

An **Executive's Guide** to **Virtualisation** and **Rolling** **Forecast**

What if you could tap into all your critical data assets no matter where they physically are?

What if you could query two or two thousand data systems from a single data query?

This is what is possible with our virtualisation services in Cloud Paks for Data.

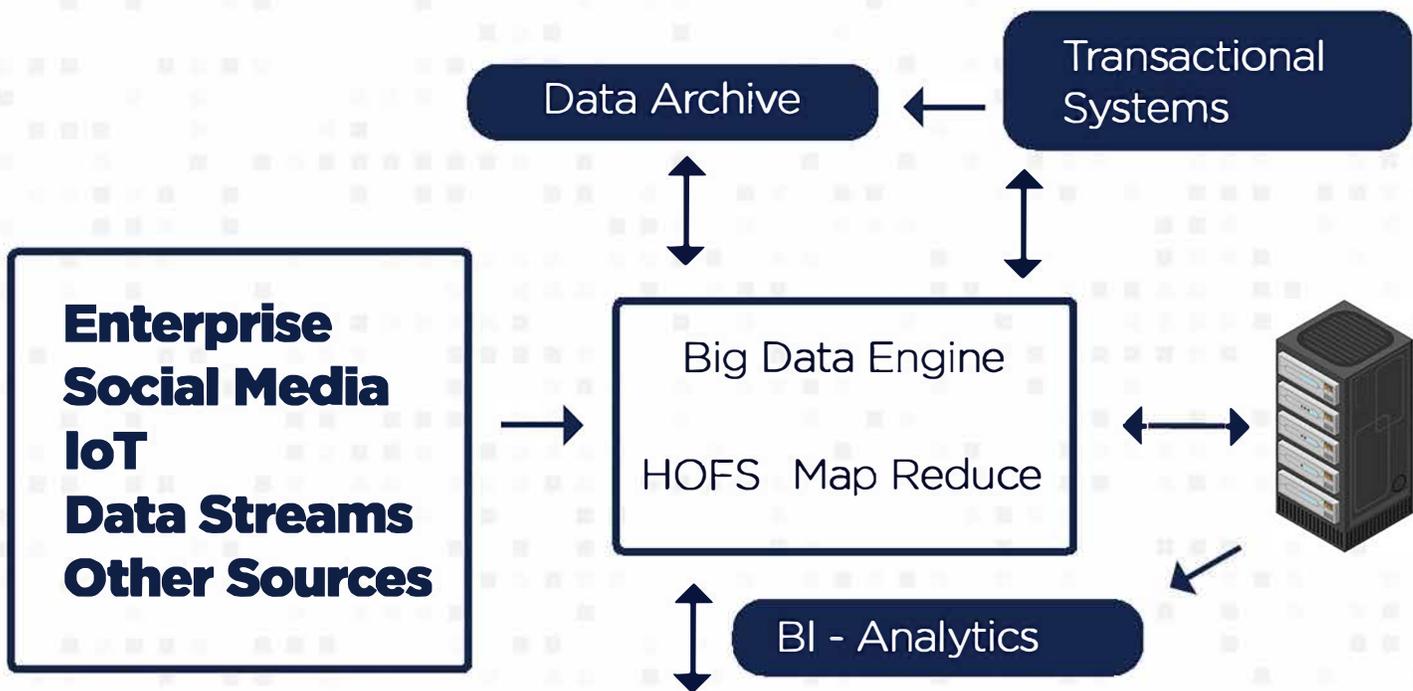
Platinum
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Data is everywhere and the number of sources and the volume of that data are both increasing. Data is also highly distributed, both internally and externally.

Current data architectures consist of data sources and data tools, with different purposes, performance considerations, and security concerns. Trying to launch analytics and insight projects within these sources can be immensely challenging.

Analysts now run many resource intensive ETL jobs, where there is unnecessary duplication and replication issues across different data engines. As a result, data governance issues also accelerate exponentially across the enterprise.



IBM solves these challenges with a Data Virtualisation Service that will give your organisation the ability to view, access, manipulate and analyse data without the need to move or copy it, or understand its physical format or location.

