Welcome to the NET+ Google Cloud Platform (GCP) wiki.

Many Internet2 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 US higher education institutions. There are additional access fees for institutions that are not members of Internet2. For details on how to join the program, please email netplus@internet2.edu.

You can also find out more about the Internet2 Cloud Connect offering for GCP Partner Interconnect.

Subscribers to NET+ GCP have access to special offers through December 31, 2020. Find out more about these on-boarding offers (Sign in with your university credentials to access link).

Service Documentation and Resources

Accessibility:
- Voluntary Product Accessibility Template® (VPAT) - please email i2google@carahsoft.com
- NET+ GCP has an Accessibility working group - if you would like to join please email netplus@internet2.edu

Identity:
- GCP identities are closely tied to the GSuite environment - schools currently use Google Cloud Directory Sync to sync users and to populate Google Groups
- If you are interested in working on a recommendation for dynamic group population and Role mapping for authorization management - email netplus@internet2.edu

Information Security:
- Google Cloud's HECVAT can be found on the REN-ISAC Cloud Broker Index

Contract and Pricing:
- NET+ GCP Enterprise Customer Agreement - please email i2google@carahsoft.com
- Looking to issue a Request for Proposal (RFP) for NET+ GCP - check out our template RFP language
- NET+ GCP is designed to be sourced from your preferred Reseller. Choose an existing program Reseller or bring your own!

Community Resources

Participate in our Online Community (Subscribers Only):
Institutions participating in the NET+ GCP program may take advantage of our email discussion list and Slack channel to receive curated program updates and participate in other activities and events. Please contact netplus@internet2.edu to be added.

Join the GCP Community Forum (Open to all community members):
Users of GCP are encouraged to join the GCP Community Channel in the Educause Cloud Community Group Slack. See the Higher Ed Cloud Community Conversation and Additional Resources 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 Offers, Distributors and Resellers, Agreement Structure:
Find answers to frequently asked question in these Knowledge Base articles.

NET+ GCP Service Advisory Board Membership

- (Chair) Bob Flynn, Indiana University
- Atul Pala, San Jose State
- Brian Pasquini, University of Pittsburgh
- Damian Doyle, University of Maryland, Baltimore County
- Erik Lundberg, University of Washington
- Joshua Hyman, University of Pittsburgh
- John Bailey, Washington University of St Louis
- Maneesha Aggarwal, Columbia University
- Nick Young, University of North Carolina, Greensboro
- Olu Brown, Massachusetts Institute of Technology
- Eric Rau, Michigan State University
- Sam Porter, University of Maryland
- Stratos Efstathiades, New York University
- Zach Przybilla, Penn State University
- Sara Jeannes, Internet2, Staff Liaison
- Oren Sreebny, Internet2, Staff Liaison

To Contact the Service Advisory Board
- Email: gcp-campus-advisory@internet2.edu

Questions?
- Internet2 NET+ Service Management netplus@internet2.edu
- Carahsoft Customer Team i2google@carahsoft.com
- Reseller Contacts
- Internet2 Program Manager: Sara Jeannes sjeannes@internet2.edu

Send Feedback or Submit a Feature Request:
The NET+ GCP program is managed by an Internet2 program manager with the support of the NET+ GCP Early Adopter Team.
The NET+ GCP Early Adopter Team reviews and priorities community feature requests on a periodic basis. Feature requests may be submitted to netplus@internet2.edu.
Key Program Updates

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

Fall 2020 Service Updates

Tara Gyenis posted on Dec 18, 2020

LabArchives releases Jupyter Notebooks integration

NET+ LabArchives reached 20 subscribers earlier this year. The Electronic Lab Notebook (ELN) is being used successfully enterprise wide by tens of thousands of faculty and researchers in the Internet2 community. In the coming months, the NET+ LabArchives Service Advisory Board members will evaluate for inclusion in the NET+ program two other LabArchives products: LabArchives Scheduler, which has ~70,000 users worldwide, and LabArchives Inventory. Recently, LabArchives integrated with Jupyter Notebooks. The new integration with Jupyter Notebooks empowers users to capture data science, scientific computing, and machine learning workflows within LabArchives ELN for Research.

NET+ GCP offers the easiest path to use of the NIH STRIDES program

The National Institutes of Health STRIDES program offers deep discounts on cloud usage for NIH-funded research work. Enrolling an institution to take advantage of STRIDES with NET+ GCP only requires filling out an additional order form with your chosen NET+ GCP reseller. For more information on using NET+ GCP with STRIDES check out our blog post or email netplus@internet2.edu.

NET+ AWS campuses implement AWS Organizations and Control Tower

AWS Organizations and Control Tower are AWS features that help institutions to manage and govern their multi-account AWS environments. The NET+ AWS Organizations and Control Tower working groups have helped map out strategies for campuses to successfully implement Control Tower in their AWS environments, and Internet2 published a post by Peter Traub outlining the implementation of Control Tower at the University of Virginia. If you are interested in participating in these working groups, please email netplus@internet2.edu

GCP Project Audit scripts shared

Oren Sreebny posted on Dec 08, 2020

Our colleague Nick Young at UNCG has shared his scripts for auditing IAM settings on projects within a GCP organization. The scripts use Python on GCE, pushing the results to BigQuery.

The scripts are available at https://github.internet2.edu/nyoung/gcp-gce-project-audit-bq

Thanks, Nick!

Using Terraform with Google Cloud Project Factory to provision GCP accounts

Oren Sreebny posted on Jul 22, 2020

Eric Straavaaltdsen from UW Madison has shared some code for provisioning GCP accounts with Terraform and Google Cloud Project Factory. The example code configures a repo with three folders mapping to three risk levels (inspired by NIST 800-53).

