

UFIT Hosting Services

SERVICE LEVEL EXPECTATIONS (SLE)

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Purpose

This Service Level Expectations (SLE) document defines the Hosting Services offered by UFIT and provided by UFIT Infrastructure and Communications Technology (UFIT-ICT). This document includes:

- An overview of the technology services provided including:
 - Infrastructure hosting services
 - Managed Platform hosting services
- The general levels of response, availability and maintenance associated with these services
- The responsibilities of UFIT and the coordination of these services with customers
- Process for requesting and submitting changes to these services

The SLE will remain valid effective at the start of any customer service and revised as needed to continue to improve customer support and to follow UFIT current processes and procedures.

Service Description

UFIT-ICT provides a portfolio of Infrastructure and Platform Hosting offerings. These services are provided to enable UF organizations meet their server and storage needs without losing focus on their core missions. All of these services leverage UFIT's private cloud to make enterprise-class computing, storage, and/or application environments available to UF colleges, departments, and other official entities for purposes of conducting official UF business. These services include:

Infrastructure Hosting

- Virtual Machine (VM) Hosting: Virtual Machine (VM) hosting provides "bare-metal" VMs so that your organization's IT staff can run dedicated and highly customized Linux or Windows systems. This allows your IT staff to focus on your computing needs without the worry of purchasing and maintaining hardware resources.
- File Server Hosting: File Server Hosting allows your UF organization to lease fully managed file server resources (accessible via SMB or NFS) from within UFIT's existing infrastructure. This will allow your project to succeed without the worry of purchasing and maintaining hardware resources or administering servers. Your file server will live in UF's private file server cloud.

Managed Platform Hosting: Linux or Windows-based

Linux-based application environment

This platform leverages open-source technologies built on Red Hat Enterprise Linux to provide an enterprise-class environment for your web applications. UFIT manages all aspects of load-balancing, high-availability, capacity scale-out, back-ups, and disaster recovery so that your IT staff can focus on the content and functionality of your web apps.

The core technologies in UFIT's Linux-based application environment are the Apache webserver and MySQL database server.

- Apache Website Hosting: Apache Website Hosting provides managed Apache/Linux website resources from within UFIT's infrastructure to run your website. This will allow your project to succeed without the worry of purchasing and maintaining hardware and system software

resources. Your website will live in UF's private computing cloud which includes a number of features to make your site highly-available and disaster-hardened.

- **MySQL Database Hosting:** MySQL database hosting provides managed MySQL database resources within UFIT's infrastructure. This will allow your project access to managed database resources without the worry of purchasing computing hardware, managing operating system or DBMS software. Additionally your IT staff will be able to leave disaster recovery and data center concerns to UFIT.

Windows-based application environment

This platform leverages Microsoft technologies built on Windows to provide an enterprise-class environment for your web applications. UFIT manages all aspects of scale-out, high-availability, and disaster recovery so that your IT staff can focus on the content and functionality of your web apps.

The core technologies in UFIT's Windows-based application environment are the IIS webserver and MS-SQL database server.

- **IIS Website Hosting:** IIS Website Hosting provides IIS/Windows Server website resources from within UFIT's enterprise infrastructure to run your website. This will allow your project to succeed without the worry of purchasing and maintaining hardware and system software resources. Your website will live in UF's private computing cloud which can include a number of features to make your site highly available and disaster-ready.
- **MS SQL Database Hosting:** MSSQL Hosting provides managed MSSQL resources from within UFIT's enterprise infrastructure. This service allows your IT staff to focus on database and application development and operations without the burden of maintaining servers, operating system software or RDBMS software. Your database will live in UFIT's highly-available and disaster hardened MSSQL environment which is designed with redundancy on multiple infrastructure layers to provide continuity of operation.

Roles & Responsibilities

The specific roles and lines of responsibilities vary from service to service; however, there are common elements across all services. These common threads are as follows.