IBM Virtualisation Platform consists of three common layers:

Connection Layer

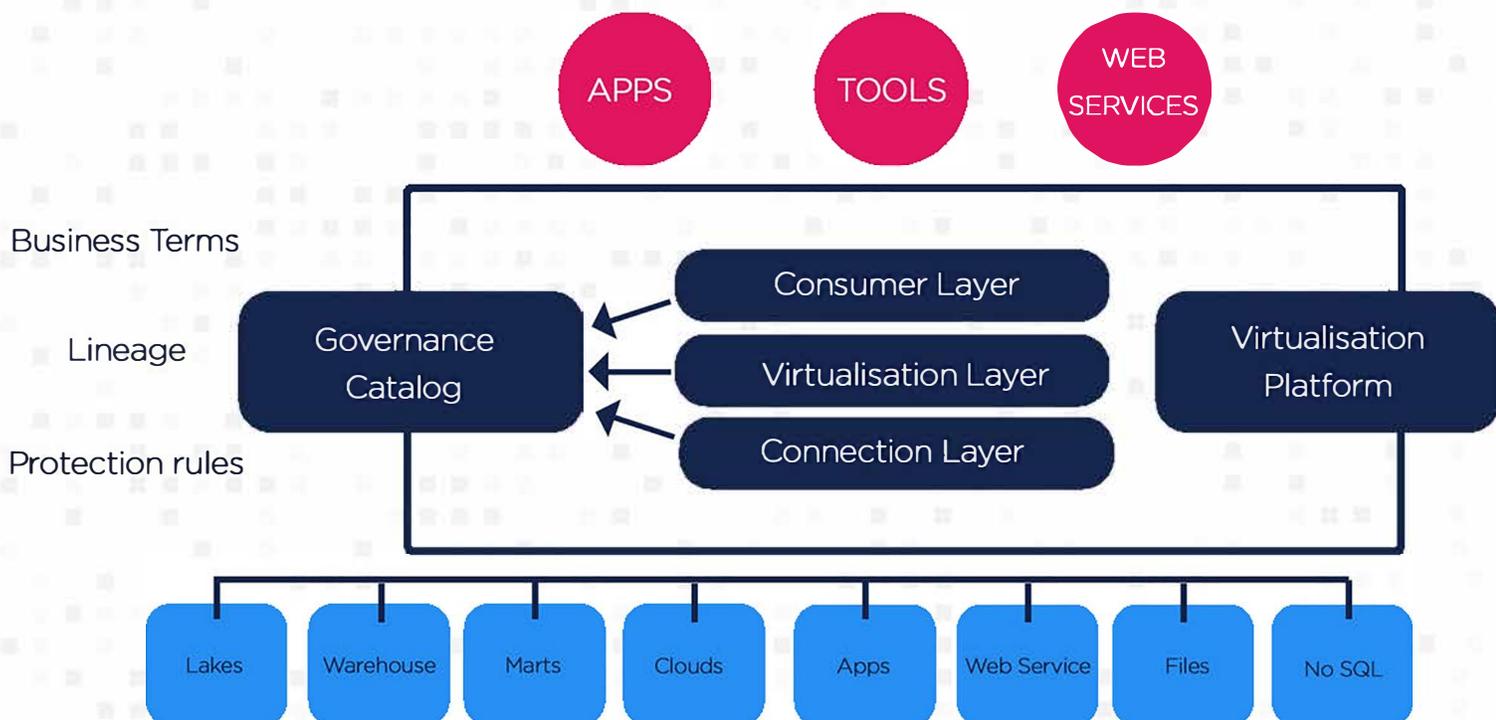
This provides you with the adapters you need to connect and communicate with different data sources. IBM's Virtualisation Platform has native integration with nearly every available database solution, and allows you to import your own JDBC driver for even broader support.

Virtualisation Layer

IBM has the engine that is able to construct optimised queries against all data sources, build virtual tables, and scale while preserving performance. It also utilises a parallel processing model which distributes across AG Nodes.

Consumer Layer

This is the interface by which users interact with IBM's Virtualisation Platform. It allows them to expose their virtualised data to applications, analytics tools, web services and more.



Complimenting the Virtualisation Platform is an enterprise grade Data Governance Catalog.

Governance Catalog

The Data Catalog is able to pull data across multiple sources. It allows you to assign business terms, privacy and protection rules to the data, and display lineage information. Working together, the Virtualisation Platform delivers controlled, governed and secure access to virtual data sets, and more.

