



With analytic super-platforms like LXA, anyone can build advanced use cases for their industry

by Paul Hewitt, Director and Practice Lead for AI, Machine Learning and Big Data

The Luxoft analytics platform (LXA) is a powerful, general purpose stack — an ecosystem of applications — rather than a single, monolithic application.

This super-platform uses data analytics as a mechanism for driving automation and, being generic, you can use it to build a wide range of use cases across most business domains including insurance, banking and ESG.

One of the great things about working with an integrated stack like LXA, is that non-technical staff can

build advanced use cases too, thanks to the various straightforward, user-friendly UIs in the stack.

Being a stack of components — it incorporates the best-of-breed elements in its databases, analytics and visualization, and enables the rapid building of custom user interfaces.

To code, or not to code

Now you can either let your developers loose and code in the usual way, or take the no-code, non-tech business analyst's approach. **You get to choose because the days when only data engineers could build out pipelines are gone.** Today, business analysts can use the simple drag-and-drop user interfaces in the LXA stack to create some pretty complex use cases.

As for integration, we select and package best-of-breed components, which makes the platform highly modular and standards-driven. Therefore, it's easy to swap one component for another, if necessary. Also, assimilation with different environments and landscapes is simple and straightforward. If some component in the stack is not the best choice (perhaps a similar product is already installed and in place), then it's a relatively simple matter to replace the component with the preferred alternative component.

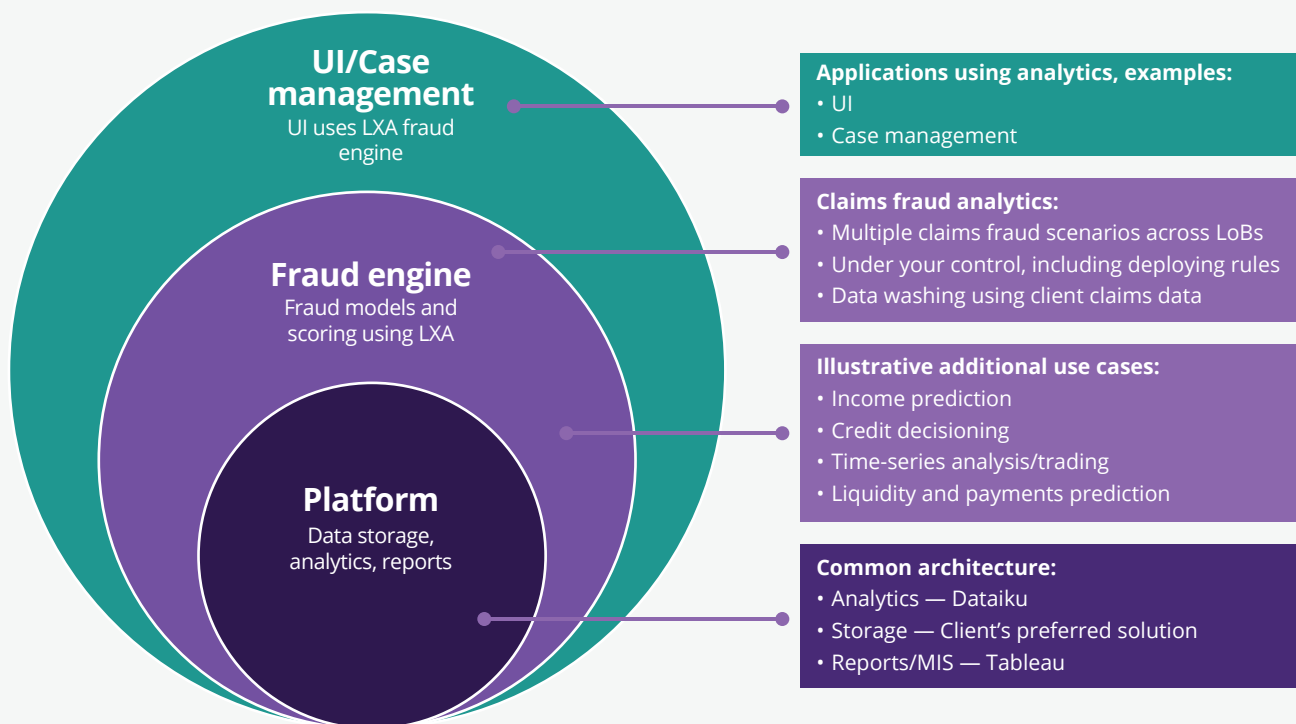
LXA's major components include the following:

- **Analytics platform** — Dataiku or equivalent
- **Storage** — any JDBC-compliant storage will work (Snowflake is our default)
- **Reporting layer** — usually PowerBI or Tableau or equivalent

Once everything's up and running, we usually build several analytics use cases using the platform. So, a typical implementation might include between 3 and 6 months of integrating the platform, followed by producing four or five use cases, and training internal teams where necessary. The following use case example is for insurance claims fraud.

