set of Building Blocks and is prevented from removing/installing other Building Blocks.
- Non-Production Test Environment
 - o Includes instance of Test Environment in Blackboard's non-production environment designed to handle no more than 20 concurrent users at a time
 - o Includes 20 GB of storage.
 - o Is not designed to fully replicate or clone the production environment in terms of physical infrastructure or data set.
 - By its nature DOES NOT meet the Service Level specifications under Exhibit A, and therefore, DOES NOT qualify for Service Level Guarantees.

+ + Blackboard Learn SaaS Plus:

- Initial Term Annual Fee for each solution includes 1 TB of storage (unless otherwise stated on the Order Form)
- Additional storage for each solution is separately charged
- Flexible Deployment Option. Customers are on the Continuous Delivery update schedule by default and updates are automatically applied by Blackboard. UPDATE: Flexible Deployment Option is no longer available for selection. Customers that have selected the Flexible Deployment Option by 5/2019 may instead take major updates to their SaaS environment twice per year instead of on the Continuous Delivery schedule through the FDO release in Q4 2020. After July 31, 2020, all Learn SaaS customers will be on Continuous Delivery. In any event, maintenance, bug fixes, and security will still be deployed on a Continuous Delivery update schedule.
- Non-Production Test Environment
 - Includes instance of Test Environment in Blackboard's non-production environment designed to handle no more than 20 concurrent users at a time.
 - Includes 20 GB of storage
 - Is not designed to fully replicate or clone the production environment in terms of physical infrastructure or data set.
 - By its nature DOES NOT meet the Service Level specifications and therefore, DOES NOT qualify for Service Level Guarantees.
- Building Blocks
 - If Customer has implemented a Building Block into their SaaS Environment or plans to implement a Building Block, Customer must take the following steps before installing or updating a Building Block through the Admin Panel > Building Blocks > Installed Tools on a production environment:
 - Install or update on a Non-Production Test environment
 - Thoroughly test all Building Blocks in Non-Production test environment
 - Following a SaaS release to the Customers Non-Production Test environment, Blackboard recommends that the Customer test all
 installed Building Blocks before Blackboard's production release date.
 - If an issue arises with Customer's SaaS Environment, the Blackboard SaaS support team will work with the Customer to troubleshoot
 the problem.
 - If the Blackboard SaaS support team isolates the problem as related to one or several Building Blocks, then a) the SaaS support team may disable the Building Block to troubleshoot the issue further or to restore the overall service; and/or b) the SaaS support team may upgrade the Building Block to restore the overall service.
 - In the above situation, it is the Customers' responsibility to work with the Building Blocks vendor/developer to implement a fix before Blackboard re-enables the Building Block.
 - o For more information on installing a Building Block see Manage Learn SaaS Building Blocks.

+++ Blackboard Learn SaaS Advantage:

Includes Non-Production Test Environment, Staging Environment, and Service Delivery Team resources dedicated to SaaS Advantage level customers, all described below.

- Initial Term Annual Fee for each solution includes 1 TB of storage (unless otherwise stated on the Order Form)
- Additional storage for each solution is separately charged
- Flexible Deployment Option. Customers are on the Continuous Delivery update schedule by default and updates are automatically applied by Blackboard. UPDATE: Flexible Deployment Option is no longer available for selection. Customers that have selected the Flexible Deployment Option by 5/2019 may instead take major updates to their SaaS environment twice per year instead of on the Continuous Delivery schedule through the FDO release in Q4 2020. After July 31, 2020, all Learn SaaS cutomers will be on Continuous Delivery. In any event, maintenance, bug fixes, and security will still be deployed on a Continuous Delivery update schedule.
- Non-Production Test Environment
 - Includes instance of Test Environment in Blackboard's non-production environment designed to handle no more than 20 concurrent users at a time.
 - Includes 20 GB of storage.
 - $\circ \qquad \text{Is not designed to fully replicate or clone the production environment in terms of physical infrastructure or data set.} \\$
 - o By its nature DOES NOT meet the Service Level specifications and therefore, DOES NOT qualify for Service Level Guarantees.