UFIT is responsible for:

- Installation, maintenance, and support of the physical components that constitute hosting service resources including: datacenter space, power, cooling, physical installation of servers and storage components, physical network connectivity, and load balancing where applicable.
- Maintain technical service, hardware and support agreements for systems and applications provided.
- Design and implementation of platforms underlying hosted service offerings.
- Meeting service response times for requests and incidents.
- Notification of planned outage at least 24 hours in advance via UFIT Alerts and service-specific customer email lists.
- Notification of significant unplanned service interruptions / outages via UFIT Alerts and service-specific customer email lists.

Additionally, UFIT-ICT coordinates with the UFIT Help Desk / Single Point of Contact portal who: establishes the priority of the call/request, engages NS support, responds and resolves support request to meet target response and resolution times, and communicates the solution to the customer and solicits feedback and closes request when complete.

The customer is responsible for:

For issues of support, the customer is generally responsible for determining if issues require UFIT support. If UFIT support is required, the customer's local, knowledgeable IT staff is expected to understand the environment of the issue, attempt to isolate the problem, review department process and procedures for support and consult with affected users prior to requesting UFIT assistance.

If the issue cannot be isolated, collect clear and pertinent information including customer name and contact information, identification of the device or service (e.g. system in use, user ID, any error messages, time frame of issues, etc.) and contact the UFIT Help Desk portal (call or online). The customer should determine and communicate the urgency based on the impact of the issue from an individual, department/unit or overall university perspective.

The primary exception to this level of expected due diligence is in reporting system outages.

General expectations of customer's responsibilities:

- Maintaining localized IT expertise to handle delivery and support of hosted services to end users and localized administration of the UFIT-provided resources.
- Ownership of hosted applications and data.
- Ensuring that the correct service options are selected to meet business requirements.
- Paying for service.

Maintenance

Maintenance of UFIT Hosting Service is defined as the upgrade or replacement of hardware and/or software platforms. The standard UFIT maintenance windows are defined as Sunday 6:00 AM to 9:00 AM and Tuesday 5:00 AM to 6:30 AM. UFIT also coordinates with customers directly to schedule special maintenance windows to accommodate users' needs (e.g. this has included Saturday mornings or Friday evenings).

All changes implemented by UFIT are communicated to the customer so that they may be aware of any production changes. If replacement of equipment is required due to a problem, the equipment may be replaced outside of the standard maintenance window hours.

Service Measurements & Monitoring

Measures: The service availability target of this UFIT provided service is 99.9% or better. Monthly performance / availability reports include:

- Total incidents (by priority)
- Resolution of requests (based on the myIT service portal)
- Outage Metrics: uptime / availability (per year, month, week) and associated root causes
- Change management metric: ratio of unplanned outages caused by failed changes to total changes.

Monitoring: UFIT actively monitors the hosting infrastructure for events impacting service. Monitoring includes, and is not limited to, service and component up/down status, and synthetic functional performance tests. The UFIT Network Operations Center (NOC) will create an incident ticket as required to track, escalate and resolve the event.

Limitation of Monitoring:

UFIT does not monitor customer-specific hosts or applications. UFIT does monitor the underlying components that provide the infrastructure and/or platform as well as UFIT-provided hosts and applications that depend upon the hosting infrastructure platforms. For details specific to what is and isn't monitored by UFIT, please see the service specific sections of this document.

Service Requests

A Service Request is defined as a request to add or change to the existing service. A problem or emergency repair should be submitted via the Incident Management process (see below). For requests to add, change or terminate service submit a request via the myIT portal at:

<https://my.it.ufl.edu/CherwellPortal/UFITServicePortal>

When using the portal, for most service requests for hosting services, users will select:

- Technology Services
 - Hosting for File, Servers, Websites, & VMs
 - Database Hosting
 - File Hosting
 - Virtual Machine (VM) Hosting
 - Web Hosting

For any of the catalog selections above, please provide the following information:

- For new services or altering existing services, please select "Service Request" (radio button)
- Provide a description of the request including which hosted resource the request pertains to and any resource-specific information to assist UFIT staff in fulfilling that request.
- Please also include your area's hosting customer information so that billing can be adjusted appropriately.
- Confirm email and contact information
- Submit Request

Customer will then receive the Request ticket number for confirmation and follow up.