Impact to Production

Minimising Impact to Production

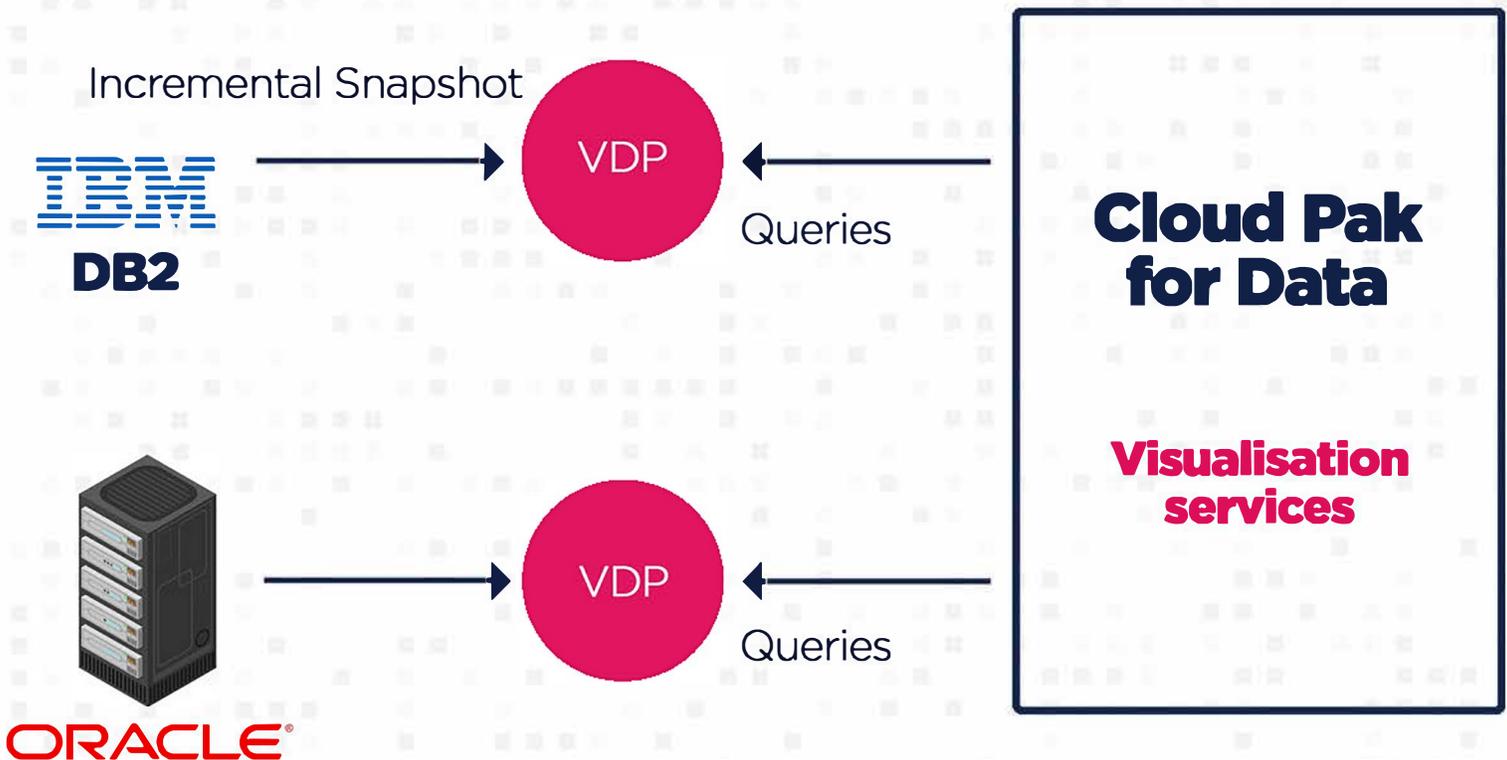
A common area of concern for Database Administrators is the impact to production systems that now have to support multiple platforms querying against them. IBM understands this concern, and has provided a solution to minimise this.

Rather than the Virtualisation Platform directly querying critical data systems, the platform includes the ability to build Virtual Data Pipelines.

Virtual Data Pipelines

A VDP creates instant virtual clones of databases, captures incremental updates, and applies data-masking and role-based access controls. The Virtualisation Platform is then able to query these virtual data clones, eliminating impact to production database servers.

Using this approach, we are able to connect to disparate data sources, virtualise them, and make them available for consumption in analytics and machine learning projects through a trusted, governed and tagged enterprise data catalog.



Benefits of Rolling Forecasting instead of Annual Budgeting

The difference between budgets and planning is simple. A Budget is the detail of how you think the future should look. ie. planning out what you are going to do for the next year and how much you think it will cost. Budgets are very rigid. They get approved annually, go out of date quickly, and do not get updated until the following year.

However, a Forecast describes what the future will most likely look like – it gets updated with Actuals either quarterly or monthly and allows you to evolve your numbers as things change in your marketplace.