Staging Environment

- Includes installation of Staging Environment on computer servers and systems in Blackboard's production environment.
- Includes 100 GB of storage (not including production clones).
- Is not designed to fully replicate or clone the production environment in terms of physical infrastructure.
- Per Customer request, Blackboard will provide up to four (4) clones of the Customer production data per year. This cloned data will not be backed up.
- Is designed for Customer to test and approve new update software and changes in software configuration before implementing such software in a
 production environment. It may not be used for production purposes.
- 99.7% Availability guarantee applies for all Staging Environments
- Direct Data Access Non-Production Database Server
 - Direct Data Access Non-Production Database Servers are intended for use with the Blackboard Open Database Schema
 - Direct Data Access environments are not to be used for Production purposes
 - A single username/password will be provided for access to the environment.
 - o The production database will be replicated automatically on a continuous basis to the Direct Data Access server environment.
 - Includes 700GB of server storage and grants access to the Full Database Schema with some restrictions in order to maintain a high level of security within the SaaS environment
 - The Non-Production Environment is not designed to fully replicate or clone the production environment in terms of infrastructure
 - Non-Production Environments by its nature DO NOT meet the Service Level specifications under Exhibit A, and therefore, DOES NOT qualify for Service Level Guarantees
 - Access to the Direct Data Access environment will be limited to a specific set of IP address via Blackboard's firewall
 - Users will have read-only access and can query the database using any desired SQL or reporting tool
 - Content files submitted into the system (e.g. Word documents and PowerPoint files) would not be copied and thus cannot be queried

· Building Blocks

- If Customer has implemented a Building Block into their SaaS Environment or plans to implement a Building Block, Customer must take the following steps before installing or updating a Building Block through the Admin Panel > Building Blocks > Installed Tools on a production environment:
 - Install or update on a Non-Production Test environment
 - Thoroughly test all Building Blocks in Non-Production test environment
 - Following a SaaS release to the Customers Non-Production Test environment, Blackboard recommends that the Customer test all
 installed Building Blocks before Blackboard's production release date.
 - If an issue arises with Customer's SaaS Environment, the Blackboard SaaS support team will work with the Customer to troubleshoot
 the problem.
 - If the Blackboard SaaS support team isolates the problem as related to one or several Building Blocks, then a) the SaaS support team may disable the Building Block to troubleshoot the issue further or to restore the overall service; and/or b) the SaaS support team may upgrade the Building Block to restore the overall service.
 - In the above situation, it is the Customers' responsibility to work with the Building Blocks vendor/developer to implement a fix before Blackboard re-enables the Building Block.
- For more information on installing a Building Block see Manage Learn SaaS Building Blocks.
- Service Delivery Team Resources
 - o Includes monthly utilization of dedicated Service Delivery Team staff resources.
 - Service Delivery Team consists of Service Delivery Manager (SDM) and Service Delivery Engineer (SDE) resources dedicated to select SaaS customers only, and the team resources can be purchased such that aggregate team resource utilization rate of on average 10 hours per week are available for Customers. A customer will receive individual SDM resource dedicated to customer in terms of the management, communication and documentation responsibilities outlined below AND SDE resource for premium level of support (dedicated Tier2 and Subject Matter Expertise on Blackboard Learn and a number of other Blackboard products). The Service Delivery Team will provide monthly Service Delivery Team resource utilization report to Customer, providing aggregate team resource consumption time detail.
 - Roles and responsibilities of the SDM will primarily fall under the following three objectives: management, communication and documentation.

