

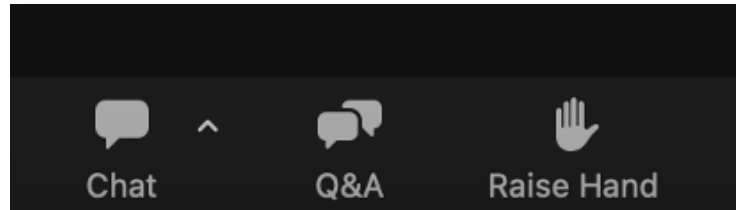


# Is the Star Schema Dead?

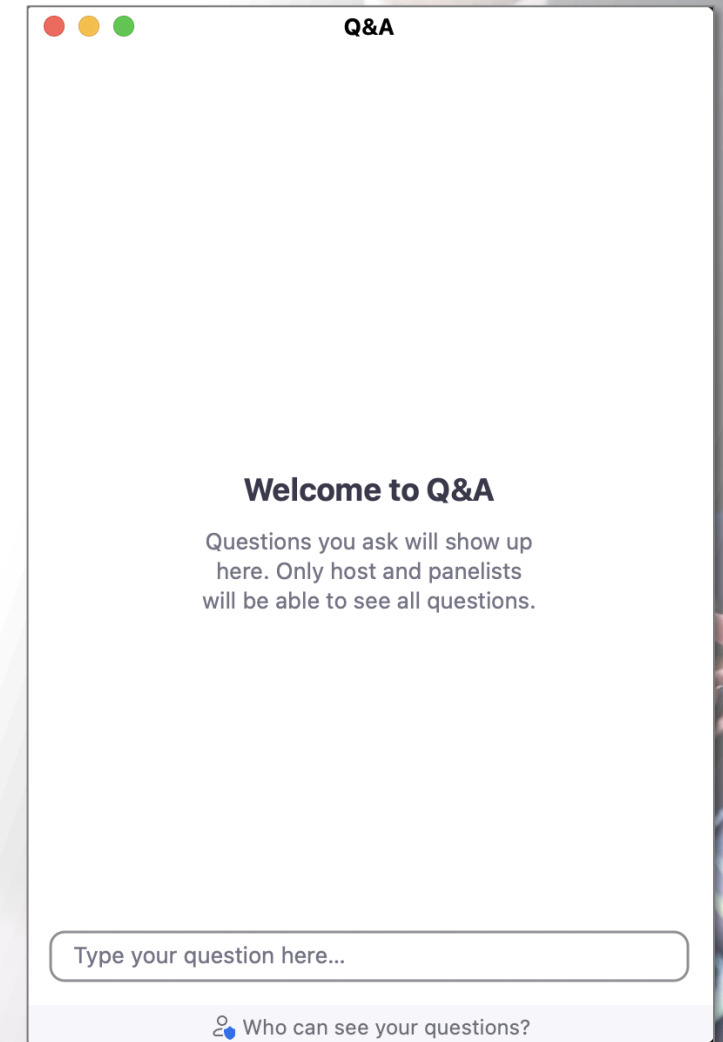


# Questions?

Click Q&A at the  
bottom of your screen



Submit questions  
in this section

A screenshot of a Q&A interface. At the top, there are three colored circles (red, yellow, green) and the text 'Q&A'. Below this, the text 'Welcome to Q&A' is displayed, followed by a paragraph: 'Questions you ask will show up here. Only host and panelists will be able to see all questions.' At the bottom, there is a text input field with the placeholder 'Type your question here...' and a button with a person icon and the text 'Who can see your questions?'.


# To obtain this presentation

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### Topics


- Analytics Connector
- Cross Vendor Comparisons
- Dashboards Reporting & Visualizations
- Data & Cloud Architecture
- Data Prep & Modeling
- Deployments & Performance Optimization
- IBM Analytics & Cognos
- Microsoft Azure & Power BI
- Security, governance & administration
- Snowflake
- Tableau




**Webinar**  
**6 Ways to Publish & Share Tableau Dashboards**  
How-to demo and discussion of pros, cons and considerations




**Webinar**  
**How to Successfully Implement Self-Service Analytics**  
Agile, governed self-service BI with a focus on Cognos analytics




**Webinar**  
**Creating a Power BI Report Your Boss Can Navigate**  
How to design a user-friendly nav experience



**Webinar**  
**Power BI Report Builder & Paginated Reports**  
Creating pixel-perfect reports for printing and PDF



**Webinar**  
**Using Python with Power BI**  
Learn the basics, including the software and plotting libraries



**Webinar**  
**Streamline Cognos Migrations and Consolidations**  
Automatically decode Cognos content and reduce migration time by 90%

# Agenda

Introductions

Is the Star Schema dead?

