The Aragon Research Globe™ for Digital Transaction Management, 2024

Intelligent Assistants Will Speed up Transactions

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Topic: Digital transaction management (DTM)

Issue: Who are the DTM providers and how are they evolving?

SUMMARY

Aragon Research releases its eighth Aragon Research Globe™ for digital transaction management (DTM), a market that will see the rise of AI Assistants to help create automate and digitize paper transactions. The DTM Globe examines 20 major providers who are making their mark in this growing market.

Key Predictions

Prediction: By YE 2025, 50% of DTM providers will add an Intelligent document assistant to their product portfolio (60% probability).

Prediction: By YE 2025, 40% of Workflow and Content Automation providers will offer an Intelligent Content Assistant.

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Introduction

Transformation continues to be the battle cry in the enterprise as AI comes online to offer more automation than ever before. Enterprises need look no further than all of the paper-based processes to find transformation opportunities. Digital Transaction Management remains one of the highest payback options. Paperless transactions continue to deliver results, and now more providers are entering the market as e-signing is proving critical to conducting business.

The DTM market still has large volumes of paper transactions that have not yet gone digital. It also has become a replacement market. The race is on to offer Intelligent Assistants to help with automation and to answer questions. With a Digital Wallet looming in Europe, the rest of the world is still wrestling with the need to migrate legacy paper content to digital. This 2024 Aragon Research Globe evaluates 20 major DTM providers who are making a difference.

Work from Anywhere and the Need to Automate

No matter where people work, the work needs to get done. Document-based processes take tons of time. DTM helped to pioneer faster signatures and now users want more than just fast signing. As AI comes online, this is a time of upheaval for the DTM market. Just having a better signing experience will not be enough to win the deal.

For 2024 and beyond, automating the creation of documents and contracts is not trivial, and the growth of the category shows that this transformational shift is well underway. The need to simplify the setup of a signing process—the need to help users to get that done—are all on the list—as Intelligent Assistants come online.

DTM Platforms and Intelligent Assistants

For the last two years, we have discussed the rise of bots and Copilots. Now in 2024, Intelligent Assistants are here, and it is a race by providers are racing to introduce new products and services that are focused specifically on content generation. There is no end in sight for this race.

In the short term, Intelligent Content Assistants are well equipped to summarize long documents and to create emails. There is work underway to have a more compelling contract-focused creation, but we are in the early stages. Regardless, Aragon feels that many parts of the Transaction Management and signing process will be augmented and enhanced by Generative AI over the next five years.

In the long term, custom generative content models (e.g. Custom LLMs) that leverage bring-your-own-data will be the focus of content automation. By utilizing their own data, organizations can create models that are tailored to their specific needs and requirements. This will enable them to create highly-customized and relevant content, which will further enhance the overall quality and effectiveness of their content automation efforts. Google's Gemini LLM platform and Microsoft Copilot both allow for the creation of custom models.

Prediction: *By YE 2025, 50% of DTM providers will add an Intelligent document assistant to their product portfolio (60% probability).*
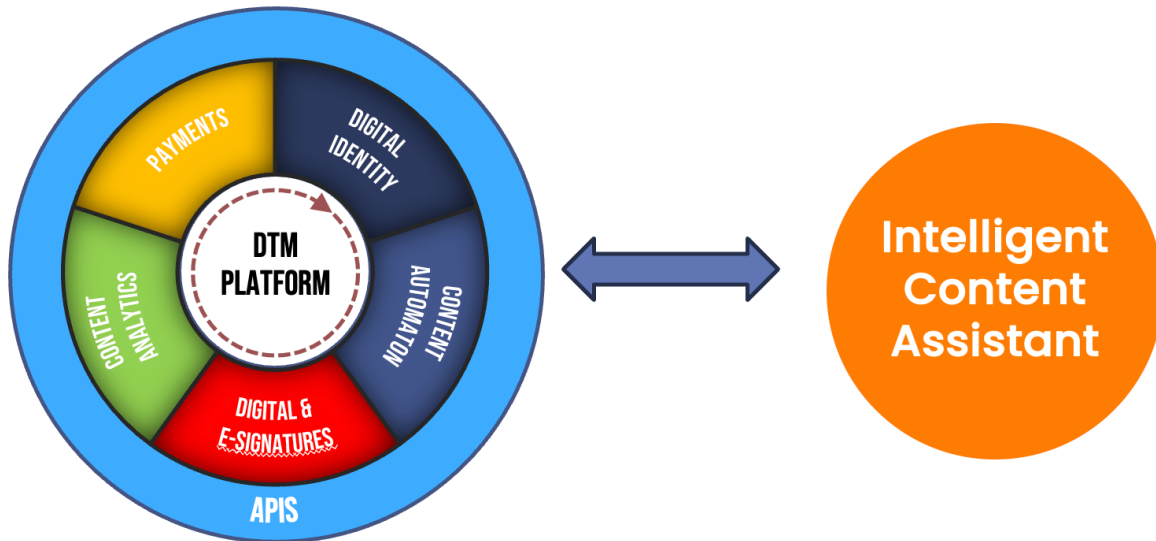
Figure 1: Intelligent assistants will help people create documents and process transactions.

The Current State of Digital Transaction Management—A Market in Transition

Due to the sheer number of paper- and form-based processes that are ripe for transformation, the DTM market continues to grow. Today, basic DTM (eSignature) still represents a large part of the spending. However, the need for an integrated approach with Intelligent Assistants, Workflow and Content Automation, and content management (storage and archive) is greater than ever before.

While basic DTM has focused just on the e-Signature, advanced DTM has been about security and identity. Expect more pressure from providers to offer more advanced DTM capabilities, and that may put pressure on providers who only offer basic DTM capabilities.

DTM platforms are becoming more robust and go beyond just e-Signature. Today, major providers offer a number of capabilities that make them full platforms. See below and Figure 2 on the following page:

- Electronic and Digital Signatures
- Workflow and Content Automation
- Content AI, including Generative
- Clickwrap Transactions
- API and Transformation Services
- Mobile Apps
- Enhanced Security and Identity verification

Content AI (see above) is making its way into the DTM market. Moves over the last few years by both Box, Conga, DocuSign, Dropbox, Namirial, and RPost are showing up in products and new services, including Onboarding offerings and Clickwrap Transaction offerings.
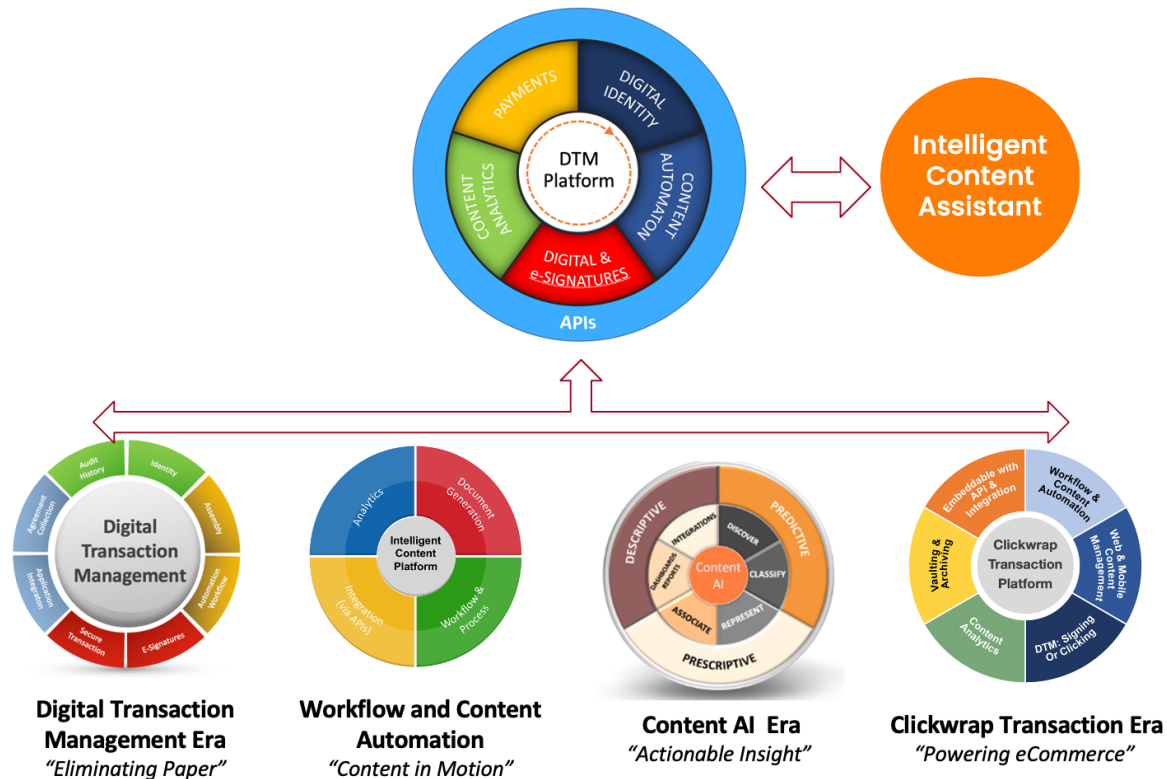
Figure 2: DTM platforms are emerging that leverage automation and Content AI, including Generative AI.