Incident Management

The UFIT Operations Group provides Network Operations Center (NOC) functionality and performs active monitoring for many UFIT services. This includes support for trouble calls related to UFIT hosting systems and services. The NOC staff monitors UF's infrastructure and systems to help ensure problems are resolved quickly. Incident tickets (and numbers) are assigned for all reported troubles. The person reporting the trouble will receive an email acknowledgement when the incident is open and when it is resolved.

The initial ticket will be routed appropriately to the UFIT Operations Group which will review the ticket, and assess escalation for UFIT on-call staff. Direct collaboration between UFIT engineering staff and the customer will occur as needed to restore service as quickly as possible.

Customers may also enter trouble tickets (Incidents) to request repair service using the following:

- myIT Service Portal: <https://my.it.ufl.edu/CherwellPortal/UFITServicePortal>
- Telephone: (352) 392-2061
- Availability: 24 hours a day, 7 days a week

When submitting incident tickets via the service portal, for voice and unified communications issues, the users will go to the portal and select:

- Technology Services
 - Hosting for File, Servers, Websites, & VMs
 - Database Hosting
 - File Hosting
 - Virtual Machine (VM) Hosting
 - Web Hosting

For any of the catalog selections above, please provide the following information:

- To report an incident with an existing hosted service needing UFIT support, please use the "Report an Incident" button
- Provide a description of the issue, including information to help UFIT technical staff identify the hosted service that is experiencing problems.
- Please include a description of the urgency and impact of the issue.
- Confirm email and contact information
- Submit Request

The customer will then receive via email the Incident ticket number for confirmation and an update email when resolved. In the event of a significant outage, please contact the UFIT Operations Group by phone (352) 392 -2061

Service Response & Resolution

Hours of Operation:

The hours of operation for support for this service is:

- UFIT-ICT Hosting Routine Technical Support: Monday – Friday, 8:00 AM to 5:00 PM
- UFIT-ICT Systems Engineers Critical / Priority 1 Support: Escalation by Operations to on-call Systems Engineer – 24/7

Incident Priority and Response Time:

UFIT defines prioritization of service requests and incidents within ITSM and more detail is listed here:

https://it.ufl.edu/media/itufledu/itsm/prioritizing_in_myit.pdf

For the Hosting services portfolio, the following lists the target incident response times for the classified priorities:

- Priority 1: High Impact / High Urgency: Likely Major Incident. On-call Major Incident Owner consulted and possibly engaged; System Engineer contacted; System Technician dispatched; Escalate in UFIT and Resolve ASAP.
- Priority 2: High Priority / Medium Impact: Troubleshoot issue; Resolve within 4 to 8 hours / same day.
- Priority 3: Medium Urgency and Impact: Trouble shoot / monitor issue; Resolve within 1 to 2 days.
- Priority 4: Low Urgency / Medium Impact: Resolve within 2 days.
- Priority 5: Low Urgency / Low Impact / Routine: Respond and resolve within 3 days.

Request Priority and Response Time:

As stated above, UFIT defines prioritization of service requests and incidents within ITSM and more detail is listed here:

https://it.ufl.edu/media/itufledu/itsm/prioritizing_in_myit.pdf

While priorities will be assigned to all Hosting Request tickets in accordance with the urgency and impact, the following request turnaround times are expected:

- Standard request turnaround: 2 business days
- Non-standard request turnaround: 5-7 business days
- Emergency request: same business day

Standard requests: cover the vast majority of requests related to Hosting services.