Senturus overview and additional resources

Q&A





# Introductions

Pat Powers

BI Consultant and Trainer  
Senturus, Inc.



# Poll

Where do the majority of your data sources come from? (Select all that apply)

- Star schemas
- Transactional systems
- Hybrid of database types
- Wide tables
- Flat files
- Unknown

# Is the Star Schema dead?

# YES AND NO!

Thanks for coming.

# Seriously though...



Star schema better than transactional system for reporting and analytics



Today's modern technology offers new and exciting options



Optimal situation requires time and money



# What changed...and what didn't

## Then:

- Star schemas
- Cost
- Performance
- Optimized for analytics

## Now:

- Onsite hardware MUCH cheaper
- Cloud based solutions cheaper & potentially faster

## But...

- On-premise data
- Budgetary and time constraints

# First and foremost



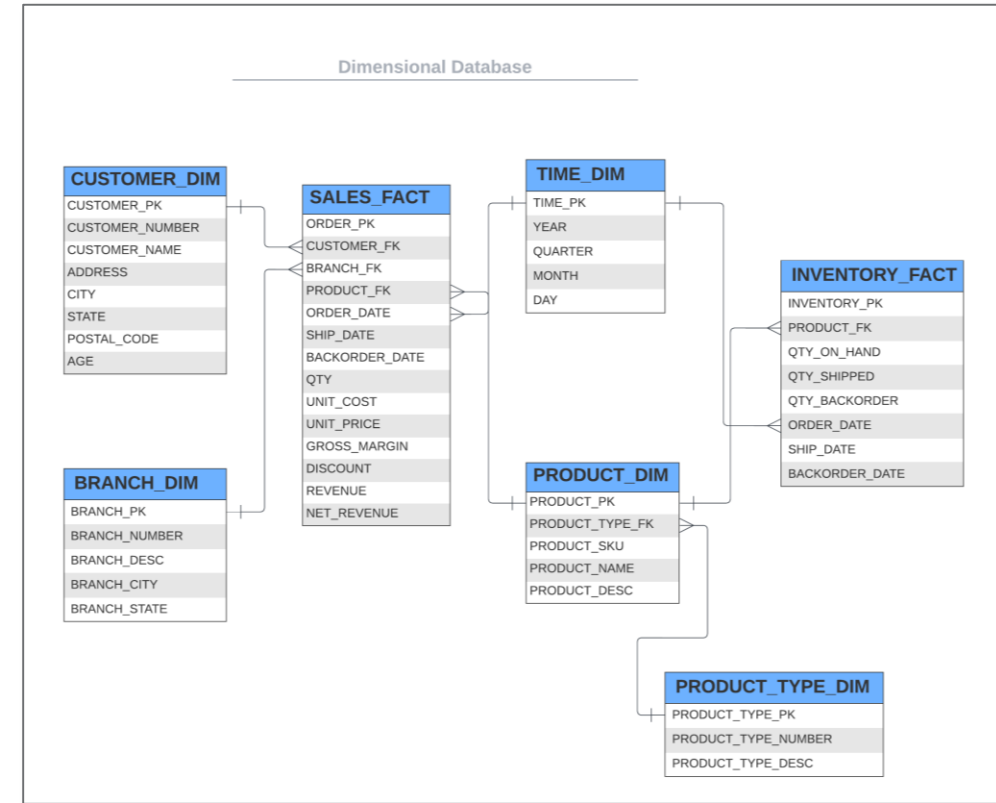
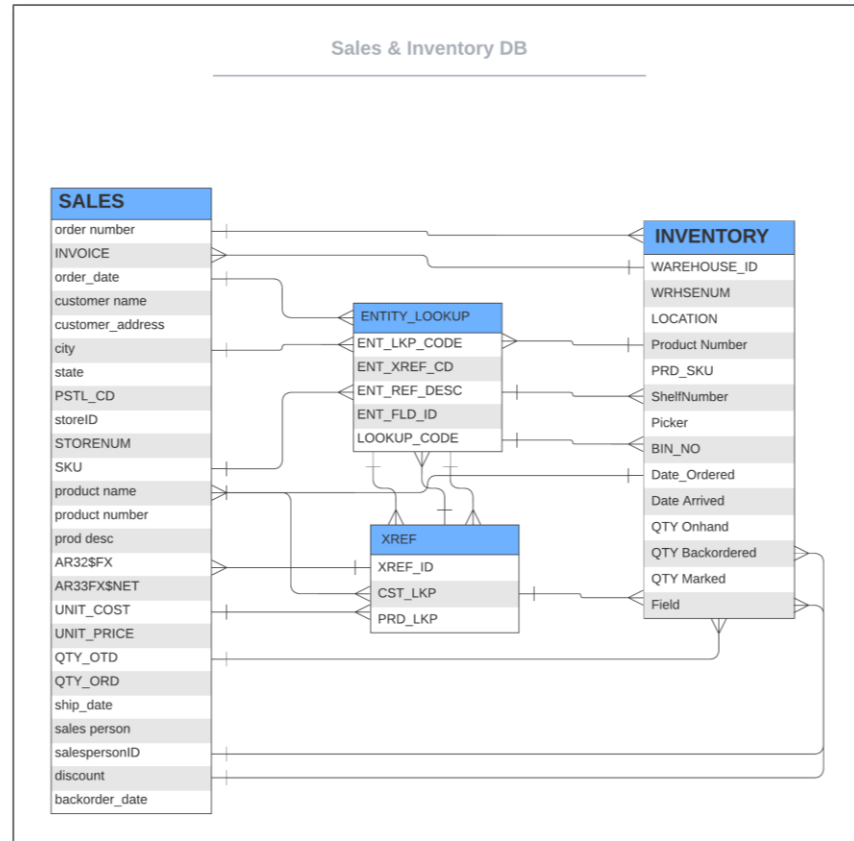
- You can't do analytics without a solid foundation or model
- Today's focus
  - report development
  - visualization creation
  - analytics

