

EDiscovery Journal Report and Survey Results: Hosted eDiscovery- Adoption, Use and Results

Barry Murphy: Welcome everyone, happy to be here. Again I'm Barry Murphy with eDiscovery Journal and happy to be co-presenting with Colby today. And one of the first things I want to hit on is the semantic relationship between some of the words you're going to hear today, whether it's hosted or software as a service and SAS or the cloud. A lot of these things are interchangeable in some respects. And a lot of them mean different things to different people.

So what we want to do today is talk through, the role of SAS and the cloud in really providing hosted eDiscovery and really look at, you know, is this something that folks are using? But also look at it from the perspective of, you know, an evolving market. Is this something that different types of players want to be able to offer, and what are some of the considerations there? And then what are some of the benefits to be had for everyone, whether it's the provider or the litigant in this case?

So let's take a quick step back and turn over to our friends at the National Institute of Standards and Technology to put into context what some of these terms kind of mean when you try to fit them together. So this is really a picture of what NIST has as a working definition of cloud computing. And there is a number of components to it, and you've heard a lot of them. So at the very bottom here we have the different types of deployment models of cloud computing, whether it's a public cloud -- you know something like the Amazon cloud or the Google cloud -- whether it's a private cloud that a private service provider is offering or the company builds for itself. Or it's some combination of those. You know all of these are, you know, considered cloud deployments. And then the delivery model is how that cloud service is actually utilized by a customer. And the eDiscovery space software as a service is the one that you've heard of most often. Really SAS is just simply a one way of delivering cloud based solutions. And we'll talk a little bit more about this, but typically when someone talks about hosted eDiscovery, they're talking about some combination of data being processed by a service provider and then hosted for review in the cloud.

And we're going to get back into that, but the characteristics here are simply that you're using shared resources in order to enable broad network access and be able to provide the service at a lower cost. So this is really the basic definition of what we're talking about when it comes to cloud computing and importantly from our -- for our purposes today, to think of SAS as just one of those delivery models when you're a consumer. Now when you're a provider there's going to be some other issues to think about and we'll hit on that

as we go. One thing also is, as we go let's keep this interactive. If you have questions, you know, feel free to put them into the Q&A section and we'll take them as we go.

A couple of interesting things is you know as you look out at the SAS market, it's a very hot topic. And you know if you look around at some of the more general data -- so this is from an information week survey -- there's still a lot of discomfort about where data is owned or who owns data, when it comes to cloud based solutions. So you know, a lot of organizations report being less comfortable with, you know, having an outside owner of their data. And I think this is representative of a couple of different factors. One is that people just assume when we say cloud that the data is going to be owned outside of the organization. And they also have that sort of security and privacy hang up, especially if they're from the IT community, about letting the data outside of their hands because a lot of us are control freaks. And when the data is not sitting with us, we can't necessarily testify as to how it's been treated and make sure that we know exactly what is going on. And so at the macro level, we're seeing that the attitudes are still evolving and there's still a lot of, you know, discomfort with data being held by an external party. Now what's most interesting about that is that we're in the legal community, right, where the legal community is typically a few years behind the rest of the technology community, in terms of adopting a lot of forward thinking innovative technologies. And that's not necessarily a bad thing. It's just that the legal community is -- tends to be risk adverse. But, two facts sort of point against the legal community being behind here, and in fact really being ahead in the cloud computing market.

The first is, based on some research that we've just wrapped up at the eDiscovery Journal, only a quarter of organizations are leaning towards not using some form of cloud based computing for their eDiscovery efforts. So 75% of organizations out there are basically planning on relying on cloud based computing for their eDiscovery projects. Now the other fact here is that the legal community has been using cloud computing for quite sometime. So it's been since the dawn of the digital age that the legal community has taken data that they've needed for given matters and handed it off to a service provider and had that service provider create the user interface for paralegals or attorneys to go conduct actual document review. And so the hosted eDiscovery providers have actually had to be ahead of the curve in terms of being able to provide the security, the access controls, the privacy mechanism that are inherently needed in a cloud based solution for eDiscovery.

