The Total Economic Impact™ Of Content Services In The Hyland Cloud
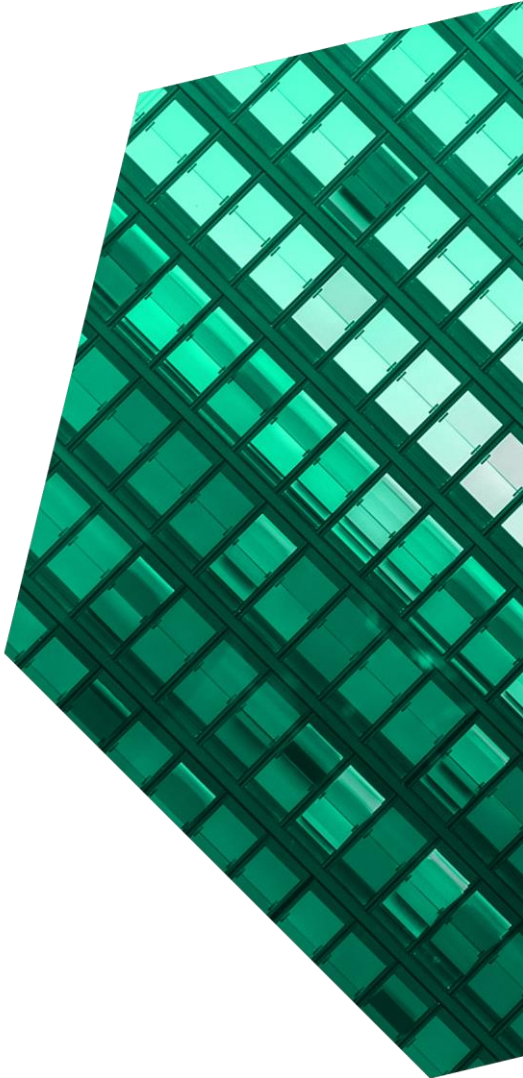
Cost Savings And Business Benefits
Enabled By Content Services In The Hyland Cloud

November 2020

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Executive Summary

A Q1 2020 Forrester survey of content management professionals showed 79% plan to increase enterprise content management (ECM) usage, which is also referred to as content services, over the next year.[1] The onset of the COVID-19 pandemic has accelerated these plans for many businesses, so that they now need to provide information and services to workers who are in home-office situations. Increased usage requires additional storage space, and companies are looking to the cloud to facilitate expanded usage.

Hyland commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying software-as-a-service (SaaS) solutions in the Hyland Cloud. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Hyland Cloud on their organizations. Delivering SaaS solutions in the Hyland Cloud offers the comprehensive functionality found across Hyland's content services platform, including its flagship offering, OnBase, in a cloud environment. This functionality both reduces costs on additional server purchases and time spent on platform maintenance.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed six customers about their organizations' experiences leveraging the Hyland Cloud for their content services solutions. For the purposes of this study, Forrester aggregated the experiences of the interviewed customers and combined the results into a single composite organization.

Prior to using Hyland Cloud for their content services solutions, the customers' organizations either hadn't implemented an ECM solution or they were managing legacy ECM solutions with on-premises servers that required maintenance and protracted development timelines for new content services. To address these challenges, the organizations sought an ECM solution that offered scalability with service

KEY STATISTICS

Return on investment (ROI)
293%

Net present value (NPV)
$2.79M

development and support for cloud storage to mitigate costs.

Since their investment in SaaS solutions in the Hyland Cloud, the customers' organizations: streamlined business information distribution to employees and customers; improved processing of documents and forms; repurposed on-premises server space; and offloaded file cabinets that occupied space. Key results from the investment are quantified in the benefits below.

KEY FINDINGS

Quantified benefits. Risk-adjusted present value (PV) quantified benefits include:

- **Avoided over $500K in capital expenditure costs.** By moving to the Hyland Cloud, businesses cut costs on on-premises server maintenance and purchases of additional servers for storage space. In addition, relying on the Hyland Cloud for their content and process

management needs enabled the businesses to move on from aging or ad hoc solutions that were being leveraged for content services. Those organizations that are still using paperwork for information collection recognized savings on document storage and paper costs.

- **Increased speed in building content services by 75%.** Before adopting the Hyland Cloud, building out content services solutions took developers at interviewed organizations upwards of three months. Hyland's templates and reusable workflows cut the average development process length down to three weeks or less. Time spent on updates and iterations to solutions was shortened from one week to one day.

- **Improved end user productivity by at least 50%.** By using digital forms to collect information, interviewees' organizations no longer had to manually copy upwards of millions of paper forms and other information into their systems. In addition, employees no longer had to spend minutes sorting through file cabinets or confusing digital database layouts to locate information; it became quickly accessible within the context of their business processes. Implementing cloud-based workflow solutions enables faster routing of documents, better task management, and faster decision-making — driving additional value beyond the paper-to-digital efficiency gains.