# Goal of analytics



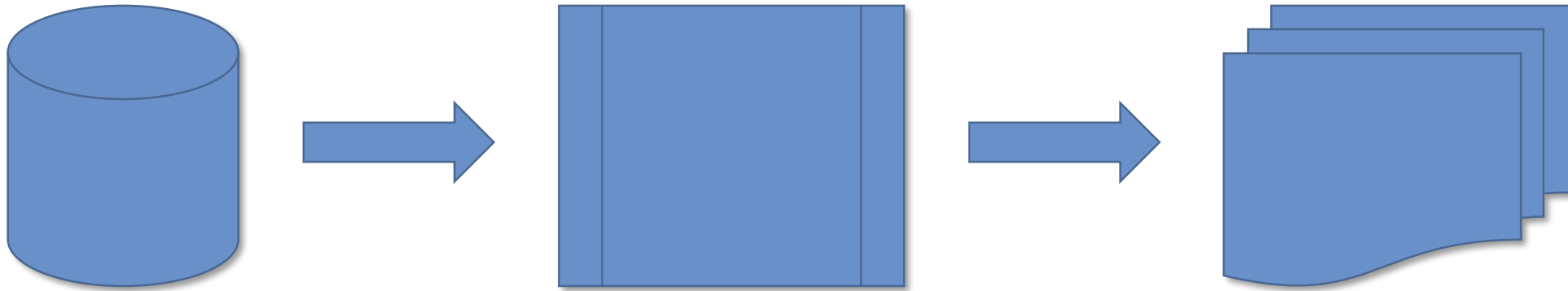
- Getting data OUT of different systems
- Summarization of key indicators
- Clear, concise delivery of visuals
- Working towards a self-service environment

