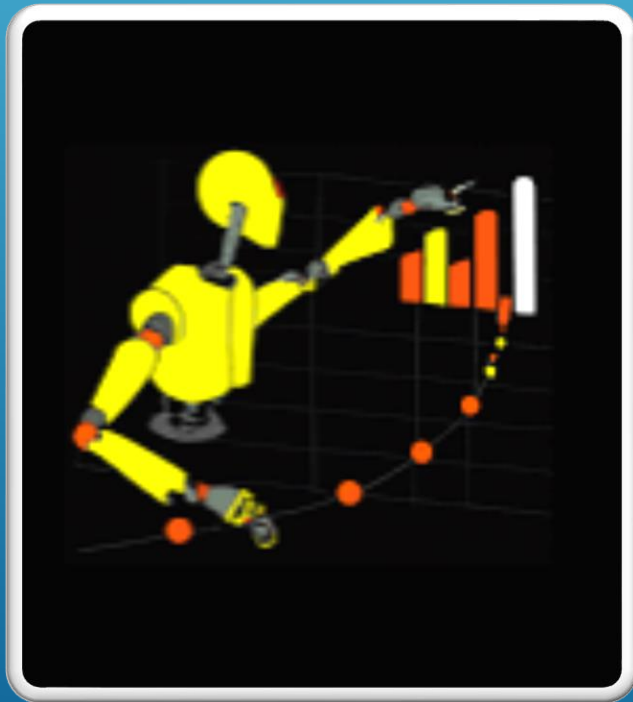# MOVING YOUR BUSINESS INTELLIGENCE TO THE CLOUD STUMBLES AND RECONSIDERATIONS

The Management Dream

The Technical and Business Reality

Jim Smith – State of Vermont Judiciary

FIRST STEP MANAGEMENT REALITY CHECK UP
IS YOUR ORG READY?

Question: Of the next management focuses, which is **_most_** important for a tech project:

- Results

- Trust

- Commitment

- Conflict

- Accountability
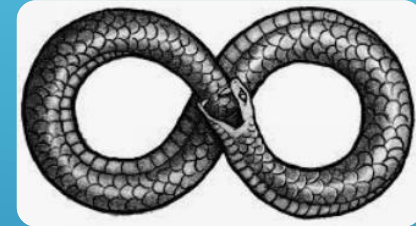
Show of hands as I call each one out