Unquantified benefits. Benefits that are not quantified for this study include:

- **Enhanced employee and customer experience.** Beyond time savings, solutions delivered in the Hyland Cloud have helped improve the quality of life for employees. Through available content services, employees have more resources to self-service their inquiries rather than wait for HR or IT assistance. They also have faster, easier access to content, information, and tasks when and where they need it, which helps to drive better decisions and provide better

service to their customers and stakeholders. Meanwhile, customers and clients are granted external access to specific content and information so they can more easily find and fill out required forms and documentation, thus improving completion rates.

- **Reliable information storage.** By leveraging cloud storage as part of their content services solution, organizations no longer had to store wet signatures or redundant copies of paperwork. Organizations are more efficient with file management and removing outdated documents.

- **High availability of content services.** By moving content services to the cloud, interviewees' organizations no longer experienced any downtime related to the lack of server storage capacity. In the event of disaster, proactive disaster recovery protocols ensured that organizations regained access to their data and information as soon as possible.

- **Maintained business continuity.** Interviewees credited the Hyland Cloud with helping to maintain business continuity following the onset of the pandemic. By digitizing processes with the Hyland Cloud, organizations were prepared to assist students, customers, and employees when in-person services weren't possible. The scalability of features with the Hyland Cloud helps businesses to remain agile in preserving continuity.

- **Strong security around content services accessibility and data.** Hyland Cloud's security features met organization's compliance needs, like enabling single sign-on and permissions for document access. Interviewees felt confident in the security of their data with the solution.

Costs. Risk-adjusted PV costs include:

- **Licensing costs.** Based on a variety of considerations, including an assumed 400 users of Hyland solutions in the Hyland Cloud, licensing

costs will total around $300,000 annually for the composite organization.

- **Implementation and training.** Configuring the solution in the Hyland Cloud takes on average three months between three IT employees dedicating a portion of their time to implementation. Three developers building content services in the Hyland Cloud take a one-week training course to educate themselves on building APIs with the solution.

The customer interviews and financial analysis found that a composite organization experiences benefits of $3,741,199 over three years versus costs of $952,042, adding up to a net present value (NPV) of $2,789,157 and an ROI of 293%.

ROI	BENEFITS PV	NPV	PAYBACK
293%	**$3.74M**	**$2.79M**	**<6 months**

Benefits (Three-Year)

Capital expenditure savings since migrating to the cloud	$504.0K
Improved scalability driving developer productivity with Hyland Cloud	$477.8K
Increased end user productivity	$2.8M

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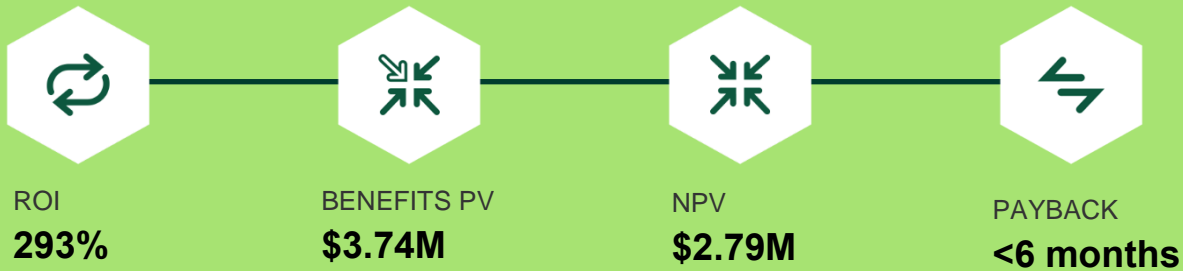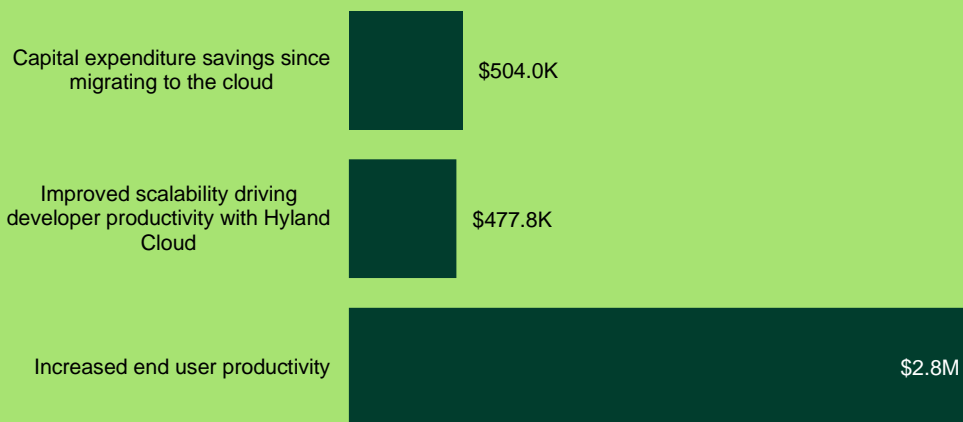
We estimated that, from an internal perspective, it was going to cost us roughly half a million dollars a year to manage servers and maintain support for servers in-house.