# Primer



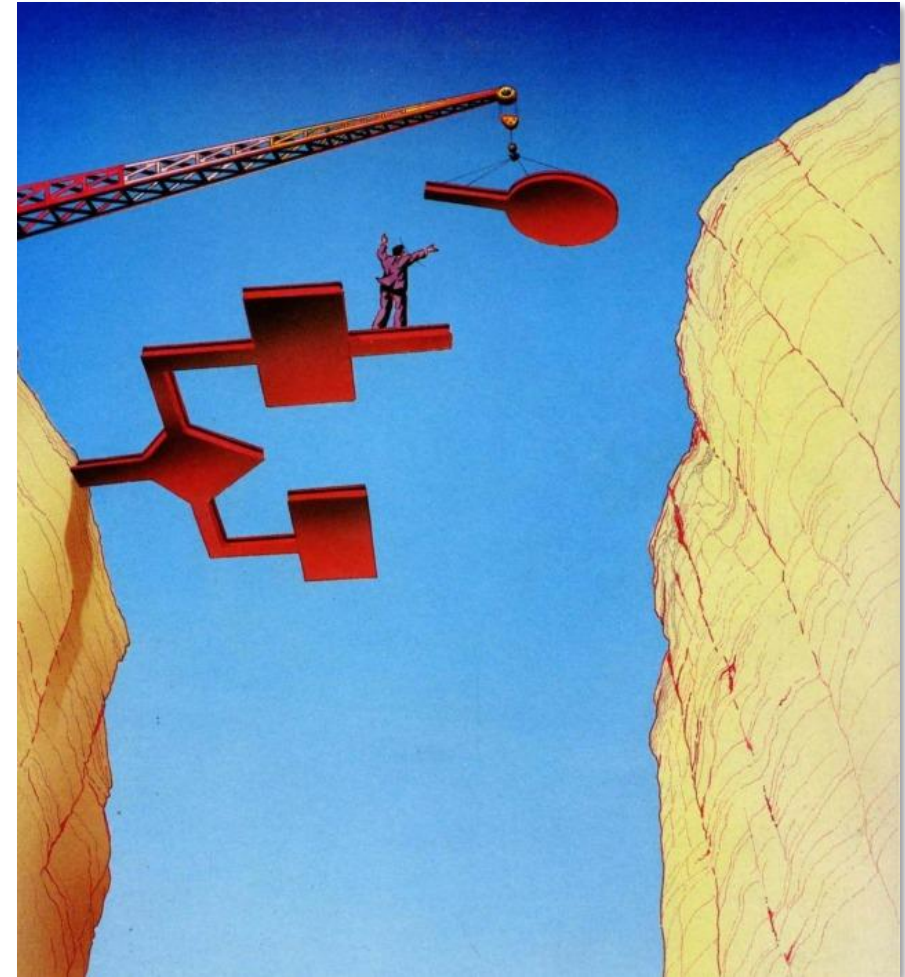
# Data flow: where to put the database

- We can model in many different places – we need to determine the most effective location for our analytics situation
- We go from source to ETL to large repository to tool



# Decisions, decisions

- Transactional
  - Most CRM, ERP, traditional database
  - Made for the INPUT of data
- Dimensional
  - Designed for reporting
  - Built specifically for the OUTPUT of data
- Wide table (OBT – one big table)
  - For cloud-based solutions
  - Even better performance, flexibility
  - Time, money, data security – a plan needs to be considered