The battle cry in 2024 is to look at all paper-based processes as opportunities to transform to a digital workflow-based process. Making the process easy for end users is also critical. That is why it is important to separate the technical backbone of how things happen vs. what users need to accomplish.

Transformation of Document-Based Transactions Is the Biggest Opportunity for Enterprises and Governments

Many document-based processes still exist in enterprises, and compared to other transformation projects, they still represent the largest opportunity to transform and have a major impact. Transformation in this context is about replacing legacy paper or outdated forms with electronic

and digital approaches. In many cases, due to Transformation Platform Service providers (see Aragon Research on TPaaS), APIs already exist to connect legacy applications with each other.

The issue when it comes to Content Management and Forms is that often these platforms have become so outdated that a change is needed.

Automating Forms with Generative AI

With a Conversational Interface, the process of collecting information can take a significant leap forward. Intelligent Assistants for Content Capture is a great use case for applications such as onboarding, and Aragon expects data capture to become a fundamental capability of an Intelligent Content Assistant.

Intelligent Assistants, Content AI, and Agreement Insights

The opportunity for Intelligent Assistants to summarize documents is one thing. Aragon sees another opportunity for IAs to tell users more about the overall state of contracts and agreements. Which ones were undersold and have an opportunity for an upsell? Which agreements have clauses that need to be updated? The list goes on, but Intelligent Assistants will become much smarter and be able to guide business leaders to higher revenue by using Content AI to assess what is in an agreement and to benchmark it.

Digital Identity and the Rise of the Digital Wallet in Europe

The Digital Identity effort in Europe has been gaining traction over the last two years. eID, essentially a digital wallet, will allow for a common Identity in each country. The goal is that eIDs/Digital Wallets should be accepted by all EU member countries.

In 2024, each EU country is supposed to make digital wallets available in 2024 for citizens that request one. However, these secure digital wallets take time to develop, and delays are to be expected.

The driving force behind all of this is the eIDAS (electronic identification and trust services for electronic transactions in the internal market) regulations. eIDAS 2.0 is approved but it was only in February 2023 that the first Digital Wallet toolkit was released to member countries by the EU.

In the US the Real ID act is about a year away from forcing all 50 states to have a common ID standard for a driver's license. California is allowing a Digital Wallet called mID, to be used for storing the Real ID license, and it is offered for both Apple iOS and Google Android operating systems for Smartphones.

The race to a digital identity is underway, and different countries will take different approaches to this. It is clear that digital identity is here, and it will take longer for countries to get into a production mode. Europe continues to lead North America and Asia in these efforts.

Clickwrap Is Tied to the Surge of eCommerce

There is nothing that will slow down the demand for e-commerce transactions. Standard terms and conditions will no longer work for even basic purchases, given nuances in products and the multitude of product variants that often have different terms and conditions.

As ecommerce grows, the need to automate high-volume purchases will increase. Whether the click is needed to accept terms or a signature, those requirements will vary by product type and the country/state they are offered in. For online purchases, this includes custom terms and conditions as well as warranty and service terms.

Important other examples include purchase orders, insurance policy acceptance documents, non-disclosure agreements, etc. While Clickwrap will continue to be tied to the products being purchased, the interaction with users will also get more friendly, such as by asking how the custom terms and conditions should be delivered to the user (see Note 1).

The Need for a Conversational Interface via Generative AI

While we discussed form automation earlier in this report, part of the revolution is the ability to use Generative AI via a conversational Interface. Training of assistants is still key to automation, but in some cases—the ability to kick off a process may now be accomplished with a Conversational Interface.

For forms, with the advent of a conversational AI interface, providers will gradually shift from a click-based interview process to one that is prompt-based to one that is fully conversational.

This also applies to the automation of the workflow process. Via an Intelligent Content Assistant, a user will be able to state the people that an agreement needs to go to, and the application can add them and then have the human approver sign off on them.

It is important to note that only now are Content Assistants emerging. Many providers are still testing their offerings.

Note 1: Digital Transaction Management and Clickwrap Transactions

Aragon identified the digital transaction management market in 2014, and since that time, it has grown significantly, with a focus on the process of taking paper-based document transactions and making them digital, including the electronic or digital signature process.

Clickwrap transaction platforms offer some of the same capabilities but are focused more on online transactions, which requires advanced content automation, click or signature approvals, and recording and archiving of the actual online transaction.

So, while DTM is the overall category, CTP is unique given the minimum capabilities as outlined in this Research Note.

The low code era is here, and complex coding of workflows are quickly becoming a thing of the past. All this means that enterprises should evaluate providers on both the ease of use and the local approach that the WCA provider currently has offered and has on the roadmap for the future.

How Will Intelligent Content Assistants Emerge?

Intelligent Content Assistants are emerging. While text generation is available, the level of training is still in the early stages. Instead, the ability to read, summarize and understand existing contracts is here. Conversational Search and retrieval also are available. So far, Adobe, Conga and Ironclad have made moves to offer Content AI capabilities.

All that said, the concept of a content assistant for creation is coming—however, for different types of content training will be required.

Prediction: BY YE 2025, 40% of Workflow and Content Automation providers will offer an Intelligent Content Assistant.

With content assistants, the need for many people creating content will decrease. The cost of hiring and managing content creators can hold back a business in its development. Still, much of the support for autonomously generated content is in its early stages, and for certain kinds of content like video, the technology is not yet advanced enough to enable the rapid and scalable production of digital assets that are required for the modern enterprise.

Content Understanding and Summarization at the Core of Generative Content

The era of understanding means that enterprises can leverage unstructured documents in ways that were not possible before (see Figure 3 below). The vast majority of document data is unstructured, which means document understanding opens up a wide realm of opportunities for doing new things with document data. This means that large enterprises, or any enterprise with more unstructured content than its associates and the time or ability to analyze, can use AI to reveal a previously unseen dimension of business content.

From Document Analytics to Document Understanding
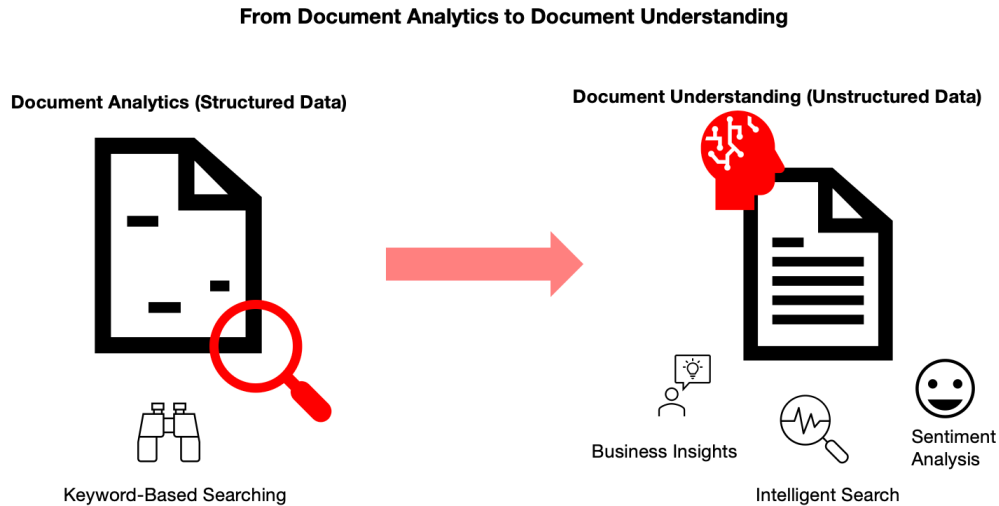
Figure 3: The keyword-based approach of the past and the intelligent approach of document understanding today.

