NET+ Amazon Web Services (AWS)

Welcome to the NET+ Amazon Web Services (AWS) wiki.

Many Internet2 member and non-member institutions take advantage of this service offering. If your institution is one of them then this wiki will provide details on how to make the most of your participation of the programming and interact with peers across Internet2 member institutions.

This program is open to all higher education, affiliate and federal affiliate members as well as non-member higher education institutions. If you are looking details on how to join the program, please visit the Sign Up Tab of the NET+ AWS webpage.

You can also find out more about the Internet2 Cloud Connect offering for AWS Direct Connect.

Service Documentation and Resources

Accessibility:

- Voluntary Product Accessibility Template® (VPAT)

Identity:

- NET+ AWS Portal Identity Guidance - For end user self service AWS account requests
- InCommon-enabled Group to role mapping for AWS Accounts

Information Security:

- Cloud Controls Matrix - please email cloud@dlt.com
- Higher Education Cloud Vendor Assessment Tool (HECVAT) - pending

Contract and Pricing:

- NET+ AWS Enterprise Customer Agreement - please email cloud@dlt.com
- NET+ Infrastructure and Platform Services (IPS) Program Participation Agreement and Schedule - pre-req for subscribing to NET+ AWS

Community Resources

Participate in our Community Conversation (Subscribers Only):

Institutions participating in the NET+ AWS program may take advantage of our email discussion list to receive curated program updates and participate in other activities and events.

We host a series of regular events for program subscribers. For 2022 they include:

- Bi-weekly NET+ AWS Technology Share calls where campus cloud enablement professionals, cloud engineers and developers, meet to discuss their challenges, share lessons learned and collaborate to find the best answers for their institutions’ AWS deployment. AWS solutions architects and DLT support engineers regularly attend and participate.
- Quarterly NET+ AWS Subscriber Calls (Mar, Jun, Sep, Dec) bring together a couple of subscriber schools working on a specific issue with related technical experts from AWS to talk through the challenge and related choices. The rest of us watch and learn, tossing in our own questions as well. Example topics are building compliant environments, enforcing policies for FinOps best practices, etc. The December Jam is devoted to a rapid-fire recap of the announcements coming out of the annual AWS re:Invent conference that are most relevant to the NET+ subscriber community.
- Quarterly NET+ AWS Town Halls welcome experts from AWS to present targeted topics to the community. Past Town Halls covered Ransomware, AWS Academy and Research Support Tools. We encourage subscribers to suggest topics we can work with AWS to bring to us.

Please contact netplus@internet2.edu to be added to any of these conversations.

AWS Higher Education Adoption Guide Working Group:

Community members are working to create a best practice guide for setting up AWS for a higher education enterprise. We welcome cloud leaders, engineers, developers, network specialists, security professionals and others wishing to contribute to this effort. It’s a great opportunity to get involved in the community. Please contact bflynn@internet2.edu if you are interested in participating.

Join the AWS Community Forum (Open to all community members):

NET+ AWS Service Advisory Board (SAB)

Membership

- Gerard Shockley, Boston University, Chair
- Cornelia Bailey, University of Chicago
- Shilomo Balass, Carnegie Mellon University
- James Bennett, Indiana University
- Asbed Bedrossian, Member Emeritus
- Damian Doyle, University of Maryland Baltimore County
- Rikus Goosen, Massachusetts Institute of Technology
- Jeff Gumpf, Case Western Reserve University
- Jim Jokl, University of Virginia
- Scott Kimmer, University of Notre Dame
- David Lacey, J. Paul Getty Trust
- Rick Rhodeas, Penn State University
- Jim Thomas, Indiana University

To Contact the Service Advisory Board

- Email: aws-campus-advisory@internet2.edu

NET+ AWS Advisory Board Goals

- 2020 Goals

Questions?

- Internet2 NET+ Service Management netplus@internet2.edu
- DLT Customer Team cloud@dlt.com
- DLT Ops Team
- Internet2 Program Manager: Bob Flynn bflynn@internet2.edu

Send Feedback or Submit a Feature Request:

The NET+ AWS program is managed by an Internet2 program manager with the support of the NET+ AWS Service Advisory Board.

The NET+ AWS Service Advisory Board reviews and prioritizes community feature requests on a periodic basis. Feature requests may be submitted to netplus@internet2.edu.
Users of AWS are encouraged to join the AWS Community Channel in the Educause Cloud Community Group Slack. See the Higher Ed Cloud Community page on the Cloud Wiki for instructions to join.

