

Customer Communications Management (CCM) Solutions Market Study, 6th Edition



A Madison Advisors Report
August 2017

©Copyright 2017 Madison Advisors, Inc. All Rights Reserved. All other product names are trade and service marks of their respective companies. This publication and its contents are the property of Madison Advisors, Inc. No part of this publication may be reproduced or duplicated without express written consent of Madison Advisors, Inc.



TABLE OF CONTENTS

Executive Summary	4
Technology: Driver of Change	6
Acquisitions Change the Landscape of CCM Providers.....	7
Client Challenges Inspire Software Innovation.....	8
Data Issues Solved	10
Consolidating Content to Reduce Complexity	11
Delivery Strategy: Multi-Channel vs. Omni-Channel.....	12
Business User Empowerment & User Experience	14
Cloud Technology - Public, Private or Hybrid?	16
Percentage of Cloud Adoption V. On-Premise	18
Personalized Videos.....	19
Summary of Personalized Video Support.....	21
Social Media.....	22
Inbound / Response Management	23
Professional Services: The People and Processes to Implement the Technology	24
Changing the Landscape - New Entrants to the Market.....	26
The Future of CCM: Where's is the Market Headed?	28
Appendix A: Summary of Available Cloud Technology	30
Appendix B: Vendor Profiles.....	31
airSpring Software.....	31
Direct.One	32
Doxee.....	33
Elixir (AKA Tango+)	34
FIS Output Solutions - CSF Designer	36
GhostDraft	37
GMC Inspire.....	38
Inventive Designers - Scriptura Engage	39
ISIS Papyrus	41
Kofax Customer Communications Manager	43
OpenText	45
Top Down Systems - Client Letter & INTOUCH	46
Xpertdoc.....	47
Appendix C: About the Author	48
Appendix D: About Madison Advisors.....	49

TABLE OF CONTENTS

LIST OF FIGURES

Figure 1 – Multi-channel vs. Cross-channel vs. Omni-channel	13
Figure 2 – Descriptions of Private, Hybrid and Public Clouds	18

LIST OF TABLES

Table 1 – Percentage of Cloud Adoption V. On-Premise	18
Table 2 – Support for Personalized Videos	21
Table 3 – Legend for Personalized Videos Support Table	21
Table 4 – Adoption of Popular Social Media Sites	22

EXECUTIVE SUMMARY

Up until 15 years ago, Customer Communications Management (CCM) software was known as a tool used for the composition of transactional documents, such as statements, bills, policies and notices that were intended to be printed and mailed. Document composition is defined as *“the process of creating documents that meet the needs of a business, to help them fulfill their business requirements.”*¹ This definition further states that document composition is *“primarily used by organizations to communicate with their customers, and plays a vital role in customer relationship management.”*¹ Relationships are established and maintained through communication; therefore, CCM is a foundation for building those relationships. In the last few years, however, there has been a paradigm shift in the industry that is a direct result of organizations making customer experience management (CXM) and digital transformation strategies top priorities to stay competitive, deepen relationships, and increase consumer loyalty.

This shift has encouraged CCM solution providers to evolve and adapt their product offerings to satisfy consumer demands for personalized digital experiences, and simultaneously meet their clients' business requirements for flexibility, agility, and faster time to market. CCM software has morphed into all-encompassing solutions that have expanded well beyond document composition due to rapid advancements in technology coupled with an increased focus on customer experience and engagement. Technology providers continue to enhance their product offerings allowing organizations the capability of meeting consumer demands for information anytime, anywhere, and with the preferred device. In addition, knowledge workers within organizations have the ability to manage the communications lifecycle without heavy involvement from IT.

Madison Advisors' Customer Communications Management (CCM) Solutions Market Study, 6th Edition provides an overview of several CCM technology solutions available in the market today. Of particular focus is how each solution innovatively solves the challenges associated with customer communications management, and how these solutions are positioned to keep up with changing technology and consumer demand for a digital experience. This study provides an update on some of the capabilities reviewed in our last report which included multi-channel delivery, cloud technology, and support for social media. In addition, we have included a review of current trends in the market and how each solution is positioned to stay abreast of these trends while meeting the increased requirement of enhancing the customer experience.

To conduct this research, Madison Advisors requested each participant complete a study questionnaire, supply up to three unique differentiators of their offering, and provide a solution demo with specific focus on business user capabilities, workflow and approval processes, data mapping, and dashboard and reporting functionality.

¹ Wikipedia

At the conclusion of each demo, participants were interviewed to gain additional perspective on future trends in the industry, strategic roadmap initiatives, and go-to-market strategy.

This research study represents Madison Advisors' continued focus on CCM technology solutions and offers insight into how providers are remaining competitive by responding to trends in the industry. Some key findings from this research include:

- **Business user empowerment:** Many tasks previously managed by IT can be performed by the business user, thereby expediting the change control process. Tasks such as template design, complex document creation, workflow and approval design, and even data mapping can be easily completed by knowledge workers through user interfaces that are designed for the non-technical user.
- **User experience (UX):** User interfaces are specifically designed with the user experience in mind to make the knowledge worker more efficient and effective. Simple drag and drop, and other WYSIWYG easy-to-use tools allow non-technical resources to complete complicated tasks without the need for coding and development knowledge.
- **Integration with core processing systems:** Real-time data collection at the time a communication is generated is supported through the use of web services and APIs enabling faster delivery of legacy applications to other channels such as mobile and web.
- **Cloud technology:** Acceptance of cloud-based technology within certain highly regulated verticals such as healthcare, insurance, financial services, and government remains slow with data security concerns cited as the primary inhibitor. Other verticals such as utilities, manufacturing, and telecommunications are early adopters.
- **Personalized video:** Most participants indicated extremely low or no client demand for personalized video; however, one participant has heavily invested in this functionality and recently made this capability a part of its solution.
- **Social media:** Support for social media as a delivery channel is provided through social media connectors and APIs to deliver messages to Facebook, Twitter and, WeChat. Despite this capability, client adoption rates are well below 10%.
- **Inbound communications:** Capturing data from electronic forms, email, and SMS communications are some of the response management capabilities offered for inbound communications. Some participants have integrated data from inbound communications with the outbound communications lifecycle; however, this remains an area of growth.

TECHNOLOGY: DRIVER OF CHANGE

In the last decade, the customer communications management (CCM) industry has witnessed an explosion of technology and innovation that has changed the way businesses interact with consumers. Smartphones and mobile applications have given consumers the ability to obtain information anytime, anywhere, and from any device. This technology has driven consumer expectations higher; thus, organizations are under pressure to deliver on those expectations with communications that are personalized, relevant, and timely. The world is a different place than it used to be and advancements in technology have changed communication methods and business interactions. Consumers are now in the driver's seat and will conduct business based on the most convenient and preferred channel. Because consumers have the ability to move between devices and channels, organizations recognize that creating a seamless digital experience is no longer a nice-to-have, it is a must have.

"The most valuable and fastest growing companies are those that use technology to satisfy their customers' needs in new and visionary ways. Aligning inbound and outbound content, process, and data to satisfy those needs through knowledge work and digital collaboration will streamline the path to adaptive innovation for organizations that are raising the bar on what it means to serve customers."

Max J. Pucher, CTO, ISIS Papyrus

Population estimates released in April 2016 by the U.S. Census Bureau indicate that millennials have surpassed baby boomers as the nation's largest living generation. As one of the most studied generations, millennials are the first generation to grow up with the internet and smartphones. This "digital native" generation has an affinity for technology, grew up with a wealth of information at their fingertips, such as product reviews and price comparisons, and is expected to spend more than \$200 billion a year starting in 2017 and \$10 trillion in this generation's lifetime.

Years ago, multi-channel delivery simply consisted of two channels, print or email. Today, additional channels such as SMS, web portals, mobile applications, and even social media are forcing organizations to examine ways to integrate CCM, CXM, and digital transformation strategies together to create consistent experiences across all channels. Since many large organizations operate in silos, these strategies typically remain under separate ownership. Despite its ties to outbound communications, inbound mail processing is a separate and distinct operation within the company. Outbound communications often require a call to action and generate an inbound response back to the organization, but with the variety of channels available, the inbound communication may not necessarily enter the organization via the same channel as the original outbound, further adding to the complexity of integrating outbound and inbound communications together.

To ensure a consistent and seamless experience across all channels and for all business interactions, Madison Advisors believes that organizations must incorporate inbound communications into its CCM, CXM, and digital transformation strategies to complete the communications lifecycle.

ACQUISITIONS CHANGE THE LANDSCAPE OF CCM PROVIDERS

Company acquisitions are completed for a variety of strategies, whether it is to expand into new markets, complement existing product lines, grow market share, and even eliminate the competition. The CCM industry is not exempt from this activity. The landscape of CCM solution providers has changed within the last decade due to acquisitions and new entrants to the market. Within the last five years, GMC Software Technology (GMC), Aia Software, and most recently HP Exstream, have been acquired by other companies.

Neopost, the European leader and number two worldwide supplier of mailroom solutions, acquired GMC Software Technology in July, 2012. In November of that same year, Neopost also acquired Human Inference, a data quality solution provider. In its press release on November 30, 2012, Denis Thiery, Chairman and Chief Executive Officer of Neopost, stated, *"The acquisition of Human Inference illustrates the pursuit of our strategy for expansion in activities that are not directly related to mail. The solutions provided by Human Inference will enrich our data quality offerings in addition to the postal address management solutions developed by our Satori Software subsidiary. We also intend to seize the opportunity to build on attractive revenue synergies with GMC Software Technology, the customer communications management specialist we acquired recently."*

In June 2016, Neopost also signed an agreement to acquire icon Systemhaus, the German leader in customer communications management. The icon customer communications management solution known as DOPIX Suite holds a strong position in the insurance industry in Germany. In addition, icon has a mainframe based solution that enables the migration of discontinued IBM document composition applications to DOPIX.

Aia Software, a Netherlands-based company was established in 1988. In March 2015, Aia was acquired by Kofax. The product formerly known as ITP has been renamed Kofax Customer Communications Manager, and can be fully integrated with Kofax's flagship digital transformation platform, Kofax TotalAgility. In a press release Kofax stated, *"The addition of CCM to TotalAgility's capture, process management, information integration, analytics, e-signature and mobile capabilities will significantly strengthen the value of Kofax's solutions and their competitive differentiation and advantage."*

In April 2016, OpenText acquired several customer experience assets from HP, Inc. This transaction included TeamSite, MediaBin, Qfiniti, Explore, and Optimost. Two months later, OpenText acquired several customer communications management and other assets from HP, Inc. Most notably, this transaction included HP Exstream; however, HP Output Management, TeleForm and LiquidOffice were also included in the transaction.

In September 2016, OpenText announced plans to acquire Documentum and other Enterprise Content Division (ECD) businesses from EMC, including InfoArchive and EMC Leap. This announcement occurred one week after Dell finalized its purchase of EMC. OpenText closed on the acquisition in January 2017. The Documentum core

product set includes the Documentum platform, Captiva and Document Sciences xPression, which is the third CCM software solution acquired by OpenText since its acquisition of StreamServe in October 2010.

OpenText will go forward with a single CCM platform that delivers interactive and automated unified communications across business to business (B2B) and business to consumer (B2C) interactions to help enterprises transition to digital and support a holistic customer experience management strategy. The new platform will maintain the Exstream brand, which will serve as the brand name for the future CCM solution that was released in its Enhancement Pack 2 (EP2) in April 2017. OpenText Exstream will be a combined platform that includes the transactional processing model, high throughput engine, and advanced design and production capabilities of Exstream 16 and the integration strengths that OpenText has with the StreamServe platform, now called OpenText Communication Center Enterprise (CCE).

