



## **SERVICE LEVEL AGREEMENT**

Infrastructure Services for

Virtual Machine Hosting

Version: 1.6

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## 1.0 Document Change History

<b>Version</b>	<b>Date</b>	<b>Updated By</b>	<b>Changes to this version</b>
<b>1.0</b>	3/17/2017	Rachel Moorehead	Document creation
<b>1.1</b>	3/23/2017	Rachel Moorehead	Feedback from I&O Leadership Team
<b>1.2</b>	4/20/2017	Rachel Moorehead	Feedback from UAB Information Security
<b>1.3</b>	5/1/2017	Rachel Moorehead	Posted for New Customers
<b>1.4</b>	8/1/2018	Rachel Moorehead	Updated for FY19
<b>1.5</b>	7/31/2019	Rachel Moorehead	Updated for FY20
<b>1.6</b>	3/23/2021	Rachel Moorehead	Updated for FY21 & FY22

Last Reviewed Date: 3/23/2021

Next Scheduled Review Date: 8/1/2022

## 2.0 Overview

### 2.1 SLA Introduction

This Service Level Agreement, henceforth also known as “SLA,” is between the University of Alabama at Birmingham Information Technology (UAB IT/Service Provider), henceforth also known as “UAB IT” and the client for all services and service levels in connection to the Virtual Machine (VM) Hosting service, henceforth also known as “Service.”

### 2.2 SLA Purpose

The purpose of this SLA is to set expectations for the provision of the Service as it is defined herein with regard to:

- Requirements for VMs that can be hosted
- Criteria that will be used to measure the Service
- Agreed service level targets
- Roles and responsibilities of UAB IT and Client
- Escalation contacts
- Associated and supporting processes as well as any deviations

## 3.0 Service Description, Virtual Servers & Targets

### 3.1 Virtual Server Options

This service is to host a virtual machine on UAB IT's infrastructure platform with one of the following systems:

- VM with Infrastructure Supported Unix/Linux Environment
- VM with Infrastructure Supported Windows Environment
- Vendor provided VMDK

UAB IT is responsible for maintaining the underlying on-premises hardware, network, and storage, and cloud agreements and configurations. Any hardware purchased for a specific Client's need will be purchased by UAB IT Infrastructure utilizing our common hardware standards and may be used within our shared infrastructure.

For a VM with an Operating System installed, UAB IT will manage up to the Operating System (OS) layer, including the licensing for the Operating System. Additionally, UAB IT will install a standard set of clients on the VM to support the functionalities provided by UAB IT and should not be removed. Henceforth referred to as a Gold Standard image.

The Client, or a designated business partner, is responsible for the support and patching of the application residing on the virtual server unless otherwise purchased as an Add-on service. The Client is responsible for the application licensing and acceptable use of installed application components.

Please refer to Appendix F for supported operating systems, CPU, memory and storage configuration options and pricing.

### 3.2 Service Availability Targets

The Service for hosting Production instances will be available to Clients on a 24x7 basis except for maintenance windows or other scheduled or application specific maintenance.

It is our aim to ensure that the services supporting the Service are deemed reliable in terms of availability and performance. Therefore, we will measure the reliability using Mean Time Between Failures (MTBF) and compute the average (by month and year) time between each 'failure'. UAB IT will strive to achieve a MTBF of 100 days at the minimum.

A failure is defined as any UAB IT infrastructure related incident causing the Service to be unavailable.

This can also include severe performance degradation.

The target availability of VM Hosting is 99.9%. (See Appendix B)

### 3.3 Service Maintenance

Maintenance includes but is not limited to: adding/removing/replacing hardware on servers or network, bringing new servers online, patching servers/workstations/network devices, installing new/updated software on servers/workstations/network devices, moving servers to the cloud, etc. The network and/or systems will be interrupted only if it is necessary.

Maintenance Windows: Standard, Non--Standard, Emergency

A Standard Maintenance Window has been established for all UAB IT services, including the Service.