HOW DID WE DO?   WHO IS RIGHT?
START AT THE FOUNDATION

Patrick Lencioni – Read The Advantage
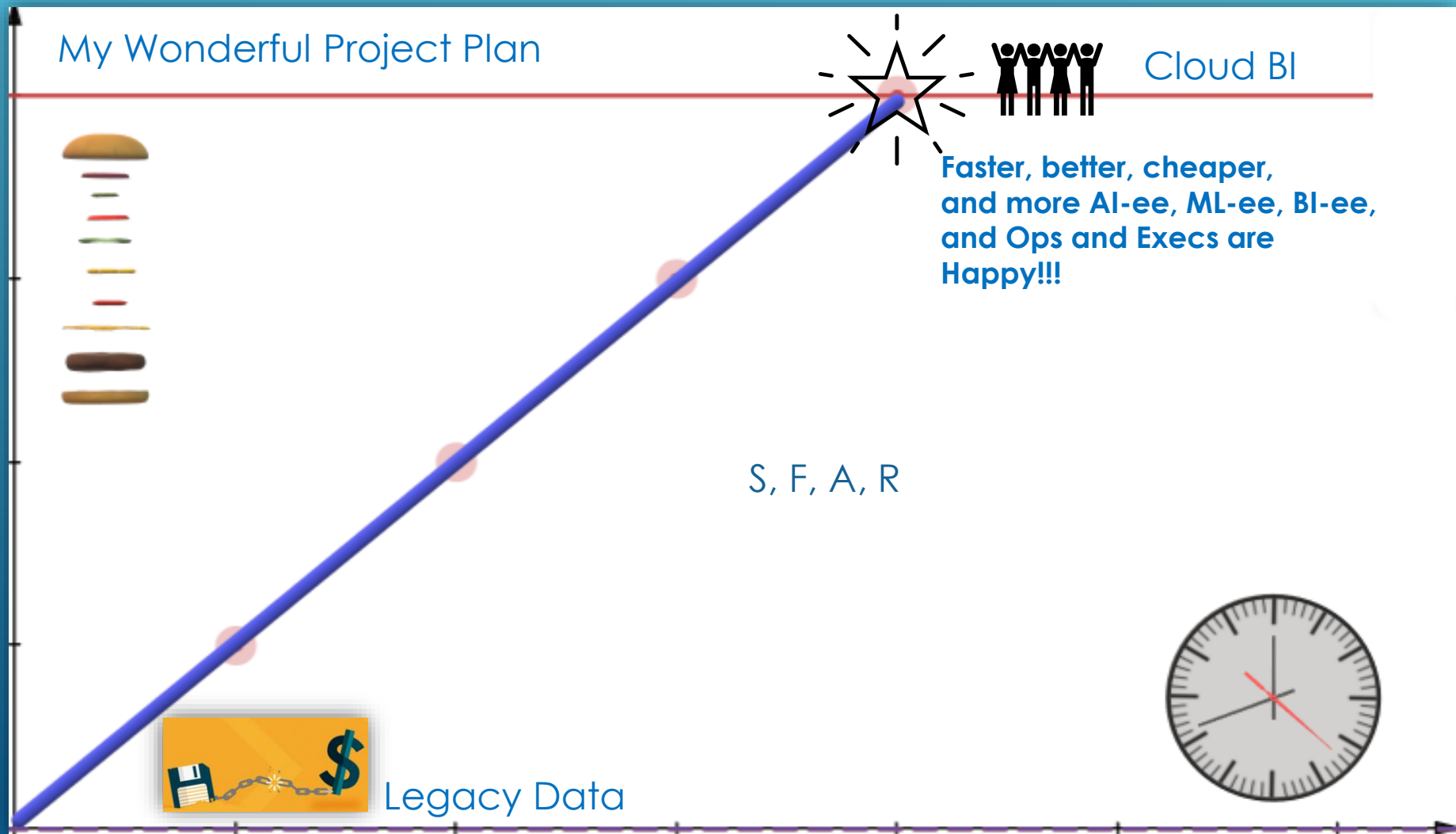then hire one of his group's consultants