After the launch of EP2, OpenText customers can upgrade to a single unified CCM platform, which will enable customers to continue to use their existing documents and templates and take advantage of expanded capabilities available in EP2. CCE and Exstream will be able to update to a single platform where the respective engines and design technology used by its StreamServe, PowerDocs, and Exstream customer bases are maintained. OpenText plans to protect previous customers' investments in their respective template technologies, but will standardize on one architecture.

"Based on the level of merger activity in the last few years, it is safe to say that the more conservative technology providers recognize just how important and innovative CCM solution providers have become, and see them as a valuable part of a strategic portfolio. We anticipate that this trend will continue."
**Warren Lederer, Chief Operating Officer
Madison Advisors**

CLIENT CHALLENGES INSPIRE SOFTWARE INNOVATION

The participants in this study have enhanced their solutions with functionality and capabilities that help enterprises solve a variety of challenges with CCM. Sir Winston S. Churchill, the British politician who served two terms as Prime Minister of the United Kingdom has said, **"A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty."** CCM solution providers have turned these difficulties into opportunities to differentiate their offerings and set themselves apart from the competition.

Madison Advisors often engages with enterprise clients to develop CCM strategies to increase revenue, reduce risk and stay compliant with regulatory requirements, enhance customer experience and increase customer engagement; however, such goals are typically met with many challenges. The tremendous advances in technology proves to be a double-edged sword for many enterprises who are trying to meet consumer requirements for a digital experience, yet struggle with a disjointed technology infrastructure that

includes legacy mainframe and core admin systems which are coupled with point solutions that have been implemented to meet a specific line of business requirement. This infrastructure has put a restraint on internal IT resources who must focus on managing this environment in order to produce customer communications resulting in lengthy change control processes for simple document changes or creation of new documents.

Despite working with numerous clients across different verticals, the participants in this study indicated that the challenges faced by all are certainly not unique. The top challenges for existing or potential new clients are as follows:

- Legacy systems mixed with newer technology that has been implemented but not well integrated, therefore, inhibiting enterprise-wide digital transformation strategies
- Disparate workflows and processes that have been designed around the existing technology; most companies have multiple composition tools, content management repositories, archive platforms, and delivery mechanisms resulting in complex workflows to generate and deliver customer communications
- Compliance with vertical-specific regulations and marketing brand, particularly for smaller companies that do not have an enterprise CCM solution and instead use Microsoft Word to generate communications
- Data silos and the inability to make data available for personalization of communications, data analytics and business intelligence
- Managing voluminous templates that, as a result of disparate technology, may also be channel-specific
- Meeting consumers' expectations and delivering a true omni-channel customer experience

"Now more than ever, Enterprises are moving past the implementation of legacy systems and are starting to develop a digital strategy, digital communications framework, and an ability to easily enhance the customer experience."
Matteo Generali
Director of Product Management
Doxee

Modernizing legacy applications for omni-channel delivery can be difficult for many enterprises, yet this difficulty has become an opportunity for GMC and a differentiator in the opinion of Madison Advisors. GMC Inspire offers a GUI-based repurposing capability that can modernize legacy output into output for any channel, including HTML 5. This out-of-the-box capability can transition legacy output into omni-channel without the need for IT resources and in record time. With digital transformation being a top strategic priority for many organizations, this capability is a strength for GMC that will allow enterprises to easily bridge the gap from legacy output to a modernized digital experience.

"We are entering a world where data may be more important than software," said

Tim O'Reilly, Founder of O'Reilly Media. Big data refers to large volumes of structured and unstructured data and while the term is relatively new, the process of collecting data for analysis, decision making, and developing business strategies is not. To say that data is one of the most critical components in communications lifecycle would be an understatement. It drives business rules which determine template selection and use of variable content during the composition process.

Customer delivery preference data determines how the output from the composition process will be generated for delivery to ensure that it is appropriate for the delivery channel. Marketing departments rely heavily on customer data to target specific customer segments with promotional offers. For organizations that create customer communications, the importance of data is obviously not a new concept; however, many organizations face a significant challenge when it comes to extracting relevant data from source systems.

"We see lots of companies who have grand plans around omni-channel communications that want to communicate to their customers more and in different and better ways, but due to their challenges, they are finding it hard to get to those initiatives, spending all their time just keeping the lights on and supporting legacy environments."

Angie Winn
VP Technical Sales & Services
GhostDraft

Data often times exists in siloes across the organization since each line of business has their own core systems, which contain transaction and payment history data, customer profile data, and sometimes preference data. Marketing departments maintain separate databases which contain customer demographic, socioeconomic, and other pertinent life event data. Data is captured across all customer touchpoints, whether it is from social media, mobile applications, IVR, or contact centers. The bottom line is that despite the extraordinary amount of data captured and collected, it is not centralized within the organization in an enterprise data warehouse and thus many organizations still have challenges with extracting data for customer communications and putting it to good use.

Many of the enterprise clients that Madison Advisors engages with have the same challenges with data, including:

- Data is locked up in multiple legacy systems that produce customer communications
- Additional pre-processing steps on output generated from legacy systems is necessary to prepare input for the composition process
- No real-time access to data to generate communications in real time
- Data files used as input to the composition process consist of a wide variety of file formats, such as .TXT,

ASCII, EBCDIC, .XML, .CSV, and AFP which complicate document composition and workflows

- Limited or no data analytics capabilities

With the rate at which new data is captured—coupled with the fact that data is locked in numerous legacy systems and separate databases maintained by business units and corporate marketing departments operating in silos—it is not surprising that managing and extracting data continues to be a challenge for large organizations. These data issues, while challenging for enterprises, have been solved by the participants in this study, therefore making the inability to access data for real time document generation and delivery no longer a roadblock that prevents enterprises from including in their CCM strategy.

CONSOLIDATING CONTENT TO REDUCE COMPLEXITY

In addition to data, content is also a critical component in the customer communications lifecycle. Digital assets such as logos and images, blocks of text, videos, templates, and business rules should be stored and managed in a centralized repository available for reuse; however, for many organizations, content is stored in multiple repositories across the organization. In addition to internal repositories, content may also be stored with a third party such as a print service provider. These artifacts are available for use during the generation of communications that are delivered across any delivery channel.

Multiple content repositories add complexity to the document generation workflow and create challenges with version control. In addition, brand standards established by corporate marketing may not be adhered to consistently across all communication and delivery channels, and the potential for regulatory text to be out of compliance puts organizations at risk for financial penalties.

Other challenges include:

- Content such as logos, signatures, and customer service phone numbers, as well as regulatory text are hard coded into document templates
- Inability to conduct a complete inventory of content; in particular, the inability to identify which documents and communications utilize a specific piece of content or the business rules that are associated with that content

"Brand compliance and regulatory compliance are some of the big challenges we see among our clients today."

David Squibb
Chief Sales & Marketing Officer, Xpertdoc

- No automated workflow and approval process for new content loaded to the repository, or for changes made to existing content

Each solution reviewed offers a repository where reusable content can be stored. Controls such as roles- based access and check in/check out features ensure that only authorized users can access content and reduces the risk of versioning issues. All participants have the ability to connect to client repositories such as FileNet, OnDemand, Mobius, and SharePoint, to name a few, and pull artifacts needed to generate communications. Most participants indicated that nearly all clients are using their content repository, however, some clients are using a combination of both.

DELIVERY STRATEGY: MULTI-CHANNEL VS. OMNI-CHANNEL

The introduction of email gave consumers a new way to receive transactional communications. The concept of multi-channel delivery at that time simply meant delivering transactional documents via paper mail or email. Many companies actively promoted electronic delivery with marketing campaigns encouraging consumers to “go green” and shut off paper as a way to reduce their postage expense. Increasing adoption of electronic delivery soon became a high priority for many organizations and those programs boasting high adoption rates were applauded by the industry.

While lowering postage expense was top priority, customer experience was not. Electronically delivered documents were basically a PDF version of the printed document that required customers to click on a link within the email notification and log into a web portal with a logon ID and a password. Document enhancements such as color, graphics, or appealing fonts were not added to improve customer experience. In addition, electronic delivery did not include the marketing and promotional inserts that would have been included in the envelope, resulting in a lost opportunity to cross-sell or upsell new products. Although adoption of electronic delivery may have been high, email open rates were not. This resulted in a lost opportunity to communicate with customers on a regular basis.

Changes in technology introduced new delivery channels to expand multi-channel beyond print and email. Today, multi-channel delivery also includes fax, SMS, web portals, mobile applications, and even social media.

“One of the biggest challenges for an enterprise is effective and consistent change-management for content. Often, due to decentralized governance and loose guidelines, people working in different lines of business across the organization end up creating their own, individual pieces of content for various communications. After a time, there is an almost infinite number of variations sitting, unorganized and unaccounted for, in multiple silos and systems. This is a huge problem for quality assurance and drains resources, especially when change management is deadline-sensitive and regulated. The only cure seems to be to centralized business process governance to ensure consistency and agreement and to drive content and changes with metadata, live tracking, and audits.”

Sohail Malik, VP, Business Solutions
Elixir Technologies

There has been some confusion in the industry with the terms multi-channel and omni-channel, since both have been used interchangeably; however, there is a distinction between the two. While both refer to the availability of communications across a variety of channels, the difference is in the consistency and presentation of the information. Multi-channel delivery is simply communicating with customers via multiple channels; however, the communications may not necessarily have the same look and feel especially if different platforms are generating the communications. With multi-channel delivery, customers choose between channels depending on how they prefer to engage with a company. Channels operate independently with little to no integration between them.

An omni-channel communications strategy enables companies to send consistent, centrally managed communications across all channels, which provides a better customer experience. With an omni-channel strategy, the customer's awareness of distinct channels dissolves since the same information, and look and feel of the communication is available, which blurs the lines between digital and physical communications and experiences.

Cross-channel communication is a newer term being used in the industry. The concept of cross-channel communications further expands the customer experience by allowing consumers to begin an interaction in one channel and finish in another. For example, a consumer might receive a promotional offer on a printed bank statement advertising a new credit card. The consumer may then go to the bank's website or mobile application to complete the credit card application. Cross-channel communications are primarily transactional—changes between channels are invisible to the consumer. Figure 1 below adapted from manageyourmedia.com illustrates the differences between the three delivery strategies.

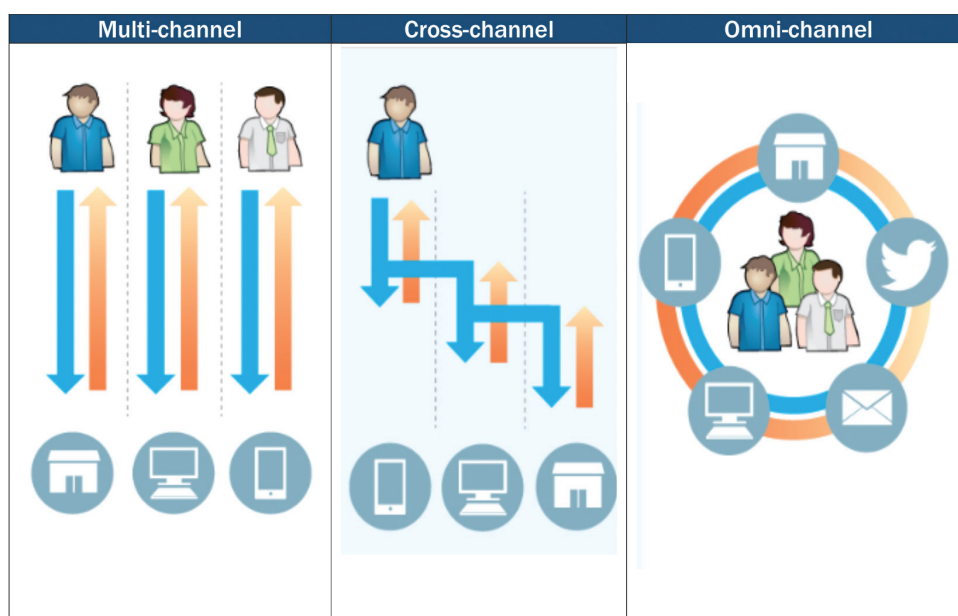


Figure 1 - Multi-channel vs. Cross-channel vs. Omni-channel. Source: manageyourmedia.com

Customer experience management (CXM) strategies have become top priority for many organizations to deepen relationships and increase customer loyalty and retention. As a result, all customer touchpoints from printed and digital communications to in-person interactions are being examined to find ways to enhance the customer experience and increase engagement.