By switching to the [Hyland] Cloud, Hyland is maintaining the cost to keep those servers current, to keep them active, and to support that redundant copy of those servers. Our estimated savings totaled about a half million dollars.

— Director of operations and process improvement, financial services

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in content services in the Hyland Cloud.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that the Hyland Cloud can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Hyland and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in the Hyland Cloud.

Hyland reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

Hyland provided the customer names for the interviews but did not participate in the interviews.

DUE DILIGENCE
Interviewed Hyland stakeholders and Forrester analysts to gather data relative to the Hyland Cloud.

CUSTOMER INTERVIEWS
Interviewed six decision-makers at organizations using the Hyland Cloud to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION
Designed a composite organization based on characteristics of the interviewed organizations.

FINANCIAL MODEL FRAMEWORK
Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.

CASE STUDY
Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

The Hyland Cloud Customer Journey

Drivers leading to the Hyland Cloud investment

Interviewed Organizations			
Industry	**Region**	**Interviewee(s)**	**Time using OnBase in the Hyland Cloud**
Financial services	Headquartered in the Southwestern United States	Director of operations and process improvement	Two years
Higher education institution	Headquartered in Pacific Northwest of the United States	Associate registrar; transfer evaluation coordinator	Four years
Real estate	Headquartered in the Southern United States	Tech delivery manager, ECM; ECM group leader	Three years
Higher education institution	Headquartered in the Midwestern United States	Director of enterprise apps group; senior project manager	Five years
Higher education institution	Headquartered in the Midwestern United States	Business apps senior analyst	Four years
Government	Headquartered in the Midwestern United States	Director of business operations	Six years

KEY CHALLENGES

Before deploying Hyland Cloud solutions, interviewees' organizations either hadn't implemented content services solutions or they were leveraging legacy ECM solutions with on-premises servers that regularly required maintenance. Frequently, the organizations dealt with the following challenges while in this state:

- **Aging ECM software.** Interviewees whose organization used an ECM solution before adopting the Hyland Cloud for a SaaS solution found their legacy solutions had difficulty integrating content services with their modernized network (i.e., core and line-of-business systems). The solutions required a heavy amount of coding and scripting to meet business requirements and integrate with core systems. Use cases for older ECM solutions became more specific to a limited number of operational units, generating less value for the organizations. In addition, some organizations relied on multiple point solutions to support all their content and process management needs.

- **Lack of support for cloud storage.** Alongside obstacles on the software side, interviewees

dealt with on-premises servers that required maintenance and were relatively inflexible regarding server integration into their network. One interviewee who desired to move to the cloud shared that their ECM solution only offered cloud services through a third-party vendor.

> **"It became very obvious to us that in terms of the long-term bigger picture, we needed something that was going to be more robust than what our previous solution could offer. The solution worked well, but it didn't necessarily work for the organization as a whole to solve both workflows and integrations."**
>
> *Director of operations and process improvement, financial services*

- **Poor customer experiences with content services.** Difficulty with coding and developing solutions through previous platforms produced frustrating user experiences with content services. The lack of resources and the required development time resulted in inconsistencies with offerings across business units. For example, at an interviewed university, students could fill out

forms online when transferring credits from another school, but they would have to fill out paperwork to file for graduation.

- **Inefficient document management.** For interviewees at organizations that had not implemented an ECM solution, there was a lack of digital documentation of paperwork altogether. While much of their critical information was scattered across various repositories and physical locations, they had to manually copy information from paper documents to their systems. This process resulted in lengthy amounts of time spent entering information and searching for missing information in systems.

SOLUTION REQUIREMENTS

The interviewed organizations searched for a solution that provides:

- Cloud storage as a core feature of service.

- A suite of tools to produce content services solutions that can be quickly deployed, leveraged by other teams, and user-friendly.

- Compliance with other systems and stringent security policies to mitigate data exposure risks.

> **"Our preference from the beginning has always been to have a single sign-on for security and those types of standards. As an institution of higher education, we are governed by federal regulations that require us to ensure that student information is kept secure and private. Those are all standards that had to be met in order for us to be able to utilize Hyland."**
>
> *Associate registrar, higher education institution*

Education Alternatives: Migrating To Cloud Content Services

For organizations leveraging ECM solutions with on-premises servers, there are ongoing challenges with storage capacity and related management costs. The Hyland Cloud offers relief in this area by providing scalable storage space and removing time-consuming maintenance.

Forrester spoke with the nonprofit Education Alternatives about their experiences with the Hyland Cloud to better understand the value of migrating from on-premises servers to the cloud.