 A. Management Plan and project manage Customer's SaaS infrastructure implementation, growth, and planned and reactive changes. To meet this objective, the SDM's tasks may include, but not be limited to, the following:
 - <u>Central Point of Contact and Escalation</u>: The SDM will be the central point-of-contact within Blackboard Client Support and
 maintain day-to-day knowledge of all plans, activities, and status of projects and issues involving Customer's SaaS environment
 and act as a coordinator within Blackboard for all operational and support issues on Blackboard products that Customer owns.
 - Infrastructure Management: Plan and manage projects involving Customer's environment for scalability, optimal performance, and growth in coordination with Customer and all elements within Blackboard
 - Internal Blackboard Delivery Coordination: Coordinate with Tier-1 Support Team, SDE resources, Cloud Operations and Engineering, Blackboard Consulting Project Management and other elements of Blackboard as needed to deliver and manage Customer's requirements
 - <u>Support Activities</u>: Manage directly support activities with SaaS and hosted Blackboard applications and infrastructure, leveraging Tier-1 team dedicated to Service Delivery Team and SDE resources, including but not limited to:
 - O Direct oversight of ticket prioritization and escalation within Blackboard
 - Risk assessment of support activities focused on impact analysis and evaluation based on updates and upgrades
 - Software Update Management: Customers are on the Continuous Delivery update schedule by default and updates are
 automatically applied by Blackboard. To the extent that the customer chooses the Flexible Deployment Option for Learn SaaS,
 design and implement SaaS testing and/or staging in coordination with Customer as necessary for testing and evaluation
 purposes. (The Flexible Deployment Option allows the customer to choose to take major updates to their SaaS environment
 twice per year instead of on the Continuous Delivery schedule. Maintenance, bug fixes, and security will still be deployed on a
 Continuous Delivery update schedule.)
 - Auditing: Regularly conduct systems audit and analysis on Customer's environment's performance and utilization for proactive
 monitoring, infrastructure management, forecasting and reporting purposes

- <u>Customer Business Planning Integration</u>: Keep master schedule of Customer's academic activities and key events/milestones.
 Communicate to entire Blackboard Team on critical events on the calendar.
- B. Communication Build and execute business processes for communication and Customer support (with a special focus on providing transparency and visibility into the purchased services and change management). To meet this objective, the SDM's tasks may include, but not be limited to, the following:
 - <u>Contact</u>: Be fully dedicated to Customer's Systems Administrators and Operations staff through a dedicated phone number/email/instant messenger (or other contact method) for day-to-day SaaS support requests and status reporting
 - <u>Project Communication</u>: Build two-way communication processes in coordination with Customer for project management, support issue review and escalation, and other communication procedures as necessary
 - Regular Reporting: Coordinate and facilitate regularly scheduled (weekly or monthly or quarterly) and ad-hoc project and status
 update meetings
 - <u>Channel Management</u>: Modify and update communication processes and channels as deemed necessary
- C. Documentation Document and report on Customer's SaaS environment, projects status, escalation issues, and other Customer-owned Blackboard products. Complete and thorough documentation will be a key aspect of meeting the management and communications objectives of the Service Delivery Team. As such, the SDM will provide the following documents during the life of the relationship between the SDM and Customer:
 - Operations and Plans: Develop detailed documents including Escalation process, Operations Handbook, Infrastructure overview and implementation plans
 - Regular Status Reporting: Document and provide weekly reports on all project plans and updates, and post-meeting (conference calls) minutes to Customer
 - Monthly Reporting: Document and provide monthly updated reports to Customer on items including but not limited to actual
 performance metrics against Service Level Agreement (SLA) requirements, monthly utilization rate of the Service Delivery
 Team resources, system utilization information and other relevant materials. Service Delivery Team will make best effort to
 customize the monthly reports per Customer's preferences.
 - <u>Change Management/Status (I)</u>: Provide timely and detailed reports of planned SaaS environment changes; planned or unplanned service outages, or degradation of services; and issue resolution reports
 - <u>Change Management/Status (II)</u>: Document and communicate any procedural changes that regulate the flow of updates to the production SaaS environment
 - <u>SLA Performance Reporting/Analysis</u>: Specifically against contractual SLA requirements, provide monthly reports on system
 utilization and performance, including host latency graphs, user activities summaries, and systems performance analysis. Goal
 will be to develop, mutually with Customer, a standard set of reporting for overall systems performance and management.