Why Budgeting Fails

- ▼ Outdated as soon as it's finalised.
- ▼ Fosters Use it or Lose it Mentality.
- ▼ Strategically Rigid and does not help the organisation to achieve its goals.
- ▼ Focused on numbers and results that will not lead to becoming the industry leader.
- ▼ Disconnected, Information is in Silos.
- ▼ Focused on the annual number, not a rolling number.
- ▼ Haven for Sandbaggers or Optimists, and does not promote accuracy.

Forecasters Understand

- ▼ Time continuously rolls on, and uses data from the most current period.
- ▼ Identifies and monitors actionable items, giving you greater control over outcomes.
- ▼ Encourages participation of many contributors.
- ▼ Streamlines processes through effective and efficient automation.
- ▼ Encourages alignment and coordination between functions.
- ▼ Rewards accuracy and removes the risk of uncertainty.
- ▼ Is driven by culture, not revenue.
- ▼ Is constantly updated and reported in usable time-frames.

Forecasting is an important process because it helps us look forward into improving financial performance, rather than retrospectively at what things cost.

Budgets are really a retrospective analysis. They are totally arbitrary and by the time you are 10 months into your budget, the environment has changed, and the accuracy of your predictions is no longer trustworthy or even applicable. In fact, for many organisations, the budget is simply an excuse to set the expense targets higher and higher each subsequent year.

The reality is, most financial professionals find that after spending months slaving away on producing the budget, it is outdated the day it gets approved. Forecasting, on the other hand is always current and will show you exactly how you are performing now and how you think you are going to perform in the near future. It allows you to focus your improvement resources on the steps you need to take now, to improve outcomes and hit your projected target.

A Rolling Forecast is usually done on a monthly basis and only looks at the key financial drivers for the business. So it provides a forward view of how the company is currently performing, how it is expected to perform in the next quarter, and the impacts changes in the marketplace will have on the company.

Forecasting is much more accurate than budgeting because it creates the rigor for you to figure out the key factors that drive the financial performance of your organisation. Focus only on the five or ten key factors that will make or break the company, and how to fix them.

When things change, Budgeters ask

Why didn't we anticipate that in the budget?
Why didn't you think this could happen?
Who screwed up?

When things change, Forecasters ask

What are the drivers of the change?
What is the impact on the business?
What actions should we be taking?

What to do next?

- ▶ Become smarter with Forecasting and Analytics
- ▶ Define your approach
- ▶ Forecast culture required
- ▶ Changes to models required
- ▶ Upgrade your Technology

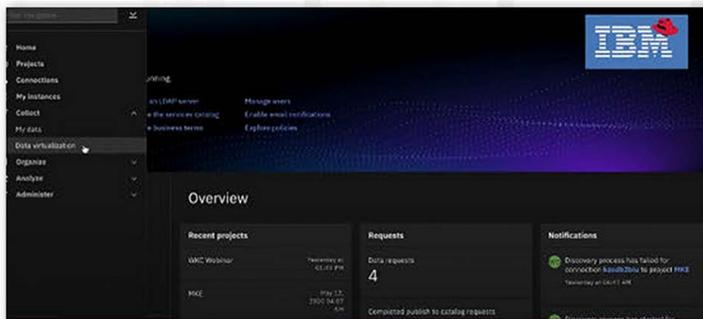
Start small and grow



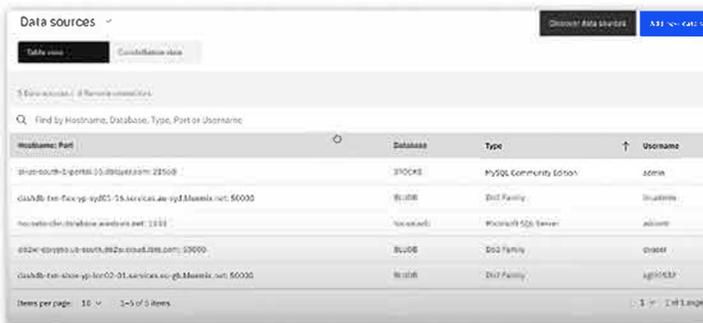
Common Time Horizons

- ▶ Airline: Rolling 2 quarters; monthly
- ▶ Semiconductor: Rolling 2 quarters; Twice per quarter
- ▶ Automotive: Rolling 2 quarters; quarterly
- ▶ Chemical: Rolling 2 quarters; monthly
- ▶ Telecom: Rolling 2 quarters; monthly
- ▶ Technology: Rolling 2 quarters; quarterly
- ▶ Engineering: Rolling 2 quarters; quarterly
- ▶ Consumer goods: Rolling 2 quarters; monthly
- ▶ Pharmaceutical: Rolling 2 quarters; quarterly

