Deep Analysis

Hyland (Nuxeo and Alfresco)

Both the Alfresco and Nuxeo platforms are well-proven products and should be on any significant ECM or DAM shortlist. Built on open-source principles, they have user-friendly UIs and features to aid developers for successful integrations into existing applications and processes.

Founded 1991 | HQ Westlake, OH | >4,000 employees March 2023

The Company

Hyland is a market leader in content services. The privately held company was formed in 1991 and is headquartered in Westlake, Ohio. Led by William (Bill) Priemer, who has been with the company since 1997, Hyland has 30 offices worldwide with more than 4,000 employees and 16,000 active customers. Hyland does not disclose revenues, but Deep Analysis estimates the firm's 2022 revenue to be over $1 billion. Thoma Bravo, a private equity firm, acquired a controlling interest in the company in 2007 for $265 million (estimated). In 2017, Thoma Bravo acquired Lexmark International's software business, with Perceptive Software going to Hyland and the remaining companies becoming part of Kofax. Hyland acquired Alfresco in September 2020, then Nuxeo in March of the following year; the products of these last two acquisitions are the focus of this report.

The Technology

The Nuxeo and Alfresco platforms are now well ensconced within Hyland's portfolio, alongside OnBase and Perceptive Content. A decade ago, they were competitors, with both claiming to have been the first "open source" content management platform on the market. Despite their competing claims, the firms were different in approach and, under the single banner of Hyland, appear to have found their niches.

There is, on paper at least, some overlap between the two platforms. Both the Nuxeo and Alfresco platforms can meet specific enterprise content management (ECM) use cases. Hyland's Alfresco Digital Business Platform provides a fully featured cloud platform for content services. The Nuxeo platform provides extreme scalability and low-code tools for AI and machine learning (ML)

Figure 1
Nuxeo Example of Commerce Image Management
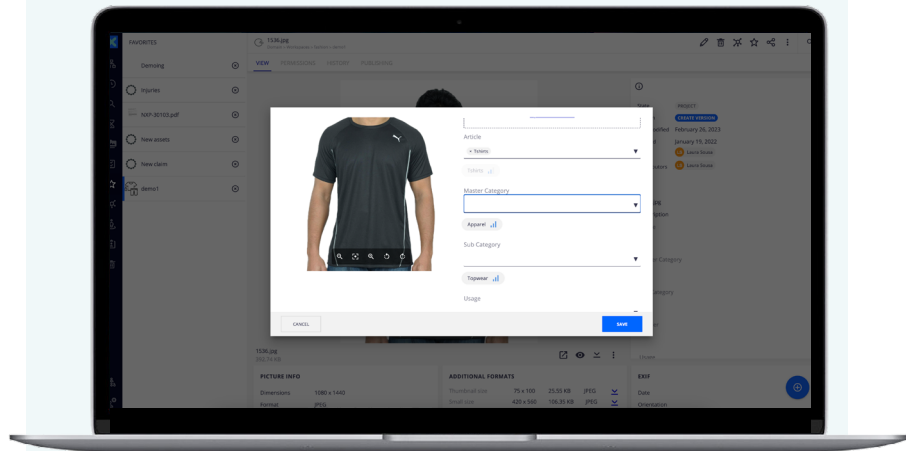
models. However, Hyland's Nuxeo platform also includes digital asset management (DAM) and product asset management (PAM). They are, in practice, entirely separate platforms designed to meet different business needs.

Hyland's Alfresco platform is a cloud-native ECM platform and has long distinguished itself as adhering to and leveraging open source with support of open standards and APIs. With these offerings, the Alfresco platform is relatively easy to customize or integrate. The Alfresco architecture is modular and provides REST APIs, SDKs, and a dedicated Development Framework to enable you to build content-centric business applications. As might be expected, such an open approach comes with various pre-built integrations, from SAP to Microsoft Office. And its cloud-first architecture means that it can run in clouds such as Amazon Web Services and Microsoft Azure and deploy utilizing Docker, Kubernetes, or Ansible playbooks. Today, Hyland's Alfresco platform is well-proven, reliable, fully featured, and scalable: a good and popular choice for many large organizations, and rightly so. It

is particularly popular in highly regulated industries as it has been designed to meet the compliance needs of everything from EGovG to FOIA and beyond.

