# unravel

SNOWFLAKE DATA PLATFORM & APPS

# HEALTH CHECK REPORT

A comprehensive view of productivity, cost and performance optimizations.

PREPARED FOR ACME CORPORATION DATA FROM JAN 27 2024 to FEB 3 2024

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These are just a small subset of the insights you get with Unravel to help you get familiarized with the platform, let's get started!

This is a health check report for the types of cost and performance insights Unravel provides you with. In this report, you will learn about the automation capabilities of Unravel's FinOps and Data Observability platform.

We will review a few examples of issues and insightsautomatically caught by Unravel and how simple it isto detect, root cause and resolve issues across yourdata platform, pipelines, and queries.

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# **OVERVIEW**

#### UNRAVEL'S HEALTH-CHECK OVERVIEW

# The overview page shows key areas of improvement and their impact. The improvements are categorized under productivity, cost, and performance.

These categories have several sub-categories where you can drill down into and understand how to resolve them. This view is generated using Unravel's intelligence engine. Unravel has analyzed all jobs, resource usage, data usage and automatically surfaced areas of improvement.

halysis from Jan 27	to Feb 3, 2024 (7 da	ys)		🔅 Configure	2024-02-03
Jsage					
Cost			Compute	Data	Users
Total (USD)         Comp           \$ 18,411         \$ 13           \$ 940.0 k annualized         4,603           Credit         Credit	.8k \$4,050 credits	Data transfer <b>\$ 552</b>	Wareho O Queries O 32 161k	Tables         Size           32.8k         761 TB	Accounts Users 1 342 <u>View</u>
Potential improvement					
Increase productivity	L.	Reduce cost wastage		Improve performance	3
Increase productivity Insights and record	mmendations found	Reduce cost wastage Warehouses	<b>\$ 194k–216k</b> Annualized savings 27–30% of annualized cost	Improve performance Warehouses	Improved utilization (avg.)
Increase productivity Insights and record Warehouses 65% 7 2	mmendations found		Annualized savings		30% Improved utilization (avg.) 65% of warehouses 20% Faster (avg.)

- 1. \$217K annual savings potential would help fast-track Gen AI projects
- 2. Warehouse and query recommendations represent the largest potential cost savings
- 3. 30% increase in utilization frees up capacity needed

## **WAREHOUSE OPTIMIZATION**

#### IMPROVE WAREHOUSE PERFORMANCE AND COST

Unravel's intelligence engine hunts and surfaces for issues that are slowing down your warehouses or wasting money.

Last 7 days       Annualized       Annualized       Consolidate multiple warehouses into one View warehouses         Cueries spilling to disk       Rightsizing View warehouses       Rightsizing View warehouses         When a warehouse cannot fit an operation in memory, it starts spilling data to first local disks and then to remote storage, resulting in slower queries.         Impact       Untapped speedup       Recommendations         Moving a query to a larger warehouse may increase the company in	Narehouses @ Queries		S (230)	
A warehouse is underuflized when the workloads running on the warehouse do not utilize the full extent of the resources available. Therefore the workloads can run on a smaller and cheaper of without performance degradation. Wasted cost   Wasted cost 1   \$ 4,101-4,557 \$ 214k-237k   Last 7 days \$ 214k-237k   Annualized 1   Untapped savings \$ 194k-216k Annualized Annualized Migrate queries to smaller warehouses View queries to smaller warehouses into one View warehouses • Consolidate multiple warehouses into one View warehouses • Recommendations • Rightsizing View warehouses • Rightsizing View warehouses • Rightsizing View warehouses • Nigrate queries to larger warehouses • View queries to larger	30 of 32 warehouses have	insights		
\$ 4,101-4,557 \$ 214k-237k   Last 7 days \$ 194k-216k   Annualized • Migrate queries to smaller warehouses View queries to analize warehouses into one View warehouses   • Consolidate multiple warehouses into one View warehouses   • Rightsizing View warehouses   • Nigrate queries to larger	A warehouse is underutilized		he warehouse do not utilize the full extent of the reso	ources available. Therefore the workloads can run on a smaller and cheaper warehouse
Last 7 days Annualized   Annualized Annualized Consolidate multiple warehouses into one View warehouses Rightsizing View warehouses Rightsizing View warehouses Rightsizing View warehouses Recommendations Moving a query to a larger warehouse may increase the co Queries from last 7 days S5% Cueries with long wait	Wasted cost	1	Untapped savings	Recommendations 3
When a warehouse cannot fit an operation in memory, it starts spilling data to first local disks and then to remote storage, resulting in slower queries.         Impact       Untapped speedup         22%       35%         Queries from last 7 days       35%         Equeries with long wait       Engre duration (avg.)		•		View warehouses
22%     35%     21%       Queries from last 7 days     Songer duration (avg.)	When a warehouse cannot fit			
	22%		21%	Moving a query to a larger warehouse may increase the cost of the query. <ul> <li>Migrate queries to larger warehouses</li> </ul>
	-		ing queries wait on a queue until resources become	available.
Impact 2 Untapped speedup Recommendations	Impact	2	Untapped speedup	Recommendations
18%25%20% Adjust min / max clusters of warehousesQueries from last 7 daysLonger duration (avg.)Faster (avg.) View warehouses				

