Amazon Web Services (AWS) Quick Start Guide

Amazon Web Services (AWS) is a standard platform at IU for VM hosting. This page is intended to be a quick guide to getting an AWS VM set up and includes references to more detailed UITS and AWS documentation.

Accessing the AWS System

Once you have an AWS account and have secured funding (per the steps below), you can access the system at https://aws.iu.edu with IU SSO (aka CAS) credentials.

Documentation and Resources

- IU AWS Web Interface
- KB: How can I get an AWS or Azure account at IU?
- KB: Get help with Amazon Web Services
- KB: Data classes for use on public cloud computing platforms at IU
- AWS Cost Calculator

Setting Up A New AWS Account and Securing Funding

Getting started with AWS at IU is a multi-step process. Some of these steps have to be done by the requesting user and some steps are done by UITS or the SICE IT and Purchasing groups. Here is a step-by-step guide to help you navigate the process.

Step 1 [USER]: Agree to IU's Public Cloud Acceptable Use Agreement (AUA)

The first step in the process is to agree to the Acceptable Use Agreement (AUA). This process must be completed by the requester and is explained in the KB page How can I get an AWS or Azure account at IU?.

Step 2 [USER]: Generate a Cost Estimate

In order to get the required quote for AWS services you must come up with an estimate of expenses. You can do this any number of ways but one convenient way is to use the AWS Cost Calculator. If you aren’t sure how to use that or you have questions about how to generate the estimate then you can contact the AWS specialist (as noted in the AUA confirmation email) or submit a SICE Help Desk Request for assistance.

If you already have an AWS at IU account and have submitted the Acceptable Use Agreement (AUA) for a previous request and are just wanting to change or add a funding source, please skip to step 2.

Each step in the process designates who is responsible for completing that step in brackets. For example [USER] indicates that the Faculty or Student making the request will have to do this step, [SICE Purchasing] indicates that the SICE Purchasing team will complete this step, and [IU Cloud Technology Support] means the IU cloud support group will complete this step.

Please note that this cost estimate (and the resulting quote from step 4 below) will only be used to encumber funds but the actual charges against your account will be based on your exact AWS usage which may be more or less than the actual cost estimate. For this reason, it is very important for the cost estimate to be an accurate reflection of the expected usage. If the estimate is too low, you will run out of money before the project ends and a new quote will have to be generated which may cause delays. If the estimate is too high, then the encumbered amount will essentially freeze funds in your account for this use but that does not mean you will actually be charged that much. Once the actual usage comes in, that is all your account will be charged so there is really not a penalty for estimating too high other than the possibility of extra funds in the account being temporarily unavailable for other use.

Step 3 [USER]: Submit a SICE Help Desk Purchasing Request

At this point, you will need to submit a SICE Help Desk purchase request by emailing sicehelp@indiana.edu. If you already have a help desk request for this then simply reply to one of the help desk emails with the required information.

In the request please include all of the following:

1. The AUA Confirmation email from step 1 above
2. The AWS Cost Estimate from step 2 above as a cost/month.
3. The IU account number you want to charge
4. An estimate of the start and stop dates of the AWS usage. This, coupled with the estimated cost/month, allows for an estimate of the total project cost. You are encouraged to err on the high side. You are only charged for what you actually use but you don’t want to use more than your estimate, if possible.
5. A short description of the project. If you are using a grant account then you should provide a more detailed justification explaining how this use of AWS services is directly related to the goal of the grant. This justification is needed by the IU Contract and Grants office for grant accounts.
**Step 4 [SICE Purchasing]: Generate a Purchase Order**

Once the SICE Purchasing team has all of your input, including the cost estimate, a Purchase Order (PO) will be created in the IU Purchasing system. As with any purchase request, this will route to the appropriate people for financial approval.

**Step 5 [USER]: Provide Additional Information**

Once the PO is processed, the IU Cloud Technology Support group will contact you to get some additional information. This will likely be in the form of a short questionnaire so just complete that and submit it per the instructions in the email.

**Step 6 [IU Cloud Technology Support]: Provide Additional Information**

The final step is the creation of your AWS account. The IU Cloud Technology Support group is an IU-wide support group under UITS that will work with the AWS reseller to create your account. Once this is complete, they will notify you.

**Step 7 [USER]: Set Up VMs**

Once you have your AWS account, you will log into the IU AWS Web Interface and provision your resources. This is the normal AWS interface where you can create and manage your VMs, storage, firewall settings, and various other resources. It is beyond the scope of this document to explain how to use AWS but here is an example of how a single VM can be created:

1. Under **Build a solution** select the **Launch a virtual machine** wizard.
2. Select the VM type (EC2 or Lightsail) and click **Get Started**. Note that this creates a t2.micro instance by default so if you want something else use the **EC2 launch instance wizard** instead.
3. Give the VM a descriptive name
4. Select the desired OS
5. Select the desired instance type
6. Download the private key for the instance. Save this into your .ssh directory and load it as needed. You will use this key to ssh into the VM.
7. Click **Launch instance** to create the VM.
8. Click **Proceed to EC2 console** to see the VM.
9. In order to log in via ssh you will have to update the firewall rules (which is called the Security Group in AWS) by going to the instance Descriptions tab, clicking on the security group, and editing as needed. You will likely want to start with opening up ssh to IU subnets via the Inbound tab.
10. The IP address and DNS name will be listed and you can then ssh to the instance. Click on the **Connect** button for further details and examples.

If you are interested in options for AWS training, please contact us

**Purchase Order Notes**

The AUA will include details that will be used by the SICE Purchasing Team to generate the Purchase Order. Here are the general steps for creating the requisition in KFS but see the AUA email for more specific details.

- Description: (e.g., Amazon Web Services cloud computing account)
- Vendor name: DLT Solutions, Inc
- Vendor #: 49319-0
- **Important:** If the person submitting the purchase request is not the requesting manager, please put the manager's full contact information (name, email, phone) in the Notes to Vendor section.
- Item:
  - Item type: choose No Qty
  - Description: Enter a description that will help you track. (E.g., AWS monthly service for cloud computing)
  - Unit cost: put in the amount from the user estimate
  - When adding the Accounting Line put the object code: 4009
- **Important:** In the Note to Vendor section you must include "DLT Quote ### and the Terms of the Net+ Agreement for AWS through DLT are incorporated by reference" with the number from the quote you received.
- Payment Info:
  - Type of Recurring Payment: **Variable Schedule, Variable Amount**
  - Begin date: today, End date: **June 30 of current fiscal year.**
- Additional:
  - Method of PO Transmission: Print (This will ensure it is emailed to you when it is ready.)
- Notes and Attachments:
  - Add quote from DLT
  - Add PDF of AUA confirmation email.

**Getting Help**

Your best source of information about AWS at IU are the documents listed at the beginning of this document. If you get stuck or have a problems and want assistance you can contact the SICE Help Desk at sicehelp@indiana.edu or the IU Cloud Technology Support team at cloud@iu.edu.