



## Technology & Suppliers

# SnapLogic: Low-code, truly hybrid integration

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SnapLogic is a specialist Digital Integration Platform software vendor. The company is unusual in offering an integration platform that's not only 'hybrid' in the sense that you can deploy services in multiple locations (both cloud-hosted and on-premises); but also in the sense that you can use its platform to automate multiple kinds of integration data flows and transformations, each with its own specialised operational needs.

**MWD Advisors** is a specialist technology advisory firm that shows how digital technology changes work; helping today's innovation, architecture and technology change leaders accelerate their success and manage risk. Our approach combines flexible, pragmatic mentoring and advisory services, built on a deep industry best practice and technology research foundation.

## Top takeaways

# 1

### Hybrid in deployment, and also in integration scenarios served

SnapLogic was founded by Informatica co-founder Ghaurav Dhillon in 2006 as a provider of open-source integration frameworks aimed specifically at developers. In 2012 and upon taking on a second round of venture funding, however, the company pivoted to create the low-code offering that is now known as Enterprise Integration Cloud.

The Enterprise Integration Cloud is unique in its scope of integration use cases served: its architecture is as equally suited to interactive application integration as it is to batch-oriented and streaming data integration scenarios.

# 2

### Investigate SnapLogic, particularly if you're looking to consolidate and simplify your integration architecture

With recent improvements to Designer and the facilities on offer for creating and managing reusable assets, SnapLogic has really upped its game in service of large teams working on large integration programmes. With the introduction of Integration Assistant and more to come from the Iris Artificial Intelligence development project, SnapLogic is maintaining competitive pace in this area well.

The SnapLogic Enterprise Integration Cloud brings tools that are usable by non-specialists together with an elastic and self-updating deployment capability that gives you a huge amount of flexibility as well as taking care of enterprise-class “-ilities” (reliability, scalability, security).

If you're considering ways to make your integration technology landscape simpler, then SnapLogic's unique scope makes it very important to consider.

## SnapLogic: from an open source framework for developers, to low-code hybrid integration

SnapLogic is a specialist Digital Integration Platform software vendor. The company is unusual in offering an integration platform that's not only 'hybrid' in the sense that you can deploy services in multiple locations (both cloud-hosted and on-premises); but also in the sense that you can use its platform to automate multiple kinds of integration data flows and transformations, each with its own specialised operational needs. This is a platform that spans both data integration and application integration scenarios.

SnapLogic was founded in 2006 by Ghaurav Dhillon, a former co-founder of Informatica, and is venture funded. The company's based in San Mateo CA, and also has offices in Boulder, Boston, and New York; in Hyderabad, India; London, UK; and in Melbourne and Sydney in Australia.

On its founding in 2006, SnapLogic initially focused on building an open-source data integration framework, targeted principally at providing data integration services to application developers and development tools.

In 2012 the company raised a third round of funding and refocused, developing the commercial offering that would become the Enterprise Integration Cloud. With its latest round in late 2016 totaling \$40m, SnapLogic has now taken over \$136m in venture funding.

The company's customers include Adobe, Acxiom, AstraZeneca, Blackberry, Danone, Earth Networks, Fox Sports, GameStop, GE Risk, Gensler, IDG, iRobot, RocketFuel,, Uber, Verizon, Xactly, and Yelp. Customers typically initially engage with SnapLogic to help with either data integration or application integration challenges; however, it finds that over time customers start to aggregate the fulfillment of a wide variety of integration requirements on its platform.

The SnapLogic Enterprise Integration Cloud is designed for any organisation wrestling with the burden of a variety of specialised integration platforms and with a desire to simplify their integration technology landscape. SnapLogic focuses particularly on organisations wrestling with the implementation of cloud-based systems and applications; and those with active data warehouse modernisation or 'Big Data' initiatives.

## Inside SnapLogic's offering

### The Enterprise Integration Cloud

SnapLogic's core offering is its Enterprise Integration Cloud, which – unusually – can address the requirements of both interactive application integration scenarios (traditionally addressed with ESB technology), and batch-oriented (traditionally addressed with ETL technology) data integration scenarios.

