DataTechnology

Checklist

As the business environment becomes ever more complex, organisations need to adapt their goods and services at an accelerating pace. For example, manufacturing goods for the right people at the right time, speeding up the supply chain and reducing costs without compromising quality. And so, picking up the pace in the decision-making process is now more important than ever.

With accurate data readily available, businesses can make better decisions, faster. But as organisations generate more data than ever, most are not equipped to take advantage of it, with a lot of data remaining siloed and disjointed.

Plus, organisations operating traditional on-premises data platforms experience huge costs to run and support them, with limited flexibility to make changes. As a result, these organisations are often reluctant to take advantage or experiment with the data available.

The simple solution is to migrate your data onto a major hyperscaler platform, such as Microsoft, AWS or Google, where it becomes connected, readily available and analytics-ready. But the process is far from simple.

To help cut through the complexity, Data Technology has compiled a checklist to help navigate the entire journey of your data onto a modern data platform infrastructure.

Define business requirements and align the organisation to change

- Evaluate business requirements and goals
  - What is your business strategy and what are your objectives?
  - How can data play a part in helping you achieve your strategy?
  - Prioritise the low hanging fruit (readiness, effort, cost) and Strategic Importance problems
- Run a proof of value against parts of your data strategy to check what is achievable, get internal buy-in and learn at low-cost

Build Data Literacy into your organisation

- Work with the various department heads to clarify how each department is going to improve the way they use data.
- Decide key uses to get started with and engage the end-users in the design and thought process.
- Ensure that the users of the data are involved right from the beginning, as user adoption will be much higher if they are part of the program.
- While developing, push the dashboard out to end users and teach them how to use it.

Build the data strategy: You've proven that there is value. Now you need to productionise it.

- Identify the prerequisites, e.g:
  - Are there existing data quality issues? How would you resolve these?
  - Do you need a master data management program to ensure one version of the truth?
- Determine your data ingestion approach
  - Select the right ingestion and integration tools - real-time vs batch or both?
  - What are the business requirements that dictate the above? Examples:
    – Do I need data credentials? E.g. if working in SFDC
    – Will I be able to query everything, or will the system extract only a few records at a time?

- Design your supply chain model and warehousing strategy
  - Landing the data raw (Bronze data) into a data lake or delta lake
  - Cleansing and transforming the data (Silver data)
  - Producing analytics-ready data (Gold) and landing in a final data warehouse
  - What kind of environment do you need? E.g. SQL based or more robust like Synapse / Bigquery / AWS / Snowflake?
- Determine your development environment
  - Does your organisation prefer an environment where you write your own code (SSIS) or a modern zero code type environment?

Design your platform architecture based on your cloud provider

- **Once you have determined all of the above, choose a cloud provider**
    - ○ Research and compare various cloud providers to determine which one best fits your requirements.
    - ○ Examples:
        - – What technologies are required to ingest the data from various sources?
        - – How to store the data in the platform from a landing/data cleansing/transformed perspective?
        - – Looking at the final destination, do you require a standard SQL-type data warehouse or more of a purpose-built warehousing technology offered by the cloud provider?
    - ○ Understand the pricing. Each provider has different pricing models and different solutions that are priced differently
        - – How should you go about costing the solution, and what should you be looking out for?
        - – How can you evaluate providers in a like-for-like manner?
- **Evaluate security, compliance and governance requirements:**
    - ○ Evaluate the security and compliance requirements of the cloud solution, and ensure that the chosen provider is compliant with any relevant regulations and standards.
    - ○ Evaluate governance (configuration and change) requirements. What parts of the platform are people allowed to use, configure etc?
    - ○ Data security (visibility and access) individuals, what data should people be allowed to see?

Deploy the new solution

- **Decide whether to use internal or external resources to deploy**
    - ○ Assess in-house capabilities and time required from your team and compare with cost of using external resources
- **Get the platform ready for data by commissioning the right solutions and tools within the platform, making them ready for development**
- **Set data access levels based on internal security protocols and relative data sensitivities**
- **Test the cloud solution in a controlled environment (QAT) before fully deploying it to ensure that it meets the business requirements and that any issues are identified and resolved**
- **Production, i.e. deploying whatever it is you've designed, e.g. the data platform, analytics solutions etc.**

Data management considerations

- **Build your data cataloguing approach**
  - Data cataloguing is the process of creating and maintaining a centralised inventory of metadata about your data assets. It serves as a comprehensive index of data assets, describing the data sets, their attributes, relationships, and context.
  - Data cataloguing plays a critical role in data governance, helping better manage and utilise data assets by:
    - Providing a comprehensive view of available data
    - Promoting data discovery and reuse
    - Reducing duplication of effort
    - Ensuring data quality and consistency
    - Helping you comply with regulatory requirements
    - Better managing data security and privacy risks
- **Define data lineage to enable impact analysis**
  - Data lineage tracks the flow of data from its source system to its final destination and enables a better understanding how changes to one system or data asset may impact other systems or processes that rely on it. As a result, you can more accurately predict the potential impact of changes to the system or data asset.

Ongoing monitoring and optimisation

- **Establish a process for ongoing monitoring and management of the cloud solution, including regular checks for performance, security, access rules and compliance.**
- **Continuously review the cloud solution and make improvements as necessary to ensure that it continues to meet the evolving needs of the business.**

DataTechnology

At Data Technology, we help businesses migrate their data onto the major hyperscaler platforms, such as Microsoft, AWS and Google, Snowflake? Where it becomes connected, readily available and analytics-ready.

By taking a systems-agnostic approach, we marry business problems to the right technical solutions, and then pair those technical solutions with the right toolsets. Our tailored implementation and managed support services help to make sure our clients benefit from the convenience, security and reliability afforded by cloud solutions.

Get in touch to discuss how Data Technology can support you with any part of the data migration journey.

Call us
0845 6588 480

Email us
info@datatechnology.co.uk