Virtualization as a Service (VaaS)

Service Level Agreement (SLA)

PROVIDER: Information and Technology Services

Effective Date: 2/27/2009
Last Edited Date: 11/10/2009
Service Overview:

Virtualization as a Service (VaaS) offers virtual servers for departments at the University of Michigan. By submitting a virtual server request / purchasing a virtual server, you agree to abide by the terms of this Service Level Agreement. ITS may update this SLA occasionally. All substantive changes to this agreement will be communicated via the vaas.notify@umich.edu email distribution group.

Service Availability:

The service will be available 7x24 with the exception of any unexpected outage and system maintenance.

Unexpected outages

In the case of an unexpected outage, ITS personnel will return the service to operation as quickly as possible. Communication about outages will be communicated to the vaas.notify@umich.edu email distribution group.

Planned maintenance

ITS will announce all disruptive system maintenance change at least thirty days in advance using the vaas.notify@umich.edu distribution group. All disruptive system maintenance will be performed between the hours of 11:00 p.m. Saturdays and 7:00 a.m. Sundays. We anticipate that disruptions maintenance will occur rarely (less less than two to three times per year).

Emergency maintenance

In rare situations, it may become necessary to perform emergency maintenance to correct service issues or to prevent an imminent service issue. In these situations, it will be impossible to provide thirty day advanced notice of the outage. ITS will provide as much advanced notice as possible (using the vaas.notify@umich.edu distribution group).

Note, ITS will restart systems after each of these activities, but it is the responsibility of the customer to make sure their services have restarted correctly on their virtual machines.

Customer Responsibilities:

Customers of VaaS are fully responsible for the following:

- All fees associated with this service have been authorized by the appropriate unit representative.
- Paying all charges associated with services rendered and adhering to all funding restrictions for the source of funds used to pay for this service.
- Performing all traditional system administration activities such as operating system administration, application administration and file/level backup and restoration.
- Ensuring that virtual servers are secured in appropriate manner including appropriate firewall policies and application of security patches in a timely manner.
- Monitoring of the virtual server and all applications contained within.
- Ensuring that any software on the virtual server is appropriately licensed.
- Ensuring all use of the virtual server follows all university policies, state and federal laws and regulations.
- Ensuring data management policies are followed appropriately to comply with university policies, state and federal laws and regulations. (It is the customer's responsibility to erase data prior to decommissioning a virtual server.)
- If necessary, shutting down individual virtual servers or applications during scheduled disruptive maintenance.
- Network Design – Working with ITCOM to determine an optimal network design specific to your department for use of VaaS.
Security:
ITS will ensure that proper physical security is maintained for all physical servers.
ITS will perform network level intrusion detection.
ITS will communicate with customers whose virtual machine is:
1. Suspected of being compromised;
2. Attacking other hosts;
3. Adversely affecting the performance of other VaaS customers.

This communication will include information on the circumstances and actions to be taken by the customer and by ITS staff during such an event. ITS reserves the right to audit the security of virtual servers using this service. ITS reserves the right to remove compromised virtual servers or virtual servers impacting the performance of other VaaS customers. For further security information, please refer to the Virtualization as a Service Security Strategy document.

ITS assumes no liability for costs or damages associated with a security incident.
The customer will:
- Manage any firewall for the virtual server including all firewall policies.
- Ensure that security patches are applied in a timely fashion.
- Will respond in a timely fashion to any security incident.

Network bandwidth:
This service is intended for use by typical server applications such as web servers, application servers and administrative applications. Applications with extremely high bandwidth may not be appropriate for this service. Before implementing high bandwidth applications on this service, customers should confer with ITS technical staff.
ITS reserves the right to remove servers from the service that consume excessive bandwidth.

Support:
This service offers 24/7 support for virtual server incidents related to the virtualization service. Support is provided through the ITS Help Desk which supports the following types of requests:

- Incident Reporting - (example: You are having a problem with a Virtual Server that you believe is due to the virtual environment)
  - Response: 24/7; 4 hour response time.
- Service Request - (example: You have a complex virtual server modification request that cannot be handled by the VaaS Web site.)
  - Business hours: Monday – Friday; 8am – 5pm
- "How-To" - (example: You are not sure how to boot a Virtual Server from an ISO)
  - Business hours: Monday – Friday; 8am – 5pm

Customers may contact the Help Desk at the following: (734) 936-7000.
All incidents and requests reported through the ITS Help Desk will result in a Help Desk ticket, gathering user information, and obtaining information about the incident or request needed for initial diagnosis and classification. Based on the diagnosis, the ITS Help Desk representative will determine the most qualified person for resolution and will confirm the priority level based on the impact and urgency of the incident or request.
Dispute Resolution:
In the case that customers are unhappy with the resolution reached by ITS to a technical or billing issue, should contact the Customer Relationship Manager: (vaas.crm@umich.edu). The Customer Relationship Manager can escalate the issue within the ITS organization.

Disaster Recovery:
A data center disaster is declared when an event occurs that prevents use of a data center and/or all computing equipment in the datacenter are unavailable or unreachable. A data center disaster is not declared for issues with individual virtual servers.

ITS maintains two data centers to minimize outages in case of a disaster. Users data will be replicated at both sites, and in the event of a datacenter disaster, virtual servers that are impacted will be moved to the alternate datacenter. Service restoration priority will be determined at the time of disaster with core Virtual Servers being recovered in approximately 2 – 5 days.

Tape Backup:
File-level backups are provided to VaaS customers at no additional charge through tape based backups using Tivoli Storage Manager (TSM). VaaS customers can download and install the TSM client to their individual virtual servers. Backups can be scheduled during three daily backup windows (8:00pm, 9:00pm, and 10:00pm). The backup retention policy set for VaaS customers allows for two revisions of files with a 30 day retention policy. Upon deletion of a file, the most recent backup of the file is retained for an additional 30 days.

Service Costs and Billing Cycle:
The most recent service pricing can be found on the VaaS website (http://vaas.umich.edu). The billing process will be based upon University short codes. VaaS is billed on a monthly basis using the Service Unit Billing (SUB) system. The SUB will include details about each server and its current configuration. Orders, upgrades, downgrades, or cancelations received by the 15th of each month will be included in the current billing cycle. Orders, upgrades, downgrades, or cancelations received after the 15th of each month will be included in the next billing cycle. No proration will occur. Units will be billed for the maximum amount of resources used each month. Three months of service is the minimum service requirement. There are no refunds. Prepayments cannot be accepted.

Rates will be reviewed and updated per university standards. Customers will be notified in advance upon rate changes. It's expected that all approved rate changes will be implemented at the start of a fiscal year.

Failure to pay for services will result in the removal of resources.