So for example, many of the eDiscovery applications were the first ones to have ethical wall security so that an attorney who doesn't have access to certain data in a case can't get at it. And that's a level of security that's a lot more granular than most other applications in

other industries. So the legal community has actually already embracing cloud computing. Now what I might argue is that over the years, the legal community has not necessarily known that they're embracing cloud computing. It was more what was available to them for the high volume data processing that they needed came from their service providers who they ended up trusting with how they handled data. And we're going to get into, you know, some of those issues as to why they can trust those service providers as we go. One other factor that came up in our research, was that the folks that said no in terms of not leaning towards using hosting the cloud or SAS for eDiscovery, they also were very likely to sight security and privacy as the reasons that they would not consider SAS. And they typically came from the IT side of our community. So interestingly, the legal side did not seem to have much of a problem with the actual move to cloud solutions.

So why are people looking at SAS just in terms of solutions that are cloud based? It's because there's real benefits to be harnessed. From one standpoint, it's all about simplicity. In the eDiscovery world, we're under very tight timeframes, so a fast deployment is going to be critical. Up time commitments are really important when you're reviewing a document set and you don't want any down time as you go and have your lawyers sitting around. Especially when the reviewers could be high cost reviewers who are looking at really critical materials, any lost time could really upset a case. And law firms and corporations, they don't necessarily want to have a lot of experts on these systems sitting around in their organizations.

There are times when some of these systems may not be utilized frequently. And so being able to deal with sort of the up and down demand for the application, is really mitigated by having a provider who can spread that across multiple clients and knows -- and then has the expertise on how to run these applications through the cloud. There's a lot of cost savings to be had for any consumer here, so obviously there's no need to invest in the hardware because you're going to be leveraging somebody else's infrastructure. But then there's no refresh cycle, so every time an application is upgraded that you need an onsite technician to help you with that. Or doing maintenance and upgrades, and having those associated costs. The ability to avoid all of that, not only results in cost savings, but just results in sort of reduced complexity of managing the IT environment, which frankly for a lot of these organizations that are involved in eDiscovery, they don't have a big IT environment. So if we think about the law firm, some law firms have very large IT environments, some law firms have extremely minimal or no IT environment.

So the ability to have the smaller amount of complexity there becomes key for them. And then flexibility so the ability to consume the resources on demand as opposed to having to

have that expertise onsite all the time. Being able to be platform independent. One of the things that comes up in eDiscovery all the time is data coming from multiple sources and needing to be put into various tools throughout the process. And if you're doing an eDiscovery review -- let's say for example you've got a couple of different tools that you need to pump it into. How those tools run and what those tools actually run on may be an issue for you depending on how you've sort of pieced together your work flow. So when you're consuming that through a cloud based provider, none of that matters. And then the ability to have ubiquitous access to your solutions.

So if you have lawyers from distributed offices or from different law firms or , people from the corporation and the law firm needing to work together on a specific matter, the ability to have that web based access to the application really provides a lot of flexibility in how you attack the case and build the workflow around it. And you know again, important in the eDiscovery world is the possibility of that infinite scale and cases can be as small as a gigabyte or as big as several terabytes. And that resource pooling across multiple clients is a real advantage for a SAS provider, and a real disadvantage for an organization that's looking to manage all of that data center activity in house. Especially if they're litigation profile is a bit choppy and things kind of go up and down, it's hard to build to be scalable for the biggest case, but justify that investment when a lot of cases might be smaller. And, you know, the ability to collaborate across systems. And this is important in the sense that -- and we'll talk about this on a later slide, but there's multiple parties involved in the eDiscovery process and they may come from a variety of internal to the corporation, external law firm folks and service provider folks. So the ability to enable the collaboration across the whole spectrum of eDiscovery is another real benefit that can result in huge efficiencies and reduced risks in terms of data movement. So it's one way of saying if you're not considering cloud based solutions, you're really leaving on the table a lot of potential benefits. Now that doesn't mean that the benefits of taking certain pieces in house won't outweigh that, but most people are either looking at some sort of cloud based model whether it's completely cloud based or hybrid. So going back to what we talked about earlier in the NIST model, we were looking at some of the delivery models of, you know, cloud based solutions, of which SAS is one. But really there's a number of different considerations, and this is especially important if someone wants to be a provider of SAS based services in this market, right. So for example, law firms may want to provide various levels of cloud based solutions to their clients because they've invested heavily in data centers. Or service providers who want to be able to provide certain applications via SAS, may have to make investments in data centers or partners. So the first piece of this is what we call infrastructure as a service, so you may see this as IAAS. And at its basic level, this