+ Blackboard Learn SaaS Update Support Add-On [OPTION ONLY AVAILABLE TO SAAS PLUS CUSTOMERS]:

Customers are on the Continuous Delivery update schedule by default and updates are automatically applied by Blackboard. UPDATE: Flexible Deployment Option is no longer available for selection. Customers that have selected the Flexible Deployment Option by 5/2019 may instead take major updates to their SaaS environment twice per year instead of on the Continuous Delivery schedule through the FDO release in Q4 2020. After July 31, 2020, all Learn SaaS customers will be on Continuous Delivery. In any event, maintenance, bug fixes, and security will still be deployed on a Continuous Delivery update schedule. To the extent that the customer chooses the Flexible Deployment Option for Learn SaaS, the SaaS Update Support option may be desirable to design and implement SaaS testing and/or staging in coordination with Customer as necessary for testing and evaluation purposes. During major update periods, this includes a Non-Production Staging Environment and a Platinum Project Manager, each described below.

- Non-Production Staging Environment
 - o Includes installation of Staging Environment on computer servers and systems in Blackboard's production environment.
 - o Includes 100 GB of storage (not including production clones).
 - o Is not designed to fully replicate or clone the production environment in terms of physical infrastructure.
 - o Includes cloning of Customer's production data set as needed for practice update purposes.
 - o Is designed for Customer to test and approve new update software and changes in software configuration before implementing such software in a production environment. It may not be used for production purposes.
 - 99.7% Availability guarantee applies for all Staging Environments
- The Platinum Project Manager is a proactive relationship manager whose primary goal is to manage the Customer's Flexible Deployment Option update periods from the Blackboard side. He/she will work as a single point-of-contact for such updates.
- Business Objectives of the Platinum PM (PPM):
 - Management
 - a. <u>Central Point of Contact and Escalation</u>: The PPM will be the central point-of-contact within Blackboard during the update period, lasting no longer than three months per update with no more than two major updates during a year term.
 - b. <u>Internal Blackboard Delivery Coordination</u>: Coordinate with Blackboard Consulting Project Management, Developers, Customer's technical support team, Cloud Operations, Engineering, and other elements of Blackboard to deliver and manage Customer's requirements during the update periods.
 - c. <u>Infrastructure and Software Update Management</u>: Design and implement SaaS environment testing and/or staging in coordination with Customer as necessary for testing and evaluation.
 - 2. Communication
 - a. <u>Contact</u>: Be dedicated to Customer's Systems Administrators and Operations staff through a dedicated phone number/email/instant messenger (or other contact method) for day-to-day SaaS environment update project status reporting.
 - b. <u>Project Communication</u>: Build pro-active, two-way communication processes in coordination with Customer for update project management, support issue escalation during the update project period, and other communication procedures as necessary.
 - Regular Reporting: Coordinate and facilitate regularly scheduled (weekly or bi-weekly) and ad-hoc project and status update meetings surrounding the update project.
 - Documentation

a. <u>Update Project Planning and Regular Status Reporting</u>: Document update project plans with milestones, timelines, and resource requirements. Provide weekly updates to Customer on status of the project plan until the update has completed successfully with the Customer's approval for project closure.

+ Blackboard Learn SaaS Staging Environment Add-On: [OPTION ONLY AVAILABLE TO SAAS PLUS CUSTOMERS]

- Staging Environment
 - o Includes installation of Staging Environment on computer servers and systems in Blackboard's production environment.
 - o Initial term fee includes 100 GB of storage (not including production clones).
 - The Staging Environment is not designed to fully replicate or clone the production environment in terms of infrastructure.
 - o Per Customer request, Blackboard will provide up to four (4) clones of the Customer production data per year. This cloned data will not be backed up.
 - The Staging Environment is designed for Customer to test and approve new update software and changes in software configuration before implementing such software in a production environment. It may not be used for production purposes.
 - o 99.7% Availability guarantee applies for all Staging Environments

