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@dl.t.com
- Higher Education Cloud Vendor Assessment Tool (HECVAT) - pending

Contract and Pricing:

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

FAQs and Instructions:

- NET+ AWS Frequently Asked Questions
- NET+ AWS NIH STRIDES Initiative Frequently Asked Questions
- Requesting an NIH STRIDES account through DLT

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 (Feb, May, Aug, Nov) are home to strategic and directional conversations. The intended audience is cloud and infrastructure leadership, but anyone working on your AWS team is welcome to attend. Twice annually we invite AWS EDU leadership to join us and encourage campus infrastructure and IT leadership to join.
- Quarterly NET+ AWS Tech Jams (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.

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

NET+ AWS Advisory Board (SAB) Membership

- Rick Rhoades, Penn State 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
- Jeff Gumpf, Case Western Reserve University
- Jay Hartley, Massachusetts Institute of Technology
- Jim Jokl, University of Virginia
- Scott Kinner, University of Notre Dame
- David Lacey, J. Paul Getty Trust
- Gerard Shockley, Boston 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@dl.t.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 Computing Community Group Slack. See the Higher Ed Cloud Community page 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.

**Key Program Updates**

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

**AWS Game Day @ TechEx 2022**

Bob Flynn posted on Aug 13, 2022

If you’re up for an engrossing, wild ride that’s crazy fun, then you’re ready for AWS Game Day @ TechEx 2022.

Internet2 NET+, together with AWS, DLT, and Cloud Academy, are bringing AWS Game Day to the 2022 Technology Exchange in Denver, CO.

**What is AWS Game Day?**

A “collaborative learning exercise that tests skills in implementing AWS solutions to solve real-world problems in a gamified, risk-free environment.”

**How do you play?**

- Recruit your own team (preferred) or show up and join one onsite.
- Compete against the game and against other teams for glory and prizes.
- Walk away with sharper AWS skills and a story to tell.

**Game Day Details:**

<table>
<thead>
<tr>
<th>When</th>
<th>Monday, December 5, 2022, 9 a.m. – 3 p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where</td>
<td>Sheraton Denver Downtown Hotel</td>
</tr>
<tr>
<td>Cost</td>
<td>Until 10/21 – $35 per person General Admission ($10 students)</td>
</tr>
<tr>
<td>The Game</td>
<td>Teams of 3-4 will run an imaginary company that rents mythical creatures. Your task will be to manage the company’s infrastructure as the market reacts to your exciting new business.</td>
</tr>
</tbody>
</table>
The Players

Bring your whole team, a partial team, or come prepared to join a team at the event. Registration information is below.

Note: Each member of your team must register separately.

What’s Included

- Beverages and snacks will be provided throughout the day, and lunch will be served close at hand so that you can keep an eye on your virtual company at all times.
- AWS Solutions Architects will be onsite to facilitate the game and cheer you on.
- A month of access to the Cloud Academy training library with a learning path specifically crafted to help participants shore up skills you’ll be using to run your company’s AWS infrastructure on the day of the event.
- In the month prior to the Game Day event, we will hold kick-off sessions to walk you through the materials. The event will be recorded for those who are unable to attend live.
- AWS swag and prizes

Skills Used

EC2, VPC, AutoScaling, ELB/ALB, CloudFront, Elasticache, S3, CloudWatch, ECS/Fargate

Game Day Registration & Preparation:

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register</td>
<td>Complete Team Roster</td>
<td>Access Prep Work</td>
</tr>
</tbody>
</table>

Register for Game Day through the Tech Ex Registration.

Note: You do not need to register for Tech Ex if you are only attending Game Day.

To register as a student, contact meetingregistration@internet2.edu.

All registrants will receive two email messages from the Internet2 registration system.

1. The first will be a receipt for your event registration.
2. The second will be a request to confirm your registration via our identity and access management system.

Please read and follow the instructions in both emails.

Once we have confirmed your registration, we will send you to a form where you can enter your team roster.

You will indicate whether you have a full or partial team or if you will be looking to pick up with a team on-site.

Note: Each team member must register separately, but one team member can enter the team information.

You will receive an email invitation from Cloud Academy to set up an account to access Game Day preparation materials.

Cloud Academy orientation sessions will be offered in early November. They will be recorded for those who cannot attend during the times provided.

Questions or Concerns:

Please contact Bob Flynn, Internet2 Program Manager, Cloud Infrastructure & Platform Services, at bflynn@internet2.edu.
Game Day Sponsors:

Internet2 and the higher education cloud community are grateful to our sponsors AWS, DLT, and Cloud Academy for their generous support of this event.

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**AWS Feature Request Project (guest post)**

Bob Flynn posted on Jul 14, 2022

Good Morning,

I am writing on behalf of the Internet2 AWS Service Advisory Board (SAB). The AWS Higher Education Team has requested our assistance with collecting requests for enhancements or changes to AWS and its services, with the hope of improving the platform for the research and education community. To facilitate this, we developed a form to collect the requests, the associated use cases, and their overall impact on your ability to use AWS.

These requests could be challenges in managing AWS at the enterprise level, a little tweak to a service that would help you end some work-around or a major challenge to a researcher’s ability to use the platform.

We are asking everyone in the research and education community to contribute to this effort, regardless of whether your organization is using AWS for enterprise work, research, teaching, and learning, or something else. It doesn’t matter if you are on Internet2’s NET+ contract, on a direct contract with AWS, or have access through some other program.

Submit as many requests as you like but, please complete a separate form for each request. The request form can be found at:

Request Form: [https://forms.gle/SpW11KexDw3Drf5p9](https://forms.gle/SpW11KexDw3Drf5p9)
We also encourage you to indicate your support for existing requests by reviewing our request tracker located at:

Request Tracker: https://tinyurl.com/HED-AWS-FeatureRequests

This will help the SAB gauge their impact and prioritize these requests for AWS. Working with AWS Education CTO Leo Zhadanovsky, the SAB will pass all requests on to the AWS product teams, with those having the greatest support getting the greatest attention.

We will submit your requests to AWS on a quarterly basis, so we will reach out to the community in advance to ask for new requests as well as your support for existing requests. We will work with AWS to update the status of submitted requests on a regular basis.

I am excited about this initiative and hope you will join me in making it a success.

Rick Rhoades
Manager, Cloud Services
Penn State University
Chair, Internet2 NET+ AWS Service Advisory Board

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**Sustainability and AWS: Insights for Higher Education**

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.

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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

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/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, while learning 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

- **aws**
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**

**Training Survey**

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