is where you're using computing cycles from say an Amazon to run infrastructure. So one example is an email archiving vendor who creates an application for archiving and accessing email, but that utilizes the public cloud for all the infrastructure services in the actual storage. So we're seeing that come up more and more where a small vendor will create an application that can then leverage the public cloud for very low cost storage, and they can run their applications on that infrastructure. So in this case, the provider is not providing the infrastructure, but they are providing an application, and the infrastructure comes from Amazon. So Amazon is, in this case, providing the infrastructure as a service. The second model that we see out there a lot is, you know, platform as a service. So in this case, you know, the application can be customized by a specific customer, you know, via an API, but the implementation's provided by a cloud provider. So a good example is the applications you can get at salesforce.com. Now this is an emerging possibility for the eDiscovery route, where a service provider, someone who's providing that EDD processing and hosted review, may want to take this route with best of breed eDiscovery applications where they can, they've got the infrastructure either themselves or through a partner and they want to be able to offer their customers, a bunch of different applications that the customer can take, play around with, but essentially do their implementation through the service provider and be accessing it there. So that's an emerging model in the discovery space and one that we may see happening more and more. And then finally there's the actual software as a service, where you are running the customer consumes the application in which it's actually run by the cloud provider. And again, we see this often in our community of eDiscovery where it is a hosted review application. It could be, any number of applications, and it could be any number of providers. We'll get into the types of folks that provide the cloud based services. But essentially this is where the application is completely run for the customer. They don't have to do any kind of customization or implementation. It's completely outsourced, and you know it's one that again, we've seen for decades in this market. I think a lot of people just haven't necessarily recognized that they've been using what we call software as a service. So you know I said at the beginning that we're going to sort of look at different perspectives here. There could be a very big mix of folks in the eDiscovery marketplace that are interested in SAS, but for different reasons. Some may want to provide various levels of cloud services, and some may want to consume them. So if I am a provider, or want to be a provider of cloud services, there's some questions that I need to really ask myself, and look at my business and my business model and determine what elements of this can I provide. Right off the bat, I have to ask myself, do I want -- is my competency and, do I want to run a data center? And there's a lot of considerations that go along with that. What level of security are you going to provide? And that from a physical perspective for example, do you need to be SAS 70 certified? Are you going to have a Tier

4 data center? What types of disaster recovery and redundancy investments am I going to be able to make, because especially in the eDiscovery space, the requirements are going to be extremely high. This is really critical data that people aren't going to want to lose. And what kind of storage infrastructure do I need to have and manage, and what is that cost going to look like? So that's at a basic level, you have to ask, "Do I want to run the data center?" Now this doesn't -- if you say no to this, it doesn't mean that you won't provide cloud based services. You could look to a partner, like an Amazon, you know, to provide that data center, but it's a question that really has to be asked. And then it's the delivery models. Which delivery models am I going to support? Is it the infrastructure with the data center? Is it the platform where people can, you know, source applications and then customize them as needed and I run the implementation? Or am I just going to provide the application? Or maybe I'll provide all three. So those are some of the questions that need to be answered before someone starts thinking about how do I -- or do I provide cloud services? And a really important one here, and this is one that every eDiscovery service provider answers for themselves quickly is, do I have the human resources to be able to provide cloud based services. So just on the IT side, it's deployment management of all the different, you know, servers and storage and applications. And if then providing applications, do I have that best of breed application expertise? Do I have the people in house who can help me run the applications that leading edge eDiscovery customers are going to demand? So for example, very good processing capabilities, early case assessment and the associated analytics and, you know first pass and linear review tools that will be needed. Or do I have people that can do application development? That can --. Let's say I want to offer an application of my own as a cloud based provider, do I have people who can build out the features and functions and keep them updated? Who can maintain and deliver upgrades and who can do the customer service that's required of someone who is in effect, now a software vendor.