For Development and Staging environments, the Standard Maintenance Window is the first Friday night – Saturday morning after the second Tuesday each month from 7pm Friday night to 12pm (noon) Saturday.

For Production environments, the Standard Maintenance Window is the second Friday night – Saturday morning after the second Tuesday each month from 7pm Friday night to 12pm (noon) Saturday.

If there is a need for a change outside the hours of the Standard Maintenance Window, the resulting Non--Standard Maintenance Window will require a formal approval from the UAB IT business service owner.

It is understood that in some circumstances, Emergency Maintenance Windows will be required for items such as, but not limited to, zero-day vulnerability patching.

#### Maintenance Notifications/Announcements

UAB IT will announce all Maintenance Windows (Standard, Non--Standard, and Emergency) including which services will be affected and approximate durations, in the following ways:

1. On the UAB IT Status website: <http://status.uab.edu>
2. (For Emergency only) Via email to Hosting Customers email list:
  - a. Client must provide UAB IT with a valid designated representative or group email address to be added to the distribution list. Henceforth referred to as “Technical Contact”.
  - b. Client must notify UAB IT promptly in the event of any change/update for that representative or group email address.

### 3.4 Service Security

Services provided by UAB IT will conform to UAB IT’s security and data classification policies outlined at <https://www.uab.edu/it/home/policies>.

If it is determined that any component of the Service is adversely impacting service availability, e.g., a Denial-of-Service condition, UAB IT reserves the right to terminate the Service immediately until the impacting condition is remediated.

Upon provisioning of the Service, you will receive access instructions. Please note that in order to uphold UAB IT's policies and this SLA, the following restrictions will apply:

1. UAB IT Infrastructure will be the sole possessor of root or administrator credentials to the server.
2. You will be given an account with sufficient privileges to perform basic application administration.
3. Each VM will be configured with UAB IT management tools, which cannot be disabled and which must remain operational so that we can manage the environment.
4. Each VM will be scanned for security vulnerabilities on a monthly basis.
5. Each VM will be provisioned in a designated security zone based on your initial configuration. Should you require additional access or ports, you will need to submit a Service Request ticket.
6. Virtual machines will be accessible via secure methods only e.g. via SSH, designated jump hosts or using BlazerID & Duo 2-factor authentication. Details will be provided in your access instructions.
7. Failure to complete any UAB IT infrastructure requests within 2 weeks or to properly remediate any UAB IT Enterprise Information Security reported vulnerabilities within a pre-defined timeline may result in the Service being suspended.



## 4. Service Management, Support & Escalation

### 4.1 Support Hours

Infrastructure services defined in this SLA will be supported on a 24x7x365 basis. Live technical support is available:

- 7:00am--7:00pm CT, Monday through Friday, excluding all holidays and university closures.
- Outside normal coverage hours, UAB IT will work to resolve issues on a best effort basis.

### 4.2 Support Phone Contact

Client can contact UAB IT Service Desk, AskIT, for support by calling 205-996-5555.

### 4.3 Service Desk

UAB IT will respond to all faults, queries, and service requests only if a call is placed with the Service Desk. By enforcing this policy, UAB IT can ensure that all faults are managed effectively and in line with the commitments of this SLA. It is imperative that any issues deemed Critical in their nature are reported to the Service Desk by phone to ensure immediate response and investigation can occur.

Other issues can be reported via email to: [askit@uab.edu](mailto:askit@uab.edu).

UAB IT Service Desk will log, track, assign, and manage all requests, incidents, problems, and queries through UAB IT's service ticket system. The Client should provide as much detail as possible when submitting requests through the Service Desk to ensure proper routing and timely assistance. When the Service Desk cannot provide a resolution at the time of call logging, they will provide:

- Unique reference number (Incident Ticket)
- Priority assigned to the call

### 4.4 Incident and Major Incident Management

The purpose of the Major Incident process is to ensure that all faults and queries reported to the Service Desk are managed to minimize business impact by restoring service as soon as possible in accordance with the SLA. The following processes are employed for the management of UAB IT incidents:

- Incident Management
- Major Incident Management

Priority definitions and associated resolution times have been agreed with regards to all faults reported to the Service Desk and will follow targets outlined in Appendix D.

