

Building a modern data stack: What playbooks don't tell you



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Noel specializes in topics related to big data, data warehouses, data fabric, data integration, data virtualization, Hadoop, Spark, in-memory, translytical, NoSQL, cloud, ETL, big data integration, data management, data tools, and data security for enterprise architecture professionals. His current focus is on new and emerging markets, modern data architectures, cloud and hybrid cloud deployment.

We had an exclusive chat with Forrester analyst, Noel Yuhanna to get his take on the future of data and analytics for the modern enterprise. We found that organizations are rapidly investing in new tools and solutions that focus on real-time data automation and have built-in intelligence to accelerate time to insights.

1. How should organizations go about supporting a data cloud strategy? Which applications/workloads are most suitable for the cloud?
2. What is real-time data? What kind of use-cases and applications are suitable for real-time analytics?
3. How are organizations evolving their data architectures to support realtime data initiatives?
4. How is data pipelining different than ETL? What kind of use cases can organizations benefit from with data pipelining?
5. What is the future of data and analytics over the next five years? Where should organizations invest?

Data has never been as important as it is today

75.4Bn

Connected devices by 2025

175

Zetabytes of data predicted worldwide by
2025

3X

Growth in use of low-code and no-code
technologies by 2025

1. How should organizations go about supporting a data cloud strategy? Which applications/ workloads are most suitable for the cloud?

With most organizations embarking on a data cloud strategy, we find that migrating to the cloud often is not straightforward. There are multiple approaches for existing applications and data and insights, including rehosting, re-platforming, re-architecting, retiring, or retaining. The right approach to take depends on factors such as data volume, speed, usage, performance requirements, and workload type.

We find cloud is suitable for any kind of workload, including transactional, operational, and analytical; however, most start with migrating analytical and operational workloads since these often require more compute and storage and tend to be simpler to migrate. The most common cloud use cases include DevOps, cloud-to-edge, data science, data warehouse modernization, realtime analytics, and mobile apps.

Meet Gathr

The only all-in-one data pipeline platform

2. What is real-time data? What kind of use-cases and applications are suitable for real-time analytics?

Real-time data is information that is leveraged immediately after creation to support various operational and analytical use cases. Business stakeholders need real-time data to keep with customers, competitors, and partners.

Traditional architectures haven't kept up with the new business demands; hence, it takes too long to provide strategic and operational decisionmaking insights. Real-time data

applies to all industries for new and emerging business use cases to drive competitive advantage, improve customer experience and deliver innovation and growth.

Today, real-time data is needed for new and emerging use cases, such as fraud detection, driver-less cars, mobile apps, IoT analytics, customer intelligence, risk analytics, various vertical industry-specific real-time use cases, and others.

Why Gathr

Top 10 reasons to choose Gathr.ai

- Unified DI platform
- Drag & drop ML
- Self-service, zero-code
- Collaborative
- Built-in XOps
- Enterprise-grade
- Cloud-native
- Open and extensible
- Cloud vendor agnostic
- Multi and hybrid cloud

3. How are organizations evolving their data architectures to support real-time data initiatives?

New technologies underpin the realtime data architecture to enable the agile development of dynamically changing data requirements. Organizations are evolving their data architectures to support real-time by leveraging modern data platforms such as data virtualization, data fabric, and Translytical platforms. Data virtualization enables querying disparate data on-demand to support insights; on the other hand, data fabric extends data virtualization to include broader data management capabilities, including data governance, data integration, data quality, and data preparation to accelerate business use cases. Translytical enables combining transactional, operational, and analytical workloads in a single database that allows delivering analytics at the speed of transactions. Organizations should invest in inmemory data platforms, data virtualization, data fabric, and Translytical data platforms to get on the real-time data initiative bandwagon or be left behind.



Gathr helped us build “in-themoment” actionable insights from massive volumes of complex operational data to effectively solve multiple use cases and improve the customer experience.



4. How is data pipelining different than ETL? What kind of use cases can organizations benefit from with data pipelining?

Although organizations still use traditional ETL batch processing solutions to support legacy platforms, the demand for real-time streaming, increased data volume, support for hybrid and multi-cloud platforms, and new data sources have greatly hindered this technology's growth.

Data pipelining is a modern technology that overcomes these challenges, delivering ease of use data movement, transformation, and governance, across hybrid and multi-cloud environments.

The real-time data pipeline has recently gained strong momentum, primarily due to the increasing data volume from logs, sensors, social media, SaaS-based apps, and edge sources.

This technology also enables data processing and transformation to support real-time insights, streaming analytics, data lake ingestion, and data warehouse ingestion.



Gathr.ai is an end-to-end, unified data platform that handles ingestion, integration/ETL (extract, transform, load), streaming analytics, and machine learning. It offers strengths in usability, data connectors, tools, and extensibility.

FORRESTER®

5. What is the future of data and analytics over the next five years? Where should organizations invest?

The future of data and analytics will focus on more integrated analytics, more self-service capabilities, and built-in intelligence.

Integrated analytics supports agility and accelerates business use cases. It offers standard policies and frameworks that turn data into action faster, delivers consistent and trusted data for insights and analytics, and ensures data security and protection. We will also see more innovative AI capabilities that automate data and analytics functions, including data ingestion, classification, integration, preparation, and transformation to discover connected data, classify and categorize sensitive data, identify duplicates, and orchestrate data with zero to minimal effort. Organizations should invest in new data and analytics tools and solutions that focus on real-time data automation and have built-in intelligence to accelerate time to insights.



Gathr.ai is rated highest across

- Development Tools
- Advanced Analytics
- Usability
- Enablement
- Extensibility

FORRESTER®

Turn your data into action 10x faster

- One platform to do it all - ETL, ELT, ingestion, CDC, ML
- Self-service, zero-code, drag and drop interface
- Built-in DataOps, MLOps, and DevOps tools
- Open, cloud-agnostic and interoperable



Data Ingestion



Change Data
Capture



ETL/ ELT Data
Integration



Streaming
Analytics



Data
Preparation



Scan and
start free 14-day trial



Scan to
schedule a demo