The Race to Role and Industry Knowledge—Key for Assistants

Aragon feels that Generative AI and Content Assistants will be productized—and will be increasingly role, topic and industry focused. To offer highly relevant content creation and content analysis, LLM models will need to be trained in both roles and industries.

For example, an ICA in healthcare will need to have key contract knowledge and understand the interrelationship of different clauses in a contract. The same thing goes for insurance and banking.

Additionally, the ICA for a user may be different than the Assistant that is offered to a manager or Supervisor.

Document and Image Analytics and the Race to Document Understanding

There is no argument that AI is here, and for WCA providers, the need to focus on content AI isn't optional. One of the key shifts in the use of AI for document and content analytics is the ability of a business analyst to tune algorithms to focus on a certain type of document or a certain part of the document.

Given the rise of large language models powering generative AI, there is a mandatory requirement to be able to understand critical documents to be able to construct new documents or modify existing ones. This race to intelligence represents a new component of the race to digitally-enabled business processes. See Note 2 for details on the different types of Content AI that need to be evaluated.

Content Security Takes Center Stage

More than ever before, criminals are trying to step in when a digital transaction is occurring, and this means that security becomes front and center in all industries—not just in real estate and banking. With content AI and copilots, the security capabilities in platforms will also be powered by a security copilot that can warn of bad documents, bad clauses, or bad actors. This will require content AI, security, and conversational AI for the application to be able to act in real-time.

Aragon feels that the pressure to automate DTM overall with Intelligent Assistants does not mean that security can be overlooked. With Digital Wallets and better Identity verification, transactions can be protected.

Understanding where your documents are being stored is a larger issue. Choosing between types of clouds is a deployment choice, and given the need for private cloud (on-premise) for content storage, this may impact the DTM provider who is selected.

Use Cases Still Need to Focus on Customers

While sales have been a big focus for customer engagement, all customer-facing documents should be evaluated to leverage basic and advanced DTM. The goal should be to go digital and shift toward e-Signatures as a first step. Eliminating paper in each of the stages of a sale can accelerate booked revenue and accounts receivable. Many firms that have deployed basic e-Signatures have seen a dramatic reduction in the time it takes to get a contract signed.

For employees and internal document processes, DTM can make a significant positive first impression through onboarding and all of the documents an associate needs to sign (see Figure 4 below). So, while customer engagement is the main first step

Note 2: Intelligent Enterprise Video Platform Architecture

1. Documents—document analytics, also referred to as Document AI, is the ability of machine and deep learning applications to read and understand documents. There are tremendous opportunities in the document creation phase, particularly for contracts, as close analysis can provide a success or failure prediction on whether a clause should be used or not.

The need to have algorithms that can understand text and images is critical to Generative AI. While many DTM providers will leverage document analytics by partnering with large cloud providers such as Google, IBM, Amazon, or Microsoft, more will start to make their own set of investments. Conga, DocuSign, Nintex, and Namirial have all made acquisitions in the last two years that bolster their content AI capabilities.

2. Image Analytics Tied to Signatures—in DTM, enterprises will need to interpret images and distinguish real images from fake images. Image analytics is important for identity verification for DTM transactions and will be vital for eNotary. In particular, image analytics will be important for fraud detection and may help to prevent fraud before it happens.

3. Video—for Online eNotary: Today, video verification with eNotary is done by the authorized eNotary, looking at the person online and comparing that image to their picture on a government-issued ID. Facial detection and verification can be done now using computer vision algorithms, and accuracy rates are going up.

in getting started with DTM, enterprises should not overlook the DTM benefits for employee-facing document processes.

Customer Experience

Employee Engagement

- Sales Contracts
- Supplier Contracts
- Non-Disclosure Agreements
- Onboarding
- Partner and Supplier Onboarding
- Offline Purchases (via eSignature or Clickwrap)

- Employment Applications
- Offer Letters
- Confidentiality Agreements
- Stock Options
- Compensation Agreements
- Privacy Notices

Figure 4: Internal and external use cases for digitizing paper processes.

The Aragon Research Globe™ for Digital Transaction Management, 2024
(As of 7/17/24)
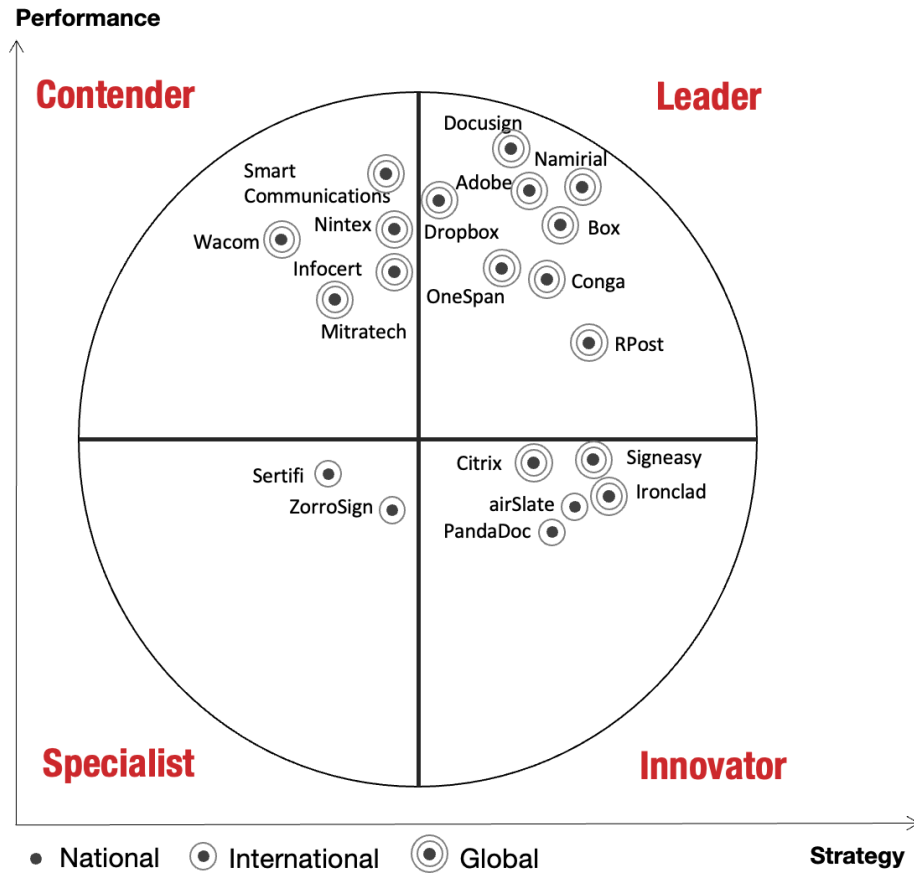
Figure 5: The Aragon Research Globe for Digital Transaction Management, 2024.

Leaders

Adobe

In the last year, Adobe has made a complete transformation and has doubled down on Generative AI, Content AI, and how it applies to its entire product line, including its multiple Content related product offerings including Adobe Acrobat Sign, content automation and content management. Adobe Document Cloud, and Adobe Experience Manager (AEM) Forms. These key Adobe Document Cloud offerings have all been enhanced with AI.

Adobe Acrobat Sign continues to be a solid choice with enterprises, particularly those who do high volume signing. Abobe announced the Adobe Acrobat AI Assistant in February 2024. Some of the capabilities for Acrobat AI Assistant include answering questions about content across multiple document types, and the ability to generate content based on questions or inquiries. Additionally, it has the ability to summarize content inside of a long document, allow for the generation of citations from documents,

Adobe Sensei is the core AI engine that is integrated with AEM, including AEM Forms. With Sensei AI, AEM forms can be intelligently completed, form scans can be enhanced with Sensei powered Adobe Scan. Adobe Sensei and AI Assistant can also speed up and simplify searching for documents. AEM Forms continues to offer an automated forms conversion feature that supports batch conversion of PDF or XDP forms into mobile-friendly adaptive forms at scale. For Contracts, Adobe Sign is fully integrated into these applications.