Many clients engaged with Madison Advisors have roadblocks that prevent the execution of a true omni-channel communications strategy, including:

- The use of multiple document composition tools to generate customer communications
- The acquisition of point solutions to deliver communications via a specific delivery channel
- The use of separate templates to deliver the same communication across multiple channels

All of the participants in this study have capabilities to solve these challenges and deliver communications across multiple channels. By designing one communication and selecting variable content to include based on the delivery channel, enterprises using these solutions can provide a consistent omni-channel experience for consumers whether it is batch, on demand, or interactive communication.

BUSINESS USER EMPOWERMENT & USER EXPERIENCE

Business user empowerment has become a significant pivot that changed the way solution providers set themselves apart from the competition. Tasks that previously required IT resources to complete can now be performed by business users such as:

- Designing new or making changes to existing document templates, business rules and variable content
- Mapping source data to data fields within communication templates
- Creating workflow and approval processes
- Creating complex documents that contain multiple components such as policies, contracts, and fulfillment kits

All of the participants in this research were required to give a solution demonstration to address business user capabilities. Each participant's user interface (UI) was designed with the non-technical business user in mind, keeping the code hidden behind the scenes. Many UIs look similar to Microsoft Word, with toolbars that users

are already familiar with. Other features such as drag and drop and business rules that can be created using native language empower business users with capabilities that expedite document creation and change control while reducing reliance on an already overburdened IT department.

When creating business rules, the ISIS Papyrus solution checks the logic of the business rule once it has been created. If the rule is written correctly, the user interface displays a green check mark indicating that the system has evaluated the business rule, checked the data type that was input and the accuracy of the rule, immediately providing feedback to the user during the rule creation process. Madison Advisors views this as a helpful feature, especially when creating complex rules that have multiple layers of if/then conditions.

ISIS Papyrus also features wizard-driven documents that are supported by a thin-client browser architecture. By simply answering prompted questions within the document wizard, business users can easily create complex documents that cater to the specific customer's needs. The associated document process based on business rules dynamically connects to various back-end services to provide required data in real time, records all business user's decisions and automatically assembles the custom-designed document, while taking all relevant regulations into consideration and avoiding possible mistakes or omissions.

Testing can be a tricky area for many enterprises, especially if the source data is not available when new document templates are being created. GhostDraft makes the testing process easier by allowing business users to test newly mapped data fields even if the source data is unavailable.

Document changes can be reviewed and proofed using a side-by-side comparison feature available in Kofax's Customer Communications Manager. Any changes made to the document are identified via an overlay with the changes highlighted in red so that the reviewer can easily identify them during the proofing process.

Inventive Designer's Desktop Designer, part of the Scriptura Engage solution provides an instant preview capability which allows the user to preview the final format of the communication and link a data file with the template in order to preview the output within the tool itself.

"We flipped the model on its head; no longer does IT need to be the center of the universe when it comes to documents. We have a design environment that is usable by a non-technical person; certainly IT has to be involved in that value chain, but they do not have to be the only participant any longer."

Kurt Jackson
Executive Vice President of Sales
GhostDraft

Applications designed for field agents with airSpring Software can have the same capabilities if the agent is either offline or online, which is helpful when they are out in the field without network connectivity. Once the agent is connected to a network, the application synchronizes.

Empowering business users with these types of capabilities speeds up the time to market for new documents as well as the change control process for modifications to existing documents. Change requests, that in the past may have taken months to complete, with several rounds of business requirement validation, have been reduced to hours or even minutes with the numerous capabilities that these solutions have put in the hands of the business user.

CLOUD TECHNOLOGY – PUBLIC, PRIVATE OR HYBRID?

Organizations of all sizes are increasingly adopting cloud-based technology, which provides benefits such as technology related cost efficiency, unlimited storage, easier backup and recovery processes, flexible software integration, easy access to data and information, and quicker deployment. Yet despite these benefits, adoption of cloud-based CCM solutions remains an area of growth as noted by some of the participants in this research, especially those that offer both on-premise and cloud-based solutions, or certain components of their solution in the cloud. Security concerns were noted as the primary reason for slow adoption of cloud technology by certain verticals such as healthcare, insurance, and financial services. GMC and Inventive Designers indicated that some financial services clients prefer to establish a private cloud and deploy the CCM solution within, or simply prefer an on-premise solution instead. OpenText and Xpertdoc specifically noted that the government sector, a highly regulated industry, has also been hesitant to adopt cloud technology for security reasons.

"Data security concerns has led to slow overall cloud adoption. This has only recently begun to change, hence the introduction of INTOUCH."

Top Down Systems

airSpring Software and Direct.One, both established in 2012 are solutions that have been developed from the ground up in the cloud. CLIENT LETTER from Top Down Systems is an on-premise solution; however, increased adoption of cloud-based technology in the CCM industry has led to the development of INTOUCH, its newly released commercially available offering that is cloud-only.

In January 2017, RightScale conducted its 6th annual study on cloud computing trends. The survey asked 1,002 IT professionals about their adoption of cloud infrastructure and related technologies. 48% of the respondents represented enterprises that have more than 1,000 employees. In its study, RightScale noted that the preferred

strategy among those surveyed was a hybrid cloud. In addition, adoption for private cloud fell from the previous year. Amazon Web Services (AWS), Microsoft Azure and Google were noted as the top three public cloud service providers respectively, and that year over year there has been significant growth in the percentage of respondents running applications in the public cloud. This research also indicated that concerns about security decreased from 29% to 25% in 2016.

ISIS Papyrus CCM clients have the option to deploy its fully enabled platform in a public or private cloud. Doxee's solution is also fully cloud based and every component is a cloud service; however, if requested by a client, the same software can be installed on premise. Doxee does not utilize a desktop application or thick client; on-premise deployments serve every capability via web applications, which include workflow design, data management design and document layout design. As an Advanced Technology Partner with Amazon Web Services (AWS), Doxee can provide its partners with a world-wide infrastructure to manage cutting-edge CCM services.

"We have seen very limited demand for cloud deployment because of the tight integration with line-of-business applications which are still mainly hosted on premise. Our customers are looking for on-premise CCM solutions."

Kofax

Inventive Designers indicated that some of its clients are managing their own private cloud and using cloud service providers like Amazon AWS and setting up Scriptura Engage on those cloud platforms. Appendix A provides a summary of the available cloud technology for all participants in the study.

Of all the participants in this study, FIS Output Solutions is the only company that runs a private cloud. Since FIS has the required infrastructure and multiple levels of disaster recovery, it has pursued the private cloud offering to keep security within its own control. FIS has had interest in its cloud solution among financial institutions where the data is already hosted by FIS; however, from a geographical distinction, non-U.S. clients seem to embrace the cloud more quickly. Figure 2 illustrates the differences between public, private and hybrid cloud technologies and Table 1 illustrates the percentage of clients for each CCM solution provider that have adopted cloud technology.

"All our verticals are highly regulated; they are generally slower to host in a public cloud, and want hybrid or on premise deployment models, instead."

Elixir

Whether it is a public, private, or a hybrid cloud model, all of the participants in this study have taken measures to ensure that personal customer data and information is secure, including encryption of data at rest, through the use of secure file transfer protocols (SFTP), or securing links between web servers and browsers with SSL (Secured Sockets Layer).

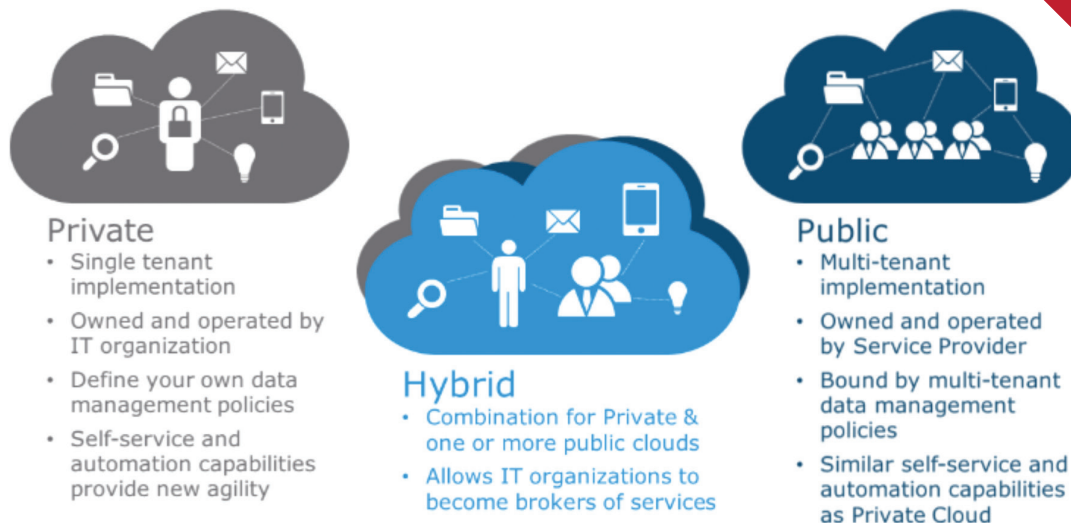


Figure 2 – Descriptions of Private, Hybrid and Public Clouds

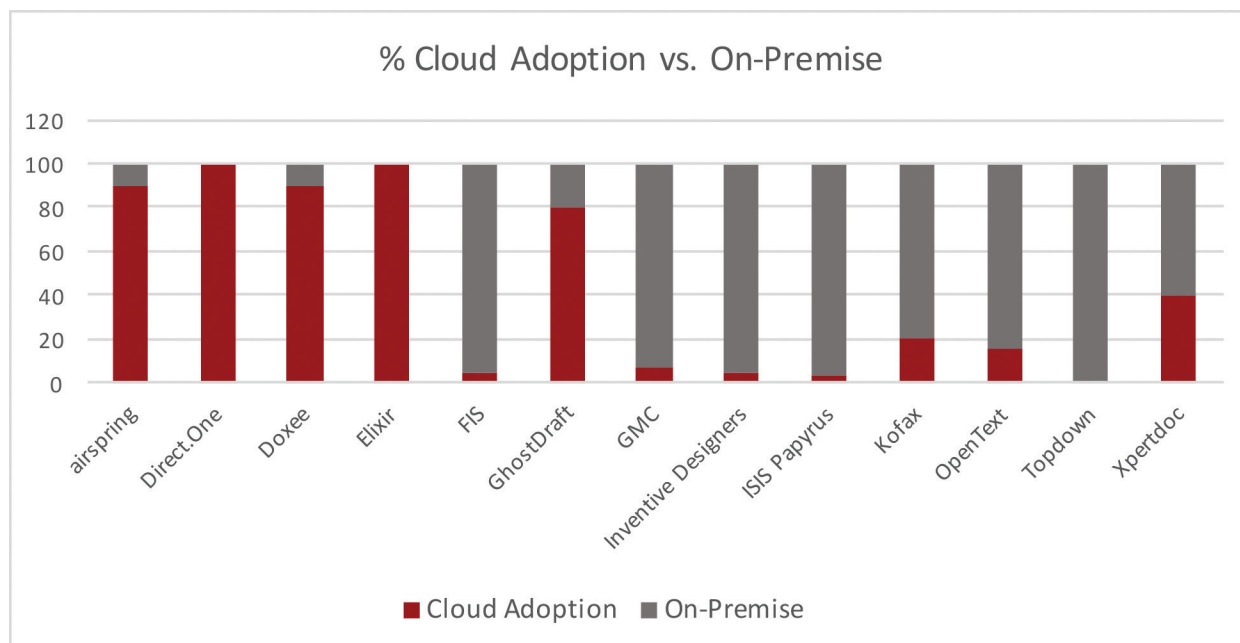


Table 1 – Percentage of customers for each CCM solution provider that have adopted cloud technology