Non-standard requests: include asking for UFIT to in some way modify provisioned services in an unusual way. Some non-standard requests will be denied at UFIT's discretion if the requested

modifications would affect other hosting customers or in some way jeopardize the security or stability of provided services.

Emergency requests: Ideally this sort of request should never occur. If circumstances occur that require ASAP response to a request, please provide context and justification for expediting the request.

Service Management and Escalation:

At any time, problems can be escalated by requesting the UFIT Operations Center to escalate the incident via phone call 352.392.2061.

Service Dependencies

For proper operation, the services described in this SLE will rely on the availability of:

- Power
- Backbone / Network Connection / Enterprise Datacenter Network
- Hardware (network, server, and storage infrastructure)
- Carrier provided telecommunications connectivity (AT&T, Level3, DMS, FLR)
- Authentication Services

Document Information

This document is owned and maintained by UFIT Infrastructure and Communications Technology and is subject to change as needed to follow the UFIT ITSM process or recommendations received from the University of Florida Information Technology Shared Infrastructure Advisory Committee. Forward any request for changes, corrections or additions to this document to Iain Moffat (ipm@ufl.edu), Associate Director.

This document incorporates all revisions as of: August 30, 2015

Service Specific Terms

This section will provide information about expectations for the specific offerings within UFIT Hosting.

Infrastructure as a Service: VMWare Hosting

Virtual Machine (VM) hosting provides "bare-metal" VMs so that your organization's IT staff can run dedicated and highly customized Linux or Windows systems. This allows your IT staff to focus on your computing needs without the worry of purchasing and maintaining hardware resources.

Your VM will live in UFIT's secure private cloud which leverages:

- Multiple enterprise-class datacenters
- Secure enterprise-class network - public or UF private IP space available
- SAN/NAS-backed failover to prevent downtime due to hardware failure or maintenance
- VMWare vSphere 5 environment

UFIT provides:

Everything up to the hypervisor (virtualization layer). This includes all physical resources such as computing hardware, networking, datacenter resources, and VMware software. UFIT-ICT also provides VPN access to allow you to connect to your VM for management purposes (console access, power-on/off, etc).

Customer provides:

You provide IT staff to install, configure, and maintain all software on your VM – OS and Application software. This includes maintenance of proper licensing for any software installed on your VM. Additionally, your staff will be required to handle all monitoring and backups of your VM. While EI/O monitors the health of the underlying hypervisor systems we do not provide VM guest OS or Application monitoring for your hosted VM. Additionally, your staff will be responsible for working with UFIT Network Services to maintain network ACLs pertaining to your VM's IP address(es). Your staff will also be responsible for responding to and working with UFIT's office of Information Security and Compliance.

What's monitored?

- Cluster processor, memory, and disk usage.
- Hardware failures of cluster servers.
- Network connectivity of the clusters to UF networks.

What's NOT monitored?

- Guest operating system uptime, patching, configuration, and security settings.
- Guest software licensing
- Guest network firewall, anti-virus, or related software.

Infrastructure as a Service: File Server Hosting

File Server Hosting allows your UF organization to lease fully managed file server resources (accessible via SMB or NFS) from within UFIT's existing infrastructure. This will allow your project to succeed without the worry of purchasing and maintaining hardware resources or administering servers.

UFIT Provides:

UFIT-ICT will provide all compute and network hardware and infrastructure for the file server appliance. UFIT-ICT will provision your file space and will work with your IT staff to assign administrative privileges and permit access via network ACLs and file system permissions.

Customer Provides:

You will be responsible for assigning one or more members of your IT team to fulfill the role of file share administrator. This administrator will be responsible for configuring and maintaining snapshot behavior as well as file system privileges. The customer's IT staff is also responsible for managing drive mappings and other client-side configuration for users.

What's monitored?

- Network accessibility of the storage infrastructure.
- Storage system status: Hardware state, local disk failures, cluster health, replication currency.
- Utility dependencies: power, cooling, et cetera.

What's NOT monitored?