That's another big question to ask is, "Do I have the ability to, you know, manage and afford those human resources?" Because at various levels, you go from being just a service provider to also being a provider of tools and software, and there's an affiliated level of customer service that goes along with that. Now in the eDiscovery space especially, there's a whole aspect of project management that needs to be involved. And these are people who can oversee large scale processing, who can oversee the workflow for review, who are experienced with litigation and who know all the traps that people can fall into in handling data. So all the way from ingestion to processing to review and production, having strong project management the whole way through, is critical. And so, what service providers have to ask themselves at all times in the eDiscovery space is can they get the right amount

of labor arbitrage to make the business case for hiring business managers. Now anecdotally that's one of the bugaboos that has been there for service providers in this business that have tended to be maybe smaller or regional players.

One of the things that's held them back from getting extremely big is the fact that as you scale, you need more and more project resources, but traditionally, eDiscovery has been a reactive business. And you can't just go out and hire forty managers with the hopes that you're going to have constant projects. You know really they need to make sure that they very carefully invest in project management and be able to sustain the level of project management that they have in there in an affordable way. So that's some of the questions that you need to ask if you want to provide cloud services. Any other perspective on that Colby?

CD: So from the vendor side you're hitting all the kinds of questions that vendors have to ask. Where the strength that you have as an organization and what do you want to bring forward as your best foot for your clients? So you really do have to look at your business model and consider what innovation can you bring to the market, whether that's through technology or through services. A lot of organizations try to make a really good blend. And even in those environments if you want to offer the best of both world's technology and service, I think it becomes really important to partner with organizations that can really bolster the capability, because ultimately, clients have some very strong demands on the services that they're going to get. This is a very tough market with a lot of challenges and the need to be secure and safe when you're sitting in front of the judge to commit to the work that you've done. So it's just critically important for the vendor to know where your strengths are and to build those and then partner to fill in the rest.

BM: Yeah, it's a great point, and I think in some respects, it becomes a Business 101 decision of what is my competence as a provider and what am I bringing to the table? And then how do I meet customer needs that my go beyond what I provide while maintaining a level of, you know, focus on what I can do as a company? So a lot of this depends on resources and partner network. So those are some great points. Now if you're going to consume cloud services there's also some big questions that you need to ask. And it relates as well to business model and really points out some of the nascency in which we deal with in this market. So you know one of the questions that I have to ask a lot of corporations is, "Do you trust your law firm to be a leading edge provide of software or of infrastructure services," because they've traditionally used their law firm as a data center for processing and hosted review. Now I'm not trying to criticize any law firms that have gone down this path, because many of them went down this path because their clients demanded it and it

started to make sense. They had multiple clients. They needed a data center in which to process data. They maybe didn't find the right service providers at the time to handle the scale that they needed and it made sense to do it internally. And so that's fine, but what we're seeing now is a little bit of a change in the market where people are saying, well a law firm's core competence is practicing law. Do I want them to be providing me what really is cutting edge technology? Whether it's data processing and a lot of the analytics that you can use to call down data, or whether it's the review application, which we're building more and more functionality for early case assessment and other ways of getting to the heart of the matter, whether it's in first pass review or linear review. So if you're going to consume these, and you're looking at different types of providers, you know, you really need to ask, you know, do I trust my law firm to be this? Or do I trust my service provider to be this? In addition, you're looking at a market that's fairly fragmented, whether you're looking at the software market or the services market. If you're thinking of service providers, there are a lot of small regional service providers that do a great job on various projects. But if you're a multinational global company, you know, you want to wonder, can a small vendor offer this scale and speed that I need for my requirements? Not all service providers for example, will rely on their own infrastructure or data center. They may rely on that from a third party, as we've seen in the archiving world for example. But the other thing to consider -- and we'll explore this in more depth later -- is where is this service provider going to be able to put my data? You know, where is it physically going to live and are there any rules and regulations around where that data needs to go that service provider won't be able to meet in terms of requirements? You need to think about where the data centers are that your provider is going to be able to offer to you. And then also, how is the data going to be shared or stored? Will there be ethical walls, which are extremely important in the discovery space? Do they have that type of security built in? Are they going to be storing my data on shared spindles? If we think back a couple years ago to the problems that Google had with Gmail, it turned out they were using shared spindles for storage and not necessarily dedicated storage. And so as a consumer, you need to be very up front about your requirements for storage and knowing how the provider is actually going to store it. And then just one other major question is, as a consumer do I need to sort of keep up with the future function evolution? Do I need the most cutting edge, you know, review in early case assessment applications with all the bells and whistles? Or, am I ok with someone that's just got a very basic application that they run on their own and I'm happy with using it? If you want to stay on the cutting edge, going with someone who's a best of breed provider may make the most sense because they can offer you access to multiple applications and they've got the data and can serve it up to you in those applications without you having to worry about, all of the things that you would have to go through to