- 1. Recapture \$214K in wasted spend with improved utilization
- 2. 25% faster queries to help achieve SLAs
- 3. Warehouse rightsizing and consolidation

# **QUERIES OPTIMIZATION**

#### **IMPROVE QUERIES PERFORMANCE AND COST**

Unravel's intelligence engine hunts and surfaces for issues that are slowing down your queries or wasting money. Inefficient joins, poor clustering, SQL anti-patterns and more.

Unravel captures all the ways in which you can optimize your queries automatically, helping you maximize performance while keeping costs down.

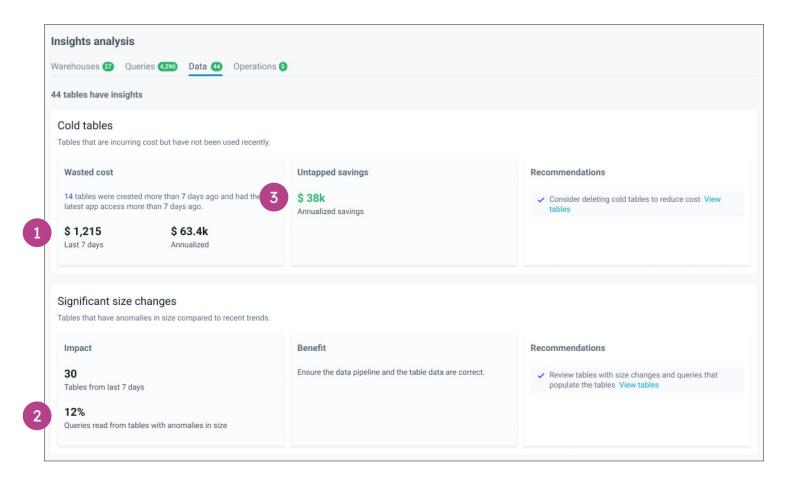
	ions 🗿		
90 queries have insights			
nefficient queries			
ueries with opportunities to improve the performance and	cost efficiency.		
Inefficiencies	Untapped savings and speedup	Expensive unique que	eries with insights
Join inefficiency	\$ 130k-151k	Est. Cost SQL	# of runs
Filter inefficiency () SQL anti-patterns ()	Annualized savings	\$ 1,245 CALL war	rehouse_proc('UNRAVEL 2
Performance KPIs O	18%		ALL warehouse_proc( U 2
Projection inefficiency ① Single-row insert ①	Faster (avg.) for queries with insights	3 \$ 900 CALL REF	PLICATE_ACCOUNT_US 4
The 8 most frequent unique queries represent 47% of all		\$ 822 CALL REF	PLICATE_ACCOUNT_US 1
inefficient queries.		\$ 821 CALL REF	PLICATE_ACCOUNT_US 2
ailed/timed-out queries			
ueries that failed due to compilation, run-time errors or tir	ned out.		
Wasted cost	Untapped savings	Recommendations	
580 instances from 20 unique queries	\$ 20.3k-23.7k	✓ Troubleshoot failed	d/timed-out queries View queries
<b>\$ 1,296–1,512 \$ 67.6k–78.8k</b> Last 7 days Annualized	Annualized savings	✓ Migrate queries to	larger warehouses View queries