200 employees maintained reliable remote access with the Hyland Cloud

Early usage of Hyland OnBase. Since 2014, Education Alternatives has leveraged OnBase, Hyland's enterprise information platform, to assist with document storage and provide workflow applications for employee efficiency. During the initial four years of usage, the organization leveraged on-premises servers to store documents and host its services applications.

The composite organization soon realized they needed scalability with their storage as they added service functions and hundreds of thousands of documents to their on-premises servers. The director of business operations said: "We went from having maybe a dozen people accessing OnBase and scanning in forms to nearly 200 people accessing OnBase at any given time. The database kept growing so quickly, and we kept putting more business functions into it, it didn't make sense for us to go down the path of adding more physical server space or paying our IT company for additional server management. It just reached a breaking point where we didn't want to keep going down that path."

Migration to the Hyland Cloud. In the summer of 2019, Education Alternatives began migrating OnBase data and applications to the Hyland Cloud. Storage costs have shifted from capital expenses on server purchases and maintenance to operational expenses with one person overseeing the Hyland Cloud.

Cloud storage has helped streamline remote access for employees. Previously, remote workers had to install a VPN for access to Hyland applications. With the cloud, that information is readily available for signed-in employees, which has proven especially beneficial in 2020 with increased remote work. In addition, application updates are also pushed out on a rolling basis with the cloud automatically uploading them to users' computers. Together, these features ensure that remote work for employees is a secure experience.

Education Alternative's alignment with Hyland to support the entirety of their ECM practices has also helped with the development of new applications, including forms for accounting and employee health records. Hyland has assisted the organization with the QA and testing of applications to ensure they're stood up quickly. Based on the performance of Hyland Cloud thus far, Education Alternatives is looking to extend their usage of their solution.

"The Hyland Cloud offers a lot of opportunity for us to keep growing our business and how we use OnBase. By having applications accessible in the cloud, people can access them and not have to worry about having a VPN installed. That speaks to our initial interest in Hyland Cloud — its level of flexibility for us."

Director of business operations, Education Alternatives

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and a ROI analysis that illustrates the areas financially affected. The composite organization is representative of the six companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The composite organization is a North American B2C commercial company with $5 billion in annual revenues and 3,500 employees. Before the Hyland Cloud, the organization relied upon a mix of on-premises legacy workflow solutions and paperwork/physical filing of documents. Specifically, where some business units leveraged digital content services, others relied on paperwork.

Deployment characteristics. The composite organization will stand up the Hyland Cloud in six months through three IT team members dedicating a portion of their time to the project. Three developers take Hyland API training and certification courses to leverage the solution. Each year 400 end users of Hyland Cloud applications take a 4-hour training course to familiarize themselves with new applications. In Year 1, two content services applications are deployed, while over half of stored documents are transferred to the cloud. By Year 2, the entirety of the organization's documents are transferred to the cloud. Three applications are deployed in both Year 2 and Year 3, producing additional workflow efficiencies for employees and customers.

Key assumptions

- **Moving content services/ECM entirely to the cloud**
- **30,000 multidocument packages processed annually**
- **Plans to develop eight content services solutions across three-year period**

Analysis Of Benefits

Quantified benefit data as applied to the composite

Total Benefits						
Ref.	**Benefit**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Atr	Capital expenditure savings since migrating to the cloud	$148,750	$233,750	$233,750	$616,250	$504,029
Btr	Improved scalability driving developer productivity with Hyland Cloud	$145,860	$218,790	$218,790	$583,440	$477,798
Ctr	Increased end user productivity	$955,627	$1,198,293	$1,198,293	$3,352,213	$2,759,372
	Total benefits (risk-adjusted)	$1,250,237	$1,650,833	$1,650,833	$4,551,903	$3,741,199

CAPITAL EXPENDITURE SAVINGS SINCE MIGRATING TO THE CLOUD

What customers said. A key factor motivating organizations to migrate content and process management to the cloud was the associated cost savings from offloading on-premises servers and storage space for paperwork.

For interviewees' organizations that had on-premises servers, moving to the cloud meant avoiding purchasing additional servers for storage space and running frequent backups to ensure data wasn't lost. With Hyland Cloud, the organizations found a partner that maintained secure and scalable storage space for data, while providing tools for their ongoing content and process management needs.

> **"We were constantly battling space on the system we used previously and that was definitely a drive toward moving to the cloud. We moved between 30 to 40 terabytes to the cloud, or around 120 million documents. This enabled us to repurpose the servers for our production system that runs other applications."**
>
> *Director of enterprise apps group, real estate*

By adopting the Hyland Cloud, several organizations were able to move on from legacy ECM software or multiple point solutions they leveraged to meet different content and process management needs. As a result, organizations recognized a more affordable cost structure and avoided costs from vendor maintenance support.