+ Blackboard Learn SaaS Direct Data Access Non-Production Database Server Add-On: [OPTION ONLY AVAILABLE TO SAAS PLUS CUSTOMERS]

- Direct Data Access Non-Production Database Servers are intended for use with the Blackboard Open Database Schema
- Direct Data Access environments are not to be used for Production purposes
- A single username/password will be provided for access to the environment
- The production database will be replicated automatically on a continuous basis to the Direct Data Access server environment.
- Initial Term Fee includes 700GB of server storage and grants access to the Full Database Schema with some restrictions in order to maintain a high level of security within the SaaS environment
- The Non-Production Environment is not designed to fully replicate or clone the production environment in terms of infrastructure
- Non-Production Environments by its nature DO NOT meet the Service Level specifications under Exhibit A, and therefore, DOES NOT qualify for Service Level Guarantees
- Access to the Direct Data Access environment will be limited to a specific set of IP address via Blackboard's firewall
- Users will have read-only access and can query the database using any desired SQL or reporting tool
- · Content files submitted into the system (e.g. Word documents and PowerPoint files) would not be copied and thus cannot be queried

+ + Blackboard Learn SaaS Archive:

- Includes instance of Archive Environment designed for no more than 20 concurrent users.
- Does not replicate the availability or scalability features of the production environment, therefore DOES NOT qualify for Service Level Guarantees.
- Updates are automatically applied by Blackboard.
- Initial Term Annual Fee for each solution includes 1 TB of storage (unless otherwise stated on the Order Form). Additional storage for each solution is separately charged
- Includes Support assistance with up to two (2) bulk course archive imports annually. Additional bulk imports can be purchased separately.

+ Blackboard Learn SaaS Service Delivery Team Upgrade Add-On: [OPTION ONLY AVAILABLE TO SAAS ADVANTAGE CUSTOMERS]

- Service Delivery Team Resources
 - o Includes monthly utilization of dedicated Service Delivery Team staff resources.
 - o FOR SAAS ADVANTAGE CUSTOMERS:
 - Service Delivery Team consists of Service Delivery Manager (SDM) and Service Delivery Engineer (SDE) resources dedicated to SaaS
 customers only, and the team resources can be purchased such that aggregate team resource utilization rate of an additional 10 hours per week
 on average are available for Customers above what is included in SaaS Advantage.
 - For example, a SaaS Advantage customer that chooses a 10 hours per week SaaS SDM Upgrade Add-On will have a total SDM commitment of 20 hours per week − 10 that come with SaaS Advantage and 10 from the upgrade.
 - O A customer will receive individual SDM resource dedicated to customer in terms of the management, communication and documentation responsibilities outlined below AND SDE resource for premium level of support (dedicated Tier2 and Subject Matter Expertise on Blackboard Learn and a number of other Blackboard products). The Service Delivery Team will provide monthly Service Delivery Team resource utilization report to Customer, providing aggregate team resource consumption time detail.
 - Roles and responsibilities of the SDM are as detailed in the specifications for SaaS Advantage.

EXHIBIT A - Service Levels

These terms are subject to change by Blackboard from time to time, with or without notice to you, and any such change shall be effective upon posting.

SaaS Software Setup and Access

Blackboard is responsible for the setup and initial configuration of the SaaS Software, including all elements reasonably necessary to operate and maintain the SaaS Software. Setup and initial configuration occurs after Customer execution of the applicable Order Form and varies in duration depending on the type of SaaS Services ordered and the extent of any migrations from existing services. Customer is responsible for providing Blackboard sufficient information required by Blackboard to perform its obligations herein. If Customer does not take the required steps to enable or access the SaaS Software within 90 days of the Effective Date of the applicable order form, then delivery of such software shall be deemed complete.

Following setup and initial configuration, Blackboard shall provide Customer with the procedures necessary to enable Customer's access and use, and Customer's provisioning of its Authorized End Users' access and use of the SaaS Software as contemplated herein. The procedures may include access codes, passwords, technical specifications, connectivity standards, and protocols.