The core of the Enterprise Integration Cloud is a multi-tenant, AWS-hosted platform that delivers SnapLogic's suite of HTML5-based tools for deploying, managing and monitoring integration logic. The tools are:

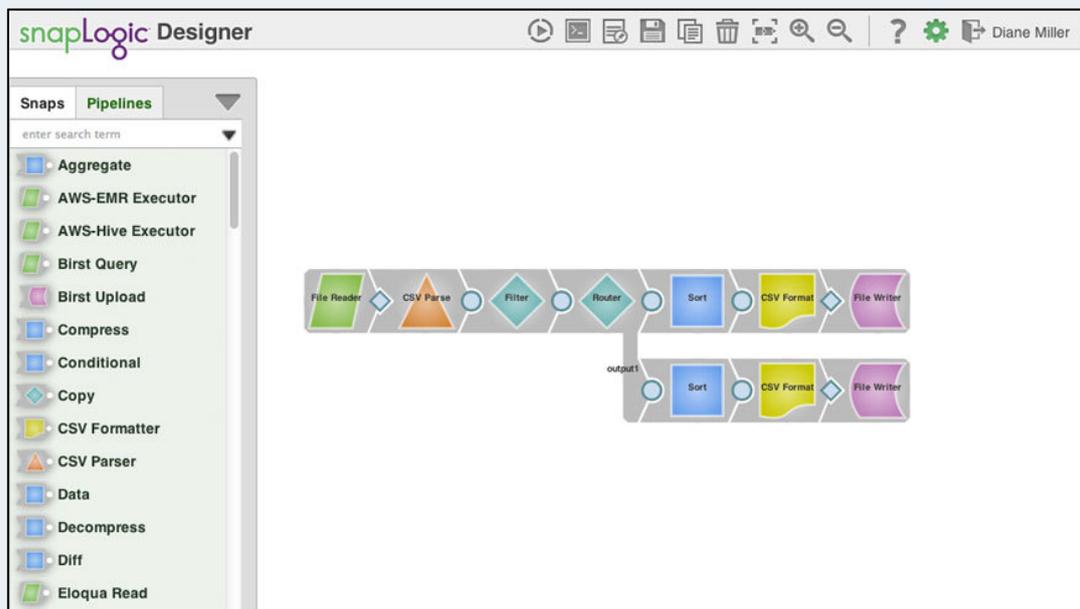
- **Designer** – a graphical, drag-and-drop specification tool, aimed at integration developers, for assembling and configuring data processing 'pipelines' (see figure 1 for an example) that take data from one or more sources and process it to create one or more result sets. Depending on the specific configuration of the platform you're working with (see below), you have a particular palette of functions available from which to construct pipelines.
- **Manager** – an administration tool for configuring access to the Integration Cloud, configure project settings, user settings, and set up security schemes.
- **Dashboard** - a graphical tool that lets administrators track the health of running pipelines, optimise pipelines, regardless of their deployment location, and audit historical execution too.

Whereas some Digital Integration Platform offerings deliver their capabilities from one integrated platform that hosts both tools (for design and administration) and the integration runtime environment, SnapLogic clearly separates the two.

With the SnapLogic Enterprise Integration Cloud, integration pipelines are deployed to **Snaplexes** – horizontally scalable, self-updating fabrics of server nodes (Java virtual machines). Customers can deploy multiple Snaplexes and associate them with one Enterprise Integration Cloud instance: so with one management account and one central set of tools, you can specify and control integration pipelines across multiple scenarios and use cases. Crucially, you can license and deploy Snaplexes to a variety of different kinds of hosting environment (see *Deployment options* below).

The last element of the overall SnapLogic offering is a large library of ‘**Snaps**’, which SnapLogic licenses to you in packs on an as-needed basis. These are off-the-shelf, configurable adapters that abstract away the detailed implementation details of connecting to, and making sense of, the integration APIs and data structures used by popular business applications and popular analytics tools. Customers can also build their own Snaps.

**Figure 1** An example SnapLogic pipeline in the Designer



Source: SnapLogic

While SnapLogic abstracts away the complexity of using such APIs by wrapping them into Snaps, SnapLogic can easily expose any SnapLogic integration pipeline as an API, and it can also easily consume any API natively. Lastly, SnapLogic also partners with third-party API management providers where customers need to manage a large number of APIs.

## Team support, versioning and reuse

In recent releases SnapLogic has significantly enhanced the features it offers to teams working on implementing integration programmes (not just individuals working on individual projects):

- You can package specific integration pipelines that you create within a Project into a Package. Packages are reusable, and importantly, enable non-technical people to configure them through step-by-step wizards.