#### 4.5 Change Management

All UAB IT/Client proposed changes must adhere to the pre-defined Change Management process (see Appendix E). UAB IT will take responsibility for the Request For Change (RFC) evaluation, impact assessment, risk analysis, approval and communication prior to implementations where applicable. Failure to adhere to the Change Management process will be deemed as a breach of this SLA. Restarting a Production service outside of an approved change or an emergency maintenance window will be deemed as a breach of this SLA.

#### 4.6 Handling and Response times

UAB IT will work to resolve known/reported service problems and provide relevant progress reports to the Client.

##### Handling

- Requests for support will be fulfilled based on priorities (Critical, High, Medium, Normal) which are determined by urgency and level of impact -- see below.
- Response is defined as a “good faith” effort to communicate with the Client using contact information provided. Response may be via phone or voice mail, e-mail, or personal visit.
- Response times for service requests are measured once a request is submitted via the UAB IT issue tracking system. Other forms of contact may negatively affect the ability of UAB IT to meet the requests in a timely fashion. Examples include direct email/phone/other contact with individual support personnel.

##### Response Times

Response will be driven by the Priority assigned to the Service as defined in this SLA (See Appendix D).  
Note: Complex service and support requests involving the procurement/installation of new equipment, coordination with 3rd parties, etc., may require additional effort and time to resolve.

#### 4.7 Escalation Requests and Procedures

Escalation requests should only be submitted under the following circumstances:

- Client has encountered a critical roadblock or showstopper to an approved implementation or upgrade plan.
- Client urgently needs to communicate an important business issue or change in scope or impact.
- Client is dissatisfied with the resolution or response to an incident/problem/request.

Before Escalation, a client review of the documented Service Desk incident/problem/request should take place and be updated if necessary, for changes in impact, priority, timeline, and acceptance of supplied workarounds.

#### Escalation Procedures

1. In the event of an Escalation, the Client will contact the UAB IT Service Owner identified in Appendix A to request escalation of an incident/problem/request and will supply the Service Desk tracking number for review.
2. If needed a joint meeting between the Client and UAB IT will be convened to discuss and resolve issues to the Client's satisfaction.
3. If additional escalation is determined to be necessary, UAB IT will escalate to its Senior Leadership Team for a resolution.
4. UAB IT may periodically request the Client's feedback during this process.

## 5. Conditions of Services Provided

### 5.1 Standards and Policies

The operation of this SLA will be subject to the UAB IT's policies and standards outlined at <https://www.uab.edu/it/home/policies>.

In the event of any changes that may have an impact on the performance of the Service, UAB IT will inform the Client at least 3 business days (per the defined Change Management policy) prior to any change. See Appendix E.

### 5.2 Responsibilities & Exclusions

Both parties agree to act with good intentions.

#### UAB IT Responsibilities

1. UAB IT shall provide the services identified in the SLA and shall ensure the services are always maintained and to pre-defined standards. UAB IT agrees to exercise professional care and diligence in the discharge of all the services and to comply in all respects with relevant standards.
2. UAB IT will act as owner, supplier, maintainer, and supporter of the herein identified and defined UAB IT Services that have been requested/required by the Client, except where UAB IT has employed third parties who will assume those responsibilities.
3. UAB IT will be responsible for day-to-day management of the SLA and liaise with the Client to ensure that information flows freely between both parties.
4. UAB IT will follow established internal processes/procedures and adhere to policies and standards.
5. UAB IT will not make changes to the systems/services offered without prior notification and Client approval through the defined Change Management process.
6. UAB IT will inform the Client in the event of any incident likely to affect the availability or performance of their applications.

#### UAB IT Exclusions

7. UAB IT is not responsible for unsupported configurations that deviate from our technology standards unless an explicit exemption has been granted.
8. UAB IT is not responsible for services that have no formal support agreements or contracts relating to service availability and incident response or fix times on IT/Network components, which are the responsibility of an external vendor.