Organizational savings from digitizing paperwork totaled $5,000 to $10,000 annually, representing 50% to 75% of their prior spend on physical paper. Interviewee's organizations realized more savings from opening floor space from file cabinets for desks or maneuverability around the office. A couple of the interviewees stored older documents in third-party records management warehouse facilities that carried annual rental fees in the six-figure range, based on the amount of space they needed. With documents stored away, interviewees had fewer opportunities to review which documents from ex-clients or students no longer needed to be retained.

Since adopting a content services solution in the Hyland Cloud, interviewees gained greater visibility into their documents and information, and they scaled their storage needs based on what documents they needed to keep.

Modeling and assumptions. For the composite organization, Forrester assumes:

- By moving to the Hyland Cloud, the composite organization avoids spending $50,000 per year on additional on-premises servers for storage, or roughly $25,000 for each server that would have been purchased annually. The assumed cost accounts for the hardware, as well as time spent on integration and maintenance.

- The composite organization migrates over 50% of their stored documents to the cloud in Year 1, and it reduces support costs with their previous ECM solution by $50,000. By Year 2, the composite organization moves the rest of their documents stored over to the Hyland Cloud, and it recognizes a full $75,000 in savings annually.

- Similarly, the composite organization is able to copy information from physical paperwork to their document base in Year 1 and save $75,000 on hard copy storage. By Year 2, the composite organization moves the rest of the paperwork

they plan to add to their document base and avoids $150,000 in costs annually.

Risks. This section details the potential risks that can impact the benefit. These can be both qualitative and quantitative.

- The number of documents and volume of information that the organization had before adopting Hyland Cloud, or plans to add, will influence the scale of savings.

- For organizations that have already digitized some paperwork processes before adopting the Hyland Cloud, savings on hard copy storage will not be as significant.

To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $504,029.

Capital Expenditure Savings Since Migrating To The Cloud					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Avoided on-premises server costs	$25K per server annually 2 additional servers per year	$50,000	$50,000	$50,000
A2	Cost savings from previous ECM solution	Interviews	$50,000	$75,000	$75,000
A3	Hard copy storage savings	Interviews	$75,000	$150,000	$150,000
At	Capital expenditure savings since moving to the Hyland Cloud	A1+A2+A3	$175,000	$275,000	$275,000
	Risk adjustment	↓15%			
Atr	Capital expenditure savings since moving to the Hyland Cloud (risk-adjusted)		$148,750	$233,750	$233,750
	Three-year total: $616,250		Three-year present value: $504,029		

IMPROVED SCALABILITY DRIVING DEVELOPER PRODUCTIVITY

What customers said. Interviewees' organizations use the Hyland Cloud to deploy more content services applications than they previously had used for two key reasons: 1) expanded storage space and 2) more tools for developers to implement when building new applications.

With OnBase delivered in the Hyland Cloud, developers have access to low-code configurations and templates to build workflow solutions for their company. These tools help developers avoid spending time on building complex code, friendly user interfaces, and integrating with point solutions.

Interviewees saw Hyland Cloud as a key enabler on their company's path to software modernization. Several of the companies had more than a dozen content services applications or build plans delivered in the Hyland Cloud. Interviewees' goals with the applications include supporting business workflow processes, file storage and searchability, and automating data capture.

> **"The point-and-click ability of our solution in the Hyland Cloud, which helps us to avoid hiring specialized programmers, was a driving factor for our purchase. If you want to build something for a different team, you can.**
>
> **It's very much like a tool kit that you can use to tailor your own solutions without having to buy or leverage something specialized for different departments."**
>
> *Senior project manager, higher education institution*

Without the solution, it would have taken organizations three months or longer to use custom code to build each application. Now it takes organizations one to three weeks through point-and-click configuration and reuse of existing assets or information, resulting in significant time savings.

The simplicity of building applications extends to updating and iterating them as well. Whereas development of significant updates would take upwards of a week for some interviewees, it now is completed within a day. With each application existing in an architecture like Hyland Cloud, there is a consistency across applications in performance and security that would not be there with custom-built solutions. Interviewees have less problems with code to fix, and they are able to push out smaller updates on a rolling basis. Altogether, increasing productivity among developers is helping interviewees' organizations to stay on their path to software modernization.
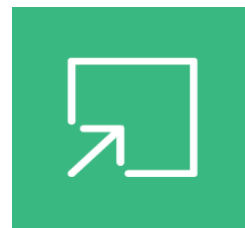
Reduced time spent developing content services solutions

75%

Modeling and assumptions. For the composite organization, Forrester assumes:

- In Year 1, the composite organization builds two service solutions following integration and standing up of the Hyland Cloud. The composite organization avoids 75% of the planned three months on development between three developers. These time savings are driven by Hyland's low code tool set.

- The number of content services solutions annually developed increases to three in Years 2 and 3 as developers become more familiar with the Hyland platform and the kind of solutions they want to build.

- The fully loaded hourly rate for developers is $75.

