snowflake

Understanding Snowflake Pricing

Snowflake provides a complete and compatible SQL Data Warehouse that delivers unprecedented flexibility, performance, and scalability. The goal of Snowflake pricing is to enable these capabilities in the simplest possible manner, at an affordable cost. Today, Snowflake is available in two major geographies: US and European Union (Frankfurt).

The Snowflake architecture separates Data Warehousing into three distinct functions: Storage, Compute (Virtual Warehouses), and Service. Snowflake pricing is based on the actual usage of Storage and Virtual Warehouses and includes the costs associated with the Service layer

* **Storage:** All customers are charged a monthly fee for the data they store in Snowflake. Storage cost is measured using the average storage used per month of all customer data stored in Snowflake, after compression.

* **Virtual Warehouse:** A Virtual Warehouse is one or more compute clusters that enables customers to load data and perform queries. Customers can pay for virtual warehouses using Snowflake credits.

WHAT IS A SNOWFLAKE CREDIT?

Snowflake Credits are used to pay for the processing time of a Virtual Warehouse. Snowflake Credits, a unit of measure, are consumed only when a Virtual Warehouse is running. When a warehouse is not running (ie. it is set to Sleep mode), it does not consume any Snowflake Credits. Snowflake Credits are consumed at different rates based on the size of the running warehouse.

VIRTUAL WAREHOUSE TYPES

Snowflake supports a wide range of Virtual Warehouse sizes: X-Small, Small, Medium, Large, X-Large, 2X-Large, and 3X-Large. The size of the Virtual Warehouse determines how fast queries will run. The different sizes of Virtual Warehouses consume Snowflake Credits at the following rates for each hour the warehouse is operational:

Virtual Warehouse Credits Per Hour						
XS	S	M	L	XL	2XL	3XL
1	2	4	8	16	32	64

SNOWFLAKE EDITIONS

Snowflake offers four different Editions, each providing progressively more features.

Standard

- Business hour support M-F
- 24 hours of Time Travel
- Always-on Enterprise Grade encryption in transit and at rest
- Zero copy clone

Premier

STANDARD +

- Premier Support: 24 x 365
- Faster support response time
- SLA w/refund for outage

Enterprise

PREMIER +

- Multi-cluster warehouse
- Up to 90 days of Time Travel
- Federated authentication
- Annual rekey of all encrypted data

Enterprise for Sensitive Data

ENTERPRISE +

- Support for HIPAA
- Data encryption everywhere
- Enhanced security policy

For more information on the features available in each service type, refer to the features table on the webpage www.snowflake.net/product/pricing.

BUYING THE SNOWFLAKE SERVICE

There are two ways to buy the Snowflake service:
On Demand or pre-paid Capacity.

On Demand

The easiest and most flexible way to purchase the Snowflake Service is On Demand. Similar to Amazon AWS, customers are charged a fixed rate for the services that are consumed and are billed in arrears every month.

On Demand storage is charged at the fixed rate of:

$40 per Terabyte per month for customers deployed in the United States

$45 per Terabyte per month for customers deployed in European Union: EU (Frankfurt)

On Demand credit pricing for these service types is as follows:

On Demand	Price per Snowflake Credit USA	Price per Snowflake Credit EU (Frankfurt)
Standard	$2.00	$2.70
Standard with Premier Support	$2.25	$3.00
Enterprise	Contact Snowflake	Contact Snowflake
Enterprise with ESD	Contact Snowflake	Contact Snowflake

There is a minimum monthly charge of $25 for On Demand customers.

Pre-Purchased Capacity

Snowflake provides customers the option to pre-purchase Capacity. A Capacity purchase is a specific dollar commitment to Snowflake. The Capacity purchased is then consumed on a monthly basis. Capacity purchases provide more service options, lower prices, and a long-term price guarantee.

For Capacity storage, the price is:

$23 per Terabyte per month for customer deployed in United States

$24.50 per Terabyte per month for customers deployed in European Union: EU (Frankfurt)

Capacity Credit Pricing

For a Capacity purchase, the price of Snowflake Credits is determined at the time the order is placed based on the size of the total committed customer purchase. For more information about the discounts available for Capacity purchases, please talk to a Snowflake Sales representative.

Capacity Usage

Capacity usage is determined on a monthly basis as follows:

* The average storage is measured and the total storage cost is determined.

* The total Snowflake credits for all Virtual Warehouses is calculated and this is multiplied by the price of the Snowflake Credits.

* The sum of the dollar cost of the storage and Virtual Warehouse usage are deducted from the remaining Capacity balance.

Customers are notified when they have used 70% of their Capacity balance. As a customer approaches the end of their capacity consumption, they will be contacted by Snowflake.

Customers may continue using the Snowflake service after their purchased capacity is consumed or their term ends. If this happens, they will be charged the corresponding On Demand price for Snowflake; for example: In the US-West region, $2.00 per credit for Standard or $2.25 for Standard with Premier Support and $40 per TB per month for storage.

