

# Accelerating the Time to Value utilising Modern Cloud Data Architectures

It wasn't too long ago (10 to 15 years) that on-premise data warehouses were the 'in thing'. Remember when we went through the entire process of selecting vendors, hardware and software and waiting 3 to 6 months to get the hardware installed and configured correctly? Then another few months for OS and Database/Data Warehouse Software installation and configuration, followed by at least several months for requirements gathering, architecture, design and then finally development? 2 years later and the first report was ready for your customers to look at. Millions of dollars for the user to say "Can we change the heading? And, I am not sure about that font".

First came iterative delivery and then agile. But even with these there are just some things that will take time like buying and configuring new hardware, software and the infrastructure and security requirements. So maybe a year before that Teradata or Exadata appliance was ready for agile data warehouse development.

Cloud has changed this dramatically. Obviously, we still need to go through procurement phases, but it's a lot easier asking for 10s of thousands of operational expenditure funding, than it is asking for millions of Capex funding. In today's modern cloud environments, it can take just a few weeks to get up and running, and if you have a mature DevOps process in place you can lay down as many environments as you like with little to no infrastructure cost.

Most technology focused people would have noticed a change in the way we build and develop modern data platforms utilising today's technologies from those of yesteryear. We have shifted from drag and drop back to scripting. Linux/Unix administrators and developers are all laughing at the Windows guys going "I told you so". Every piece of the Modern Data Platform can be built and deployed utilising code. A no-hands on experience in getting the platforms up and running, and security is loving it, because data engineers don't need or generally require, privileged admin access to UAT and production environments. There is a major shift in the way to develop and deploy modern data warehousing solutions. The Cloud, IaC (Infrastructure as Code), change back to scripting languages, and DevOps has allowed us to build repeatable automated patterns and practices.

So, how can you accelerate a modern data platform deployment to the cloud?

### **1. Use Reference Architectures**

No need to reinvent the wheel! Reference architectures are a great place to start. They provide pretty much enough information for every cloud data architect to get started. Quite often they will even have deployment templates available for download and reuse.

### **2. Build repeatable patterns and practices**

A return to the world of scripting allows us to create common patterns and practices that can be reused. Sourcing one table from a database is no different to sourcing many tables from the same database. Build a process to obtain the one table and then modify that process so that it can extract any given table. In this way, you are accelerating time to delivery by creating repeatable patterns and practices.

### **3. Utilise DevOps (DataOps) for Deployments**

Don't just use Github, DevOps, Bitbucket and similar tools for source control, rather utilise the entire platform to build continuous integration and deployment pipelines. This includes Infrastructure as Code. YAML language has become ubiquitous across cloud platforms and provides a simple yet powerful way of building DevOps pipelines. Utilising DevOps to its fullest extent allows you to deploy and destroy as many environments as required. This is one of the most powerful accelerators out there.

### **4. Automate, Automate, Automate**

Where possible automate as much as possible. Automate the deployment of your infrastructure, automate the implementation of security controls, automate the build of your data model, automate the deployment of your reports, automate your repeatable ELT processes. The more you automate the faster your time to value.

To find out more, or to start accelerating the time to value for your business, please contact a Fujitsu Data & AI specialist now.

#### **Contact**

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