Collaborate on the Cloud Wiki:

Speaking of community, did you know about the Cloud Wiki? This was created specifically for YOU, members of the higher education community to collaborate with each other. Log in to see a Cloud Job descriptions page and contribute your knowledge!

Contribute Code:

Looking to share your latest Terraform config? Add it to the Cloud Wiki Helpful GitHub Repos list or email sjeanes@internet2.edu to request access and create a repo in the Community Cloud Config GitHub organization.

Questions on Billing, AWS Orgs, or CloudCheckr:

Find answers to frequently asked question in these Knowledge Base articles.

- AWS Organizations
  - Organizations - Customer On-boarding and Management
  - DLT Secure Handling Of AWS Accounts And Organizations
  - How To Create A New Account Using Organizations
  - How To Transfer An Account To Your Organization
  - New Accounts created through Organizations do not include Support by default. To change this to DLT Business Support, follow the instructions in How To - Change AWS Support Option
- AWS Control Tower
  - AWS Control Tower Adoption Strategies
- DLT Process For AWS Customer Credits
  - To prevent DLT from getting 1000 credit memos for the Data Egress Fee Waiver (DEFW) payer, the discount is built into the utilization invoice. For Universities that have their own Payers, AWS is billing utilization at MSRP and then giving us credit memos for DEFW which is shown on the face of the invoice submitted to the customer. Does not appear on backup file. Does appear in CloudCheckr.
- Support
  - What support options are available to Customers?
    - Basic Support – Customers can get billing support and service limit increases. These requests would still go through DLT. Technical support is not available if you do have a support plan attached to the account.
    - Developer Support – Currently Developer Support is not built into agreements between DLT/AWS which makes this option unavailable on any DLT support plans.
    - Business Support – Partner led support by DLT
    - Enterprise Support – Partner Led Enterprise Support can be enabled at the organization level and adds additional SLA options, access to AWS TAMs, VIP treatment, etc.
  - What support options are available without paid support?
    - Without paid support, customers will be limited to Basic support only.
  - What options are available for Third party application and service support?
    - DLT will perform the same work on a third-party tool (e.g. Palo Alto) as AWS would. They work to the AWS demark time and will engage with a third-party support contract as needed.
  - Currently the first response to tickets submitted always seems to be to add the DLT-Support role to the member account. Because of this, should we deploy the support role in all DLT accounts prior to ticket creation?
    - Yes, DLT recommends deploying to all accounts.
  - Is there a CloudFormation Template available for deploying business support?
    - Yes: DLT Support Role CloudFormation Template
  - How do you change support options for an account or organization?
    - Support Options can be changed by following the procedure outline in this Knowledge Base Article
  - What are the current supported methods for ticket submission for DLT?
    - Phone: 888-358-7658 (SOLV)
    - Email: opscenter@dlt.com
    - Web: https://opscenter.dlt.com
    - Options not currently supported: Chat, Support API
    - How To Initiate Support Request With DLT Operations Center
  - What is the best practice to escalate an existing support issue?
    - Phone: 888-358-7658 (SOLV)
  - My institution was surprised by the Support Service Control Policy (SCP) rollout. Are there options for testing future SCPS in my test Organization?
    - Under AWS’ Partner Led Support program, support access is limited to the support provider (DLT). DLT complies with this requirement using an
organization SCP, which limits access to DLT Support staff. DLT is currently developing a next generation SCP which will provide more customer visibility into the AWS Support Console, while remaining in compliance. If you have your own organization through DLT, and you would like to enroll in the DLT Support Access Beta, please open a ticket with DLT with the subject line “CloudOps: DLT Support Access Beta Enrollment.”

- Where can I find links to additional documentation?
- https://opscenter.dlt.com

CloudCheckr
- CloudCheckr Basic+ Webinar
- CloudCheckr Accounts Requests
- How To - Create CloudCheckr IAM Policy For Cross-Account Access
- Tag Resources for Cost Allocation with a DLT AWS Account
- FAQs

Key Program Updates

Subscribers may review our mailing list archives for monthly program and AWS updates.