Without a solid foundation of trust and skill in conflict surfacing and negotiation,...
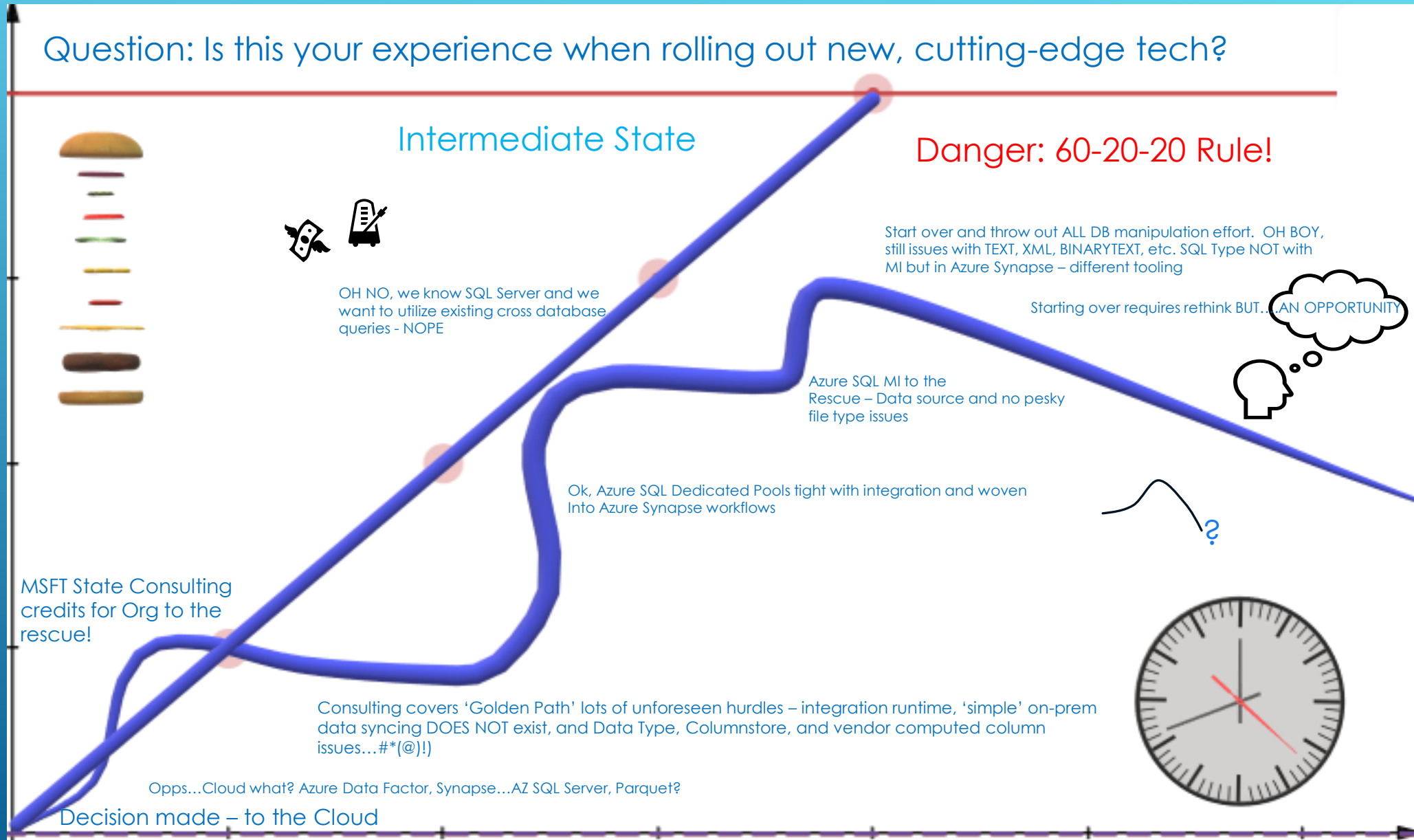
Results