- Two major updates to workflow solutions are made per year. Whereas these updates previously required one week of work, they are now completed within one day.

- The productivity recapture rate is 100% since developers can refocus entire weeks or days to other projects.

Risks. A risk adjustment has been applied to account for the number of business applications that organizations plan to build, as well as the organization's prior state to Hyland Cloud — specifically, how long it took to build an application and the number of developers that were involved.

To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of $477,798.

Improved Scalability Driving Developer Productivity

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Number of service solutions built annually	Interviews	2	3	3
B2	Time spent building service solutions before Hyland Cloud (weeks)	Interviews	12	12	12
B3	Reduction in time spent building workflow solutions with Hyland Cloud (weeks)	Interviews	75%	75%	75%
B4	Number of FTEs handling development	Interviews	3	3	3
B5	Fully loaded hourly rate for developers	Assumption	$75	$75	$75
B6	**Value from service solution development time savings**	B1*B2*B3*B4*B5* 40 hours per week	**$162,000**	**$243,000**	**$243,000**
B7	Number of major updates/iterations made to services annually	Assumption	2	2	2
B8	Time saved with Hyland Cloud (hours)	Interviews: 5 days to one day	32	32	32
B9	**Value from service updates/iteration time savings**	B1*B5*B7*B8*1 FTE	**$9,600**	**$14,440**	**$14,440**
B10	Productivity recapture	Assumption	100%	100%	100%
Bt	Improved scalability driving developer productivity with Hyland Cloud	B6+B9	$171,600	$257,400	$257,400
	Risk adjustment	↓15%			
Btr	Improved scalability driving developer productivity with Hyland Cloud (risk-adjusted)		$145,860	$218,790	$218,790
	Three-year total: $583,440			**Three-year present value: $477,798**	

INCREASED END USER PRODUCTIVITY

Interviewees' organizations came from three starting points before adopting the Hyland Cloud: 1) full usage of an on-premises ECM solution; 2) a mixture of physical paper documents for information collection with certain ECM solutions; or 3) no usage of an ECM solution and complete reliance on paperwork for information collection.

Across each organization, interviewees expressed improving employee and customer/client processes as a key goal with the Hyland Cloud. By digitizing information collection and management and deploying workflows for critical business, organizations saw efficiencies increase in the following ways:

- Higher likelihood of information accuracy on digital forms, especially for multidocument packages (e.g., registration forms, financial information). This resulted in less time chasing the correct or missing information.

- Fewer documents for workers to copy information from, to file to cabinets, and to locate when needed. Information entered online was instantly accessible for review, drastically improving productivity.

- Improved form completion rates and less time spent trying to ensure students/clients received paperwork and filed the documents.

- Ensured content delivery to employees or clients/customers/students (e.g., organization policies, benefit information, directories).

- Ease of use enabled organizations to standardize information intake and distribution between different business units and teams.

With these efficiencies being delivered through a Hyland Cloud solution with scalable storage space, interviewees' organizations were able to move ahead with a digital-first approach to business operations.

45,000 hours of productivity among FTEs

Modeling and assumptions. For the composite organization, Forrester assumes:

- The composite organization handles 30,000 document packages annually. These document packages can range from six to 12 pages in length, covering client/customer/student information collection and signature forms for applications, registrations, and information updates.

- Time spent reviewing and manually entering information to digital repositories without a Hyland solution takes 1 hour to complete.

- Since adopting a SaaS solution in the Hyland Cloud, time spent on this process is cut in half with employees avoiding manual entry of information altogether.

- The fully loaded hourly rate for data entry FTEs is $40.

- The employees recapture 100% of their time on this activity and can process more documents with their recaptured time on a daily basis.

- Time spent locating information from file cabinets, folders, or content files on the company site took 20 minutes for employees at the composite organization to complete before the Hyland Cloud.

- Documents and information from files are searchable and easy to find with the Hyland Cloud. In Year 1, time spent searching for documents and information among employees is reduced by 10 minutes as the composite organization migrates older paperwork over to the cloud. Time savings increase to 15 minutes in

Years 2 and 3 with the entirety of the composite organization's paperwork in the cloud.

- The total time saved is quantified based on the assumption that each employee at the composite organization spends time once per week searching for information on students or customers.

- Of this time saved, the productivity recaptured is 50% to account for the frequency of employee searches. This small amount of time, e.g., like 10

to 15 minutes, may not be dedicated to additional work.

Risks. Results will vary based on the amount of paperwork currently being handled by organizations, the time spent handling and locating information, and the frequency with which employees spend extended periods of time searching for information.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of $2,759,372.

