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InPerspective

gathr

INDUSTRY IMPACT STUDY

Telecommunications

Learn how Gathr is used in telecom for breakthrough success, including cloud migration, sentiment analysis, call center analysis, and more

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By moving your warehouse to the cloud, you can increase performance and time-to-insight while reducing operational costs. This is the subject of this report: how can Gathr's data integration and engineering solution help you to migrate away from an on-prem solution and into the cloud, especially in the context of the telecommunications industry?

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Introduction

The cloud is very popular in today's business environment, and its popularity only seems to be increasing with time. It promises greater agility, flexibility, and scalability in the way you are able to store your data. And with the ever-increasing abundance of data collected by most organisations, and the consequent difficulty of storing and managing said data, the cloud makes a lot of sense. It should therefore come as no surprise that many enterprises want to migrate away from their existing environments and into the cloud, either as their sole environment or (more often) as part of a hybrid or multi cloud solution.

This is true for telecommunications as much as any other industry. Moreover, it is also true for data warehouses as much as any other aspect of data management. By moving your warehouse to the cloud, you can increase performance and time-to-insight while reducing operational costs. This is the subject of this report: how can Gathr's data integration and engineering solution help you to migrate away from an on-prem solution and into the cloud, especially in the context of the telecommunications industry?

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Problem

Suppose you have a system that is currently not operating in the cloud. One Gathr customer, for example – a Fortune 100 broadband connectivity company and cable operator, based in the US and serving more than 30 million customers – had a system that received data from several sources and fed it into an SFTP server before running ETL (Extract, Transform and Load) on it using an existing Informatica solution and landing the data into a Teradata data warehouse.

Like the aforementioned company, you might well decide that a move to the cloud would be desirable. The objective could be to improve scalability, and particularly to ingest increasingly large data volumes and to manage variance in data traffic; to reduce costs, in terms of licensing and maintenance overheads; to improve query performance and thus generate insights more quickly; to create a unified view of the relevant workloads; to simplify data management; to integrate with other cloud services for data loading and visualisation; to accelerate continuous integration and development (CI/CD) workflows via increased automation, leading to faster delivery; or a combination or some (or all) of the above.

Notice that these objectives are a mixture of deriving benefits from the cloud, maximising the benefits of the cloud, and removing some of the liabilities present in any existing on-prem solution.

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Solution

Using Gathr, you could then build an end-to-end, cloud-based data flow solution that leverages several different components to help your company migrate to, and operate in, the cloud. These components could include, for example, Amazon Redshift, for cloud-native data warehousing; Amazon S3, for cloud-native storage; and Amazon Athena, EMR and/or Redshift, for ad-hoc querying, among others. And of course, you would also have the Gathr platform itself, an all-in-one solution for data integration, engineering and pipelining.

Specifically, for this sort of use case Gathr could be used for the following, although this is by no means an exclusive list:

- Configuring ETL flows, ingesting data, and performing full and incremental loading as well as Change Data Capture (CDC)
- Transforming and persisting data feeds with an auto-scalable execution engine
- One-time migrations via direct loading of tables
- Validating data after migration
- Providing a 360-degree, unified view of all workflows
- Establishing CI/CD processes for upgrading ETL flows and moving them between environments
- Scheduling and triggering data flow processes at a pre-configured frequency

The architecture for a solution built using Gathr might look something like *Figure 1*, which refers to the solution created for the customer mentioned above. Note that ingestion into the SFTP server was replaced by ingestion into an S3 bucket, and that the data from said bucket was transformed – and optionally queried – before being loaded into Redshift. Ingestion was handled incrementally, and a data validation job was created to validate the ingestion setup prior to each loading step.