When Hyland acquired Nuxeo, there was some market confusion as it appeared to some that the firm had bought a similar open-source ECM system to Alfresco. It is important to note that there are many implementations of Nuxeo where it is still, and will be, used to address extreme scalability requirements.

However, Hyland's Nuxeo platform provides a highly scalable, low-code, API-first environment that includes low-code tools for creating engaging user experiences, as well as DAM and PAM functionality. It was designed to be used for traditional DAM scenarios such as commerce image management and can extend to PAM, product lifecycle management (PLM) and increasingly complex case management (where many images and videos are involved). The most interesting thing about the Nuxeo platform is its use of AI, which, for example, can automatically tag image data (see Figure 1). It's a sound system, and just like the Alfresco platform, it is designed less as an out-of-the-box product and more as a core platform for integration into existing business applications and data stores.

Indeed, it is Nuxeo's use of AI that particularly caught our attention. Although somewhat hidden, a product called "Nuxeo Insight" is the AI element of the tech stack that holds the most promise in terms of innovation. Like many other AI product sets, it leverages a range of off-the-shelf, third-party, and proprietary technologies. For example, Nuxeo Insight uses third-party services such as Amazon Rekognition and Google Vision for image and video recognition. However, it has gone beyond merely integrating these third-party services into its platform. The platform has a set of tools and applications, enhanced by

its ML models, to meet specific enterprise content and digital asset business needs including automated extraction, enrichment, classification, and indexing across various information assets, from standard documents to images and videos. In simple terms, Nuxeo uses established third-party technologies to undertake commonplace activities such as optical character recognition (OCR), speech-to-text, and some primary classifications. It layers on its ML models to undertake more granular analysis, with the result being specific customer "bots" to meet specific customer needs, trained on the customer's data.

The Nuxeo Insight tools come somewhat pre-trained, so a commercial user does not have to train the system from scratch. Nuxeo Insight has a fundamental, if not extensive, knowledge of the task and its requirements and is trained quickly on the user's own data sets. Nuxeo claims that in some cases, training times on-site can be as short as six hours to deliver 85-90% accuracy rates. The speed to accuracy rate will vary depending on the circumstances and data quality.

Another aspect of Nuxeo Insight is worth highlighting: its ability to identify which decisions are made by AI and which are human-generated. Each content bot is versioned and saved, along with the associated models and data sets. This versioning process provides, in theory, at least, a solid basis for a governance model. If values are corrupted at any point, it will be possible to roll the system back to understand how the model was trained and how and why the error/corruption occurred, and to enable Human-in-the-Loop supervision throughout the process. Though this may be technically possible in other similar systems, the fact that this activity has been codified into Nuxeo Insight is essential to note.

Though all of the ML and AI capabilities in Nuxeo Insight work well, the UI particularly caught our eye. The UI is used to access and program the AI; it is wizard-driven and has been designed both to simplify the data scientist's work and be of use to business analysts. There will be a learning curve as with any such interface, but the Nuxeo Insight UI is intuitive and cleanly designed. It is one of the best we have seen and bridges the gap between data science and business.

In our analysis, Hyland will continue to support existing customers using any of Hyland's four ECM platforms, while new customers will orient toward Hyland's portfolio offerings for their specific ECM business purposes. Going forward, Hyland Experience plans to leverage core components of its platforms, including Alfresco and Nuxeo, for next-generation, cloud-native content and process services.

Our Opinion

Both the Alfresco and Nuxeo platforms have found a good landing spot at Hyland. It was no secret in the industry that both firms were looking to be acquired, and buyers and users of their products were understandably concerned about what changes new ownership would

bring. Two years in, Hyland has invested in both further development of the platforms and related support. In discussions with Hyland executives and customers, it is clear that the company is promoting these as primary platforms with a strong future. Beyond ECM and DAM, Hyland has also acquired a solid and modern AI team and product set that we believe should and will be leveraged more broadly across Hyland's products in the coming years.