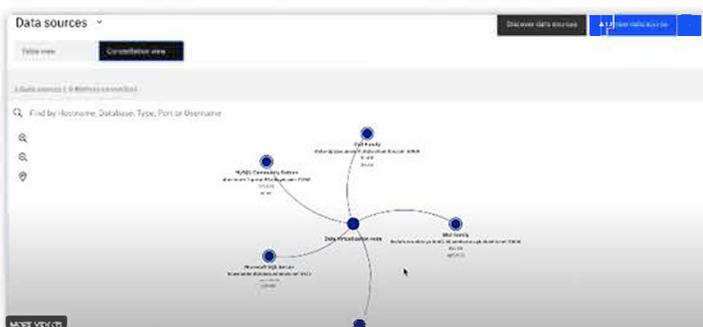
Take a Quick Tour of our Virtualisation Platform.



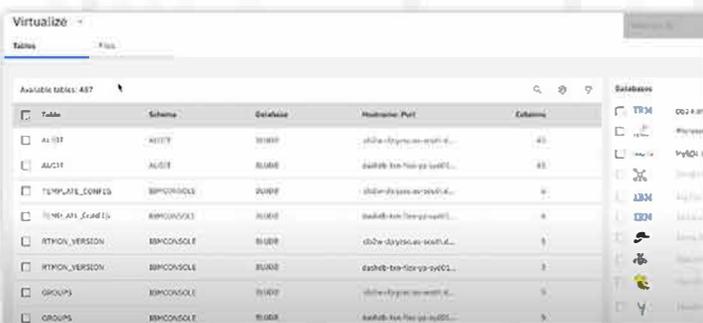
1. Under Collect we find data virtualisation



2. See all of your different data sources on the one screen.



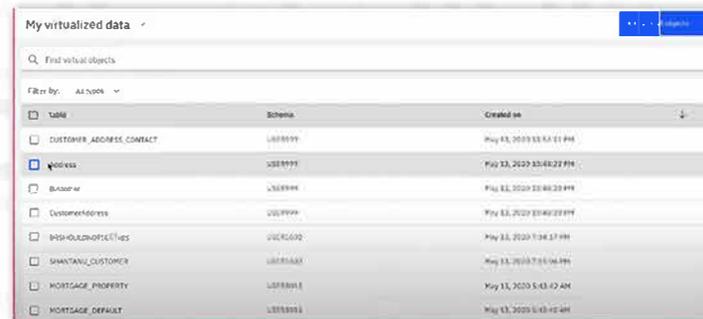
3. To get a better visualisation of the data sources you are connected to, see it in constellation view.



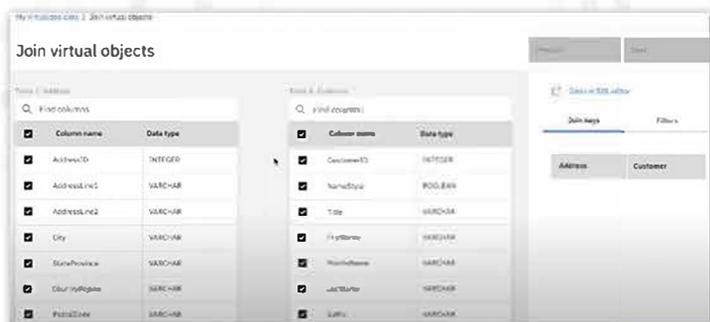
4. Under Menu, go to Virtualisation to see all the different tables that the database consists of. Sort by database-type by using the Database menu on the right, or search for the schema you are looking for using the Search Bar.



5. Select your preferred tables and then go to Cart to assign your tables to a project, or do a data request, and virtualise the data for further analysis. Click on Submit to Catalog for indexing and categorisation. Click Virtualise.



6. View all of the virtualised tables in My Virtualised Data. Select the virtual tables you need for your analysis, and then click Join to combine their data for further analysis



7. The platform will then present an easy to use, point and click interface that allows the selection of custom values from within the table.

ABOUT PMSQUARE

PMSquare is a business consulting company specialising in Corporate Performance Management (CPM) and Business Analytics solutions. PMSquare joined the Cornerstone PM Group in 2016, and operates in Singapore, Thailand, Philippines, and Sri Lanka.

PMSquare provides expert end-to-end advice around Data Analytics and Information Management solutions.

Consistently performing at the highest standards, PMSquare has successfully delivered high quality implementations across multiple regions and markets, and has recently been awarded IBM's highest accolade for Innovation, in addition to many other industry awards.



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