PERSONALIZED VIDEOS

Utilizing personalized videos in customer communications can serve as a marketing or educational tool to enhance customer experience. While most of the participants in the study support personalized video from a content perspective and can either embed a video within HTML output or include a link to reference a video, it still remains an area of growth. The insurance, healthcare, and telecommunications industries have shown some interest in incorporating personalized videos; however, at the present time, this capability is not being actively pursued. According to some participants—from a geographical perspective—personalized videos are not currently on the radar for organizations in Europe and North America; although, a few in the Asia Pacific region have shown some interest.

airSpring Software highlighted sales enablement applications as a common use case for incorporating videos to deliver case studies and other multi-media content during a sales presentation. In addition, healthcare payers are starting to incorporate videos for informed consent of complex and high-risk procedures. GMC partners with technology providers such as SundaySky and PersoniCom to enable video personalization, although it has not seen a high demand from customers (less than 2%) for this capability. OpenText can also provide additional video services by integration with OpenText Media Management, or by passing variable data to SundaySky.

"Personalized video is still an emerging market for us; however, early adopters are telcos and healthcare payers."
OpenText

One participant decided to strategically set itself apart in the industry by investing in video technology and actively promoting personalized videos across its customer segment. Doxee has recently rolled out pVideo, a personalized video solution that is entirely focused on consumer interaction. pVideo has the ability to take data that is often locked up inside a client's legacy system and using Integration Platform as a Service (iPaaS) technology, turn that data into a video. The technology is based on personalized HTML 5 animation and does not require special footage or actors to create the video, therefore, allowing Doxee to deliver a lower cost solution with a faster time to market. pVideo utilizes the concept of user-directed storytelling and creates a bi-directional relationship with the customer. Interactions with the video by the recipient increases engagement, allows the viewer to choose the path that the story will take, and these calls-to-action provide additional opportunity for information gathering and data collection that can drive further personalization. Doxee also added a

"Insurance and healthcare are the verticals that seem to show the most interest in personalized video but it has only been an interest."
GMC Software

multi-language text-to-speech engine that can generate a number of voices, which allows its business partners to bring this technology to clients and support multi-lingual requirements.

While current demand for personalized videos appears to be low, Madison Advisors believes based on the results of this research, this segment of the industry has room to grow once enterprise clients have specific use cases defined and can see the benefit of incorporating this capability into specific complex customer journeys. Tables 2 and 3 provide a summary of personalized video support for all of the participants in the study and a legend, respectively.

"The pVideo adoption in Italy, although slow at first is gaining momentum, especially with major telco and utility companies. However, we are getting interest from financial institutions now as well."

Doxee

SUMMARY OF PERSONALIZED VIDEO SUPPORT

Participant	Creates Video	Supports via HTML	Partnership (3 rd party)	Does Not Support	Can Create
airSpring		●			
Direct.One					●
Doxee	●				
Elixir		●			
FIS		●			
GhostDraft				●	
GMC		●	●		
Inventive Designers		●			
ISIS Papyrus		●			
Kofax		●			
OpenText		●	●		
Top Down Systems		●			
Xpertdoc		●			

Table 2 – Support for Personalized Videos

Legend	Support for Personalized Video
●	Creates personalized videos using HTML5 animation
●	Does not create videos but supports via HTML output (embedded within or link to video)
●	Supports video through technology partnership with a 3rd party (SundaySky, PersoniCom)
●	Does not currently support video
●	Has created video for one client; however, not a primary focus

Table 3 – Legend for Personalized Videos Support Table

SOCIAL MEDIA

To say that social media has taken the world by storm is an understatement. Social media adoption continues to increase and organizations are creating strategies to incorporate this channel into marketing and communication strategies. Facebook, the top social media site in the world was launched for a limited population—Harvard college students. As of January 2017, Facebook has grown to 1,871MM users. Other popular social media sites include Twitter, launched in March 2006 with 317MM users, and WeChat, which began in January 2011 and now has 846MM users. Table 4 references adoption of social media sites.

The moral of the story is that social media is here to stay; however, its popularity can be a double-edged sword for organizations—whether they have a social media strategy or not. From a marketing perspective, social media is an inexpensive way to promote a brand, generate leads, and directly communicate with a large population of consumers; however, it can also serve as a megaphone for a dissatisfied consumer to report a poor or negative experience, which can ultimately reach an exponential number of users and ultimately become a poor reflection of the brand.

Madison Advisors asked participants about support for and adoption of social media as a delivery channel. Nine participants provide support for social media as a delivery channel, mostly through social media connectors or APIs. The most popular social media sites noted were Facebook, Twitter, and WeChat, yet client adoption rates still remain low and average less than 5%. Verticals that are early adopters of social media as a delivery channel include financial services, banking, insurance, and telecommunications.







Number of Users on Popular Social Media Sites In Millions as of January, 2017		
		
1,871 MM	317 MM	846 MM
		
600 MM	1,000 MM	550 MM

Table 4 – Adoption of Popular Social Media Sites
(source SmartInsight)

"For now we support only Twitter. Facebook is on the roadmap. Customers are asking more and more for social media channels, but no customers are actually using them."
Inventive Designers

"We only support social media direct messages, like Facebook Messenger chatbots to deliver documents and information. We are now integrating our cloud platform to iPhone iMessage for document delivery and are waiting for the official API from WhatsApp and Google Android Messaging RCS."
Direct.One

Customer communications management has historically focused on outbound communications. Although many outbound communications typically incur an inbound response on the part of the recipient, these two activities have not been typically joined together from an overall CXM strategy.

Outbound communications strategies are primarily focused on ways to enhance customer experience and increase engagement, so many organizations are utilizing customer journey mapping to better understand the steps a customer must go through in order to conduct business with them. Successful journey mapping initiatives must consider all customer touchpoints and delivery channels, including print, email, mobile application, web, social media, call center, and in person.

Strategies for inbound communications focus on process improvements and cost reduction specifically for the inbound mail processing center. Now, with additional communication channels and the variety of customer touchpoints, these strategies need to expand their purview to incorporate technology that captures pertinent customer data and information from all customer touchpoints such as call center (IVR) technology, social media, email and SMS to provide a full 360-degree view of the customer.

More than half of the participants in this study have some form of response management capabilities for inbound communications, including but not limited to:

- Tracking and storing delivery events associated with registered mail and responses returned to the originator
- Data collection from electronic or interactive HTML forms passed on to other systems as part of a workflow to generate an associated outbound communication
- Email monitoring to identify and process email bounces

Based on this research, Madison Advisors believes that three of the participants in this study stood out from the rest in the category of response management for inbound communications.

- ISIS Papyrus provides response management as a native capability. Due to the dynamic, state-driven and event-driven character of the system, any incoming data and feedback such as a receipt of a letter, phone call, fax, or email arriving on an inbound channel is treated as an event. Events are tracked and immediately handled as tasks in a process which then executes fully automated, semi-automated, or manual business responses based on business rules and the needs of the business.

- Elixir integrates with social media and call centers and uses rules-based and logic-based routing of incoming communications and outgoing responses.
- Kofax provides inbound response management through its companion product Kofax TotalAgility, which is a full-featured business process management (BPM) and case management solution. TotalAgility has an event-based capability to listen and respond to internal and external events, such as receipt of an email or document based events originating in an ECM solution. These events can trigger processes defined within TotalAgility to manage responses automatically or route a communication to an employee or team to handle. TotalAgility's capability to capture and understand inbound documents across multiple channels provides further support for a two-way customer communications strategy.

PROFESSIONAL SERVICES: THE PEOPLE AND PROCESSES TO IMPLEMENT THE TECHNOLOGY

Enterprises that purchase CCM technology want to make effective use of and generate a return from that investment. Simply selling software and offering installation assistance will not guarantee the desired outcomes enterprises are seeking. All of the participants in this research have a professional services (PS) organization that provides some level of support to new clients during the implementation process.

Among all of the participants, FIS Output Solutions, Kofax and OpenText have the largest professional services organizations. FIS Output Solutions offers design services for financial institutions, insurance companies, and utilities, and at the product level, CSF consultants provide implementation services around the entire CCM suite, including document design and testing. OpenText Professional Services (OTPS) is a world-wide organization with over 1000 business and technical consultants. Utilizing its standard Global Deployment Methodology, OPTS focuses on creating customer value through a delivery roadmap and strategy based on client business needs. Kofax has a global professional services organization that offers a broad range of services for all phases of implementation, including but not limited to, requirements and architectural analysis, solution design, integration assistance, template development, testing, and project management.

The go-to-market strategy for airSpring Software and Doxee is through direct sales and partners. airSpring has a professional services organization that provides client training, initial application development and support for ongoing application changes; however, if clients decide not to do in-house application development or maintenance, then airSpring encourages its partners to provide professional services. Since airSpring has less than 25 employees, this model makes sense. For its direct sales, Doxee has a professional services staff that is responsible for addressing customers at the beginning of the sales process. The staff is also responsible for the technical section of the proposal, proofs of concept, if required, deployment for on-premise solutions, project

implementation, training, handover, and providing support to clients post-implementation. After the professional services team has completed its effort, the application is handed over to Doxee's service desk. Doxee's global partners follow the same approach and provide similar services.

GhostDraft has a slightly different approach to professional services and typically provides assistance to customers that are implementing their first project. Using agile methodology, GhostDraft recommends that new clients break their documents into logical groups and implement those small groups incrementally. This process provides clients with the quickest time to value and improvement opportunities uncovered in the first sprints and can be applied to later ones.

GMC's professional services organization is 100 strong. This team supports customers using its implementation methodology and provides architecture, planning, implementation, upgrades, migration, and other expert services across the GMC family of products.

Depending on client requirements, available resources, and the internal project organization, Inventive Designers will act as a technology partner, competence partner, or a solution partner. Similarly, Top Down Systems assigns a PMP certified project manager to each implementation and depending on the scope of the engagement, will assign additional resources depending on the client's available internal resources.

Implementation, consulting, and training are common services offered by professional services groups. ISIS Papyrus and Direct.One offer these services for their clients. The implementation team assigned by Xpertdoc typically has 3-5 resources who have project management, business process, analysis skills, and strong insurance-specific forms management knowledge. Other team members include an integration specialist to help with enterprise integration and designers to assist with forms and templates.

"Our strategy relies on our partners because we understand that their knowledge of the local market is crucial for the success of project implementation."

Doxee

Madison Advisors' Customer Communications Management (CCM) Solutions

Market Study, 6th Edition features two organizations that entered the industry since the publication of our last research report, and a third organization that made its new solution commercially available in 2017. A brief overview of these solutions is provided below.

airSpring Software was established in 2012 with the idea to develop a platform that accelerates how businesses bridge the gap between legacy systems and modern digital experiences. A fundamental difference between airSpring and traditional CCM solutions, is that airSpring started with the user experience, with specific focus for on-demand and interactive types of applications. airSpring offers countless design elements to provide a modern day experience across any mobile or web device. The entire airSpring platform—for the design, deployment, and management of applications—as well as the applications created with the software, all run in the cloud. With airSpring Software, communications that are highly personalized can be generated and delivered across mobile, web, and print channels.