source an application. So just like a provider has to ask themselves a lot of questions, the consumer also needs to think about all of these things, and what the business model is that their providers going to have, because that makes a difference in how you source this.

CD: I think Barry that they also need to look at how will the service fit into their processes? I mean because you could go full board and get full project management and application services and all that. You may work with service providers that are giving parts of that. Perhaps you're only doing ECA or perhaps you're only doing review, but in addition to ensuring that your provider's really focused on being the best of what they can deliver, you want to make sure that it fits within the processes that you want to run, because ultimately the client needs to be in control.

BM: It's a good point because there's another practice that has gone on for a long time in the discovery space, which is corporations or law firms using multiple service providers to handle a case. Whether it's due to speed and scale that the service provider offers, or whether it's due to keeping their negotiation good because -- or negotiation leverage good, because they're saying, "Well I'm using multiple provider's and you all need to give me a great price." Now, we're starting to see that practice reduced a little as some of the providers gain scale and then corporations realize, "Okay well I don't necessarily -- the market's competitive enough for me to keep price, you know, where I want it." But that's another consideration, 'cause I think that's how it gets to fit into their process of how data's going to move and who's going to be in control of it. All those things are critically important, and hopefully everyone has defined what their process is up front. Although we know that's not always the case.

CD: No, not always.

BM: Part of why this is a confusing market is that there is a lot of different providers of cloud based services and software as a service today. We see on the one hand, just the software providers themselves, making a hosted version of their software one form of their offering. And that's extremely logical because these are the experts in creating the application and their customers are saying, I want to source this from you, but I don't want to buy the application. I want you to run it for me. So software providers will provide a SAS offering typically that they may or may not sort of fulfill on their own -- they may use partners -- but that's one type of offering. The other and sort of more traditional model is service provider, where here you might get two flavors of an application delivered via the cloud. You may have a service provider that has traditionally developed their own technology, because they were into the legal and discovery space early and there weren't

any tools available so they built their own for their customers. They may provide that application via a SAS model, or they may be more of a channel player where they've got a number of partners that create best of breed applications for various elements of the eDiscovery workflow. Then they deliver those applications via SAS to their customers. You will also likely find service providers that do both, that provide their own as well as partners applications, because they want to be flexible for their customers. Now one thing I will say is that increasingly we're seeing service providers choose which way they want to go. Whether they want to be software application companies, or they want to be a software application channel. And that I wouldn't say every service provider is making a decision one way or another, but we're starting to see some movement in that direction, and it again comes back to the issue of focus on what are they bringing to the table. And as a consumer of SAS services, that should be one of the big questions you're asking. Again, "What are they bringing to the table and what do I want to source from them?" The third player that we're seeing out there is really law firms. And again as I mentioned earlier, a lot of law firms built data centers and bought applications or partnered with application providers to be able to be able to deliver hosted review to their customers. And many of them still do that and don't necessarily want to let go of what's become kind of an interesting revenue stream for them, even though it might be outside of their core business, they still see it as one of the values that they're bringing to their customers. And so while many would like to see the law firms go away as a provider, many law firms can stake a claim and say we've been providing this at a very nice margin for a long time, it would be foolish for us to let go of it as a business. Now I don't necessarily see a lot of software -- or a lot of law firms becoming software developers, but certainly being able to deliver via the SAS model is something that law firms will likely continue to do. But like I said, the business models are really in an evolutionary state here. We're starting to see people ask the question, "Should the law firms be running the data centers, is that their core competence? Should service providers be best of breed application developers? You know, does it make sense? Do they have the resources to do it like we talked about earlier? Or, are best of breed approaches actually the best way to go? Does that provide the most flexibility to the end consumer, which is either the corporation or could be the law firm?" So all of this evolution is ongoing, which is why it's critical to be asking the questions that we talked about earlier. Colby from your perspective, I don't know if you see one of these taking over as the sort of dominant model, I certainly see a lot of you know, churning in the market right now in terms of people trying to really say, "Okay this is what I'm going to be going forward."