Adobe Firefly is the Generative Content Platform that is focused on images and works with the new Abobe GenAI Studio for full project automation. We see synergies where firms will leverage Adobe Sensei, Firefly and GenAI Studio to speed up the process of document creation. Adobe Sensei also works with Adobe Journey Optimizer, Adobe Journey Analytics, Marketo Engage, and Adobe Real-time Customer Data Platform. For Document Cloud, Adobe offers Firefly to generate images and text effects.

Adobe's AI Product family is 100% focused on Content and Content Automation. While Sensei and Acrobat Assistant are key to document workflows, with Generative AI Studio, Firefly and Professional Service—it means a robust set of AI offerings for enterprises. With its complete focus on Generative and Content AI, Adobe has put the market on notice that it will make it faster and easier to sign documents across a growing number of use cases.

Strengths	Challenges
• Brand and financial stability	• Balancing native vs. partner capabilities
• SMB offering with Acrobat Pro	
• Advanced DTM capabilities	
• Partner network	
• Broad set of digitization components	

Box

Box, led by co-founder and CEO Aaron Levie, has continued to expand and innovate its product portfolio with its flagship content management platform – with a growing focus on AI as well as AI powered content automation and digital transaction management. Box Sign, is bundled into all Box Plans, making it a compelling offer to replace other platforms. The Box Platform includes security (Box Shield), Box Governance, visual collaboration (Box Canvas), workflow (Box Relay), Box Platform, Box Zones, Box KeySafe, content migration (Box Shuttle), and most recently Box AI.

In May 2023, Box unveiled Box AI which looks to change the way people use Box daily. Box AI can answer questions, it can summarize documents and contracts, and it can generate text for a number of different use cases. In July 2023, Box announced interoperability with Microsoft 365 CoPilot, which will allow Microsoft CoPilot to interact with Box Content. This means that Box customers can use either Box AI or Microsoft 365 CoPilot—or both.

Box Sign offers unlimited native e-signatures and is included with all Box Business Pricing plans. Specifically, features like 'batch send', 'ready-sign link,' and custom branding help address high-volume use cases, while new features like recipient group signing, signer attachments, read-only and prefill fields, and introduction of radio buttons and dropdown menus enable senders and signers to unlock additional use cases and deliver a more seamless experience.

Because Box Sign is natively integrated within the Content Cloud, customers can take advantage of Box's best-in-class security offering, Box Shield, in conjunction with Box Sign, providing admins with the ability to make signature requests subject to Shield access policies. Box customers can also leverage Box Sign with Box Governance for customizable document retention policies and Box's no-code workflow automation tool, Relay, to automate the next steps in business process workflows based on a signature request status. Box's new acquisition, Crooze, whose technology includes a no-code business process application builder, an extensive set of metadata tools, customizable dashboard views, and content automation, can be used for orchestrating workflows involving documents for signature.

The Box platform continues to offer robust APIs that enable it to integrate with a number of third-party applications to automate content processes. Additionally, as part of its 1600+ integrations, Box Sign has native integrations with Salesforce, ServiceNow, and SAP.

Box, with its full content platform, workflow, and advanced content security, and its complete focus on AI —is innovating and transforming their offering. Box offers advanced DTM capabilities including advanced security that make it a compelling alternative to existing providers.

Strength	**Challenges**
• Brand recognition	• On-premise options
• DTM support	
• Native content security	
• Secure collaboration across the extended enterprise	
• Interoperability with other Box products	
• Cloud focus	
• Industry focus	
• AI	
• Unlimited e-signatures at no additional cost	
• APIs and integrations	
• Install base	
• Pricing	

Conga

Conga, led by CEO Noel Goggin, continues to focus on Revenue Lifecycle Management. Conga announced new executives, including CFO Simon Edwards in June 2023 and CMO Andrew Bennett in April 2024. Conga has been innovating its Conga Sign flagship DTM offering, and it is now positioned within the Conga Revenue Lifecycle Cloud. Conga RLC brings all of its offerings under one umbrella. Conga RLS includes configure, price, and quote, contracting, negotiating, managing, collecting, and renewals. Conga has also been making enhancements to its AI capabilities.

Conga Sign and its Content Automation offering Conga Composer continue to help customers in both sales and many other use cases to transition away from paper processes. Conga Sign and Conga Composer are also now available on the AWS Marketplace. Other offerings that integrate with Conga Sign include Document Generation, eSignature, Configure Price, Quote, and Contract Life Cycle Management. In Content Automation, Conga focuses on revenue and has a powerful content generation engine, Conga Composer, that can be applied to multiple applications in multiple industries.

In AI, Conga announced the ability to support Custom AI Models for its intelligent contract repository. With the enhancements to Contract AI, Conga can now offer more options on content AI to clients to analyze contracts, and proactively provide actionable insights and recommendations to users.

In February 2024, Conga and Tata Consulting Services (TCS) announced a partnership in which TCS will leverage Conga products and services in large enterprise transformation projects. TCS has been growing and we expect Conga to be included in more deals as the partnership gets implemented. Conga also remains one of the top applications in Salesforce App Exchange, but now it is expanding beyond Salesforce with new partnerships with Amazon AWS as Conga Sign and Composer are now available in that market place.

Conga continues to focus on industries such as healthcare, financial services, technology, and media/communications. With Conga's focus on revenue operations, and their strong capabilities to deal with documents, contracts and agreements—it separates them from others who can deal with process but now with the content itself. With its focus on business use cases and its growing investment in AI, Conga is well positioned to meet the demands that enterprises face in revenue operations and content automation.

Strengths	**Challenges**
• Salesforce integration	• Awareness outside of Salesforce Ecosystem
• Growing Focus on AI	
• Document generation	
• Contract lifecycle management	
• Analytics	
• Growing Partnerships	
• Ease of use	

Docusign

Docusign, based in San Francisco and led by CEO Allan Thygesen, continues to focus on Workflow and content automation and digital transaction management. In April 2024, it announced its Intelligent Agreement Platform and a number of new capabilities that include Navigator, its new repository, Maestro, its workflow automation capabilities, and Docusign App Center, its new partner integration app marketplace.

Docusign now offers a portfolio of solutions for intelligent agreement management, including Docusign eSignature, Notary, Insight, CLM, and Clickwrap. Docusign is also touting its growing capabilities in clickwrap, which is expected to see growth as the shift to eCommerce-based online stores continues. Docusign Gen has been updated to allow invoice generation and delivery for enterprises that use Salesforce Billing. Additionally, Docusign Negotiate layers on the ability to redline and track documents as part of sales negotiation.

Docusign IAM is now being offered for a number of roles including Sales, Customer Experience, Procurement, and Human Resources. Docusign announced in November 2023 that it had achieved StateRamp certification, which like its US Government FedRamp certification, provides levels of data security that governments require.

In May 2024, Docusign announced it was purchasing a startup called Lexion for $165M. Lexion has AI capabilities that should help Docusign move faster to expand its AI offerings. Docusign offers Docusign Notary, based on its acquisition of Liveoak Technologies.

As part of its core eSigning offering, DocuSign is now sending envelopes via SMS, which is becoming a popular way to communicate. As Docusign continues to bolster and expand its product line to transform the entire agreement process, it continues to execute around the core use case of digitizing paper-based signature processes.

Strengths	**Challenges**
• Expanded agreement cloud platform	• Complex DTM processes
• Growing Focus on AI	
• Ease of use	
• Brand recognition	
• Mobile experience and Mobile Signing	
• Security	
• APIs and developer community focus	

Dropbox

Dropbox, led by Founder and CEO Drew Houston, has continued to grow, and now has annual revenue of over US $2.5 Billion. Dropbox is now leveraging its Dropbox Sign capabilities as part of the overall Dropbox Platform. Its core DTM platform capabilities include Dropbox Sign (formerly HelloSign), Forms, Fax, and Sign API, and it offers native mobile apps for both iOS and Android. With the capabilities from its recent acquisition of Formswift, users can create a multitude of forms quickly and easily.

Dropbox Sign is now natively integrated into Dropbox, which means that users can leverage an entirely new and intuitive user interface. Additionally, users can now have access to their Dropbox cloud storage, PDFs that can be natively edited for last-minute changes to agreements using Dropbox's PDF editor feature.

Dropbox has not been standing still when it comes to AI. In July 2023, it announced Dropbox AI, which uses generative AI to summarize Dropbox content. It can also answer questions about content. It also announced Dropbox Dash—its new AI powered Search capability. It appears that Dropbox partnered with OpenAI for its initial offering. In 2024, Dropbox also announced a Plugin for Microsoft 365 that allows Dropbox customers to use Microsoft 365 Copilot, which can answer questions and generate summaries.

