MOVING YOUR BUSINESS INTELLIGENCE TO THE CLOUD
STUMBLING AND RECONSIDERATIONS

The Management Dream

The Technical and Business Reality

Jim Smith – State of Vermont Judiciary
Question: Of the next management focuses, which is *most* important for a tech project:

- Results
- Trust
- Commitment
- Conflict

Show of hands as I call each one out
HOW DID WE DO? WHO IS RIGHT?
START AT THE FOUNDATION

Results
Accountability
Commitment
Conflict
Trust

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

Patrick Lencioni – Read The Advantage then hire one of his group’s consultants
SET THE RIGHT EXPECTATION

QUESTION: IS THIS A PROPER NEW TECH PROJECT CURVE?

My Wonderful Project Plan

Faster, better, cheaper, and more AI-ee, ML-ee, BI-ee, and Ops and Execs are Happy!!!

Legacy Data

Cloud BI

S, F, A, R
THE RIGHT EXPECTATION PLAN FOR SOMETHING ‘NEW’

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

Intermediate State

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…#*(@)!)

MSFT State Consulting credits for Org to the rescue!

Danger: 60-20-20 Rule!

Starting over requires rethink BUT… AN OPPORTUNITY

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

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

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Opps…Cloud what? Azure Data Factor, Synapse…AZ SQL Server, Parquet?

Decision made – to the Cloud
PROJECT REBOOT – THINK – READY – AIM - FIRE

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
Eureak! - MSFT Change Tracking NOT Change Data Tracking... Solved Beaucoup
Ok, starting to catch on – 5 db pipeline series to one ---- Best Practice series

MSFTers:
Jimmy Dobbins
Expert: Data, Azure, trench warfare exp on data projects, national MSFT trainer

Danny Olson
Expert: Power BI
MICROSOFT IS A GREAT COMPANY (YES, WARTS AND ALL)

- 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.
READY – AIM – SHOOT – FIRE
RELOAD DOZENS OF TIMES

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.
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

**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

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: Power BI SERVICE
- Power BI and OPS Reporting: Power BI SERVER
- Azure Synapse (the backend): Synapse
- Self-hosted Integration Runtime: Self-Hosted Integration Runtime
- Super functionality and small footprint: Change Tracking
- Azure – SSIS Integration: Azure SSIS Integration
RECOMMENDATION – Read and CONSUME the CSP DGPG

Data Governance 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.