Sustainability and AWS: Insights for Higher Education - A NET+ AWS Town Hall
Bob Flynn posted on Apr 04, 2022
The value of the NET+ programs goes far beyond the peer-vetted contract terms. Subscribers might come for the contract, but they stay for the community. Subscribing to a NET+ program is a powerful workforce multiplier and an extended higher-ed-focused knowledge base. Technology conversations with peers, technical deep dives on community-driven topics, service advisory boards, and conversations with education leadership at the service providers are all core to the NET+ experience. In the NET+ AWS program, we hold bi-weekly Technology Share calls, quarterly “Tech Jams,” strategy-centered Subscriber Calls, and thematic Town Hall events. Topics covered at past Town Halls include Ransomware, AWS Educate & Academy, and Service Workbench & RONIN for researchers.

This month, in honor of Earth Day, we turn our attention to the environment. We welcome Hahnara Hyun, Partner Solution Architect, Amazon Web Services to present a session called Sustainability and AWS: Insights for Higher Education. In general, NET+ program events are only open to subscribers, but due to the importance of this work and this message, we are opening this session to the entire research and education community.

- Title: Sustainability and AWS: Insights for Higher Education
- Session Description: Digital Transformation can drive improved student outcomes, speed time to science, and increase agility within higher education institutions. Higher education leadership, responding to student and faculty demands, look to incorporate sustainability goals and practices into the university experience. In this session, we’ll talk about sustainability transformation, how we’ve been approaching it at Amazon and AWS, and actions higher education customers can take to incorporate sustainability into their digital transformation efforts.
- Date: Wednesday, April 20
- Time: 11am PDT/2pm EDT
- Speaker Bio: Hahnara Hyun is a Partner Solution Architect for Amazon Web Services. Hahnara has a background in software engineering. She began her journey in tech at Fullerton College and received her Computer Science B.S. from the University of California, Irvine where she was an undergraduate machine learning researcher. She found her passion in enablement, sustainability, and cloud architecture. As a result, in her day-to-day role, she develops AWS GameDays to enable partners and customers to build on AWS. Hahnara is also a public speaker for AWS and ran sustainability enablement sessions at re:Invent 2021. In her free time, Hahnara plays volleyball though she’s not very good yet and loves to cook, losing most of her free time making multiple trips to the grocery store grabbing forgotten items.

Postscript

The event has taken place. If you were unable to or would like to have the slides to follow the links Hahnara shared, you can find the recording, slides, and other assets in this folder.

aws

NET+ AWS January '22 Newsletter
Bob Flynn posted on Jan 08, 2022
The new year is underway and already there is a lot going on. I’m going to order this edition’s content based on how soon the deadline is approaching and how urgent it is for your attention.

Three Alarm

AWS Training Cohort

The NET+ AWS training cohort is ready to go. This combined synchronous/asynchronous program will prepare participants for the AWS Solutions Architect Associate certification. Participants will be guided through Pluralsight training and testing materials by higher education cloud veteran Sharif Nijim, Assistant Teaching Professor, IT, Analytics and Operations at the University of Notre Dame.

The cohort is limited to 15 participants and is being advertised to NET+ AWS subscribers a few days in advance of opening it up to the entire community, so do not delay. Details are available on the registration form. You can register yourself or you can nominate members of your team. If you have additional questions, please contact netplus@internet2.edu.

Kion Infoshare

January 11

Over the past year we have been hearing from schools in the higher education cloud community that they are looking for some help sorting through the plethora of 3rd-party tools swirling around the cloud infrastructure space. The top needs expressed were:

1. account automation and maintenance
2. security monitoring and remediation
3. cost tracking management and savings

One product specifically suggested and already being piloted by a few schools is Kion (formerly known as cloudtamer.io). We asked Kion to show the community around their tools and answer your questions.

• What: Demo of Kion.io’s cloud enablement tools with a focus on higher education enterprise cloud use
• When: Tuesday January 11 at 11am PST/2pm EST
• Where: Register for zoom link
• Will it be recorded? Yes. It will be posted on the Higher Ed Cloud Community page

Two Alarm

Program Satisfaction Survey

One of the vital roles of the NET+ team is to bring the community together, making and sharing opportunities to learn from each other and from the cloud vendors. NET+ Program Development Manager Tara Gyenis has put together a brief survey to get your take on how well we are doing with community engagement. We also want your feedback on vendor (AWS) and reseller (DLT) performance. The survey is designed to get input from everyone from the cloud team to procurement to management. We ask that you share it with others at your institution.