- You can create, share and reuse both pipelines and packages through shared catalogues that are available at the level of each client account. Pipelines from a catalogue can be easily embedded within other pipelines across projects.
- The concept of Project Spaces in the Designer also helps you drive reuse. Project Spaces are repository views, at the level of each client account, that enable teams to group together Projects and additionally manage and share sets of reusable components.
- Designers can easily create and manage unlimited pipeline versions, and it's also straightforward to rollback pipeline versions.

## Connectors and other assets

When it comes to out-of-the-box support for application and data source connectivity, there are already over 400 Snaps available from SnapLogic, and more are being built by SnapLogic and its partners every quarter.

The range of Snaps offered by SnapLogic spans common ERP application suites, enterprise directories, HR applications, content management platforms, Marketing Automation application suites, CRM applications, messaging protocols, open-source and commercial SQL and NoSQL databases and data warehouses, analytics platforms and more. Prebuilt snaps offer more than connectivity; each atomic function in a pipeline (relating to data transformation, deduplication, filtering and so on) is also packaged as a Snap.

If your required endpoint isn't already supported, SnapLogic allows you to build your own with a well-documented API and a Java SDK.

## Deployment options

The service hosting SnapLogic's Designer, Manager and Dashboard tools runs on AWS.

SnapLogic has designed the Snapplex execution environment to be flexibly deployed across a variety of contexts. There are currently three specific configurations of the Snapplex environment, each aligned to a particular use case for the Enterprise Integration Cloud, and all based on the same core execution server:

- **Cloudplex** – a deployment of a Snapplex fabric that runs on Amazon's AWS cloud infrastructure, and which is primarily suited to scenarios where the main requirement is to integrate multiple cloud-based applications and data sources. SnapLogic hosts Cloudplexes on AWS instances in multiple countries, including the US, Ireland, Germany and Australia.
- **Groundplex** – a deployment of a Snapplex fabric that runs in your own data centre, aimed at organisations wanting principally to integrate on-premises applications and data sources.
- **Azureplex** – following a 2015 investment by Microsoft, there's also now the option to deploy a Snapplex to Microsoft's Azure cloud platform.

## Intelligence in the platform

In April 2017 SnapLogic announced a R&D project called Iris AI, with the aim of implementing machine-learning features within its platforms. The first result of the Iris AI project is the SnapLogic Integration Assistant.

Designers can switch the Integration Assistant on and off at will; when activated, it uses historically-aggregated (and anonymised) usage data to make recommendations that help designers construct and optimise integration pipelines – making optimisation recommendations to conserve computing resources or run integration pipelines faster, for example. At the time of writing, around 50% of all the Snaps placed by designers in pipelines come from recommendations made by the Integration Assistant.

In addition, there's a recommendation feature in the Mapper Snap that uses similar techniques to make suggestions regarding how fields can best be mapped from an input to a target schema.

## Packaging and pricing

SnapLogic's Enterprise Integration Platform is available with an annual subscription, and the base platform is offered at a fixed price, regardless of usage levels. The base platform, with the core set of 'foundational' Snaps and Snaplexes, starts at \$10k per month; if you want to employ additional Snaplexes and/or license Snaps, these are chargeable in addition to the base price. SnapLogic also offers three different support levels to better match customer needs. The platform's renewal rate is approximately 97%.

## Recommendation

SnapLogic's Enterprise Integration Cloud is particularly interesting for three specific reasons:

- **Uncommon deployment flexibility.** The Snaplex runtime environment can be employed in AWS or Azure clouds; in your own datacenter as a standalone environment; or integrated with Apache Hadoop or Spark clusters. One controlling Enterprise Integration Cloud instance can be used to control multiple Snaplexes, all at once.
- **A unified approach across multiple integration scenario types.** Whether you're specifying pipelines for high-speed, real-time stream processing, interactive record-by-record data synchronisation between applications or batch-mode bulk processing, the tools, the platform and the design approach are all the same.
- **Scalability and adaptability.** The Snaplex runtime architecture scales automatically (up and down) in response to demand; and Snaps employed in pipelines can be transparently updated in-place without any platform recompilation, redeployment or server stop-start cycling.

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