2012 also saw the introduction of Direct.One, a company based in San Paulo, Brazil, which services a variety of verticals, including insurance, healthcare, banking and credit card, retail, and telecommunications. The Direct.One solution generates, delivers and analyzes multi-channel communications. A few key differentiators to the Direct.One solution include the use of blockchain technology, artificial intelligence, and chatbots. Workflows for multi-channel communications can be automated using simple drag and drop features within the graphical user interface. Analysis of communications results and customer engagement provided through the Direct.One dashboard provides a unique view of customers and history of interactions. In addition, since the Direct.One solution is 100% cloud-based, the platform utilizes artificial intelligence to perform predictive modeling for scenarios such as customer churn rate and next best offer. The software and user interface for Direct.One currently supports Portuguese; however, English and Spanish are on the roadmap for the future.

Top Down Systems is not a stranger to the CCM industry and has been offering CCM solutions for nearly 40 years. CLIENT LETTER is an on-premise solution for designing, managing, and personalizing interactive customer communications, which leverages the familiarity of Microsoft Word

"The genesis for airSpring came from watching my teenagers who don't open (paper) mail or even look at email, especially since entering college. If it is not digital, they do not look at it. CCM needs to support and converge with that desired digital experience."

**Neal Gottsacker, President & CEO
airSpring Software**

"In the early days of our company, many clients decided against cloud technology; however, today, people are asking for cloud solutions because they know that with it they can scale, it is less expensive and faster. We believe that public cloud adoption and distributed Blockchain technologies will be bigger in the future, which is why we never invested in on-premise architecture."

**Fernando Wosniak Steler
Founder & CEO
Direct.One**

to create templates and maximizes end-user productivity using a browser-based editor. CLIENT LETTER was designed with the non-technical user in mind, and can be used to generate correspondence, enrollment kits, identification cards and other communications. Top Down's INTOUCH is a 100% cloud CCM solution built using open source software and open standards. It is designed to share content, data, and processes across organizations for a more consistent customer experience across journeys and touchpoints. Top Down officially launched INTOUCH at Document Strategy Forum in May, 2017.

The three new entrants to the market have strategically developed their CCM solutions to fill what they believe is a gap between competitive offerings in the market today and future trends in technology that may drive new client requirements. Madison Advisors believes that these technology solutions will make their mark and have an impact on an already competitive industry; however, the challenge they will need to overcome is customer awareness and name recognition. Phil Knight, former Chairman of Nike once said, ***"You can have the best product in the world, but if nobody knows about it, what good is it?"*** The key for these companies will be their go-to-market strategy, getting in front of the right decision makers at potential new clients, and raising awareness about what their respective brand has to offer. In addition, customers who still prefer an on-premise solution over cloud technology may hesitate to consider cloud-based solutions and thus look to an alternative.

Getting in the door and talking to the right people within the organization is a challenge, especially since the decision to select a solution for CCM no longer falls within the hands of IT—it is an enterprise solution that needs input from marketing and business users as well. Determining who to start the conversation with to get a foot in the door is key.

Strategies for customer communications management and customer experience management are becoming more intertwined. Many organizations have added a new "C" level executive position such as a Chief Customer Officer (CCO) or Chief Experience Officer (CXO) with enterprise-wide responsibility for customer experience and are becoming more aware of how CCM impacts that experience.

"We are bringing INTOUCH to market because we are seeing three things in the market: an increase in deployment to the cloud; the continued use of micro services both for applications that are built and the way they are integrated and; an increase in the consumerization of business software."

**John Zimmerer, Senior Director Marketing
Top Down Systems**

"Some corporations prefer to buy from Gartner's Magic Quadrant; if you are not identified as a leader in the quadrant, some of them will not look at your solution. However, enterprises are now looking differently at startups, since they want to disrupt how business will be."

**Fernando Wosniak Steler
Founder & CEO, Direct.One**

"Since the company is fairly new, our challenge is simply getting in the door and figuring out who to talk to. We are a newer company and just getting the word out about our existence is important and we need to articulate our message in the CCM space."

**Neal Goftsaker, President & CEO
airSpring Software**

THE FUTURE OF CCM: WHERE IS THE MARKET HEADED?

The philosopher Heraclitus said, **"The only thing that is constant is change."** Although he was born in 535 BC, this sage notion is timeless. He may well have been referring to customer communications management (CCM) in the 21st century. CCM has witnessed an explosion of technology and innovation that has changed the way businesses interact with consumers, and the driver of this change has been technology and consumer willingness to adopt it. Smartphones and mobile applications have given consumers the ability to obtain information anytime, anywhere, and from any device. The impact on how business interactions have changed as a result of technology and innovation is nothing short of momentous.

Madison Advisors believes that organizations will continue to make significant investments in strategies to improve customer experience; however, the breadth of CCM needs to expand and include outbound and inbound communications to ensure consistent experiences across all customer touchpoints and to complete the document lifecycle. The introduction of emailed communications led to many predictions that printed documents will go away; yet despite a decline in print and mail volumes, highly personalized, colorful printed communications can play an important role in cross-channel experiences, which allow consumers to begin an interaction in one channel and finish in another. Marketing strategies and automation tools can no longer operate in silos; therefore, presale and any communication generated throughout the onboarding process and during the entire customer relationship should be consistent.

As a part of this research, Madison Advisors discussed the future of CCM with several participants to understand their perspective on the industry. While some predictions may have differed, the two common themes were: changing technology and the focus on customer experience. To quote John F. Kennedy: **"Change is the law of life and those who look only to the past or present are certain to miss the future."** The future of CCM will not be told through a crystal ball. Madison Advisors expects that a key driver for change and its impact on customer

"Awareness and getting in front of the right person are both intricately intertwined. It is not just the lines of business that are driving the buying process, marketing and chief customer officers are getting more and more involved and beginning to understanding the role of CCM in customer experience."

**John Zimmerer, Senior Director Marketing
Top Down Systems**

"Customers search for information on the internet and have power; they can make or break your brand. The world is changing, customers are changing. The key is how you position yourself in this new world."

**David Geleyn, Chief Technology Officer
Inventive Designers**

"A closer relationship with marketing automation systems will be more important for CCM."

**Daniel Schmidt, Sr.
Product Marketing Manager, Kofax**

experience will be a continued adoption of new technology that integrates an optimized CCM platform which delivers on consumer expectations and provides a streamlined customer experience. For CXM and CCM strategies to be successful, the latest trends in technology should be incorporated to create synergies that improve customer journeys across all touchpoints, and integrate both inbound and outbound communications to create a 360 degree view of the customer.

"I believe that the industry will put even more responsibility into the business by providing more business enablement. In addition, I believe that more range of delivery channels will broaden with messaging bots integration where answers will be provided to consumers based on the context of the customer message or inquiry."

David Geleyn
Chief Technology Officer
Inventive Designers

"We are having more conversations around HTML 5 and what can be done with it. Our clients are starting to get beyond their operational issues and focusing more on digital and how HTML 5 can be stored and presented in a hosted model, which is something we are looking at."

Brian Paulson
Vice President of Sales
FIS CCM Solutions

"I anticipate that there will be a terminology change and CCM will now become CXM because the focus is on managing the whole journey. Journey mapping will become critical to deploy omni-channel campaigns and we may start to see more crossover with marketing technology players on the front end and thus a push for CX suites."

Arianna Valentini
Portfolio Product Manager
GMC Software

APPENDIX A: SUMMARY OF AVAILABLE CLOUD TECHNOLOGY

Participant	Cloud Enablement	Client Adoption %
airSpring	The entire platform for design, deploy and management of applications as well as the applications created all run in the cloud. On premise is also supported for some clients.	90%
Direct.One	The whole solution is based in SaaS Cloud	100%
Doxee	Cloud is the primary delivery model; every component is delivered as a cloud service. However, the same software can be installed on premise upon request. On-premise deployments serve every capability via web applications, including workflow design, data management design and document/layout design.	>90%
Elixir	Entire solution developed from the ground up using SaaS architecture and browser delivery.	100%
FIS	FIS runs a private cloud to keep security within its control since it has the required infrastructure and multiple levels of DR. Available components include: full control over message content and correspondence templates (ad-hoc, system generated or interactive), segmentation and insertion rules. Workflow and review and release also supported.	<5%
GhostDraft	The production environment of GhostDraft is offered in the Cloud, including the GhostDraft interactive UI.	80%
GMC	Current cloud offerings available via InspireCloud.net: Inspire Messenger, GMC Cloud Approval, Inspire Customer Journey Mapping, Preference Management, Inspire Insights, Inspire Cloud Interactive, Mobile Services, Inspire Scaler, and Direct Mail Onboarding.	7%
Inventive Designers	The following cloud solutions are offered: Email testing for testing and previewing emails; Link tracking in emails, tweets, social media messages, and websites; Web designer which is a cloud-based solution to edit and create responsive html templates; and Mobile synchronization to store all data and synchronize with mobile devices for offline availability.	5%
ISIS Papyrus	The Papyrus CCM platform is fully cloud-enabled. All components can be run in the private or public cloud.	3%
Kofax	All components required for interactive and on demand capabilities are offered in the cloud, including the fully browser based designer.	20% using a cloud solution hosted by partners
OpenText	All current and active CCM solutions are available in the Cloud. Most, but not all components can be configured for all Cloud deployments.	15%
Top Down Systems	CLIENT LETTER is an on-premise solution only; INTOUCH is 100% cloud based. [INTOUCH is scheduled to be commercially available in 2017]	0%
Xpertdoc	The entire platform can be on premise or cloud-based.	40%

APPENDIX B: VENDOR PROFILES

AIRSPRING SOFTWARE			
Company Headquarters	Lexington, KY USA		
Year Founded	2012		
Target Market / Vertical Focus	Technology (40%), Manufacturing Services (20%), Healthcare Providers (20%), Financial Services and Insurance (20%)		
# Customers	20+	# Sales Representatives	6
# Employees	24	# Developers	14
2015 Revenue	Not disclosed		
R&D Spend (% of revenue)	Not disclosed		
Product Overview	<p>airSpring is used to create, deploy and manage configurable applications as well as document- and UI-oriented microservices to digitally transform client and employee facing experiences. airSpring Designer is a browser based development platform to visually design and test role-based mobile-responsive applications and microservices. The platform supports full application management including user authentication integration, data source definition, server management, operating dashboards, change management, and digital asset management. The airSpring runtime environment can be defined to support enterprise processes such as development, UAT and production. The runtime includes a load balanced container environment to simplify DevOps.</p> <p>Use cases appropriate for airSpring include workflow automation involving data collection and forms, proposals, kits, marketing collateral with CRM integration, agreements, correspondence, HTML email, and operational real-time reports.</p>		
Differentiator(s)	<p>airSpring is used to implement user workflows by providing navigation to appropriate screens or documents throughout an application process. The workflow can consist of various steps that occur both online and offline. If offline, airSpring supports information to be collected and then synchronizes with systems of record on reconnection. This inherent feature of airSpring provides for many field-facing activities such as sales and client reviews. For workflows requiring approval / rejection, routing and notification, airSpring clients can use airSpring Workflow microservices to process forms based on client specific workflows.</p> <p>airSpring is unique in its ability to allow developers to visually create and deploy CCM deliverables as microservices. airSpring web services can be utilized by airSpring applications, other web services, or applications created outside of the airSpring platform. Built-in airSpring actions to read/write data, create PDF documents, perform custom logic, send email, bundle PDFs and automatically fill interactive PDF forms are all available as discrete capabilities that can be chained together in deployed web services. airSpring provides single click deploy and management of applications with controlled version rollout, consolidated logging, integrated performance tracing as well as OS and application dashboards. The airSpring runtime environment scales across any number of servers.</p>		
Languages Supported	airSpring applications support hundreds of languages including multi-byte languages. Locale support and translation table support are integrated features of the platform.		
Pricing Model	OEM, subscription and perpetual plus maintenance pricing models are offered.		