Dropbox Sign API enables developers to confidently implement legally binding eSignatures into their applications and provide their customers with seamless, customized signing experiences. With Dropbox's AI investment we expect that Dropbox Sign will also be able to take advantage of Dropbox's growing AI capabilities, which include a focus on image analytics.

Dropbox has continued to invest in Dropbox Replay, its video content management offering. Dropbox Replay enables the creation and editing of video content, which could be leveraged for Notary use cases. Dropbox continues to offer integrations with Microsoft, Salesforce, Google, HubSpot, Oracle, and others. With investments in AI, and the integration of Dropbox Sign and Dropbox Sign API, into the core platform, Dropbox can help enterprises on a variety of use cases.

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Strengths

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- Native integration in Dropbox and all major FSS providers
- Ease of use with Google Drive
- Workflow and content automation
- Salesforce integration
- Oracle integration
- Global infrastructure with Dropbox
- APIs
- Ease of Integration

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Challenges

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- Balancing SMB vs Enterprise focus

Namirial

Namirial, led by CEO Max Pellegrini continues to grow organically and via acquisition. Its core focus is its DTM-based Trust Services, with a growing focus on adding Intelligence into its products. Namirial's product and service offerings now include its DTM-based Trust Services, its core eSignAnyWhere eSignature capabilities, workflow and content automation, and Digital Onboarding/KYC and Content Management and Archiving.

eSignAnyWhere is the flagship Namirial offering which offers some of most robust signing options, including electronic, digital, and biometric. In June 2023, Namirial also launched Namirial Clickwrap, which allows for the creation of online agreements such as privacy policies, personal data processing, conditions of use for online services and software. Aragon sees Clickwrap continuing to grow in popularity regarding eCommerce-based transactions.

In April 2024 Namirial added Generative AI capabilities to eSignAnyWhere, including an AI Assistant for questions and queries and an easy-to-use Summarization tool. Namirial's growing AI capabilities were initially based on its acquisition of Netheos, with a focus on machine learning techniques for native capabilities on remote identity proofing for digital onboarding, KYC and fraud detection applications. From late 2022 Namirial pivoted its attention towards transformers and foundational models.

As part of its Trust Services, Namirial offers long-term Archiving offering, which is certified in a number of countries. It also offers Video Notary capabilities, which means that it has a growing set of DTM use cases to meet the needs of large and small enterprises.

Namirial has also been growing via acquisition. Bit4ID and Evicertia were acquired in 2022, both with a strong presence in Europe and in LATAM. In late 2023 Unimatica was added to the group.

Namirial has now become a complete AI-based platform for its Namirial Onboarding offering, an omnichannel digital onboarding platform enabling KYC processes at different levels of assurance via live video chat, video selfies, electronic identities, and certified communication. Given that Namirial is innovating organically and via acquisition and its continued investments in AI, Namirial is well positioned to compete for Trust services and Transaction management deals.

Strengths

- DTM platform
- Digital onboarding
- Deployment flexibility: SaaS (private/public) and on-premise
- Complete, fully integrated eSignature portfolio
- Security and compliance (e.g., eIDAS)
- Support for signing pads
- Handwritten biometric authentication

Challenges

- Awareness in North America

OneSpan

OneSpan, which is led by Interim CEO Victor Limongelli, continues to focus on Identity and Digital Transaction Management, where it continues to have strong market share in industries such as financial services. OneSpan Transaction Cloud Platform offers eSignatures, identity verification, biometric authentication, mobile security, the virtual room, and notary.

OneSpan helped to pioneer the growing focus on highly secure DTM offering and this has resulted in strong adoption in regulated and compliance-driven markets. OneSpan continues to offer all levels of digital signatures globally. For example, Qualified Electronic Signature capabilities, which enables compliance with eIDAS regulation. OneSpan also continues to offer OneSpan Notary, and its related offering OneSpan Virtual Room.

OneSpan's Virtual Room solution replicates the face-to-face agreement process for complex agreements that benefit from human mediation. It also leverages various authentication methods and identity verification, videoconferencing, and co-browsing with OneSpan Sign's e-signature capabilities.

In December 2023, OneSpan announced DIGIPASS FX1 BIO, its passwordless fingerprint biometric authentication offering. FX1 Bio will make it easier for users to conduct secure transactions by eliminating what today is often a multi-step process.

OneSpan now offers the Blockchain Evidence Proofing feature part of OneSpan Sign, which provides indisputable long-term evidence of the authenticity of the eSiganture transaction . The new offering is partially based off its 2023 acquisition of ProvenDB. This offering will give OneSpan customers resistance to quantum computing threats to document encryption, with the ability to verify the validity of document content and timestamps with a blockchain based distributed ledger.

The markets that leverage OneSpan include financial services, automotive, government/public sector, healthcare, insurance, legal, professional services, travel, transportation and wealth management. In Government, OneSpan continues to be one of the few DTM providers with a U.S. Federal Government FedRAMP Cloud Certification. With the growing need for highly secure transactions, OneSpan is well positioned to serve a growing number of industries that need security and compliance as an integrated capability

<u>Strengths</u>	<u>Challenges</u>
• Financial services, government, and other highly-regulated industries	• Balancing focus on security vs DTM
• Blockchain based Evidence-proofing	
• FedRAMP Certification	
• OneSpan Integration Platform with over 1000 possible integrations	
• Advanced authentication capabilities (e.g., mobile biometrics)	

RPost

RPost, based in Los Angeles and led by CEO Zafar Khan, continues to offer transaction management, content automation, and content management with a growing focus on security. The RPost product family now includes RSign eSignatures, RMail email security, Registered Email™ compliance, RDocs document security, RForms click-build e-forms, and specialized AI security that underlies each of these offerings. Each function can be enabled via apps, integrations, or APIs.

RPost's flagship eSignature offering is RSign®, and it is built off its long experience in Email Security, having pioneered these e-sign and e-mail security technologies in the marketplace since 2000. RSign includes advanced features well suited for enterprise and volume customers. RPost RForms also help with data capture with click-wrap, pre-fill from related databases or CRMs as well as backfilling form field data into other applications, and overall workflow automation. In October 2023, RPost added the ability to send documents and eSignature requests via SMS, which is a popular way for people to communicate and speed up transactions.

RPost added its Eavesdropping AI security to its offerings early in 2023, which exposes cybercriminal compromised email accounts, including at a recipient and further downstream from an email send. Since most transactions include email (e.g., eSignature requests sent by email, pre-contract drafts shared by email, post contract notices sent by email) early detection of cybercriminals eavesdropping on a transaction can help pre-empt sophisticated cybercriminal lures that often lead to mis-sending funds (also known as wire fraud, supplier fraud, invoice fraud, and business email compromise).

One of the significant innovations that RPost now offers that ties its Eavesdropping AI cybercriminal detection technology across all products is its AI Auto-Lock™ capability that automates leakage pre-emption. It is a robust security capability that can automatically stop an eSign transaction from taking place if it discovers a malicious activity is underway. When combined with its RDocs offering, which allows for tracking and expiring of documents even after they are sent, AI Auto-Lock™ automates pre-emption of viewing leaked documents, again, even after sent.

RPost also offers a full API Platform to allow native integrations with new and legacy applications. Out of the box integrations include Microsoft Office Word, Microsoft Outlook and Google Gmail and Docs as well as CRM providers including Salesforce. Specialized industry CRM integrations include Applied Epic, Bullhorn, Vincere, iManage, NetDocuments, and Zola Suite among many others.

RPost focuses on Financial Services, Insurance, Legal, Government, Healthcare, Life Sciences, and Real Estate sectors. With its strong security and cybercriminal eavesdropping detection capabilities, RPost is seeing growing popularity in Financial Services and Government, including Swiss FINMA. With its growing product portfolio and holistic focus on content and eSignature security, RPost continues to be one to watch in DTM.