LXA's three key functional layers

(This example supports insurance claims fraud)



A super-platform for virtually every domain

The illustrative use case we're using here is for detecting insurance fraud — **we could have chosen one of many other financial services use cases like income prediction, credit decisions, a variety of time-series analyses for traders, liquidity and payments prediction.** In fact, LXA can be applied to many other industries too — including areas as diverse as manufacturing, air traffic analysis, marketing and web log analysis.

So, fundamentally speaking, the **platform sits at the heart of everything LXA.**

The second layer in the above diagram refers to the things you build using the platform. This is really where Luxoft's accelerators and IP come in, because the value we add is not solely about supplying great analytic experts and top data scientists. It's also the fact that their deep knowledge and expertise is alloyed with the skill and understanding of our subject matter experts.

Augmenting our data scientists

Luxoft doesn't just provide a client with a standard data scientist. We deploy data scientists with a background in the industry concerned; experts who work closely with SME industry specialists to make sure each client achieves the optimal business outcome. Which is why LXA engagements often begin with consultancy and end up with full-blown implementations and successful completion of the analytics.

The third layer depicts the front end (the diagram depicts an insurance case management front end, but the UI could be for any industry). LXA experts develop

the front end using a low code/no code environment (e.g., Appian, Pega, UIPath, etc.). Our idea is to develop the application really fast, in close collaboration with the client. Then, after a matter of weeks rather than months or years, we get a front end that not only looks good but is also fully integrated with the client's environment. In addition, it uses one or other of the analytics models in the back end, seamlessly incorporating dashboards produced by Power BI (or whichever visualization application the user prefers).

LXA is different

The difference between what we've just outlined and more traditional types of applications, is that LXA is an ecosystem of best-of-breed apps. It's not a single monolithic application. **LXA is modular, very flexible, extremely**

fast (with a rapid time to value) and easy to adapt to changing client circumstances. Here's a quick reminder of the platform's features and benefits:

Platform characteristics

Features include:



Global leading components

Best storage, analytics and visualization



Adaptability

Platform can support a wide range of use cases in financial services



Standardized

Uses standard (and standards-based) approaches



Modular and interchangeable

"Plug and play" approach, with well-defined points of interaction



Open analytics

Client controlled, IP owned, not black box

Benefits include:



Time to value

Short time to value, to monetize analytics



Future proof

Modular "plug and play" approach, enables ease to stay ahead of the curve



Leading analytics

Provides leading-edge analytics, within commercially sensible boundaries



Testable

Easy to test and monitor, with real-time levels of performance

Typically, we want to show the benefit of an improved analytic capability. For example, with things like client churn models, you need to be able to show that you've either reduced or predicted client churn; a well-defined commercial value which strengthens the client's market position.

However, the important thing to remember is that analyses are not one-off tasks. To ensure meaningful results and more accurate decision-making, data analysis should be regarded as a methodical and repeatable sequence of interrogation and interpretation, particularly in view of the continuing explosion in data sources. Organizations are already struggling to cope

with the volume and velocity of their data, but according to Statista (Big data and business analytics revenue worldwide 2015-2022, p.5), the amount of available data is expected to double between 2022 and 2025 (from 97 to 181 zettabytes). How is data analysis going to make the most of the raw material if their tech tools and processes are not keeping pace?

The tools, process and operating models around the analytics are almost as important as the analytics itself. To this end, our combined platform supports a broad range of monitoring, diagnostics and management capabilities, so that rock-solid processes and workflows can be implemented.