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
**Increased End User Productivity**
C1	Number of document packages to process annually		30,000	30,000	30,000
C2	Time spent processing document information before Hyland Cloud (hours)		1.00	1.00	1.00
C3	Time spent processing document information with Hyland Cloud	30 minutes	0.50	0.50	0.50
C4	Total time saved on information processing (hours)	C1*C2*C3	15,000	15,000	15,000
C5	Fully loaded hourly rate for data entry FTE		$40	$40	$40
C6	Productivity recapture		100%	100%	100%
C7	**Value from time savings on information processing**	**C4*C5*C6**	**$600,000**	**$600,000**	**$600,000**
C8	Time spent locating information/content services before Hyland (hours)	20 min per search	0.33	0.33	0.33
C9	Time spent locating information/content services with Hyland (hours)	Y1: 10 min per search Y2 and Y3: 5 min per search	0.17	0.08	0.08
C10	Total time saved on locating information/content services (hours)	(C8-C9)*52 weeks*3,500 employees	29,727	44,893	44,893
C11	Productivity recapture		50%	50%	50%
C12	**Value from time saving on locating information or services**		$594,533	$897,867	$897,867
Ct	Increased end user productivity	C7+C12	$1,194,533	$1,497,867	$1,497,867
	Risk adjustment	↓20%			
Ctr	Increased end user productivity (risk-adjusted)		$955,627	$1,198,293	$1,198,293
\multicolumn{3}{c}{Three-year total: $3,352,213}		\multicolumn{3}{c}{Three-year present value: $2,759,372}

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Enhanced employee and customer experience.** Beyond time savings, the Hyland Cloud has helped improve the employee experience. Interviewees at educational organizations shared that during rush periods of the year, when students applied for university admittance or needed to fill out paperwork ahead of their arrival to campus, the registrar was overwhelmed with work. Likewise, during tax season at the financial services company, or during spring and summer at the real estate business, employees frequently had to work late nights to file paperwork. By providing digital forms to students and clients to fill out, employees could better pace their days without facing the looming time crunch of manually entering information into their systems.

  Employees and customers no longer have to wait for assistance from workers at organizations to answer their questions. With the available content services, they can quickly resolve their inquiries.

- **Reliable information storage.** By leveraging the cloud as part of their content services solution, organizations no longer had to store wet signature copies of paperwork. The director of operations and process improvement at the financial services company said: "We kept a paper copy of information we already entered in our systems because of a lack of trust in our previous solution, and whether we could get a copy of documents whenever needed. With the Hyland solution, we have primary support for logging and storage of the file. It can create a redundant copy of a file for us when we need an emergency copy. It also helps that we can automate the retention of documentation so that it destroys document information, which is part of our policy for compliance purposes, that is out of date or we no longer need for ex-clients."

- **High availability of content services.** Interviewees shared that before adopting the Hyland Cloud, they would experience moments of downtime where limited storage space would lock out users, resulting in their IT team clearing out space on their on-premises servers. Meanwhile, configurations between their previous ECM approach and on-premises servers led to technical hiccups where files weren't readily available following disaster recovery. By moving to a solution with unified, scalable ECM and storage services like the Hyland Cloud, organizations no longer had to be concerned about limited storage space, and they rarely experienced unplanned downtime events.

- **Maintained business continuity.** Interviewees shared that they would have faced further logistical challenges at the onset of the pandemic if they still relied on paper forms for information collection. However, since they had implemented the Hyland Cloud they were able to largely sidestep that issue and ensure that students, customers, and employees had access to content services. The director of operations and process improvement at a financial services organization said: "If we hadn't done some of the things we needed to do, we couldn't have enabled our employees to be remote during this COVID-19 experience. The visibility to documents and information that Hyland Cloud provides to employees do what they need to do without looking at paperwork or materials in-person."

- **Strong security around content services accessibility and data.** Interviewees' organizations had stringent compliance measurements that the Hyland Cloud and workflows have to meet, including single sign-on access and permissions for specific data access. Hyland Cloud met those compliance measures,

and interviewees felt confident their data was well protected.

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement the Hyland Cloud and later realize additional opportunities, including:

- **Flexibility of Hyland Cloud.** The scalability enabled by a cloud solution is encouraging interviewees' organizations to build on the number of content services solutions they offer. Interviewees indicated they plan to create more applications through the Hyland Cloud or integrate third-party solutions to expand and centralize content services. Since updates can be pushed out through the cloud, developers continue to refine, grow, and optimize their applications.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

Analysis Of Costs

Quantified cost data as applied to the composite

Total Costs

Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Dtr	Licensing costs	$0	$315,000	$315,000	$315,000	$945,000	$783,358
Etr	Training and implementation	$85,126	$33,600	$33,600	$33,600	$185,926	$168,684
	Total costs (risk-adjusted)	$85,126	$348,600	$348,600	$348,600	$1,130,926	$952,042

LICENSING COSTS

Overview. Pricing for the Hyland Cloud is based on a variety of factors, including:

- The number of employees using solutions in the Hyland Cloud.

- Number of content services capabilities being leveraged.

- Types of content services capabilities being leveraged.