Strengths	**Challenges**
• Ease of use	• Market awareness
• Security	
• Document generation	
• eSignature	
• Integrations	
• Payments	
• Analytics	

Contenders

InfoCert

InfoCert, which is part of the Tinexta Group, is based in Rome and led by CEO Danilo Cattaneo. InfoCert offers Qualified Trust Services that focus on Cybersecurity, compliance and environmental, social and governance (ESG). The company has a range of subsidiaries to support its offering and bring it to new markets. Some of the firms include Sixtema S.p.A, AC Camerfirma SA, Camerfirma Peru SAC, Camerfirma Colombia SAS, Ascertia LTD, Certeurope, S.A., and ICTechLab.

The InfoCert offerings include DIZME Digital Wallet (Identity) and Trusted Onboarding Plaform (TOP) for Onboarding, GoSign (eSignature and Transaction Management), Electronic Invoicing, Safe LTA (Digital Preservation and Archiving) and GoNotice (Certified Communications) and IoT Security. The TOP Onboarding platform offers flexibility via different modules that can meet the needs of customers.

In June 2024, InfoCert announced its InfoCert AI Assistant that is called Trusty. Trusty works with its GoSign Signature offering and can answer compliance questions and offer assistance to users. InfoCert GoSign is eIDAS compliant and offers both electronic and digital signatures. InfoCert is known for its focus on Identity, based on its history of certificate issuance, and offers solutions for blockchain-based Self Sovereign ID, Brokerage ID, Legal Entity ID, Machine ID, and Personal ID.

The industries that InfoCert focuses on include Automotive, Financial Services, Manufacturing, and Utilities. Government and Pharma is also a growing focus area including solutions for Central and Local Government Bodies. For the InfoCert Archiving offering, the ability to add time-stamping when archiving helps enterprises when it comes to compliance. With its focus on security via its different product offerings and its investment in Identity and continued investment in the European Digital Wallet initiative, InfoCert is prepared for the growing shift to AI and automation.

Strengths	Challenges
• Digital certificates	• Market awareness outside of Europe
• Electronic and Digital Signatures	
• Intelligent Assistant	
• eIDAS compliant	
• Digital identity	
• APIs and integration	

Nintex

Nintex based in Bellevue, Washington and led by CEO Amit Mathradas continues to offer both content and process automation. It has been growing both organically and via acquisition. Nintex offers the Nintex offers Docgen content automation (WCA), eSign and process automation, where it has invested heavily. Nintex is positioning itself to become an organization's de facto process system of record with easy-to-use and powerful tools for process discovery, mapping, end-to-end automation, and optimization.

Nintex eSign has native eSignature capabilities in its next-generation Nintex Workflow Cloud. Previously, Nintex had partnered with Adobe. In June 2024, Nintex announced a bigger move into Content AI. It also offers an AI generated form generator and a new Form translator that can translate forms into over 130 languages. The Nintex Assistant, announced in March 2024, which can answer questions about content.

Nintex DocGen® for Salesforce is a lead offering in Salesforce AppExchange, its partner marketplace. Nintex offers a growing number of connectors that integrate with common third-party systems, as well as the Intelligent PDF Forms Converter, which uses AI to turn static PDF forms into digital forms and workflows.

Nintex has helped to pioneer a no-code/low-code approach to both content and process automation, as well as the discovery and mapping of processes. Nintex Promapp® offers visual process mapping, collaboration capabilities, and features Nintex Workflow Generator, which generates workflows in Nintex Automation Cloud. Nintex continues to help enterprises in their quest to fully automate document and process-based transactions.

Nintex is poised to help enterprises in their quest to fully automate document and process-based transactions.

<table>
<tr><th>Strengths</th><th>Challenges</th></tr>
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- Ease of use
- Advanced workflow and content automation
- No-to low-code approach
- Visual business process management
- Robotic process automation with fast time to value
- Automated document generation
- Automated workflow generation
- Salesforce integrations

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- Rapidly integrating newly acquired technology

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Mitratech

Mitratech, based in Austin and led by CEO Mike Williams, has continued to expand beyond its heritage in legal. The core focus areas of Mitratech include workflow automation, corporate legal, governance risk and compliance (BRC), and human resources. Much of its recent focus has been on expanding its offerings in HR. In April 2023, it announced the acquisition of Circa, which does Federal government compliance along with Diversity, Equity, and Inclusion. It also acquired Trakstar, a Talent management firm. This makes the acquisition tally over seven in the last two years.

Mitratech TAP Workflow Automation includes native eSignature support and provides solutions spanning multiple industries, including specialty apps designed for legal, compliance, human resources, procurement, and finance. Mitratech has also been acquiring firms in related markets. Via its Tracker Corp acquisition, Mitratech can manage all aspects of immigration-focused I-9 forms, making it a vertical WCA offering. Mitratech TAP is also integrated with Adobe Sign, Docusign, Namirial, and others.

The MitratechTAP platform now offers advanced document generation capabilities, collaboration capabilities, and dynamic, multi-language support for intake forms. TAP Automation templates are available at no charge to assist enterprises in dealing with COVID. TAP has a robust set of APIs for integration with third-party apps, including Microsoft, Salesforce, and Mitratech's growing portfolio of solutions. For law firms and for corporate legal teams, Mitratech has embraced content automation as one of its core planks.

Strengths	**Challenges**
• Workflow and content automation	• Awareness outside of legal departments
• Drag-and-drop design tools	
• APIs and integrations	
• Ease of use	
• Custom interfaces	
• Real-time collaboration	
• Security	

Smart Communications

Smart Communications, based in London, announced the elevation of President Leigh Segall to CEO in November 2023. Smart Communications has doubled down on its Conversation Cloud™ which combines intelligent data collection, content automation and Customer Communication Management (CCM) with a growing set of AI capabilities. Smart Communications has three main product offerings: SmartCOMM™, SmartIQ™, and SmartDX™. SmartCOMM is the traditional CCM platform, which uses modern templates to enable communications to customers via multiple channels.

For DTM-based signing, Smart Communications partners with OneSpan, DocuSign, Adobe Sign and others. The Conversation Cloud platform is designed to enable fully digital, bi-directional customer conversations, for onboarding, servicing, statements, and much more. Smart Communications has launched a new Workflow Canvas that enables no code workflows to be created. This builds on earlier approaches and makes the entire workflow building process drag and drop. This capability should attract enterprises who may be locked into existing hardcoded workflows and who have a need for more individualized data and approval workflows.

SmartIQ's low-code approach to data collection and approval workflows are enabling enterprises (particularly those in heavily regulated industries) to develop new content automation applications in record time. SmartIQ uses adaptive interviews to collect information and required documentation that can be automatically routed for approvals, transferred, and stored in other core systems, and used to automatically generate personalized digital content and documents on-demand via its intuitive user experience.

Smart Communications has continued to expand its integrations and partnerships with complementary technologies, including Amazon Web Services, Salesforce, Guidewire, OneSpan, Duck Creek, and Pega. Smart Communications has seen solid traction with its Guidewire partnership and is looking to leverage this strategy with others going forward. The industries that Smart Communications targets include Banking, Financial Services, Government, Healthcare (Payer and Provider), and Utilities. With its growing focus on AI, Smart Communications is well-positioned to meet the needs of enterprises in multiple industries.

Strengths	**Challenges**
● Journey-based document creation and workflow	● Partners for eSignature
● Content automation	
● Data collection	
● Ease of use	
● Intelligent user experiences	
● Journey analytics	
● Partnerships	
● Payments	

Wacom

Wacom, based in Saitama, Japan continues to lead with innovative digital pen and ink solutions including both hardware and software. Its Wacom Branded Business group, one of Wacom's business divisions, offers pen displays , signature pads, SDK components and software solutions that assist in constructing DTM software using biometric eSignature verification. Wacom's hardware and inking technologies are designed to leverage not only Wacom displays and pads but support third-party devices as well. Wacom provides expertise and solutions in various industries, ranging from financial services, healthcare, public sector, hospitality, retail, services, and education. Wacom contributes successfully to enhancing patient communication, simplifying complex financial agreements, streamlining insurance onboarding and patient processes, accelerating claims management and process approvals, eliminating unnecessary paperwork, preventing fraud and ensuring accurate customer authorization. The use cases that Wacom excels at include digital transformation for enterprise applications such as PDF workflows and eSignature capture and verification.