Figure 1 – Example architecture for a Gathr solution
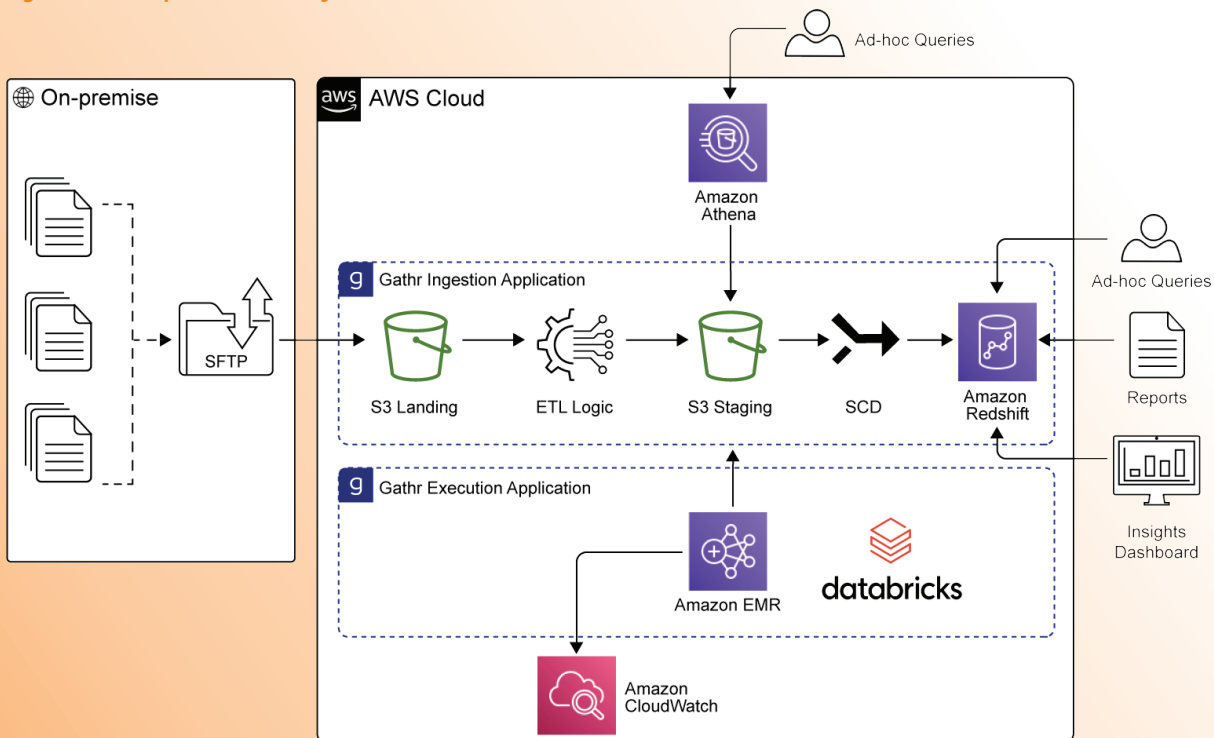
Result

The most major end result of using Gathr is also the most obvious: supported by Gathr, you can adeptly and successfully migrate your system from being strictly on-prem to sitting largely in the cloud, along with all the attendant advantages that brings. Gathr-based solutions can be well-integrated into various cloud services, are suitable for use at massive scale, and will likely be substantially faster and lower-risk to create and deploy than rolling your own.

Moreover, Gathr delivers a very significant amount of functionality directly, from its own platform. In fact, Gathr positions itself as an "all-in-one" platform for data processing, and it's not hard to see why. ETL, ELT, ETLT, CDC and ingestion are all available, alongside (streaming) analytics and machine learning functionality. This has benefits in terms of centralisation, ease of use and so on, since you are able to leverage all of that functionality within a unified and centrally managed product, and through a single interface.

Said interface – at least so far as it pertains to ETL and ELT flows – is highly visual, and uses a drag-and-drop methodology that is very easy to use, even for non-technical users, and lends itself well to self-service. These benefits then carry through to your data integration processes as a whole, encompassing both batch and streaming. In addition, Gathr provides a selection of pre-built operators, including over 300 functions and more than 30 connectors that are provided out of the box, making it far less likely that you would ever need to hand-code a transformation as part of your flow.

It also features various collaboration and productivity features, and is highly extensible. To wit, it will readily integrate with Python, Scala and Java, and supports AWS, Microsoft Azure and Google Cloud Platform out of the box.

Finally, it is worth noting that Gathr solutions can be very performant. For the customer mentioned above, Gathr's solution increased analytical query performance by 20%, was capable of handling up to 30 billion rows and 40% more analytics users than before, and the number of queries executed in a given timespan rose 15% once the solution was put in place. These are not small figures, especially when considered at an enterprise level. The customer was also able to reduce licensing and infrastructure costs, in part by switching to Gathr's pay-as-you-go business model.

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Other use cases

Although data migration is certainly a significant use case that Gathr can address, it is far from the only one, be it in the telecommunications space or any other. We have chosen to focus on it in this report due to its applicability and relevance, but we would be remiss not to point out other notable telecommunications use cases that Gathr can address. These include multi-lingual classification and sentiment analysis performed in real-time, real-time streaming analytics and monitoring (applied to a call centre, for instance), and more.

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Conclusion

T his report, guided by the case study of one particular customer, has illustrated Gathr's suitability for enabling data migrations, and especially data migrations to the cloud, whether in the telecommunications space or elsewhere. It has also highlighted Gathr's applicability to telecommunications in general.

FURTHER INFORMATION
Further information about this subject is available from
www.bloorresearch.com/company/gathr/

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Daniel is an experienced member of the IT industry. In 2014, following the completion of his Master of Mathematics at the University of Bath, he started his career as a software engineer, developer and tester at what was then known as IPL. His work there included all manner of software development and testing, and both Daniel personally and IPL generally were known for the high standard of quality they delivered. In the summer of 2016, Daniel left IPL to work as an analyst for Bloor Research, and the rest is history.

Daniel works primarily in the data space, his interest inherited from his father and colleague, Philip Howard. Even so, his prior role as a software engineer remains with him, and has carried forward into a particular appreciation for the development, DevOps, and testing spaces. This allows him to leverage the technical expertise, insight and 'on-the-ground' perspective garnered through his old life as a developer to good effect.

Outside of work, Daniel enjoys latin and ballroom dancing, board games, skiing, cooking, and playing the guitar.

Bloor overview

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