

# Virginia Tech (VT) Google Workspace Program

## Project 1 Working Group

### Final Report Executive Summary

20210730

The VT Google Workspace Program Project 1 Working Group performed an analysis of the university's Google Workspace usage and delivered its final report on July 30, 2021, to the Program Sponsor. The report provides a comprehensive baseline of current service and storage usage across all Virginia Tech Google user and Google Auxiliary Email (GAE) accounts. The report also includes details on VT Google Shared Drive. However, due to the limitations of Google's API (Application Programming Interface), Shared Drive storage usage is only known as a total amount at the tenant-level.

#### Project 1 Final Report Findings

- VT Google services are provided to employees, students, alumni, retirees, and other use cases, such as service accounts, sponsored accounts, and affiliates. As of July 2021, there are ~202,803 user accounts and 991 GAE accounts utilizing a total of ~5.2 Petabytes (PB) of file storage, including usage across the three major services: Gmail, Google Drive, and Google Photos.
- Users receive VT Google services if they have one or more eligible VT affiliation associated with their university account. However, this approach is inadequate for determining the length of service required resulting in accounts persisting in the environment indefinitely.
- Deprovisioning of VT Google services lacks adequate workflows to remove users from the environment once their involvement with the university has ended. Specifically, the report shows that ~13% of the user accounts in the environment today lack any eligible affiliations required to maintain service.
- Employee and student accounts tend to be active within the last 1 to 6 months while alumni and retiree accounts show broad periods of inactivity. Specifically, 55% of alumni and 51% of retiree accounts have not logged in the last 12 months.
- Across some of the constituent groups, a significantly high amount of file storage is being used by a small portion of the accounts. Specifically,
  - 6.3% of employee accounts are using a total .8 PB of storage
  - 1.5% of student accounts are using a total of .7 PB of storage
  - 1.6% of alumni accounts are using a total of 2.1 PB of storage
- The VT Google Workspace tenant has 54,647 distinct Google Shared Drives representing ~.5 PB of total pooled storage usage. 1.4% of these drives are managed by either non-VT accounts or user accounts lacking eligible affiliations. 40% of these drives have an alum identified as one of the managers. However, the lack of a Google API to pull total storage usage by drive is a critical limitation in the university's ability to properly understand and plan for services around Google Shared Drives.

In conclusion, the Project 1 final report provides a strong comprehensive assessment of user and GAE account usage that will allow Project 2, VT Google Service Decisions, to move forward as planned.