DIRECT.ONE			
Company Headquarters	San Paulo, Brazil		
Year Founded	2012		
Target Market / Vertical Focus	Insurance, Healthcare, Banks & Credit Cards, Retail & Private Label, Telecom		
# Customers	15	# Sales Representatives	5
# Employees	40	# Developers	25
2015 Revenue	\$10MM USD		
R&D Spend (% of revenue)	2016 \$3MM / 2017 \$4MM		
Product Overview	<p>Direct.One is a cloud-based CCM solution which generates and delivers multi-channel transactional documents and messages. Communications can be delivered via email, SMS, IVR, chatbots as well as through print. Multi-channel communication flow automation provides for the orchestration of digital and printed messages, with document management and trans promotional messaging. Analysis of communications results and customer engagement is provided through a dashboard that offers a unique view of customers with a history of interactions. Artificial Intelligence calculates customer churn and provides a score of customers while Business Intelligence tools offer analytics on delivery of communications for both print and digital.</p>		
Differentiator(s)	<p>Direct.One's solution incorporates the following technology:</p> <ul style="list-style-type: none"> • Blockchain - All documents generated in Direct.One SaaS solutions, such as contracts, statements, certificates, insurance policies etc., are validated and time stamped using SmartContracts Ethereum Network Blockchain technology. • Artificial Intelligence (AI) - Direct.One stores all historic data inside its SaaS tenants, data is trained using Direct.One's Artificial Intelligence solution using Machine Learning techniques. By doing this, the solution is able to understand and predict whether customers will or will not renew contracts (churn) or even understand the next best offer, using the best scored channel and date/time to deliver the message. • Chatbots - the Direct.One SaaS solution is able to deliver transactional documents directly to Messengers chats, like Facebook Messenger, Slack, Skype and Telegram. For chatbots, Direct.One uses intelligent language based on NPL (Natural Programming Language). 		
Languages Supported	Currently only Portuguese; Spanish and English are on the roadmap.		
Pricing Model	Subscription and transactional monthly fee.		

DOXEE			
Company Headquarters	Modena, Italy		
Year Founded	2001		
Target Market / Vertical Focus	Direct Sales: Telco (30%), Media (10%), Utility (30%), Financial Services (20%), Insurance, Public Sector (10%) Partner network with: BPOs, digital system integrators, vertical application vendors, cloud providers		
# Customers	260 direct + 15 partners with their own (largely undisclosed) customer base	# Sales Representatives	10 direct sales (Italy); 7 sales/pre-sales international 71 in Doxee business partner organizations
# Employees	83	# Developers	30
2015 Revenue	\$19MM USD		
R&D Spend (% of revenue)	2016 - 10% sales / 2017 - 10% sales (planned)		
Product Overview	Doxee offers multi-channel delivery of communications through its cloud-based solution and services for CX and CCM. Doxee can accept raw data and apply transformation, enrichment, sorting and dispatching techniques to supply multiple channels according to the customer's requirements. The following channels are offered: mail delivery (in selected countries, Doxee covers the process to the mailbox with partners), print spool (AFP, PDF, PS, and PCL), email, SMS, fax, eDox Interactive Communications (HTML5 personalized, interactive, responsive applications), and personalized video.		
Differentiator(s)	Doxee differentiates itself in the CCM-CX market space with its unique application Platform as a Service (aPaaS) offering, which is a cloud technology that allows its business partners to offer a SaaS CCM solution to their enterprise clients. The benefit of aPaaS includes high-productivity tools, faster time to market, lower IT costs and a scalable, flexible architecture for CCM-CX document generation. Doxee's sales and support employs an international, partner-centric business model through a network that spans North America, EMEA, LATAM and APAC. These partners are not resellers but instead develop custom, Doxee-driven SaaS applications based on the precise needs of their client. Lastly, Doxee focuses on developing solutions that deliver integrated, interactive solutions without major investments in IT resources and the complexities required to deploy effective CX-CCM solutions quickly and efficiently. This differentiator is referred to as "Cloud C2X" which refers to two customers whose needs must be met equally - the end users and the enterprise that serves them. Doxee's interactive eDox and personalized video (pVideo) solutions/services, provide a highly relevant, dynamic experience for end customers can be deployed separately or uniquely "fused" together.		
Languages Supported	English, Spanish, German, French, Czech, Italian		
Pricing Model	Direct Sales SaaS: Charge for services based on clicks, with different rates depending on output channels. On-premise: The license and maintenance fees of each of the 12 modules offered is fixed and based on a price list, with the exception of document production services which also consider the size of the servers used. Partner Royalties PaaS: 2 models offered: "Dedicated" provides a dedicated PaaS to customer; per click charges based on expected monthly thresholds. "Shared" provides an account for the partner on a shared PaaS. It is intended for low volume, fast onboarding applications, especially relevant in personalized video. It is charged per click at different rates from "Dedicated."		

ELIXIR (AKA TANGO+)			
Company Headquarters	Ojai, California USA		
Year Founded	1985		
Target Market / Vertical Focus	Insurance (22%), State & Government (17%), IT Services (15%) Banking (15%), Financial Services (8%), US Healthcare Plan Payers (5%), Manufacturing (4%), Education (3%)		
# Customers	26 Tango+ clients	# Sales Representatives	9
# Employees	240	# Developers	170
2015 Revenue	Not disclosed		
R&D Spend (% of revenue)	Not disclosed		
Product Overview	<p>The flagship Elixir (called Tango+ during development) digital communication application platform was developed from the ground up for the Cloud, and SaaS go-to-market strategy. Elixir is delivered 100% through browsers, and requires no additional client or IT resources, hardware, or software (zero footprint). Elixir can also be deployed using a hybrid cloud model for regulated clients with on premise data centers and production cycles that happen either on or off premise, with 3rd party vendors.</p> <p>Elixir provides web content management WCM, a highly scalable online portal framework, high availability, failover support, and multi-tenant environments for enterprise clients. Elixir supports all critical components for enterprise content (ECM) and customer communications management (CCM), including a unified Cloud repository for content, data, design, and information governance, content and document authoring functionalities, along with a robust set of reusable template applications.</p> <p>The application design and development system is accessible using Elixir's enlightened user interface, a system-wide GUI that enables end users across functions to participate in the lifecycle of communication and content management. Elixir provides configurable, role-based access permissions for administration users and integrates easily (Open API architecture is system-wide) with ID management and Active Directories. Integration capacity, data input flexibility and support, along with Elixir's powerful business rules engine power configurable, content-process to enterprise-wide (scalable) review, approval, request, and intake workflows.</p> <p>Elixir solutions and applications support omni-channel delivery and single sign-on (SSO) protocols. Elixir's complete audit trails, reporting, and live tracking capabilities enable real time data visualizations/dashboards, as well. Elixir technology provides the full suite of capabilities to manage customer and enterprise communication lifecycles. Elixir describes the experience of its digital software platform and Agile DevOps services and support this way: "Design, Configure, Manage, and Adapt."</p>		

Differentiator(s)	<p>Elixir has evolved highly effective capabilities with data input and output, in terms of software and services. Elixir provides test data services to mask data for preproduction/staging/secure collaboration and compliance. Elixir supports data input directly from the database and/or from multiple sources/silos, and its Cloud repository for digital assets supports a single source of truth for static and dynamic data and information management and governance. Elixir technology and services resolve and format data for communications cycles and support consistency and agreement for enterprise data initiatives and governance.</p> <p>Elixir's design-led user interface lets business users manage their own work safely. The unified repository secures and houses variable assets, approved and current content, and masked data for design and preproduction cycles. The solution includes full, live tracking and audit trails, storage, and archival in hi-quality digital (pdf, et al) file formats, and offers both standard and configurable options for storage, search, meta data, tagging, navigation, and retrieval functions. Elixir has deep vertical experience and expertise with highly regulated sectors of the global economy including US Healthcare Plan Payer, Insurance, Financial, Education, Manufacturing, and Government.</p> <p>Elixir implements focused solutions and best practices for people/training, process/BI, and digital technology, and delivers timely and future-proofed workflows with governance. Elixir continuously adjusts and evolves both agile and focused/customized iterations of its proprietary technology for clients.</p>
Languages Supported	Elixir supports any language, Arabic, Chinese, and English.
Pricing Model	Elixir deployments are configurable, many are hosted in hybrid, HITRUST / HIPAA certified Cloud environments, for clients that have (on premise) data centers and/or third party production cycles.

FIS OUTPUT SOLUTIONS – CSF DESIGNER			
Company Headquarters	Jacksonville, Florida USA		
Year Founded	1968 (as Systematics)		
Target Market / Vertical Focus	Banking / insurance (60%), Utilities / home services (25%), Health insurance (5%) Print service providers / Other (10%)		
# Customers	300 licensed 750+ hosted / ASP model	# Sales Representatives	7 sales engineers supporting 300+ strategic sales reps worldwide
# Employees	350	# Developers	40 dedicated to CSF Designer
2015 Revenue	Not disclosed		
R&D Spend (% of revenue)	Not disclosed		
Product Overview	<p>CSF utilizes a single template design architecture for batch, on-demand or interactive communications, which provides the user with the advantage of being able to create a file in on-demand or interactive mode and then store it to run as batch in the back-office print operations. A single template will also drive multi-channel interactions with the capabilities of assigning and formatting content based on viewing method, and it can create all of the output capable within CSF.</p> <p>CSF has an easy to use GUI, for all of its products including DesignerWeb and Intuition with UIs that are aimed at business users. Built in wizards and aids assist with complex activities such as creation of business rules, and improve employee productivity. These interfaces enjoy high adoption with end-users and in many cases allows business analysts to assume responsibilities for document maintenance while allowing marketing and compliance users to manage their content directly and from offices around the world.</p>		
Differentiator(s)	<p>The integration of CSF into the FIS services business differentiates the solution with:</p> <ul style="list-style-type: none"> • integration into the 8 primary banking cores that FIS sells/supports with the financial services industry • ongoing integration with several product solutions within the SunGard acquisition which further cements CSF in the insurance and wealth management space • direct integration between CSF and FIS Biller Solutions (EBPP) allowing any document changes to flow to both print and electronic without double coding • integration to pull in X9.37 images natively into CSF for on-statement check images (whether using FIS IP or others) <p>CSF is used in FIS document and print operations throughout North America, Brazil, UK, Germany and Australia and provides the ability to deliver CCM services around the world.</p>		
Languages Supported	Full Unicode supported for composing document templates. Documents can be composed in any language supported by the Windows operating system.		
Pricing Model	<p>Server components are sold using a server, site or enterprise model. Client authoring and editing solutions are sold using the seat, concurrent or enterprise model. Business unit licenses for limited use applications and implementations are also offered.</p> <p><u>Hosted models</u>: price by transaction (documents or images created) or accounts on record.</p> <p><u>SaaS models</u>: click fees per impression of output produced. The current model does not charge a user subscription fee but a monthly hosting or program fee has been added.</p>		

GHOSTDRAFT			
Company Headquarters	Toronto, ON Canada		
Year Founded	1978		
Target Market / Vertical Focus	Property and Casualty Insurance, Life Insurance, Health Insurance, Legal, Financial Services (wealth management, card services, retail banking), Telecommunication and Utilities, Print Service Bureaus		
# Customers	7,200+	# Sales Representatives	6
# Employees	125	# Developers	12
2015 Revenue	Not disclosed		
R&D Spend (% of revenue)	Not disclosed		
Product Overview	<p>GhostDraft can operate as a standalone customer communications management system completely independent of any core system. Using GhostDraft, users can interactively enter customer data and make desired selections to drive document logic and produce documents. GhostDraft is ideal to replace Word-based CCM attempts and standalone Word usage for customer communications management. GhostDraft is efficient, eliminates errors and omissions, and ensures compliance.</p>		
Differentiator(s)	<p>GhostDraft has a unique perspective on CCM and looks at the requirements from the customer's perspective. GhostDraft was created to help companies create an excellent customer experience through written communications via digital and physical channels. GhostDraft has a document development environment that allows a non-technical user to be able to create, test, and manage customer communications independently. GhostDraft does not require a core business application to provide development/test data or schema; instead, it validates logic and behavior of the customer communications independent of the production environment. Template development is unencumbered by the considerations of the calling application.</p> <p>With simple, fast, and robust integration capabilities, GhostDraft is easy to integrate with and makes it easy and quick to access GhostDraft document templates from virtually any calling application. GhostDraft document templates are not directly linked to any specific calling application. GhostDraft provides flexibility and access to document templates, regardless of the application using the GhostDraft templates.</p>		
Languages Supported	Documents can be generated in any language using the Unicode font model, including double byte languages. The UI for GhostDraft is in English.		
Pricing Model	No pricing difference between on premise and cloud deployments. GhostDraft is a subscription service with no up-front license fees. The minimum subscription is 12 months. All GhostDraft modules and associated maintenance are included in the subscription fee. There are no optional modules. All inputs and output are included, as are all copies of GhostDraft Studio, the design environment. GhostDraft pricing is based on a customer's business application use and the capacity used.		