- Size of cloud storage space being used.

For this study, Forrester assumes that, given the size of the composite organization and an assumed 400 end users of the Hyland Cloud, licensing costs will total $300,000 annually.

An upward risk adjustment of 5% is applied to account for varying business demographics and use cases of the Hyland Cloud. This adjustment yields a three-year, risk-adjusted total PV (discounted at 10%) of $783,358.

Licensing Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
D1	Number of users			400	400	400
D2	Licensing fee for users			$300,000	$300,000	$300,000
Dt	Licensing costs	D2	$0	$300,000	$300,000	$300,000
	Risk adjustment	↑5%				
Dtr	Licensing costs (risk-adjusted)		$0	$315,000	$315,000	$315,000
	Three-year total: $945,000			**Three-year present value: $783,358**		

IMPLEMENTATION AND TRAINING

What customers said. Interviewees shared that it took six months to stand up the Hyland Cloud between OnBase and implementing cloud storage. A small team of three IT professionals were tasked with implementation, with each dedicating one-third of their time to the project during the six months.

Time spent on administrative training for Hyland API certification to fully take advantage of the solution takes one week for each developer to attend. For each of the 400 end users of Hyland Cloud's content

services, 2 hours will be spent on annual training to get up to speed with new application offerings.

Implementation timelines, as well as the number of employees assisting in implementation and attending training will impact the potential costs.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $168,684.

Implementation And Training

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
E1	Time spent on implementation (months)		6			
E2	Number of employees implementing Hyland		3			
E3	Percentage of time spent by each employee on implementation		33%			
E4	Average fully burdened salary of IT FTEs		$145,600			
E5	**Implementation costs**	**E1/12 months* E2*E3*E4**	**$72,072**			
E6	Time spent on certification admin training (weeks)		1			
E7	Number of employees attending training		3			
E8	**Cost of certification training**	**(E6*40-hour work week) *E7*B5**	**$9,000**			
E9	**End user training on applications**	**400 end users* 2 hours of training* $40 hourly rate**		**$32,000**	**$32,000**	**$32,000**
Et	Training and implementation	E5+E8+E9	$81,072	$32,000	$32,000	$32,000
	Risk adjustment	↑5%				
Etr	Training and implementation (risk-adjusted)		$85,126	$33,600	$33,600	$33,600
	Three-year total: $185,926			**Three-year present value: $168,684**		

Financial Summary

Cash Flow Chart (Risk-Adjusted)
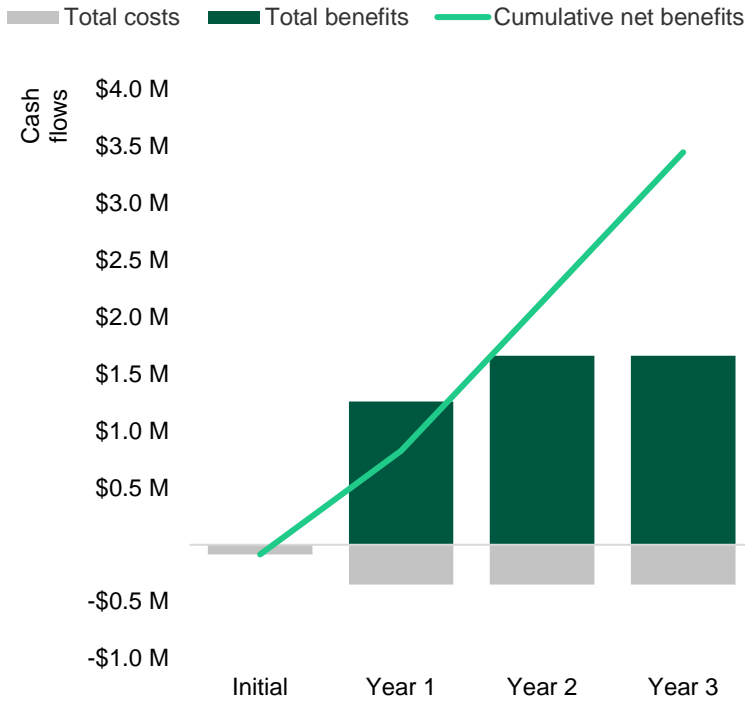
The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted Estimates)						
	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($85,126)	($348,600)	($348,600)	($348,600)	($1,130,926)	($952,042)
Total benefits	$0	$1,250,237	$1,650,833	$1,650,833	$4,551,903	$3,741,199
Net benefits	($85,126)	$901,637	$1,302,233	$1,302,233	$3,420,978	$2,789,157
ROI						293%
Payback						<6 months

Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

TOTAL ECONOMIC IMPACT APPROACH

Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.

NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.

RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.

DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.

PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendix B: Endnotes

[1] Source: "ECM Requires Investment: Five Key Elements To Include In Your Business Case," Forrester Research, Inc., March 10, 2020.

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