The code can be found in the Internet2 Cloud Config Github repository at:

https://github.internet2.edu/cloud/GCP-Terraform-Cloud-Project-Factory
Thanks to those who joined us for the May 28 session on Using GCP In Research, and thanks to all those who took part in all four parts of our Getting Started with NET+ GCP Workshop! Please let us know what other GCP related topics you’d like to see covered in future sessions.

I’d like to take this opportunity to publicly thank all the speakers who took part in the series, and especially the people who helped make this series a great success: Emily Nichols, Internet2 project manager extraordinaire; Ryan Bass and the Internet2 Communications team; and Ming Ho, Ryan Martin, and Mike LeHaye from the Internet2 support team.

The video from the session is available here (https://internet2.hosted.panopto.com/Panopto/Pages/Viewer.aspx?pid=f81b32fe-7847-409b-8751-abb901142c64&id=4f0157b6-52fb-4faa-b50e-abca0132329f&advance=true).

And here are the slides. Please note that Preetesh Kantak’s research isn’t yet published. As a result, should you wish a copy of his slides please contact him directly.

**Video and Slides from May 21 NET+ GCP Workshop - GCP Security with Andy Chang**

Many thanks to those who joined us for Andy Chang’s very quick overview of Security features in GCP. Let us know if you’d like to see a more in-depth GCP security session as a future webinar topic.

The recorded video from the session is available here (https://internet2.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=c74fbd46-5d97-4542-bd37-abc301159e86)

Here are Andy’s slides.
Please join us for the last of our Getting Started With NET+ GCP sessions on Using GCP In Research. You can register to attend at [https://www2.internet2.edu/i2-online-GCP-workshop-2020](https://www2.internet2.edu/i2-online-GCP-workshop-2020):

**Using GCP in Research**

Thursday, May 28, 2020 1PM ET/12PM CT/10AM PT (60 Minutes)

In the final session, we will hear about exciting research projects utilizing GCP to advance science in the real world, along with how to use NET+ GCP to get research credits and utilizing GCP with NIH Strides funding. Goal for this session is to inspire ideas and ways to utilize GCP for Research within Higher Education.

**Speakers:** Alice Kamens (Google), Preetesh Kantak (Indiana University), Boyd Wilson (Omnibond), Jamie Sunderland (Internet2)

- gcp

[Video and Slides from May 14 NET+ GCP Workshop - Managing GCP On Campus](https://internet2.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=62c9d6a-a-9203-4c11-8d87-abb015203b1)

Thanks to all who joined us for our second session in the Getting Started with NET+ GCP workshop.

The recorded video is available in Panopto [here](https://internet2.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=62c9d6a-a-9203-4c11-8d87-abb015203b1).

Here are the slides:
There are two more sessions as part of the NET+ GCP Workshop - you can register to attend at https://www2.internet2.edu/i2-online-GCP-workshop-2020:

**Security in GCP**

*Thursday, May 21, 2020 1PM ET/12PM CT/10AM PT (60 Minutes)*

This third session will feature Andy Chang from Google, offering an overview of security features within GCP, and how to utilize them within your campus security practices. The goal for this session is to gain a better understanding of security features within GCP.

*Speaker: Andy Chang, Google*

**Using GCP in Research**

*Thursday, May 28, 2020 1PM ET/12PM CT/10AM PT (60 Minutes)*

In the final session, we will hear about exciting research projects utilizing GCP to advance science in the real world, along with how to use NET+ GCP to get research credits and utilizing GCP with NIH Strides funding. Goal for this session is to inspire ideas and ways to utilize GCP for Research within Higher Education.

*Speakers: Alice Kamens (Google), Preetesh Kantak (Indiana University), Boyd Wilson (Omnibond), Jamie Sunderland (Internet2)*

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There are three more sessions as part of the NET+ GCP Workshop - you can register to attend at https://www2.internet2.edu/i2-online-GCP-workshop-2020:

**Managing GCP on Campus**

*Thursday, May 14, 2020 1PM ET/12PM CT/10AM PT (60 Minutes)*

This second session will provide an overview of how to manage NET+ GCP on your campus, including managing identity, billing, and network integration. The goal for this session is to gain an understanding of GCP integration with existing campus technology.
**Security in GCP**

Thursday, May 21, 2020 1PM ET/12PM CT/10AM PT (60 Minutes)

This third session will feature a top security expert from Google, offering an overview of security features within GCP, and how to utilize them within your campus security practices. Goal for this session is to gain a better understanding of security features within GCP.

*Speaker:* Andy Chang, Google

**Using GCP in Research**

Thursday, May 28, 2020 1PM ET/12PM CT/10AM PT (60 Minutes)

In the final session, we will hear about exciting research projects utilizing GCP to advance science in the real world, along with how to use NET+ GCP to get research credits and utilizing GCP with NIH Strides funding. Goal for this session is to inspire ideas and ways to utilize GCP for Research within Higher Education.

*Speakers:* Alice Kamens, Google; Jamie Sunderland, Internet2

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**Join Us for a Virtual Series on NET+ Google Cloud Platform**

[Sara Jeanes (internet2.edu)](https://www.internet2.edu/blogs/detail/17618) posted on Apr 23, 2020

More details on the Virtual Series, and a link to register can be found on the main Internet2 blog here: [https://www.internet2.edu/blogs/detail/17618](https://www.internet2.edu/blogs/detail/17618)

Sessions will cover a wide variety of topics, including:

- Security in GCP, featuring an overview of GCP security from a Google expert
- Managing identity and billing in GCP, and GCP’s relationship with GSuite
- Network integration for GCP, featuring Internet2 network experts
- Some examples of real-life campus use of GCP from program participants
- How you can participate in the NET+ GCP community of practice

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