- Quota utilization. We send you periodic reports about your space usage.
- Network ACLs. If you have requested special network ranges for your storage connectivity, you will manage those ranges.

Platform as a Service: Apache Web Hosting

Apache Website Hosting provides managed Apache/Linux website resources from within UFIT-ICT's infrastructure to run your website. This will allow your project to succeed without the worry of purchasing and maintaining hardware and system software resources. Your website will live in UF's private computing cloud which includes a number of features to make your site highly-available and disaster-hardened.

UFIT-ICT Provides:

UFIT-ICT will provide a managed web hosting environment that includes all aspects of your website's environment. We provide you with access to manage your site's content and application functionality.

Customer Provides:

As the customer it is your responsibility to create and maintain all content and application logic that comprises your website. You own and are responsible for the content of your site.

What's monitored?

- Cluster servers' disk, memory, network and process status
- Apache config file validity

What's NOT monitored?

- Individual sites status and content

Platform as a Service: IIS Web Hosting

IIS Website Hosting provides IIS/Windows Server website resources from within UFIT's enterprise infrastructure to run your website. This will allow your project to succeed without the worry of purchasing and maintaining hardware and system software resources. Your website will live in UF's private computing cloud which includes a number of features to make your site highly available and disaster-ready.

UFIT-ICT Provides:

UFIT-ICT will provide a managed web hosting environment that includes all aspects of your website's environment. We provide you with access to manage your site's content and application functionality.

Customer Provides:

As the customer it is your responsibility to create and maintain all content and application logic that comprises your website. You own and are responsible for the content of your site.

What's monitored?

- Web farm servers' disk, memory, network, and service status
- Network accessibility of the storage infrastructure.

What's NOT monitored?

- Individual site status and content

Platform as a Service: MySQL Database Hosting

MySQL database hosting provides managed MySQL database resources within UFIT-ICT's infrastructure. This will allow your project access to managed database resources without the worry of purchasing computing hardware, managing operating system or DBMS software. Additionally your IT staff will be able to leave disaster recovery and data center concerns to UFIT-ICT.

UFIT-ICT Provides:

UFIT-ICT will function in the roles of System Administrator, System DBA, and Backup Administrators. As such UFIT-ICT is responsible for making sure the MySQL service is available to your Application DBAs and Application Developers and Administrators.

Customer Provides:

As the customer it is your responsibility to provide IT staff to fulfill the roles of Application DBA and any Application Developer and/or Administrator needed to utilize the MySQL service. Also, any end-user support must be provided by staff in the customer organization. All data, including database schema design and implementation, will belong to and remain the responsibility of the customer.

What's monitored?

- MySQL instances up
- Replication between hosts up-to-date
- Current backups created nightly
- Database disk

What's NOT monitored?

- Individual database status and activity

Platform as a Service: MS SQL Database Hosting

MS SQL Hosting provides managed MS SQL resources from within UFIT's enterprise infrastructure. This service allows your IT staff to focus on database and application development and operations without the burden of maintaining servers, operating system software or RDBMS software. Your database will live in UFIT's highly-available and disaster hardened MSSQL environment which is designed with redundancy on multiple infrastructure layers to provide continuity of operation.

UFIT-ICT Provides:

UFIT-ICT will function in the roles of System Administrator, System DBA, and Backup Administrators. As such UFIT-ICT is responsible for making sure the MSSQL service is available to your Application DBAs and Application Developers and Administrators.

Customer Provides:

As the customer it is your responsibility to provide IT staff to fulfill the roles of Application DBA and any Application Developer and/or Administrator needed to utilize the MSSQL service. Also, any end-user support must be provided by staff in the customer organization. All data, including database schema design and implementation, will belong to and remain the responsibility of the customer.

What's monitored?

- MS SQL instance up
- MS SQL instance databases being offline
- Current backup failures
- Database disk space warnings

What's NOT monitored?

- Individual database status and activity
- CPU and memory status per instance