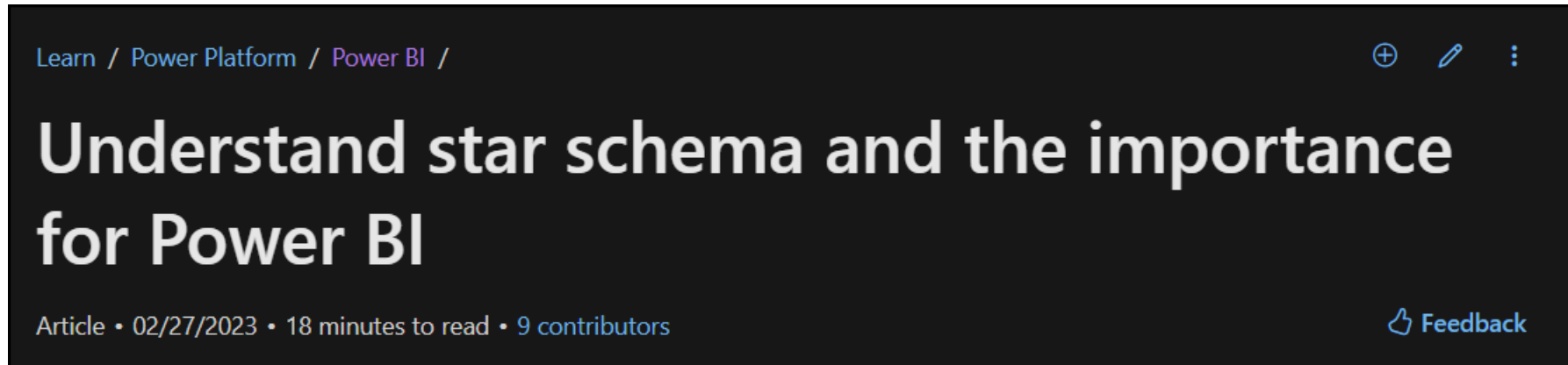


# Transactional vs. dimensional vs. wide table

	Transactional	Dimensional	Wide Table (OBT)
Built for data input	X		
Built for data output		X	X
Easy to modify		X	X
Contains full depth and width of data		X	
Works well with on and off premise data			X
Best for on-premise data	X	X	
Cost effective		X	X

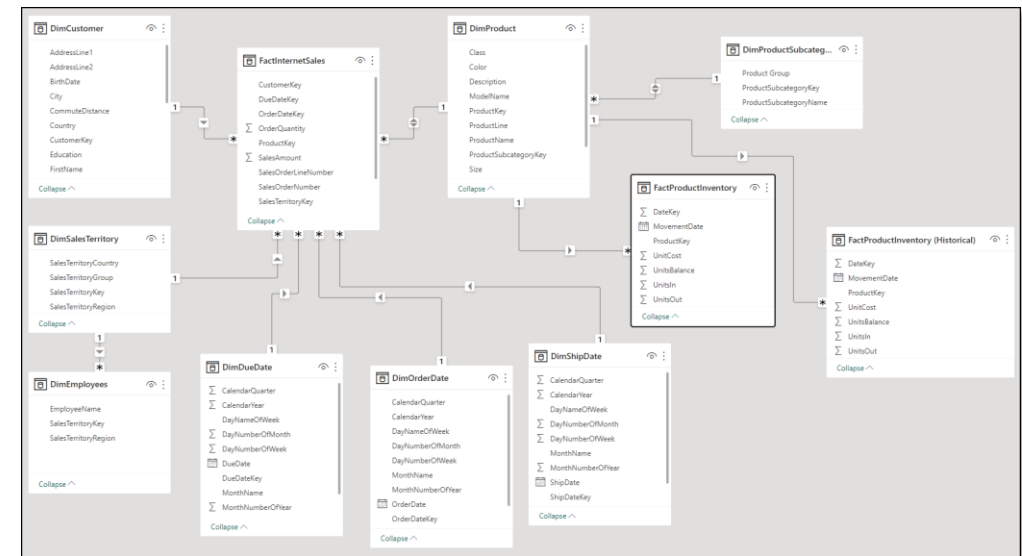
# Tool vendors recommend star schema

- Many of the vendors assume a star schema with their sample data for best practice implementation
- Article by Microsoft in Feb 2023



# Reporting

- With star schemas over a transactional based system, you're more likely to have better accuracy
- This is in part due to more efficient joins, referential integrity, and less redundancy
- When we move to a wide table, this is improved as regardless of technology, the biggest “cost” comes from SQL joins
- Easier to query!



# Flexibility



Transactional systems very limited in how you can edit and change, especially when provided by a 3<sup>rd</sup> party



Star schemas promote better ETL organization



A star will usually take up less disk space than wide table structures

# Performance



- Versus star schema, OBT can have significant improvements.
- Independent testing:
  - Redshift – 25% - 30% improvement
  - Snowflake – 25% improvement
  - BigQuery – 50% improvement
- Versus transactional, a star schema has better joins and layout

# So is it dead...no

- Wide tables are best for
  - Prototyping
  - Speed to market
  - Hybrid situations
- Star scheme is most comprehensive for
  - Reporting and analytics
  - On-premise
  - Full breadth/depth/width



# Demos and guidance

- Products like Snowflake can be demoed on the Senturus website
- First step for on-premise: move from transactional to star schema
- Senturus has decades of experience getting you there

# Suggested Senturus resources

- Snowflake's Data Cloud & Modern Analytics
- 10 Reasons Snowflake Is Great for Analytics
- Eliminate Traditional ETL Data Transformations with Incorta
- Snowflake vs. Azure Synapse