Overall, Wacom provides a diverse range of products that cater to the needs of every industry. The Wacom product suite continues to offer the STU-540 Color and STU-430 Monochrome Signature Pads. The Pen Display offerings primarily focus on the DTU-1141B for document viewing, editing, and signing, with additional options for larger displays. Wacom's DTK-2451/DTH-2452 are full-HD pen displays for comfortable working that offer generous active area and ensure a convenient work surface for writing and signing eDocuments or annotating directly on presentations. What is more, the DTH134 signature display is spacious, vivid and touch-enabled 13.3" Full-HD LCD. It enables an optimal user experience for digital document signing, form filling, and document annotation in any business application. The DTC 121 signature display, on the other hand is an 11.6" Full HD resolution LCD screen, driverless performance, and state-of-the-art encryption. The USB-powered Wacom Signature Display 12 is the benchmark for affordable eDocument solutions.

Wacom continues to offer the sign pro PDF app and the sign Pro API that offers signature capture, form processing, and digital ink APIs, which now can be digitally verified. New offerings include the signature verification developer tools and multi-display SDK. The Wacom DTM products are fully integrated with Wacom's hardware portfolio of signature pads, interactive displays, smart pads, and digital pens. They are also offered as white label OEM solutions. Wacom's Ink SDKs and services provide a level of understanding of digital ink that few can match due to its ability to understand embedded meta-data, biometrics, and semantic/contextual ink data. Its latest addition is the Wacom Ink SDK for signature JavaScript for web services and cross OS signature capture for cloud and on-premise installations.

Wacom focuses on four key industries, including banking, healthcare, retail, and insurance—where signature fidelity and security are key. The market has increased account spoofing and security risks for high value contracts. Wacom with its full hardware, software and signature verification capabilities, is well-positioned for the future.

Strengths	**Challenges**
• Brand	• Market awareness in DTM
• Tablets and smart pads	
• API tools for developers	
• Signature verification capabilities	
• Industry solutions	
• Reseller network	

<u>Innovators</u>

airSlate

airSlate, led by Co-Founder and CEO Borya Shakhnovich, has continued to expand its product line and now offers SignNow eSignature, pdfFiller for forms, Workflow and more. Based on its funding in 2023, it has continued to acquire firms that complement its strategy. It continues to offer its DTM platform with a growing focus on partnerships in a number of vertical markets. airSlate offers a growing set of capabilities that enhance its core eSignature capabilities.

PDFfiller, an end-to-end document management solution that converts PDFs into interactive documents. In October 2023, airSlate acquired Instapage, a provider of customizable landing pages for marketers. This move will allow airSlate to expand its addressable market. The airSlate Document Automation Hub offers APIs for Forms, DocGen, Flows, Signing and PDF editing. This will make it easier for enterprises to integrate airSlate into existing applications and workflows.

signNow is also available via the Salesforce AppExchange partner network. airSlate also supports integrations with Box, Dropbox, Egnyte, Google Drive, Microsoft OneDrive, and NetSuite. With its growing focus on content automation and DTM, airSlate is well-positioned to take advantage of this growing market.

<u>Strengths</u>	<u>Challenges</u>
• Pricing	• Market awareness outside of the U.S.
• Mobile app	
• Payments tied to agreements	
• In-app purchase option	
• Workflow and content automation	
• API	
• Allows for company branding	

Citrix

Citrix which owns ShareFile, is now part of the Cloud Software Group and is led by CEO Tom Krause, who oversees the larger organization called the Cloud Software Group which was the combination of Citrix and Tibco Software by private equity owner Vista Equity. Citrix Sharefile now includes Right signature as part of its integrated offering. Right Signature is no longer being sold on a standalone basis. It is now integrated into the ShareFile Cloud Content Management offering.

ShareFile is a complete Cloud Content management offering; The Advanced Plan offers unlimited eSignatures as well as templates and workflow. Additionally, ShareFile offers the ability to merge multiple documents together for signature, as well as Bulk Send and multi and sequenced signing. Sharefile also offers solid security features such as device security, multi-factor authentication, and file link expiration.

In April 2024, Cloud Software Group, the Parent company of Citrix, announced an eight-year partnership with Microsoft, which will see Microsoft Azure as the preferred Cloud option for Citrix customers.

ShareFile focuses on a number of industries, including Accounting, Construction, Finance, Healthcare, Insurance, Legal and Real Estate. With the combination of content management and transaction management along with its Microsoft partnership, ShareFile is well positioned for the future.

Strengths	**Challenges**
• Brand	• Awareness outside of North America
• Cloud content management	
• Payments	
• Multi-party signatures	
• Digital workplace focus	

Ironclad

Ironclad, based in San Francisco, and led by CEO Jason Boehmig is private and has total funding of $333M. Ironclad pioneered the Clickwrap Transaction Platform (CTP) market. Ironclad's product portfolio includes Contract Lifecycle Management, Clickwrap Transaction Management, Ironclad AI, Ironclad Editor, Workflow Designer, and Signature APIs. Ironclad offers both ad hoc and dynamic document generation.

Ironclad's Clickwrap Transaction Platform (CTP) enables enterprises to create, deliver, manage, track, and archive any click-to-accept transaction at scale. Ironclad's CTP platform offers versioning and vaulting of online terms and agreements, presentation and tracking of online acceptances, and DTM options to sign or click. Ironclad's Signature APIs extends contract delivery capabilities, enabling enterprises to embed, render and deliver important documents via mobile applications and other online channels.

Ironclad AI Assist™, announced in April 2023, is its new GPT-powered offering. AI Assist helps teams with the process of redlining agreements in concert with AI Playbooks, which allows customers to pre-define clause-specific fallback positions and automate the process for tracking non-standard terms or obligations. Ironclad also enables version control and a streamlined approach to updating agreements. In many cases, teams managing documents can simplify or remove manual steps to generating and executing documents by configuring standalone, no-code clickwrap transaction use cases.

Ironclad focuses on several departments in an enterprise including Finance, Human Resources, IT, Legal, Marketing, Procurement, and Sales. With a growing focus on Clickwrap and overall, AI, Ironclad is ready to help enterprises with their Content Automation needs.

<table>
<tr><td align="center"><u>Strengths</u></td><td align="center"><u>Challenges</u></td></tr>
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DTM platform
Digital Onboarding
Complete, fully integrated eSignature portfolio
Security and compliance (e.g., eIDAS)
Support for signing pads
Dynamic contract acceptance (e.g., click-to-sign, eSign, in-person signing)

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Awareness outside of North America

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PandaDoc

PandaDoc, led by Founder and CEO Mikita Mikado, continues to focus on Workflow and Content Automation and e-Signature. With a growing focus on AI, PandaDoc offers a document workflow automation platform, PandaDoc eSignature, Forms, Contract Negotiations, Payments, Notary and Document Analytics. For eSignature, it now also supports eIDAS and the US Sign Act of 2000.

In March 2024, Pandadoc announced that it now can deliver documents via SMS for eSignature. They also announced updates to the Salesforce and Hubspot integrations. PandaDoc also announced the ability to use its API to share a group of documents, which will help it for complex agreements with more than one file.

PandaDoc continues to offer its forever-free eSignature product. PandaDoc use cases vary from sales-focused quotes, proposals, and contracts to internal company use cases such as HR and compliance. Via PandaDoc Content Negotiations, PandaDoc supports integrations and review commenting with Slack, Zoom, Microsoft Teams, Google Workspace, and Monday.com.

Pandadoc AI integrates with OpenAI ChatGPT and allows for more documents and clauses to be auto generated. The feature is called AI in Text blocks which allows for specific generation of content. PandaDoc offers a template library of over 750 templates which helps to speed up document creation. With a focus on ease of use and a growing investment in AI, PandaDoc is well-positioned for the age of Intelligent Assistants.

Strengths	**Challenges**
• Ease of use • Document generation • eSignature • Integrations • Payments • Analytics	• Market awareness

Signeasy

Signeasy, led by Founder and CEO Sunil Patro, focuses on offering its DTM Platform to the SMB and mid-market segments. The AI-powered contract management platform is known for its ease of use and flexibility, helping businesses prepare, sign, review, and manage their contracts effortlessly worldwide. In April 2024, Signeasy introduced the public beta of its AI Assistant offering. Features include key term extraction, contract summaries and the ability to use conversational search to ask questions and get quick answers. Contextual reminders based on key terms or related dates are soon to be launched.

In a strategic move to better serve mid-market customers, Signeasy also released SSO and Trust Seal (digital certificates) this year, with more features like document editing, version management, advanced user management, and document visibility for admins in the roadmap. It also continues to offer a native mobile signing experience via apps available on the Apple iOS App Store and Google Play Store.