Advanced analytics adds real value

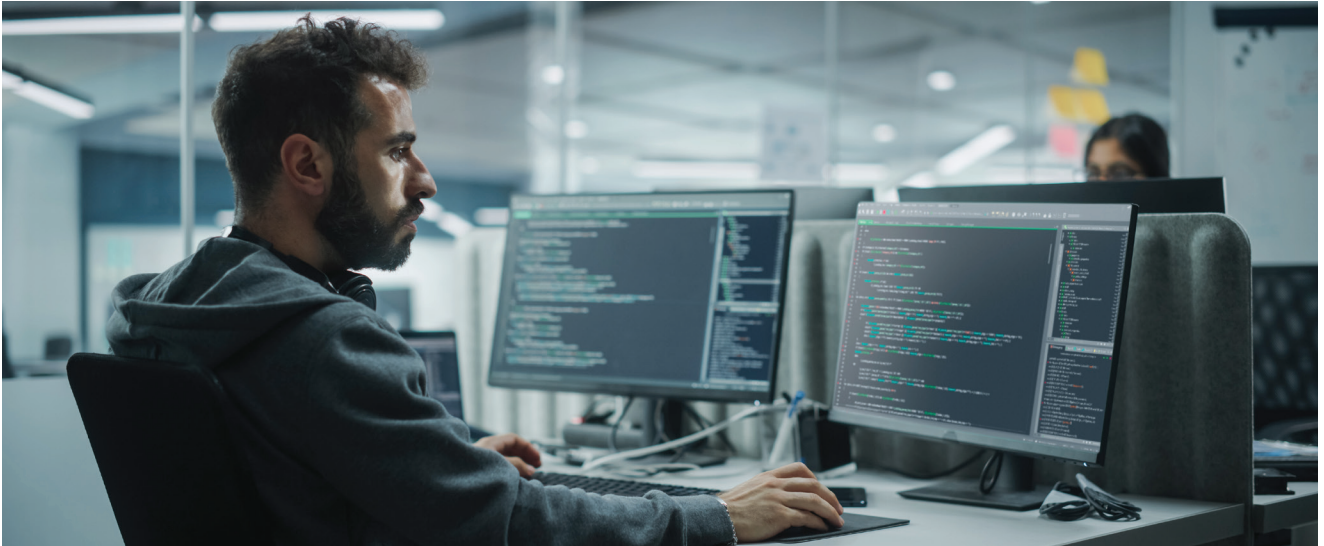
The LXA platform allows clients to productionize their modeling and analytics, and make them easily reusable in production on a daily basis, while improving the bottom line. It's an environment that gives you the whole analytics lifecycle, front-to-back — from raw data to data-driven decisions. And the way that we've structured the stack, you get a great user interface with exceptional data pipeline capabilities as well.

You can use a wide range of different analytical techniques; Dataiku is particularly good at ingesting data. As an AI platform, Dataiku provides an end-to-end interface for advanced analytics such as data preparation, processing and visualization, machine learning and more.

Dataiku's exceptional performance

Of course, Dataiku and its competitors are not cheap. But once you factor in all the various components of software ownership, it's a pretty competitive package overall. In 2020, Forrester published a report, **The Total Economic Impact of Dataiku**, which detailed the company's remarkable 423% 3-year ROI with a net present value (NPV) of \$10.43 million. They also reported that Dataiku increased data engineers' and scientists' productivity to the tune of \$8.4 million and, by using Dataiku, enterprises clawed back 75% of the time previously spent on projects. Gartner Peer Insights delivered some very enthusiastic Dataiku product **reviews** too.

The business impact of using Dataiku is plain to see. It's easy to use, flexible, simple to extend, has a very fast time-to-deploy and, importantly, offers a quick route to self-sufficiency. One of the biggest challenges for machine learning is getting the models into production in a timely fashion. Dataiku offers one-click deployment, which means that the time spent on DevOps with a default implementation, is pretty low.



Rapid time to value

We spent a long time developing the platform and **one of the major benefits is that clients have a very short time to value for their deployment. Because LXA is a single generic platform, clients and their customers**

benefit from visually appealing workflows, and it provides an easy way to prepare for next-generation analytics. Here's an example of key end-user workflows from an insurance claims fraud use case:

Key-end user workflows

Workflows presented:

- Detection process and modeling of new rules
- Fraud processing, claims view, analysis workflow and scoring
- Client data wash, the data scientist view



The above example shows an insurance claims fraud case management application that's been developed on top of the platform; a typical pipeline. It's a platform plugin for the generation of forums.

The same will be true for other areas. You would have a front end written in a local environment that utilizes the analytics on the back end to give clients access. A considerable measure of bespoke analytics goes under the hood in each individual client scenario, so we work closely with the client to produce the optimal solution.

About **the author**



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Paul leads the Data and Analytics practice for Banking and Capital Markets Consulting EMEA. His role spans all advisory and consultancy in data and analytics, and delivery of all projects from PoCs to large multiyear projects. He has worked with Luxoft for 3 years and has over 20 years' industry experience.

If you'd like to find out about LXA's initial deployment and what the platform could do for your organization, visit luxoft.com/lxa-platform or **contact us**. We'll be pleased to provide a deeper, more personalized dive into LXA.

About Luxoft

Luxoft, a DXC Technology Company delivers digital advantage for software-driven organizations, leveraging domain knowledge and software engineering capabilities. We use our industry-specific expertise and extensive partnership network to engineer innovative products and services that generate value and shape the future of industries.

For more information, please visit luxoft.com