<https://senturus.com/resources/>

# In summary

- For analytics, star is still the best first step towards accurate, timely, flexible data solutions
- Transactional systems and even OBT can be limited in the data they provide
- Cost and performance mean less today than they did 30 years ago
- But, they should never be fully disregarded when planning your strategy

# Additional resources

## Unbiased product reviews



## Technical tips



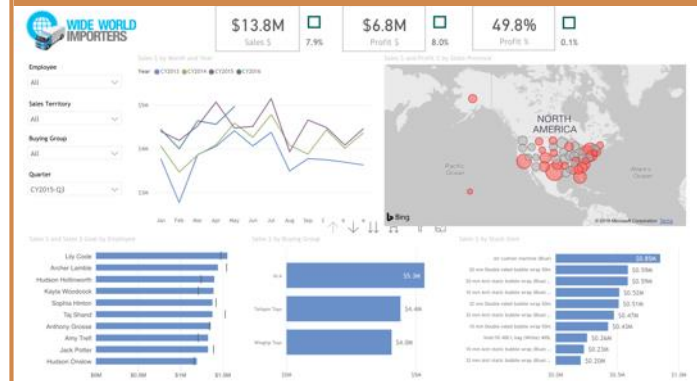
## Insider viewpoints



## More on this subject



## Product demos



## Upcoming events



# Upcoming events

## Chat with Pat: Building Reports in Cognos

Thursday, Mar 22, 11am PT/2pm ET

Register: <https://senturus.com/events/chat-with-pat-building-reports-in-cognos/>

## Drag-n-Drop Cognos Data into Power BI or Tableau

Thursday, Mar 30, 11am PT/2pm ET

Register: <https://senturus.com/events/drag-n-drop-cognos-data-into-power-bi-or-tableau/>

## Chat with Pat: Using Power Query Editor for Data Cleansing

Thursday, Apr 19, 11am PT/2pm ET

Register: <https://senturus.com/events/chat-with-pat-using-power-query-editor-for-data-cleansing/>