Accountability

Commitment

Conflict

Trust

THE RIGHT EXPECTATION PLAN FOR SOMETHING 'NEW'

Question: Is this your experience when rolling out new, cutting-edge tech?

Intermediate State

Danger: 60-20-20 Rule!

Start over and throw out ALL DB manipulation effort. OH BOY, still issues with TEXT, XML, BINARYTEXT, etc. SQL Type NOT with MI but in Azure Synapse – different tooling

OH NO, we know SQL Server and we want to utilize existing cross database queries - NOPE

Starting over requires rethink BUT...AN OPPORTUNITY

Azure SQL MI to the Rescue – Data source and no pesky file type issues

Ok, Azure SQL Dedicated Pools tight with integration and woven Into Azure Synapse workflows

MSFT State Consulting credits for Org to the rescue!

Consulting covers 'Golden Path' lots of unforeseen hurdles – integration runtime, 'simple' on-prem data syncing DOES NOT exist, and Data Type, Columnstore, and vendor computed column issues...#*(@)!)

Opps...Cloud what? Azure Data Factor, Synapse...AZ SQL Server, Parquet?
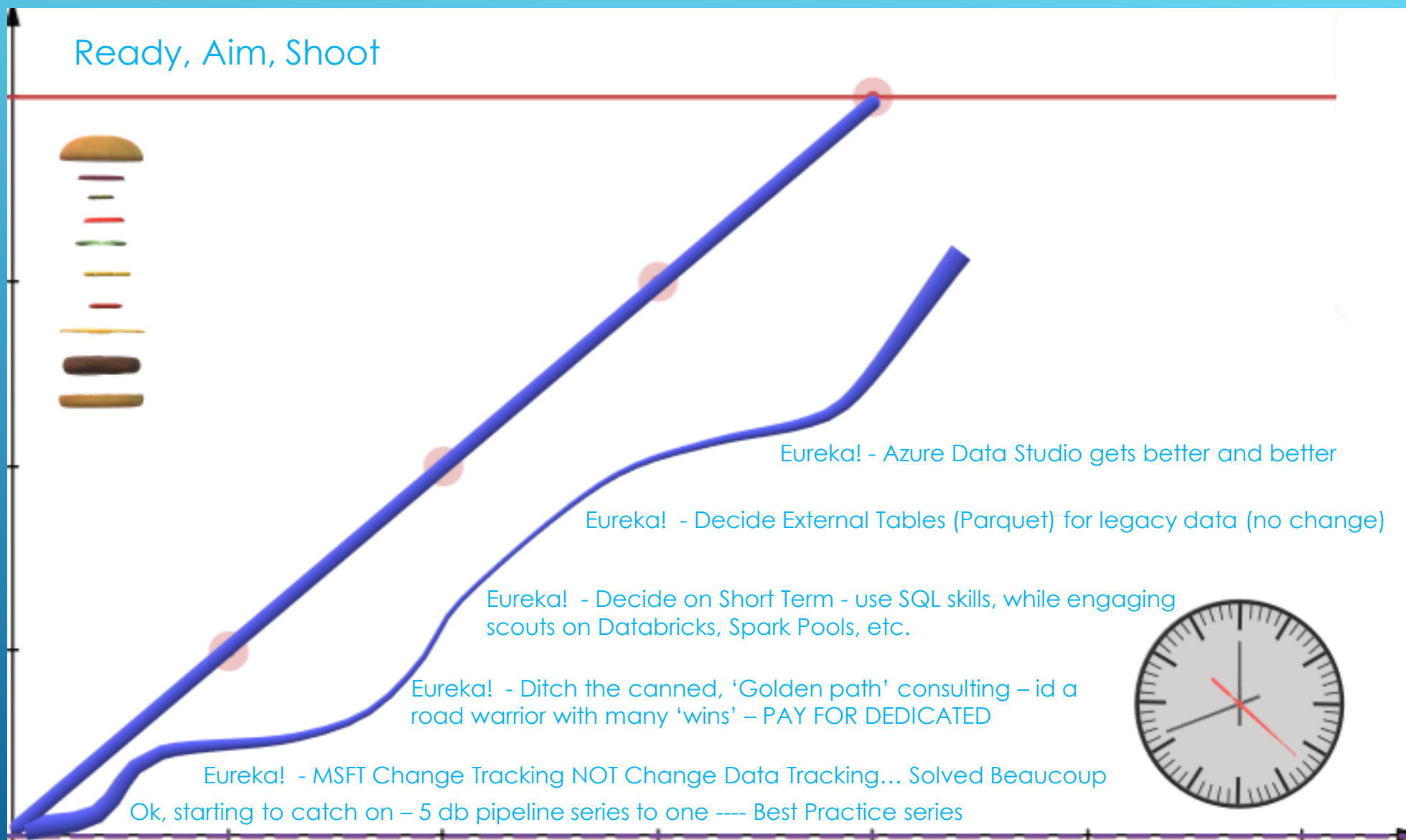
Decision made – to the Cloud

PROJECT REBOOT – THINK – READY – AIM - FIRE

MSFTers:
Jimmy Dobbins
Expert: Data, Azure, trench

warfare exp on data projects,
national MSFT trainer

Danny Olson
Expert: Power BI

Ready, Aim, Shoot

Eureka! - Azure Data Studio gets better and better

Eureka! - Decide External Tables (Parquet) for legacy data (no change)

Eureka! - Decide on Short Term - use SQL skills, while engaging scouts on Databricks, Spark Pools, etc.

Eureka! - Ditch the canned, 'Golden path' consulting – id a road warrior with many 'wins' – PAY FOR DEDICATED

Eureka! - MSFT Change Tracking NOT Change Data Tracking… Solved Beaucoup

Ok, starting to catch on – 5 db pipeline series to one ---- Best Practice series

MICROSOFT IS A GREAT COMPANY (YES, WARTS AND ALL)

MSFTer: Thembi 'Support ANGEL' Fulse Customer Success Account Manager (aka Customer Advocate

▶ We are Warty as well.

▶ Play to our angels and mitigate our devils.

▶ Microsoft pushes the 'Golden Path' and their documentation and clarity of purpose is sometimes lacking **but** they have great products and they have upped their service and support game.

▶ Same for us – we say 'Move to the Cloud' but what do we mean?   We say 'new' **but** we really want the same old bird with slightly newer feathers – gain with no pain.

**Forget BIG data,
data science (unless you
are lucky – on staff already**

READY

- Know your move to the Cloud data sources – Legacy, Docs (3.5 TB), Operational (live OLTP databases (look for the problems – no primary keys, Text, XML, Composites, etc.)

- Agree on your 'Real Time' Cloud data need

- What are the first targets – Dashboards for execs or Ops (remember real time?)