- 1. Recapture \$214K in wasted spend with improved utilization
- 2. 25% faster queries to help achieve SLAs
- 3. Warehouse rightsizing and consolidation

## **DATA OPTIMIZATION**

#### IMPROVE DATA COST AND PERFORMANCE

Unravel's intelligence engine hunts and surfaces how you could optimize your data storage and tiering automatically. It also pin-points areas of improvement as well as anomalies detected.



- 1. Over 4000 insights were discovered to help maximize performance while keeping costs down
- 2. These 20 queries failed 580 times catching these early will save a lot of waste in the future
- 3. These queries succeeded, but could be optimized

# **PROACTIVE OPERATIONS**

#### **PROACTIVE, AUTOMATED OPERATIONS**

## Your warehouses are dynamic. They require proactive operations to keep them running optimally. Unravel prompts and sets up alerts on problems it's seeing in your environment.

In addition, Unravel integrated with your CI / CD process and sends insights during code review step to ensure only healthy apps reach production. Thereby eliminating problems before they even arise. All with clear benefits and impact.

arehouses 27 Queries 4,290 Data 44 0	perations 6			
ction items				
Alerting nable Unravel-provided alerts or create custom alert iew Alerts	s to provide guardrails for rogue applications an	id more.		3
	Running queries that Disabled failed in the last 7 days	Queries that ran longer than 80% of warehouse- level timeout	Enabled	Queries that ran longer Disabler than 15 mins
34 observed instances	45 observed instances	55 observed instances		30 observed instances
Queries that costed more Disabled				
than \$40				
than \$40 28 observed instances				
28 observed instances	vironment to prevent bad code from being merg	ed.		
28 observed instances I/CD GitHub le Unravel insights in pull requests in your CI/CD en	vironment to prevent bad code from being merg Potential benefits		Recommenda	tions
28 observed instances I/CD GitHub ee Unravel insights in pull requests in your CI/CD en		nd mitigate them with Unravel	✓ Integrate 0	
28 observed instances I/CD GitHub ee Unravel insights in pull requests in your CI/CD en Impact	Potential benefits See the inefficiencies in PRs and	nd mitigate them with Unravel	✓ Integrate 0	GitHub to discover inefficiencies even before

- 1. Enable this alert to quickly spot costly queries being created by analysts
- 2. CI/CD integration will enable us to track and gamify cost savings for your developers
- 3. Enable this alert to catch long-running queries

# GET YOUR OWN HEALTH CHECK REPORT IN THREE EASY STEPS



Start the process using the form below



Share

Securely share your telemetry using Snowflake's Secure Data Sharing



Review

Receive your Health Check report in your inbox

#### **REQUEST YOUR FREE REPORT**

### About Unravel Data

Unravel Data is the first AI driven data observability and FinOps platform designed for the data stack. Unravel enables data driven organizations to identify and resolve performance, cost and reliability problems across platforms and pipelines. Its customers include Citibank, Maersk, Johnson & Johnson, UBS and Intel among others. Unravel Data is backed by Microsoft, GGV Capital, Menlo Ventures, Point72, Third Point Ventures and Harmony Ventures.

Visit <u>www.unraveldata.com</u> for more information.