Expanding its integrations, Signeasy now enables users to manage their contracts directly within HubSpot CRM. The platform also integrates with Microsoft SharePoint, Teams, and Outlook and has been a Google Workspace recommended app for two years in a row. It leverages Box, Google Drive, Dropbox, and Microsoft OneDrive for document storage and archiving. For developers, Signeasy provides a rich and flexible API platform to integrate eSignatures into their core software and business workflows, such as customer, agent, and employee onboarding.

Signeasy continues to innovate in the SMB and mid-market segment. It features easy-to-use AI-powered capabilities, transparent pricing, and user-friendly mobile apps.

<u>**Strengths**</u>	<u>**Challenges**</u>
• Security & Compliance	• No support for qualified eSignatures
• Modern, easy-to-integrate APIs	
• Global language support	
• HubSpot and Salesforce Integration	
• Microsoft SharePoint, Teams, and Office 365 Integration	
• Google Workspace Integration	
• Mobile apps (iOS and Android)	
• Easy to use, yet flexible	

Specialists

Sertifi

Sertifi, led by founders John Stojka and Nick Stojka, continues to grow in the hospitality industry, now serving over 20,000 unique business locations across hotels, venues, travel advisories, and travel management companies. With a growing focus on payment processing and agreements, the Sertifi product line includes digital contracts and e-signatures, card and ACH payment processing for event and group business, and a credit card authorization solution that includes AI-powered advanced fraud detection tools.

In June 2023, Sertifi announced its updated next-generation platform. Highlights include a modern user interface, streamlined search, clearer portal navigation, and new on-demand training resources. Part of its updates on payments in 2023 included the ability to accept ACH payments in addition to credit cards. Sertifi also integrates directly to other popular hospitality solutions, including Amadeus Delphi.fdc, Infor HMS and Infor Sales & Catering, Oracle OPERA Cloud (now via OHIP), and Salesforce CPQ and Salesforce Billing.

By streamlining processes and increasing security using the Sertifi platform, customers can complete contracts, event payments, and card authorizations 90% faster, all while saving thousands annually by reducing processing costs and chargeback risk.

Strengths

- Hospitality market focus
- Built-in payment processing technology with flexible payment acceptance options
- Electronic signature experience
- AI-powered advanced fraud detection tools as part of card authorization offering
- Integrated to Amadeus, Infor, Oracle, and Salesforce

Challenges

- Buyers should be aware that Sertifi solely develops and delivers solutions designed for hospitality businesses and their workflows.

ZorroSign

ZorroSign Inc., founded and headquartered in Dubai with offices in Colombo and Phoenix is led by Co-founder and CEO Shamsh Hadi, continues to focus on data security and user privacy in content automation and e-Signing. The ZorroSign suite now includes Z-Sign—legally accepted digital signatures, Z-Flow—compliance through workflow automation, Z-Fill - AI/ML form completion, Z-Vault—document storage and management, Z-Forensics—patented fraud detection, and Z-Verify—digital artifact authentication and validation.

ZorroSign offers its digital signatures technology as its core DTM offering, which is now focused on the mid-market. It also offers patented Z-Forensics token technology, a unique, built-in advanced security feature that detects document fraud and signature forgery and eliminates the need to purchase yearly digital security certificates. ZorroSign is built ground up on Blockchain and offers Provenance Blockchain integration, which makes it a multi-chain blockchain platform beyond its Hyperledger Fabric base.

ZorroSign continues to offer its Apple iOS and Google Android Mobile Apps, which continues to expand the attractiveness of the overall ZorroSign offering. ZorroSign offers flexible pricing that starts at US $10 dollars per month for Individuals, US $25 dollars per month for businesses and enterprises—at $2,500 per year for more than ten users. The company is also focused on a number of industries, including Financial Services, Government, Health Care, Real Estate, Education, Legal Services, and Technology. The DTM platform capabilities, combined with its advanced security, will make ZorroSign attractive in markets such as government, real estate, insurance, IT, and legal.

Strengths	**Challenges**
● Real electronic signature	● Market awareness
● Token-based security	
● Mobile biometrics	
● APIs and integrations	
● Ease of use	

Aragon Advisory

- Enterprises should continue to look at forms and paper processes to automate them with Transaction Management.
- Enterprises should ask for roadmaps for Content AI and Intelligent Assistants
- Identity and digital wallets are coming and will be a requirement in Europe sooner than other markets.
- Security will become increasingly important as cyber-attacks and phishing target transactions.

Bottom Line

Replacing and automating paper processes is one of the largest business transformation opportunities in the enterprise. The opportunities to automate content processes, including the signing experience, make Transaction Management a priority. With Intelligent Assistants coming online, enterprises must be looking for providers that are investing in AI. Balancing technology investments with price performance means careful evaluation of providers. For Providers not investing in AI, it may mean the need to develop an exit strategy.

Aragon Research Globe Overview

The Aragon Research Globe graphically represents our analysis of a specific market and its component vendors. We do a rigorous analysis of each vendor, using three dimensions that enable comparative evaluation of the participants in a given market.

The Aragon Research Globe looks beyond size and market share, which often dominate this type of analysis, and instead uses those as comparative factors in evaluating providers' product-oriented capabilities. Positioning in the Globe will reflect how complete a provider's future strategy is, relative to their performance in fulfilling that strategy in the market.

A further differentiating factor is the global market reach of each vendor. This allows all vendors with similar strategy and performance to be compared regardless of their size and market share. It will improve recognition of providers with a comprehensive strategy and strong performance but limited or targeted global penetration, which will be compared more directly to others with similar perspectives.

Dimensions of Analysis

The following parameters are tracked in this analysis:

Strategy reflects the degree to which a vendor has the market understanding and strategic intent that are at the forefront of market direction. That includes providing the capabilities that customers want in the current offering and recognizing where the market is headed. The strategy evaluation includes:

- Product
- Product strategy
- Market understanding and how well product roadmaps reflect that understanding
- Marketing
- Management team, including time in the job and understanding of the market

Performance represents a vendor's effectiveness in executing its defined strategy. This includes selling and supporting the defined product offering or service. The performance evaluation includes:

- **Awareness**: Market awareness of the firm and its product.
- **Customer experience**: Feedback on the product, installs, upgrades and overall satisfaction.
- **Viability**: Financial viability of the provider as measured by financial statements.
- **Pricing and Packaging**: Is the offering priced and packaged competitively?
- **Product**: The mix of features tied to the frequency and quality of releases and updates.
- **R&D**: Investment in research and development as evidenced by overall architecture.

Reach is a measure of the global capability that a vendor can deliver. Reach can have one of three values: *national*, *international* or *global*. Being able to offer products and services in one of the following three regions is the third dimension of the Globe analysis:

● **Americas** (North America and Latin America)

● **EMEA** (Europe, Middle East, and Africa)

● **APAC** (Asia Pacific: including but not limited to Australia, China, India, Japan, Korea, Russia, Singapore, etc.)

The market reach evaluation includes:

● Sales and support offices worldwide

● Time zone and location of support centers

● Support for languages

● References in respective hemispheres

● Data center locations

The Four Sectors of the Globe

The Globe is segmented into four sectors, representing high and low in both the strategy and performance dimensions. When the analysis is complete, each vendor will be in one of four groups: *leaders*, *contenders*, *innovators,* or *specialists*. We define these as follows:

● **Leaders** have comprehensive strategies that align with industry direction and market demand, and effectively perform against those strategies.

● **Contenders** have strong performance, but more limited or less complete strategies. Their performance positions them well to challenge for leadership by expanding their strategic focus.

● **Innovators** have strong strategic understanding and objectives but have yet to perform effectively across all elements of that strategy.

● **Specialists** fulfill their strategy well but have a narrower or more targeted emphasis with regard to overall industry and user expectations. Specialists may excel in a certain market or vertical application.

Inclusion Criteria

- A minimum of U.S. $4 million in primary revenue for digital transaction management or a minimum of $10 million in revenue in a related market (content management, workflow, or portal/UX software).
- Shipping product. Product must be announced and available.
- Customer References. Vendor must produce a minimum of three customer references in each hemisphere that the vendor participates in.

Inclusions:

The following vendors were added to this report:

- *Citrix*

Exclusion:

The following vendors were excluded from this report:

- *Topaz Systems* The firm has not been updating its website for several years.