#### Client Responsibilities

9. Client shall provide all necessary information, assistance and instructions in a manner that enables UAB IT to meet performance standards, for example, by the giving of adequate notice

and disclosing of all known relevant information, including changes to standard patching windows.

10. Client is required to ensure attendance/participation at Major Incident and Problem review meetings as requested by UAB IT to assist with the definition of service impact.
11. Client is required to advise the appropriate UAB IT team if the requirements of the business change and the need for a review of the SLA is identified.
12. Client acknowledges that from time to time a complete operating system lifecycle upgrade will be necessary for long running systems. Client is required to coordinate and be available for these lifecycle upgrades within 6 months of notification of impending upgrade for testing and rollout of new or upgraded servers.
13. Client shall only run Production services in a Production environment and Development/Staging services in a Development/Staging environment. Client is required to advise the appropriate UAB IT team if the state of a hosted VM or Service has changed and to schedule an appropriate migration if needed.
14. Client is required to report all issues, queries and requests via appropriate channels and processes.
15. Client is required to have a working knowledge of their services and technical requests and to participate in the design of an architecture diagram of their service including firewall ports, data security requirements, special requirements for monitoring, and service lifecycles.
16. Client is responsible for obtaining professional services, either UAB IT or external, if they require assistance off boarding from the Service at the end of the service contract.
17. Client is responsible for authorizing users within their services, beyond general BlazerID authentication or campus network access. Exceptions should be submitted to UAB Information Security.

## APPENDICES

### APPENDIX A: UAB IT Service Owners & Order of Escalation

<b>Name</b>	<b>Job Title</b>	<b>SLA Role</b>	<b>Contacts</b>
<b>Infrastructure Services</b>			
<b>Alan Arnold</b>	IT Manager	UAB Infrastructure Operations	alanarno@uab.edu (205) 934 - 1270
<b>R Keith Johnson</b>	IT Director	UAB IT SLA Management	keithjohnson@uab.edu (205) 996 - 9797
<b>Rachel Moorehead</b>	Executive Director	UAB IT Service Owner	rmoorehead@uab.edu (205) 934 - 5065

## APPENDIX B: Availability Percentages

Availability is expressed as a percentage of uptime each year. The following table shows the downtime that will be allowed for a particular percentage of availability, presuming that the system is required to operate continuously 7x24 basis. The table shows the translation from a given availability percentage to the corresponding amount of time a system would be unavailable per year or month.

NOTE: If an application will not require a 7x24 availability these examples do not apply. In such cases, UAB IT will negotiate with the application owner for allowable downtime.

Availability is calculated using the following formula:

$$\text{Availability \%} = (\text{Promised uptime} - \text{actual uptime}) / \text{Promised uptime}$$

where promised uptime is exclusive of maintenance windows.

Availability for 7x24	Downtime per year (Days H:M:S)	Downtime per month (Days H:M:S)
95%	18 days 6:00:00	1 days 12:00:00
96%	14 days 14:24:00	1 days 4:48:00
97%	10 days 22:48:00	0 days 21:36:00
98%	7 days 7:12:00	0 days 14:24:00
99%	3 days 15:36:00	0 days 7:12:00
99.10%	3 days 6:50:24.00	0 days 6:28:48.00
99.20%	2 days 22:04:47.99	0 days 5:45:35.99
99.30%	2 days 13:19:12.00	0 days 5:02:24.00
99.40%	2 days 4:33:35.99	0 days 4:19:11.99
99.50%	1 days 19:48:00	0 days 3:36:00
99.60%	1 days 11:02:24.00	0 days 2:52:48.00
99.70%	1 days 2:16:47.99	0 days 2:09:35.99
99.80%	0 days 17:31:12.00	0 days 1:26:24.00
99.90%	0 days 8:45:35.99	0 days 0:43:11.99
99.95%	0 days 4:22:47.99	0 days 0:21:35.99
99.99%	0 days 0:52:33.60	0 days 0:04:19.20
100.00%	0 days 0:05:15.36	0 days 0:00:25.92