Speaking of engagement…

One of our most powerful engagement tools are our meetings. Yeah, yeah, I know, meetings… But no, seriously. When we bring you, the members of the community together, magic happens. The sharing of challenges, successes, approaches, obstacles, plans, etc. sparks some of the best conversations and most productive networking and collaboration.

By popular demand, we are going to put a little more structure and variety in our NET+ AWS engagement calendar. Here’s what we have planned. Calendar invitations to come out soon.

• NET+ AWS Technology (formerly Tech & Tactics) – This will focus on the technology. It has largely been doing that anyway, but without a clear mandate, many
managers and cloud leads felt obliged to attend. This is going to be geek speak. (bi-weekly)

- **NET+ AWS Subscribers** – This meeting will be for more strategic discussion. The target audience will be those cloud managers, infrastructure directors, etc. who have not found the technical discussions to be the best use of their time. Twice over the course of the year we’ll ask you to invite your leadership and we’ll invite the heads of higher education strategy from AWS to attend. (quarterly)

- **NET+ AWS Tech Jams** – Co-hosted by Internet2’s Bob Flynn & AWS’s Kevin Murakoshi, these calls are technical deep dives on topics schools are working on but just need to talk through with an AWS technical expert. We’ll bring together the schools and the experts and all watch over their shoulders as they work it out. (quarterly)

- **NET+ AWS Town Halls** – Bring the community together to learn from AWS (or other presenter /panel) about a big picture topic/approach/strategy/trend. Attendees come away from the session with greater understanding on the topic and how they might take advantage of this knowledge within their institution, where to go to learn more, etc. Examples from 2021 include Tools to enable research (e.g., RONIN, Service Workbench), Ransomware, and AWS Academy. (quarterly)

We will be sending calendar invitations to all of these to the NET+ contacts we have. Please accept the invitations for the meetings that interest you and decline the rest. And please do forward them on to others in your organization for whom they may be appropriate.

**Make a difference in your community. Join the NET+ AWS SAB**

While NET+ Cloud IPS Manager Bob Flynn provides the staff time to address program mechanics and keep things running, it is the NET+ AWS Service Advisory Board (SAB) that provides the leadership and guidance to move the program forward. We are seeking new voices, new schools and new perspectives on the SAB. Make 2022 the year you get more involved in this community. Help make a difference to schools all across the country. Submit your name to be on the NET+ AWS SAB by emailing netplus@internet2.edu.

**ICYMI – re:Invent re:Cap**

On December 15 legendary AWS Solutions Architect and friend of higher education, Kevin Murakoshi gave a high-speed and high-information presentation on all the most important announcements coming out of AWS re:Invent 2021. It was fun and full of great resources. Find the recording and list of all of the links referenced here.

**Credits**

The images in this newsletter come from a variety of sources. Credit where credit is due.

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**Requests?**

Do you have ideas or requests for a future newsletter or engagement event? Email bflynn@internet2.edu
Events

There has always been a steady stream of events, both virtual and, increasingly, live, coming from AWS. Here are a few coming your way that we hope you’ll join us for.

**Ransomware Town Hall: Protecting your institution’s data, systems, and reputation from loss**

Our partners at AWS are putting together a presentation for the NET+ AWS community on how you can harden your accounts and Orgs against ransomware.

Ransomware attacks can be significantly disruptive and costly to the college or university beyond the data compromised or stolen, the time lost recovering from an incident and money spent on recovery or for ransom payouts. These incidents can also erode the confidence and trust that students and families, faculty, staff, researchers, and partners have in the organization. For these reasons it is important to keep an eye on the threats ransomware poses and to be prepared for all eventualities. In this session you will learn about current trends in ransomware, strategies to prevent and detect intrusions and approaches to mitigate the damage and recover from the attack.

Presented by Larry Kiger, WWPS Solution Architect, AWS. Larry is on a mission to educate and help information technologists and executives grow their understanding of IT Security and Compliance in the Cloud. He joined Amazon Web Services (AWS) in 2019 and now serves as the Americas’ Lead for Security & Compliance in the Worldwide Public Sector team.

This is an interactive session, so bring your questions and invite your friends from the security office. **Monday, September 20 12:00-1:30pm EDT. Register here.**

**IMAGINE: Education & AWS Public Sector Summit**

Later this month at the Washington, DC Convention Center Amazon is hosting two free in-person conferences.

