Snowflake Campus Data Hubs: Transforming CU data analytics [1]

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People are the heart of the University of Colorado, but data is its oxygen. CU needs, creates and uses enormous amounts of data in its work to advance research and knowledge, and in service to all its students, faculty and staff.

UIS has a new tool available, Snowflake Campus Data Hubs [3], that could revolutionize how data analysts turn data into information, which groups then use for data-informed decisions. Snowflake is a software product available to any organization but collaborating with UIS and using its instance of Snowflake has major benefits.

Pregash Devasagayam, CU Boulder Identity and Access Management program manager, shared his enthusiasm for Snowflake's potential. "What's happening with Snowflake is exciting for my team," Devasagayam said. "We house the enterprise database for Boulder, a place to store data and drive processes, but it's not the best place for data analysis. Snowflake is the place where data can be collected and viewable for analysis. Both warehouses are powerful but with very different uses."

What is a data hub?

A data hub is a center for data exchange supported by data science, engineering and warehouse technology to interact with algorithms. Snowflake Campus Data Hubs are cloud-based data platforms designed to handle and analyze large volumes of data across multiple data schemas.

Snowflake simplifies the process of sharing and accessing data across organizational boundaries while ensuring security, data consistency and near real-time updates.

Why use the UIS Campus Data Hub?

UIS has done the work for you — from negotiating enterprising pricing to setting up security and privacy that meet 90 security standards. Snowflake Campus Data Hubs provide campuses and CU System Administration with a Snowflake account, database and

warehouse resources with cost monitoring and available CIW data shares.

Allmond McDermott, UIS Enterprise Data Architecture manager, explains how she and her team have built a practice on legal standards. "We can provide support so that every department and campus doesn't have to reinvent the wheel," McDermott said. "We can help campuses and system departments maintain compliance and save them contractual work."

Snowflake recently published 7 Ways Educational Institutions Generate Data Drive Insights with Snowflake [4], with examples of universities improving student success, advancement efforts and more by using their data hubs to better understand students and find new approaches.

Campus Data Hub benefits

- A modern, scalable framework in Snowflake.
- Options to add third-party solutions built on the Snowflake ecosystem.
- Access to Central Information Warehouse (CIW) reporting data and source data from enterprise systems.
- An affordable and accessible way to combine campus and enterprise data.
- Analytics can be shared back to CIW for use by a wider audience in CU-Data and Tableau reporting.

How to get started

Usage: Snowflake Campus Data Hubs are currently a pilot program and access to Snowflake requires specific training. Due to the nature and security requirements of the data that will be provided, this tool/product is being extended out to OIT departments only. Once the OIT departments have access to the tool, the campus OIT administrators will need to take training for the product and to set up security consistent with UIS source systems that is also NIST-800 compliant so that the data is protected with the same standards as the source systems from which the data is extracted. Reach out to your UIS Customer Success manager [5]to learn more or contact the Enterprise Architecture team via the UIS Service Desk [6].

Cost: Currently, Snowflake is not funded under ICCA funding, so usage of the tool will be an additional charge. We are currently working through the creation of an "introduction package" where UIS will subsidize a defined number of Snowflake credits for the OIT departments in order to facilitate experimentation. However, once those introductory credits are used, the departments will need to pay for the additional credits they would like to utilize.

Forecast: With the consistent rise in data volume, variety and velocity, CU must seek new solutions to store and process the information tsunami. Looking ahead, the ability to share and exchange data across departments and campuses will be even more vital. Snowflake offers flexibility, scalability and high performance. Its compatibility with other CU business intelligence tools, such as Tableau, enhances its ability to provide insights. Consider making Snowflake part of your data equation with UIS.

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An infographic showing how Snowflake fits into CU's data landscape.

 Accessible PDF: Read the accessible PDF version of the CU Data Landscape infographic [7]

Snowflake [8], Data Analytics [9]
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