- Agree to agree that the data is wholly deficient in all aspects – correctness, agreement, standardization,….

- Determine your required data nomenclature - NODs (for court business), NIEMS 3.0 (interfacing computers)

- Skill assessment of current technical staff AND business staff (skilled Pivoteers or SUMmers from Excel's Ribbon (good place to insert a skilled vendor)

- Find your business DOMAIN experts (you want them close and committed) – not the loudest voice in a department but real, validate knowledge with backbone for some heavy lifting.

READY – AIM – SHOOT – FIRE RELOAD DOZENS OF TIMES

AIM

We are In GCC, if you are too VALIDATE that MSFT supports your AIM in the GCC

- Choose a main vendor – we chose MSFT because we are standardized on MSFT infrastructure and online tools (O365, Power BI, SQL Server, …)

- How to get live data to the replication, integration, …

- What are your realistic business drivers – dashboards and user data/info marts AND/OR Linear Algebra, regression analysis, performing A/B testing, sampling to check warehouse inventory, predicting service demand previous performance, and forecasting staffing needs from historical trends. BE REALISTIC (staff, data quality, exec expectation management…)

- Then, in consultation with proven MSFT tech experts – pick a tech that fits your business goals and map out the 20,000 foot plan.

- ID the tech – small swing Azure Data Factory, medium swing Azure Data Factory or the massive swing Azure Fabric (unified data into OneLake ecosystem.
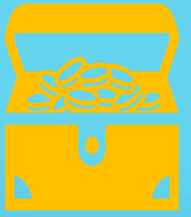
- !!!! PARQUET !!!!

READY – AIM – SHOOT – FIRE
RELOAD DOZENS OF TIMES

SHOOT

- Assemble team – domains, IT Infrastructure, dev/tech

- Establish leadership in each team group

- Establish overall leadership (not a committee) – where the buck stops

- Address the knowledge/skill gap – tech AND business

- Establish the change and communication process

- ID an Executive Champion - Lucifer

- Assemble your vendor team within MSFT

- Share your plan, warts, strengths and insecurities

- Pay attention to the 'you don't want to do that' advise

- Budget for purchasing MSFT expertise - $300 - $450 an hour

- Don't expect the vendor to do the heavy lifting BUT guidance, course correction and expert instruction is invaluable

- !!!KEY!!! Don't forget Source Code Control – GIT Hub Enterprise

READY – AIM – SHOOT – FIRE
RELOAD DOZENS OF TIMES

FIRE

MSFTers

Remember: There is not one path but dozens – when to get on and when to get off

All Things Synapse, Pipeline, Data Strategy, Training: Jimmy Dobbins

All Things Azure Architecture and AI/ML especially around documents: Nic Trajkovic

All Things Power BI Service and Desktop (not Power BI Server): Danni Olson

All Things Git-Hub Enterprise - Sean MacDonald

All Things 'Buy an Engineer', 'Commit a Service/Training, …: Nick Sabo

All Things Azure Networking, Security, Configuring: Jon Huber

All Things MSFT Support, Org Training and Sanity Checker: Thembi Fulse

All Things Azure and Org Management: Brandon Brin and Jenna Reedy

Finally – Don't Forget – Low Code/No Code Business Focus Tooling – the best of the best

All Thing Power (Pages, Apps, Automate, Dataverse: John Parker

The Very Best for Last: State/Gov Expert: Mae Edwards

LET'S TAKE A LOOK AROUND:

- Power BI and CourTools: <u>Power BI SERVICE</u>

- Power BI and OPS Reporting: <u>Power BI SERVER</u>

- Azure Synapse (the backend): <u>Synapse</u>

- Self-hosted Integration Runtime: <u>Self-Hosted Integration Runtime</u>

- Super functionality and small footprint: <u>Change Tracking</u>

- Azure – SSIS Integration: <u>Azure SSIS Integration</u>

RECOMMENDATION – Read and CONSUME the CSP DGPG

***Data* *Data Governance Policy Guide* Policy Guide**

THANKS FOR *ALL YOU DO* TO MAKE AMERICA GREAT BY *LEADING AND MANAGING* IT'S *GOVT WELL*!

Thanks for listening!

Contact: Jim Smith
james.w.smith@vermont.gov

Final Note: Going to the Cloud by putting a server in the Cloud is not Cloud – Native.