**IMAGINE: Education - September 27**
**AWS Public Sector Summit - September 28-29**

If you are planning on being there, please reach out to your NET+ AWS team so we can say hello.

- Bob Flynn bflynn@internet2.edu
- Tara Gyenis tgyenis@internet2.edu
- Sean O’Brien sobrien@internet2.edu

**AWS Educate/Academy Town Hall: Introducing AWS Education to Workforce**

AWS Educate, AWS Academy, and other AWS education programs are now within one organization – AWS Education to Workforce. The AWS Education to Workforce team offers new program and consultative services to help customers enable and implement a comprehensive AWS cloud skills workforce education solution. Aaron Osmond, US Lead for the AWS Education to Workforce Team will be presenting this session.

Bio: Aaron Osmond joined AWS in March of 2020. Aaron brings 25+ years of professional experience in building statewide workforce development programs within public and higher education at Novell, Microsoft, Pearson, and now AWS. Aaron leads a team of business development and program implementation experts to help state and local education and workforce leaders implement AWS cloud skills workforce readiness programs.
This is an interactive session, so bring your questions and invite your faculty and colleagues from Learning Technologies. **Monday, October 25, 2-3pm EDT, Register here.**

**Raising your team’s Cloud IQ**

Internet2’s Oren Sreebny is looking to build on his success with a GCP community training cohort. We are working with AWS to get the first on that platform off the ground. More broadly, we are looking to assess the landscape of cloud training/literacy need in the community. Take the survey, Share the survey, Be the survey. Together we will raise higher ed’s Cloud IQ! **Deadline for submission - Friday, September 17**

**AWS Training Pilot**

One thing we keep hearing is that one of the major obstacles to increased cloud utilization in higher ed is the lack of staff trained in cloud technology and that increased access to training would help adoption. We are looking for up to 15 people interested in participating in a pilot later this fall of a multi-campus cohort training for the AWS Solutions Architect - Associate certification.

The training will consist of asynchronous learning content (videos and hands-on labs) paired with weekly cohort meetings and occasional extra sessions with technical experts. Participants should expect to commit 5-7 hours per week over the course of the training, which will last approximately three months. The cost to participate will be in the range of $500 per participant, not including the cost of the certification exam (~$150 as of this writing).

People interested in participating can fill out this form and we will be back in touch with you as our plans firm up: [https://forms.gle/sgFcj1dY6pLeHk3WA](https://forms.gle/sgFcj1dY6pLeHk3WA). **Please respond by Friday, September 24.**

**Get Involved**

Community, whether personal or professional, serves you best when you get involved. A professional community like the NET+ AWS community can be quite rewarding. The bi-weekly AWS Technology & Tactics calls not only produce great technical discussions among peers and partners, but they have proven to be a great place to meet the wonderful people who work in higher ed cloud.

Coming out of your annual performance review do your goals include contributing to the community? Getting out of your comfort zone? Taking on more leadership roles? Building the soft skills? The hard skills? You are in luck, I’ve got a couple of ready-made opportunities for you.

**NET+ AWS Service Advisory Board (SAB)**

The NET+ AWS SAB meets monthly to monitor and guide the health of the program. The members meet regularly with AWS and DLT leadership to champion the priorities of the NET+ AWS community and higher ed cloud in general. We are down a few members and welcome fresh faces and new energy. If you are interested, please contact me at bflynn@internet2.edu.

**Working Groups**

A tangible example of the SAB’s work are the two working groups they created to address issues raised by subscriber schools. Here are very high-level descriptions of the groups.

- **Support** - Charged with gathering a comprehensive picture of schools’ AWS support needs and working with DLT to ensure it has clear documentation and process for meeting all those needs for all levels of users.
- **Enterprise** - Charged with articulating a snapshot of how higher ed is using and wants to use (and manage) AWS and working with DLT to identify a path to meet that spectrum of needs.
Both groups are about to start their work. The Enterprise Working Group is looking for a few more members. Support has enough to get going, but if that is your jam, I’m sure they’ll let you join the band. If you are ready to roll up your sleeves and improve the program, drop me a line at bflynn@internet2.edu.

Credits

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Requests?

Do you have ideas or requests for a future newsletter? Email bflynn@internet2.edu

- aws