Advice to Buyers

Both the Alfresco and Nuxeo platforms are solid and well-proven products and should be on any significant ECM or DAM shortlist. Though in practice it makes little difference that these are both built on open-source principles, that fact alone differentiates them and makes them an exciting alternative to more proprietary options. But what sets them apart is that they have both been built with developers in mind. Any major DAM or ECM project will require development to customize to your specific requirements or to ensure successful integrations into existing applications and processes. Development work is always tricky, but Hyland has tried to make this work user-friendly and less complex.

SOAR Analysis

Strengths
➡ Solid, well-proven enterprise-grade applications
➡ Built on open-source principles

Aspirations
➡ Become the content services platform of choice
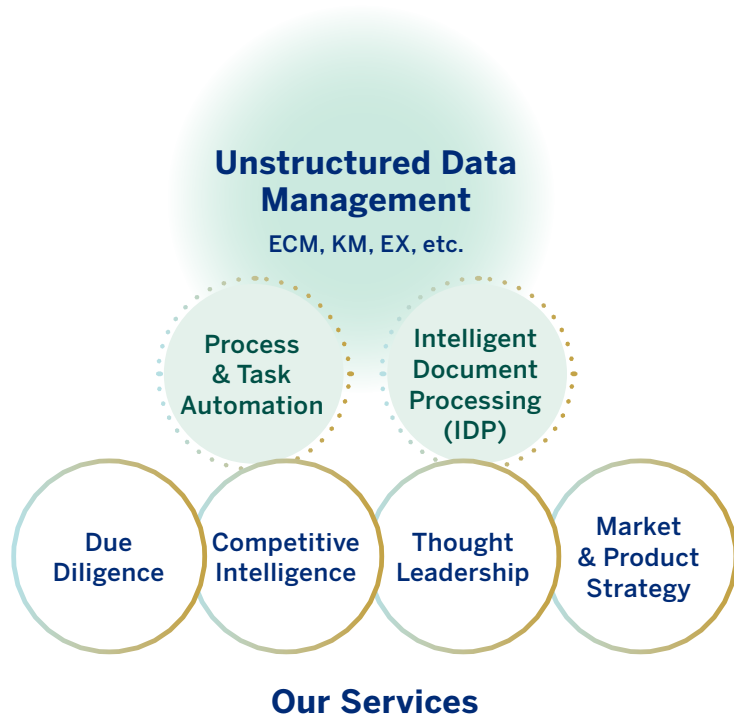➡ Expand significantly in the EU

Opportunities
➡ Open up new growth paths for Hyland
➡ Expand significantly into DAM and PLM markets

Results
➡ Solid blue chip customer base
➡ Both firms already well integrated into Hyland

About Deep Analysis

We Research Innovation

Unstructured Data Management
ECM, KM, EX, etc.

Process & Task Automation

Intelligent Document Processing (IDP)

Due Diligence

Competitive Intelligence

Thought Leadership

Market & Product Strategy

Our Services

Contact us:

info@deep-analysis.net

+1 978 877 7915

Deep Analysis is an advisory firm that helps organizations understand and address the challenges of innovative and disruptive technologies in the enterprise software marketplace.

Its work is built on decades of experience in advising and consulting to global technology firms large and small, from SAP, Oracle, and HP to countless start-ups.

Led by Alan Pelz-Sharpe, the firm focuses on Information Management and the business application of Cloud, Artificial Intelligence, and Blockchain. Deep Analysis recently published the book "Practical Artificial Intelligence: An Enterprise Playbook," co-authored by Alan Pelz-Sharpe and Kashyap Kompella, outlining strategies for organizations to avoid pitfalls and successfully deploy AI.

Deep Analysis works with technology vendors to improve their understanding and provide actionable guidance on current and future market opportunities.

Yet, unlike traditional analyst firms, Deep Analysis takes a buyer-centric approach to its research and understands real-world buyer and market needs versus the "echo chamber" of the technology industry.