Service Levels and Credits

Blackboard shall use commercially reasonable efforts to make the SaaS Software Available, as defined below, twenty-four (24) hours a day, seven (7) days a week, with a minimum targeted uptime of 99.9% per calendar month. The SaaS Software shall be considered "Available" unless and to the extent an Authorized End User cannot reasonably access the SaaS Software other than as a result of (a) scheduled maintenance, (b) issues outside the reasonable control of Blackboard, (c) Force Majeure Events, or (d) third-party software integrations requested or deployed by Customer. Without limiting the foregoing, Blackboard reserves the right to allocate, limit or delay delivery of, or suspend access to the SaaS Software, in whole or in part, where necessary or commercially appropriate, upon the occurrence of any situation or event (including without limitation, a Force Majeure Event) whereby the performance or operation of our Products or Services become overburdened oimpaired, or their economic viability is otherwise affected, and during such period the service performance will not be part of the analysis of Availability

Service credits for Blackboard's failure to meet the Availability service level of 99.9% per calendar month are as follows:

Length of Unavailability (per calendar month)

>0 to 4 aggregate hours below 99.9% Availability 4 to 48 aggregate hours below 99.9% Availability 48 to 96 aggregate hours below 99.9% Availability

SaaS Software Service Credit

1 day of service fees (i.e., 1/30 monthly fees) 2 days of service fees (i.e., 1/15 monthly fees) 5 days of service fees (i.e., 1/6 monthly fees)

Upon Customer's request within seven (7) days from the end of the applicable calendar month, Blackboard will provide a report showing service level performance for the preceding month. Customer must notify Blackboard of its request for any earned service credits within seven (7) days from receipt of the report for the applicable calendar month or the credits are forfeited. In order to be eligible, Customer must be in compliance with the Agreement, including all contracted limitations, including but not limited to, Active User Capacity and storage quota, and be operating in the current version of the SaaS Software. Our failure to satisfy a service level shall not be a breach of any Agreement and your sole and exclusive remedy in such event shall be these service credits. The aggregate maximum number of service credits to be issued by Blackboard to Customer for any and all such failures during any given calendar month shall not exceed the fees for one month of service. All service credits shall be applied to the next period's SaaS Software fees.

Monitoring and Maintenance

Ongoing Monitoring

The SaaS Software is monitored and maintained in accordance with industry standards. Blackboard implements a software monitoring system to provide real-time information about the SaaS Software environment to Blackboard system administrators. Blackboard shall monitor and maintain the environment to ensure appropriate operation, in its sole discretion. Customer shall be notified by email in advance of periods of scheduled maintenance and required repairs.

Backup and Disaster Recovery

Blackboard provides comprehensive redundant backups. Blackboard implements a backup strategy of performing daily backups and retains backup data for one month. Where possible, data is replicated to an offsite location. In the event of a disaster, Blackboard will use reasonable efforts to restore service. Blackboard will not attempt to restore service if such attempt may, in Blackboard's sole discretion, put Blackboard, its employees, or its agents at risk for injury.

Outages

Upon receipt of notification of a problem with the SaaS Software, Blackboard will investigate the problem and determine if a System Outage exists. For purposes of this subsection, a "System Outage" means the SaaS Software is not Available. If the problem is due to a System Outage, Blackboard will notify Customer's designated technical contact via email. This notice will include the reason for the System Outage and estimated time for restoration of SaaS Software, to the extent known by Blackboard at the time of such notice. Blackboard will promptly commence remedial activities and use commercially reasonable efforts to resolve the System Outage within the time estimate provided to Customer.

Following recovery from any System Outage, Blackboard will provide Customer with a post-incident summary that includes:

- cause of the System Outage (if determined);
- method used to correct the problem; and
- measures Blackboard will take to prevent similar System Outages in the future (if any).

^{*}Each block of 96 hours below 99.9% Availability thereafter shall be credited 5 days of service fees.