GMC INSPIRE			
Company Headquarters	Appenzell, Switzerland		
Year Founded	1994		
Target Market / Vertical Focus	Insurance (35%), Financial Services (30%), Health Insurance (5%), Service Providers (25%), Telecommunication / Utilities (5%)		
# Customers	1650	# Sales Representatives	75+
# Employees	680+	# Developers	250+
2015 Revenue	\$90MM		
R&D Spend (% of revenue)	17-20% of previous year revenue		
Product Overview	<p>GMC provides omni-channel design from a single user interface, which take less time, delivers better experiences, and reduces cross-channel coordination and regulatory errors. No separate templates are needed for the same communication for multiple channels.</p> <p>GMC Inspire allows users to take a one-to-many template approach for deploying omni-channel communications. This capability is native to GMC Inspire, allowing users to share assets and content across channels. GMC Inspire leverages Dynamic Communications, a HTML5 responsive design output, allowing for communications to be optimized per the intended output, including print ready PDF, web, mobile, or email.</p> <p>Through GMC Mobile Advantage, users also deploy omni-channel communications to web and mobile applications. This has allowed GMC to uniquely solve a critical problem in CCM - ensuring cross-channel consistency.</p> <p>The GMC Inspire design interface also creates cross-channel previews for mobile, tablet, web, email and print in real time, no compile work required. This allows users to proof omni-channel communications in a single interface.</p>		
Differentiator(s)	<p>The entire portfolio is integrated with Social Commenting to facilitate collaboration for desktop, web, and mobile design experts, while connecting to the CX team via a customer journey mapping paradigm that connects all communications (inclusive of all channel manifestations) to a single view of an enterprise-wide customer communication strategy. This is supported in both thick and thin web client browser cloud which is then tied to on premise users.</p> <p>GMC Inspire has integrated the delivery of communications to platforms not often included in enterprise infrastructure. Inspire can deliver email, SMS, and push notifications to apps quickly and easily via the inspirecloud.net, a set of cloud services and the Inspire Mobile Advantage SDK.</p>		
Languages Supported	GMC Inspire supports software and documentation in many languages, including; Arabic, English, Czech, French, German, Italian, Portuguese, Spanish, Japanese and Chinese. GMC is looking to add Hebrew in the next release.		
Pricing Model	<p>The following license models are offered for all of the standard components:</p> <ul style="list-style-type: none"> • Perpetual • Volume • Subscription <p>Depending on product, prices are based on number of users, servers, or usage. Enterprise agreements and special terms that allow clients to access future technologies and unreleased functionality are also offered. Inspire Insights, and Customer Journey Mapping, are subscriptions, because they manage functions, not individual transactions.</p> <p>For transactions, GMC uses "GMC Credits" that are exchanged for services (e.g. SMS, email, storage). GMC Credits are pre-purchased and do not expire. When all the credits are used, customers simply purchase more volume with self-service (credit card) or a PO.</p>		

INVENTIVE DESIGNERS – SCRIPTURA ENGAGE			
Company Headquarters	Antwerp, Belgium		
Year Founded	1994		
Target Market / Vertical Focus	Banking & Financial Services (19%), Government (19%), Insurance (28%), Telco & Utilities (12%), Services (13%), Other (9%)		
# Customers	200+	# Sales Representatives	7
# Employees	65	# Developers	45
2015 Revenue	Not disclosed		
R&D Spend (% of revenue)	38% of product revenue		
Product Overview	<p>Scriptura Engage helps organizations worldwide improve and manage their customer communications by automating and simplifying the creation and delivery of communications. Being 'digital first', Scriptura Engage streamlines the transformation from print to digital.</p> <p>The Scriptura Engage product suite consists of the following modular components:</p> <ul style="list-style-type: none"> • <i>Web Designer</i>: Let business users collaborate while designing responsive and personalized communications in the cloud (HTML5 supported), all within brand and corporate guidelines. • <i>Desktop Designer</i>: Reduce your number of templates by 70% and decrease time-to-market with a WYSIWYG environment to design documents without programming. Support for multi-lingual, styles, reusable components, brand and corporate identity protection and much more. • <i>Mobile</i>: Boost internal and external customer experience by delivering interactive mobile applications and sending clear mobile communications. • <i>Online Forms</i>: Create and deploy intelligent online forms 80% faster without programming. • <i>Communication Center</i>: A central communications hub to create, deliver and follow up customer communications for print, email, online, mobile, archive, social media, push notifications, text messages (SMS) or other channels. Provides an overview of all customer touchpoints. Fallback channels can be set up. • <i>Interactive</i>: Boost customer response rates by personalizing standard communications in real time, while maintaining regulatory compliance. • <i>Process Automation</i>: Automate document creation and execute output processes without programming. Every step of the process can be configured and customized. • <i>Cloud Services</i>: Scriptura Engage provides different cloud services to drive efficiency and speed time-to-market: email proofing, email linking, mobile and web designer. 		

Differentiator(s)	<p>Scriptura Engage has a modular approach, in product (licensing), implementation and pricing, which offers a low-threshold for customers; easier ROI calculation; agile time-to-market.</p> <p>The Scriptura Engage suite is positioned to handle digital and omni-channel management. It supports web forms (browser based or mobile) for intelligent data capture next to the collecting and distribution of customer's touchpoints tracking information to allow customer profiling analytics.</p> <p>Scriptura Engage offers Web Designer, a cloud based and collaborative component that empowers business users to design responsive and personalized communications in the cloud while staying on brand.</p> <p>Template design features include multi-lingual capabilities and other maintenance lowering features such as reusable objects, and a strong 'style' functionality.</p> <p>Scriptura Engage is an open and extensible architecture. Based on Open Standards, the platform offers a flexible solution that can be easily integrated in any environment with technologies and methods that are commonly used to integrate with other applications. HTTP, REST Web Services, SOAP Web Services, JMS enabled queues, FTP, XML, JSON and other technologies are being supported out of the box.</p>
Languages Supported	<p>The Scriptura Engage user interface is currently in English only. The user interface for interactive is available in English, French, Dutch and Czech. Templates can be created and output produced in many languages (built-in support for 20+ languages).</p>
Pricing Model	<p>For both on premise and cloud solutions, the pricing model is based on usage and options.</p> <p><i>On-premise solution:</i> includes design templates with desktop designer, accept and prepare data, compose, deliver and follow-up output. There are 3 major parameters: number of designers, volume or throughput and options (e.g. output formats, connectivity options). Both perpetual and subscription licenses are possible.</p> <p><i>Cloud solution:</i> usage based (number of email tests, number of clicks and opens of emails, the number of users that can access the web designer, etc.). Only subscription based pricing is available for cloud solutions.</p>

ISIS PAPYRUS			
Company Headquarters	Maria Enzersdorf, Austria (Global) Southlake, Texas USA (USA) Singapore (Asia-Pacific)		
Year Founded	1988		
Target Market / Vertical Focus	Insurance / Healthcare (35%), Banking / Finance (20%), Government (18%), Utilities / Telecom (15%), Services / other (12%)		
# Customers	2500	# Sales Representatives	25
# Employees	330	# Developers	160
2015 Revenue	\$95MM		
R&D Spend (% of revenue)	28% revenue YOY		
Product Overview	<p>ISIS Papyrus is specialized in production of high-quality, dynamic Omni-channel business communication with a focus on Digital transformation, Customer Experience and Business empowerment. The core WebRepository ensures central management and consistency in all activity, communication, processes and reuse of building blocks across all document types. Organizations are enabled to centrally manage, administer and deploy document resources, data and definitions for all types of business documents and users.</p> <p>The Papyrus CCM Platform is built on one Source with a seamlessly integrated software stack, enabling growth and change to fit each organization's needs and changing demands of global enterprise business communication. By unifying inbound and outbound communications with processes, and linking to enterprise systems, ISIS Papyrus enables organizations to interact with customers as One Company with One Voice.</p> <p>As a fully integrated, single-source solution with unlimited scalability, Papyrus is platform-independent, providing upward compatibility for all software and applications. A clean separation between business logic, process and user interaction allows the business to freely customize and optimize applications without impacting the existing solution frameworks. The Papyrus document engine provides maximum functionality and power in one fully integrated platform that can help users adapt documents, activities and applications as needs change.</p> <p>The Papyrus Platform was designed to empower business users by streamlining the project and change management effort to create better, faster results. The system helps the business teams manage the document through every stage for continuity, consistency and quality. The efficient approach of the smart business document design enables a modular, cross-channel document design and promotes large-scale re-usability by defining all document components, resources and templates irrespective of the document type (batch, on-demand, online, interactive) and irrespective of the output channel only once. Document elements and layouts are WYSIWYG-designed and changes are performed by business users in one place, supported by powerful "Used in" functionality, integrated Version control and customizable Release and Change Management, helping companies to keep documents up-to-date with ever-changing regulations.</p>		

Differentiator(s)	Complete Omni-channel Communication Platform across Digital and Traditional Business: ISIS Papyrus is a single end-to-end lifecycle platform that integrates all inbound and outbound communication channels with process and customer case management. A 360-degree view of the customer is provided with seamless omni-channel customer communication via interconnected on-line and off-line channels. The system bridges the gap between customer-facing and back-end activities and powers customer experience (CX) processes through Adaptive Case Management collaboration to help companies effectively engage with customers via a two-way, individual real-time communication - online via live chat, SMS, e-mail, social, mobile or Web or traditionally via paper - creating uninterrupted customer journeys that will meet and exceed new customer communication demands.
Languages Supported	Papyrus provides support for all code pages (double-byte, single-byte, mixed mode, Unicode) and provides solutions in more than 19 languages, including Arabic, Hebrew, Thai and all DBCS languages such as Chinese, Japanese and Korean, with multiple languages in a single document and right to left and top to bottom typing, as required. Multilingual staff can work with Uls in the language of their choice regardless of the correspondence language that meets the preference of the recipient.
Pricing Model	Software is available as an on-premise solution, and can be sold for the implementation in a private or public cloud, provided as a hosted solution via hosting service providers, as well as offered via a subscription model for a specific period of time. Customers own the software (vs. licensing) and receive updates/upgrades with 18% annual maintenance. Except for named or concurrent Clients, software pricing is server-based, with multiple copy discounts + available backup, failover and reduced price test copies. Companies can purchase a corporate copy for unlimited use of servers and unlimited use of Client products.