APPENDIX C: Request fulfillment times

<b>Infrastructure component</b>	<b>Target Fulfillment time</b>
<b>Gold Image Deployment</b>	7-10 business days
<b>Additional Compute Power (vCPU, &lt;4)</b>	3-5 business days
<b>Additional Memory (GB, &lt;8GB)</b>	3-5 business days
<b>Additional Storage allocation (TB, &lt;2TB)</b>	3-5 business days
<b>Additional Storage tier relocation</b>	3-5 business days
<b>Alternative Image Deployment (VMDK, etc.)</b>	40 business days/2 months
<b>Custom Application Installation</b>	40 business days/2 months



## APPENDIX D: Priority Definitions

The following priority definitions and associated resolution times have been defined with regards to all faults reported to the UAB IT Service Desk:

<b>Priority</b>	<b>Response Time</b>	<b>Response Targets</b>	<b>Resolution Time</b>	<b>Resolution Targets</b>
<b>Critical</b>	30 minutes	95%	2 hours	80%
<b>High*</b>	2 hours	90%	12 hours	80%
<b>Medium*</b>	12 hours	80%	24 hours	75%
<b>Normal*</b>	24 hours	75%	56 hours	70%

\* Represents Business Hours Only (e.g., an 8-hour resolution for a High Priority Incident that is reported at 12:30pm CT on a Tuesday will continue until 12:30pm on Wednesday).

**Response Time:** The initial period in which an UAB IT Subject Matter Expert (SME) will be assigned to the incident.

**Update Time:** The period by which UAB IT will provide progress update to the Client.

**Resolution Time:** The period by which UAB IT will resolve the issue.

UAB IT will base a call's priority on the following factors: Criticality of the issue and the impact; number of users impacted; University/Business critical dates/times.

### 24 Hour Commitment to Critical Requests

UAB IT will work 24x7 until the issue is resolved or if useful progress can be made. Client must provide UAB IT with a contact during this 24x7 period, either on site or by phone, to assist with data gathering, testing, and applying fixes. Client is requested to propose this priority classification with great care, so that valid Critical situations obtain the necessary resource allocation from UAB IT.

## APPENDIX E: UAB IT Technical Standards and Policies

### **Data Protection and Security Policy**

<https://www.uab.edu/policies/content/Pages/UAB-IT-POL-0000038.html>

### **Data Classification Rule**

<https://www.uab.edu/it/home/policies/data-classification/classification-rule>

### **Acceptable Use Policy**

<https://www.uab.edu/policies/content/Pages/UAB-IT-POL-0000004.html>

### **UAB IT Change Management Standard**

[https://uabprod.service-now.com/kb\\_view\\_customer.do?sysparm\\_article=KB0011095](https://uabprod.service-now.com/kb_view_customer.do?sysparm_article=KB0011095)

## APPENDIX F: Pricing Model

### Standard Virtual Machine Pricing

Server Support: \$150/month plus Virtual Machine: \$75/month. Other configurations will be quoted. Includes patching, monitoring, break/fix, data backup with offsite replication.

### Included Operating Systems:

Server - Windows Server 2016 and 2019, RHEL 7 and 8, (CentOS only as required for application supportability).

*Note: Windows Server 2012 R2 is no longer offered after 1/1/2021.*

### Standard Storage Pricing

Server Storage (Tier 2): \$0.83/GB/month. Specialty configurations will be quoted. Storage utilized for operating system is not billed (first 50 GB on Linux-based VM and first 100GB on Windows VM).

### Shared SQL Cluster Storage Pricing

Any dedicated mounts on the Shared SQL Clusters will be billed at the regular storage rates above. There are no current service rates beyond that associated with SQL Hosting.

Reference: <https://commservices.comm.uab.edu/ITRates/All/Menu.aspx>