## Live Roundtable: Data Integration Options

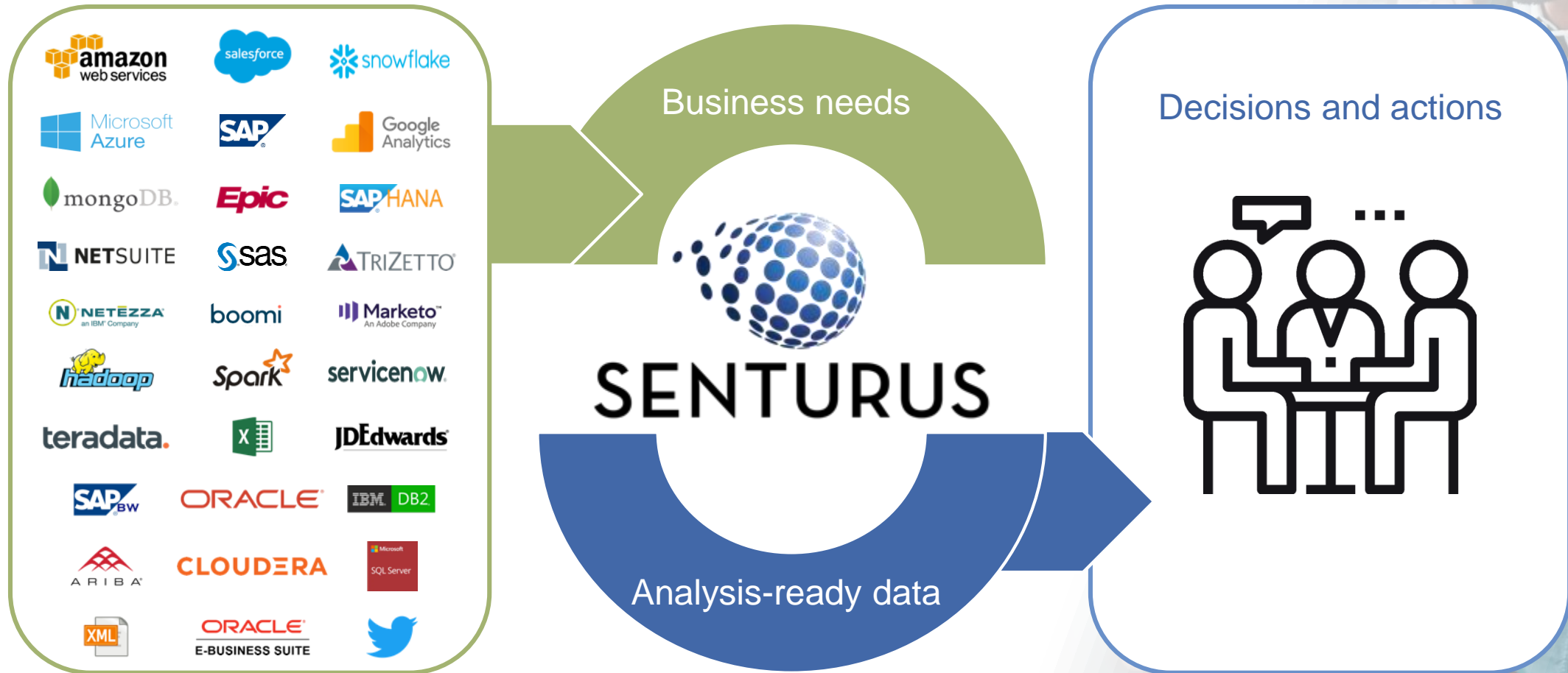
Thursday, Apr 6, 11am PT/2pm ET

Register: <https://senturus.com/events/live-roundtable-data-integration-options/>





# Modern BI: accelerated & accessible





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22 years

1400+ clients

3000+ projects





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- Senior Microsoft BI Consultant

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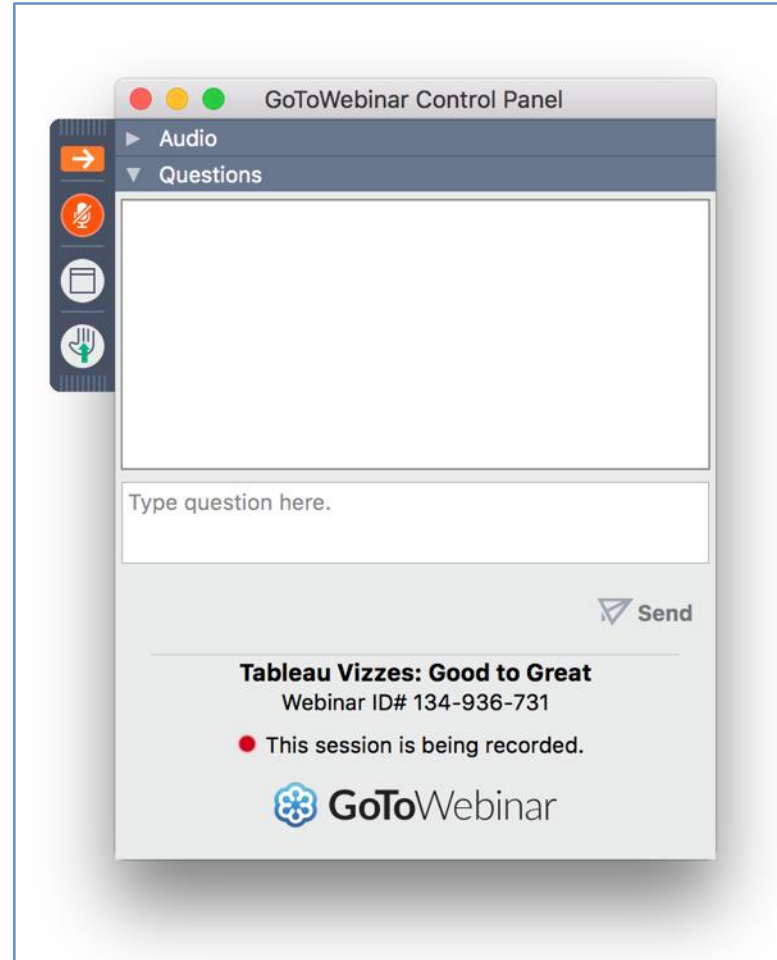
Send your resume to: [jobs@senturus.com](mailto:jobs@senturus.com)

# Q & A

If your question or issue is broader than what we are able to answer today, contact us at:

[info@senturus.com](mailto:info@senturus.com)

and we will set up a free consultation.



# Thank You



## SENTURUS

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