KOFAX CUSTOMER COMMUNICATIONS MANAGER			
Company Headquarters	Irvine, California USA		
Year Founded	1985		
Target Market / Vertical Focus	Insurance (25%), Local Government (34%), Financial Services (11%), Manufacturing (6%), Government (5%), Other (18%)		
# Customers	Not disclosed	# Sales Representatives	Not disclosed
# Employees	~2900	# Developers	Not disclosed
2015 Revenue	\$3.6B USD		
R&D Spend (% of revenue)	Not disclosed		
Product Overview	<p>Kofax Customer Communications Manager is an enterprise-class customer communications management solution that empowers businesses to manage the engagement and communicate with their customers across multiple channels, with minimal IT effort. The CCM Designer and Repository are designed for business users. In addition, business users can use well known editor environments such as MS Word to design templates and text blocks. Business users can start creating content almost immediately after installation of the software because of the reusability of components and the loose coupling (made possible by CCM's data backbones) between the layers. The Designer has a built-in workflow that includes a review and approval process, and it validates changes to ensure consistency and completeness throughout the authoring process.</p> <p>Kofax Customer Communications Manager supports batch, on demand and interactive use cases for customer communications through a single composition engine. From its inception CCM has been designed and built to support knowledge workers creating individual and personal communications and documents. A wide range of APIs are available to integrate CCM into workflow applications or line-of-business applications to support real-time, on demand communication composition and delivery. CCM offers browser based wizards for interactive composition. Like the on demand capabilities these can be seamlessly embedded in other applications and workflows, making communication an integral part of every application and business process.</p>		
Differentiator(s)	<p>Kofax Customer Communications Manager (CCM) is integrated into the Kofax TotalAgility digital transformation platform. This makes a wide range of companion products available for which CCM provides out-of-the-box integration, such as Kofax SignDoc for electronic signatures, Kofax Kapow for information integration and robotic process automation, Kofax TotalAgility for BPM and Case Management, and Kofax Insight for process intelligence and business analytics. Kofax TotalAgility is a unified digital transformation platform that dramatically transforms and simplifies the business critical First Mile™ of business. The First Mile represents information-intensive interactions a customer, provider or partner has with an organization — interactions like new customer onboarding, claims processing, patient experience, student transcript processing and citizen services. By making these meaningful interactions fast, simple and accurate, TotalAgility sets the stage for enduring and profitable customer relationships.</p>		

Languages Supported	Full Unicode and right-to-left support communications can be generated in all languages. For interactive communications most of the end user interface for document composition is defined within the template and is therefore implemented by customers themselves. For the end user run time environment, customers or partners can add their own language definitions and translations. The Designer for Web is available in the standard Kofax languages: English, French, German, Italian, Portuguese, Spanish and additionally in Dutch and Japanese.
Pricing Model	Pricing is based on annual document volume both for on premise and cloud. For the interactive use case, an additional concurrent user charge applies.

OPENTEXT			
Company Headquarters	Waterloo, ON, Canada		
Year Founded	1991		
Target Market / Vertical Focus	Key industries include: financial services, insurance, healthcare, supply chain (manufacturing, logistics, and distribution), retail, and consumer packaged goods.		
# Customers	Not disclosed	# Sales Representatives	Not disclosed
# Employees	5000+ worldwide	# Developers	Not disclosed
2015 Revenue	Not disclosed		
R&D Spend (% of revenue)	Not disclosed		
Product Overview	<p>OpenText offers a comprehensive suite of customer communications management (CCM) applications that enable business users to optimize customer engagement through the design and delivery of ultra-personalized, consistent and compliant communications – delivered anytime, anywhere. With the latest release of its flagship product, Exstream 16.2, OpenText provides a single, unified CCM platform and upgrade path for all Exstream and Communications Center (StreamServe and PowerDocs) customers. A single platform installer as well as support for multiple document design tools and composition engines enables customers to continue using their existing documents and templates while taking advantage of the new system and its expanded capabilities.</p>		
Differentiator(s)	<p>OpenText Exstream offers simple integration and deployment that helps to eliminate redundant systems and processes to create a more streamlined customer communications platform. The design of Release 16.2 continues an emphasis on delivery of CCM capabilities for non-technical users. It provides simple to use web-based modules that enable Line of Business users to interactively generate communications that utilize the power of its underlying design and production engines. Additionally, functionality can easily be exposed in native applications via Exstream's rich API and SDK tool sets.</p> <p>OpenText Exstream has a powerful and robust production engine, which can produce millions of statements in a tight production window and meet the demands of multichannel customer communications. Companies can make the most of a production engine that receives continuous improvements—with added power and accessibility—without needing to rewrite or reconfigure proprietary applications.</p> <p>Integration with existing systems is simplified through the use of web services and other standard methods to integrate the software solution without needing to rethink existing systems. OpenText makes it easy to gather, process, and incorporate content from an organization's entire information environment, even if it varies widely by source, format, and structure.</p>		
Languages Supported	OpenText offers localized user interfaces in Dutch, English, Finnish, French, German, Japanese, Portuguese, Russian, Simplified Chinese, Spanish and Swedish. Customers can generate personalized communications in 36 languages.		
Pricing Model	Several pricing models are offered to match customer financial and deployment needs. Enterprise class licenses are perpetual, available on either a server or transactional basis for on-premises use. SaaS solutions are subscription-based, and are by transaction for high-volume documents or by users for ad hoc / interactive documents created by LOB users. Other Cloud-based privately hosted solutions are available as traditional perpetual licenses for self-hosting or on a 'leasing' model.		

TOP DOWN SYSTEMS – CLIENT LETTER & INTOUCH			
Company Headquarters	Rockville, Maryland USA		
Year Founded	1979 (incorporated in 1981)		
Target Market / Vertical Focus	Health Payers (50%), Property & Casualty Insurers (25%), Government (10%) Utilities (10%), Retail (5%)		
# Customers	50	# Sales Representatives	4
# Employees	35	# Developers	20
2015 Revenue	Not disclosed		
R&D Spend (% of revenue)	Not disclosed		
Product Overview	<p>Top Down Systems ("Topdown") provides customer communications management software and services to organizations committed to delivering exceptional customer experiences during high-value customer journeys such as onboarding a new customer, processing a claim, or resolving a complaint. For nearly 40 years the company's real-time, on-demand, and high-volume batch solutions have been securely and reliably producing correspondence, ID cards, enrollment kits, and other types of personalized and contextual customer communications.</p> <p>Out of the box, CLIENT LETTER and INTOUCH provide full interactive capabilities with an industry-leading user experience and no customization required. User prompts guide end users through personalizing interactive templates and creating communications within the application, shortening time to value and avoiding any hidden or unplanned costs.</p> <p>For both products, the application can be managed entirely by business users, post implementation. Creating new templates, authoring business logic, making changes to existing templates and creating and sending customer communications can all be done by business users without support from IT resources. This provides for faster time to market and greater business agility with zero IT schedule delays or chargebacks.</p>		
Differentiator(s)	The Topdown solutions can provide companies with a high return on investment because they are competitively priced and can go into production fast. Once in production, they can be managed entirely by business users, and support a wide variety of use cases across multiple vertical industries.		
Languages Supported	CLIENT LETTER user interface supports English and French Canadian. INTOUCH user interface natively supports English and Polish and supports localization into additional languages at the customer's request. Both products support content in multiple languages.		
Pricing Model	<p>CLIENT LETTER is sold as either perpetual, term or subscription license with 22% maintenance; pricing is based upon number of users.</p> <p>INTOUCH is sold as a subscription with a minimum one-year commitment; pricing is based on number of users and volume of generated communications.</p>		

XPERTDOC			
Company Headquarters	Montreal, Canada		
Year Founded	2000		
Target Market / Vertical Focus	Insurance (80%), Private sector enterprise (10%), Government/Finance/EDU (10%)		
# Customers	300+ globally	# Sales Representatives	8
# Employees	46	# Developers	16
2015 Revenue	\$5-\$10MM		
R&D Spend (% of revenue)	\$1MM - \$2MM		
Product Overview	<p>Xpertdoc helps organizations improve engagement across the entire customer lifecycle, with a platform that enables collaboration for the production of highly personalized, data-driven communications that support both customer preference and compliance goals. This is achieved both outbound through customizable and pre-packaged templates, and inbound through interactive Smart Forms.</p> <p>Xpertdoc offers composition through MS Word which allows rapid adoption, reduced dependence on scarce technical resources, user empowerment, and rapid enactment of business vision. Ease of integration and pre-built connectors provide robust content generation and data-driven documents. Xpertdoc provides organizations with rapid Implementation, a faster time to market and lower TCO.</p>		
Differentiator(s)	<p>Xpertdoc is a Microsoft Gold partner, the CCM platform is built on Microsoft's technology stack including DocX, .Net, and Azure. The template designer is built on Microsoft Word, not proprietary software, allowing users to leverage skills they are already familiar with.</p> <p>Xpertdoc's patented migration tool automatically migrates template design, content, and business rules. This allows a company to leverage the investment it has already made in their forms library to enable extraction and migration of thousands of documents at a fraction of the time.</p> <p>Xpertdoc Connector For Microsoft Dynamics 365 is an out-of-the-box functionality, with pre-built workflows and connectors to Dynamics and SharePoint to immediately enable business users to create, manage and deliver an infinite variety of data-driven, impactful documents. This allows for template creation, Omni-channel delivery, e-signature and more all within the native Microsoft Dynamics 365 interface.</p>		
Languages Supported	<p>The solution can generate documents in many languages including European, Chinese, Russian, Arabic, etc. The Xpertdoc Template Designer (Word add-in) is currently available in French and English. The Xpertdoc Portal's interface is currently available in English. Smart forms can be configured with labels in alternate languages. Some UI elements such as error messages are English. Multi-language support is planned for Q1 2017 for European languages, with non-European to follow later. This can and will be accelerated to match any customer delivery schedule based on requirements.</p>		
Pricing Model	2 basic models are offered: on premise and cloud. Costs are based on the number of server licenses, the necessary solution components and user licenses.		

Gina Ferrara

Senior Analyst

Gina Ferrara brings more than 19 years of experience in the banking and financial services industry working as a project manager/business analyst in ecommerce, with several years focused on online banking, electronic bill payment, ecommerce and print and mail optimization. Her project management consulting experience includes print and mail operations, postal optimization and address quality, as well as multichannel delivery.

Gina helps organizations of all sizes with CCM Optimization, managing RFPs for print outsourcing and CCM hosted managed services as well as conducting best practices assessments for enterprise and service provider clients. She is a frequent speaker at notable industry conferences that include XPLOR, Document Strategy Forum and Graph Expo.

Gina earned a B.S. in accounting from Providence College.

Appendix D - About Madison Advisors

Madison Advisors aspires to advance the multi-channel communications objectives of Fortune 1000 companies that result in an enhanced customer experience. Madison Advisors specializes in offering context-specific guidance for a range of content delivery strategies, particularly those addressing enterprise output technologies and customer communications. Madison Advisors has specific and unique knowledge of the document composition market, technology vendors, best practices, and emerging scenarios.

Madison Advisors offers services and expertise primarily through high-impact consulting services along with associated solution deployment professional services. With no-nonsense, highly specialized engagements, Madison Advisors directly helps our clients achieve very hard and specific return on investment (ROI) related to their CCM, print, and electronic communications initiatives. To learn more about Madison Advisors, visit our website at www.madison-advisors.com.