PRICING EXAMPLES

The cost of the Snowflake service is determined by actual usage which varies based on the individual customer application.

Most Snowflake customers gain experience using Snowflake On Demand. That allows the application workload to be developed and tested and provides real-world experience to estimate the monthly cost.

When the application workload is understood, an appropriately sized Capacity purchase can be made.

Here are two different examples of Snowflake Capacity pricing:

EXAMPLE 1

Customer has purchased the Snowflake **Capacity Standard Service with Premier Support in the United States.**

They load data every night and have 8 users using the database during business hours. This customer:

* Stores an average of 4 TB's of data.
* Runs a batch loading task every night for three hours, using a Small Standard Virtual Warehouse.
* Enables eight users to work 5 days a week from 8am until 6pm using a Medium Standard Virtual Warehouse.

Data Loading Requirements

Parameter	Customer Requirements	Proposed Setup
Data Load Frequency	Daily	Small Standard Virtual Warehouse (2 Credits per hour)
Loading Window	3 hours	
Credits Required per month	**186**	(2 Credits x 3 hours per day x 31 days per month)

User Requirements

Parameter	Customer Requirements	Proposed Setup
No. of Users	8 Users	Medium Standard Virtual Warehouse (4 Credits per hour)
Time Slot	8am–6pm (10 hours)	
Credits Required per month	**800**	(4 Credits x 10 hours per day x 20 days per month)
Total Credits Required per month	**986**	(800 Credits for Users + 186 Credits for Loading

Storage Requirements

Data Set size (per month)	4TB (After Compression)

Capacity Purchase Totals

Data storage price (per year)	$1,104.00	4TB x $23 (per TB per month, based on Storage table) x 12 months
Virtual Warehouse (per year)	$25,290.00	986 (Credits per month) x $2.25 (per credit) x 0.95 (5% sample discount)[1] x 12 months
Total Price (per year)	**$26,394.00**	Data Set (per year) + Virtual Warehouse (per year)

[1] Sample discount. For further details, please contact your Snowflake representative.

EXAMPLE 2

Customer has purchased the Snowflake **Capacity Standard Service with Premier Support in the United States.**

They load data constantly, 24x7. They have two different groups of users (Finance and Sales) using the database in overlapping, but different times of the day. They also run a weekly batch report. This customer:

* Stores an average of 65 TB's of data.

* Loads data 24x365. They use a Standard, Small Virtual Warehouse to do this.

* Enables seven finance users to work 5 days a week from 8am until 5pm using a Large Standard Virtual Warehouse.

* Enables twelve sales users in different geographies to work a total of 16 hours a day (across Europe and the Americas), 5 days a week using a Medium Standard Virtual Warehouse.

* Runs a complex weekly report every Friday. This report takes approximately 2 hours to run on a 2X-Large standard warehouse.

Data Loading Requirements

Parameter	Customer Requirements	Proposed Setup
Data Load Frequency	Daily	Small Standard Virtual Warehouse (2 Credits)
Loading Window	24 x 7 x 365	Small Standard Virtual Warehouse (2 Credits)
Credits Required per month	**1,448**	(2 Credits x 24 hours per day x 31 days per month)

User Requirements

Parameter	Customer Requirements	Proposed Setup
Finance No. of Users	5 Users	Large Standard Virtual Warehouse (8 Credits)
Time Taken per day	8am–5pm (9 hours)	Large Standard Virtual Warehouse (8 Credits)
Finance Credits Required per month	**1,440**	(8 Credits x 9 hours per day x 20 days per month)
Sales No. of Users	12 users	Medium Standard Virtual Warehouse (8 Credits)
Time Slot per day	16 hours	Medium Standard Virtual Warehouse (8 Credits)
Sales Credits Required per month	**1,280**	(4 Credits x 16 hours per day x 20 days per month)
Complex Query No. of Users	1 user	(2X Standard Virtual Warehouse (32 Credits)
Time Taken per day	2 hours	(2X Standard Virtual Warehouse (32 Credits)
Complex Query Credits Required per month	**256**	(32 Credits x 2 hours per day x 4 days per month)
Total Credits Required per month	**4,424**	(2,976 Credits for Users + 1,448 Credits for Loading

EXAMPLE 2 *(cont'd.)*

Storage Requirements

Data Set size (per month)	65 TB (After Compression)

Capacity Purchase Totals

Data storage price (per year)	$17,940.00	65TB x $23 (per TB per month, based on Storage table) x 12 months
Virtual Warehouse (per year)	$101,530.80	4,424 (Credits per month) x $2.25 (per credit) x 0.85 (15% sample discount)[2] x 12 months
Total Price (per year)	**$118,470.80**	Data Set (per year) + Virtual Warehouse (per year)

[2] Sample discount. For further details, please contact your Snowflake representative.

www.snowflake.net | @SnowflakeDB