CD: Yeah. We see a lot of different things happening, much like you have here. And of course it's really difficult for any line of business to say, we're not going to do that other

thing that was generating revenue for awhile because somebody else can do it better than us. But I think there's a point where you get pressured to do it. I mean the technology that's coming out of service providers, software providers, is very compelling and it continues to advance. And as a service provider in a law firm, you want to be able to take advantage of that as quickly as possible. But you know, the software as a service model, that delivery model actually would help accelerate this. I know we're going touch on this in a bit. There's a model here that we haven't yet discussed that we're seeing, and that's where software and service providers and software in law firms are working together where the software's delivered as a service, and the service provider or law firms are really front ending that service. They manage the initial set up for clients, but ultimately the clients get to use the software directly. Or perhaps the attorneys use it directly. So it's much more hands on these days, and in a lot of ways it allows the service providers in law firms to present new services, new capabilities or extended capabilities without actually having to make the purchase or add more folks on staff because they're just going to use the hosted services from the software provider. So when I think about that, then maybe that best fits in your best of breed approach -- the best software being presented with a partner who's got the best services, whether that's your service provider or your law firm.

BM: That's an interesting way to look at it because one of the reasons that there's this business model confusion is just that the customers have turned to who they've trusted, which has traditionally been the service provider. The one's that they've been sending their data to for a lot of the expertise here. And frankly a lot of corporations have trusted their law firm, who then have a relationship with the service provider. And what's happened is, these customers have gone to the service provider and said, "I'm using you for hosted review. I would also like you to give me something for internal collection preservation and some first pass review. And then once we get beyond there, we want to keep sending it to you because we like you." And these service providers have had to make a decision, "Do I build something for them? Do I partner?" And so I think what you're talking about is really the smart ones getting together and saying, "Okay my customer has a need, how do I fulfill that in a flexible manner such that, you know, they get, you know, the best of all worlds. Whether it's a completely, you know, services based and cloud based delivery, or there's a hybrid, right, where maybe I put some things on site and they're from the software partner, and then I run the rest of the application in the cloud for them."

CD: Yeah, exactly. And then just speaking strictly from the software provider side, 'cause that's really where we're at, the software providers have to have these environments that are flexible enough that they can work with the service providers and law firms the way that

they need to. Previously I mentioned that you want the solution to fit in with your business practices, but it's important to remember the service providers in the law firms have over the number of years really built up some bits of technology themselves, and there's no need for them, I think, to necessarily build that into a full fledged product, but it's important to have the ability to integrate those with their software provider and deliver it in a SAS model. So there's one thing kind of deep down there that is unique to software providers, but if they have that capability, then they really are making a powerful platform for the service providers in law firms to deliver these compelling solutions via cloud.

BM: Yeah, that's a great point too, because that is a true best of breed where you're taking the know how that the service providers have and putting it together with sort of some of the newer and innovative tools that don't force the service provider to become a full fledged software vendor, which in many cases is just not their forte, given the resources that they have. So that's an interesting way to look at it. And the way you're talking about it, it could become, you know, this industry's kind of app store right? You know you could go to a service provider and they could say, you know, we've got, you know, the digital reef app for you. You know, click here and it could run completely in the cloud or the person could download it and work it themselves.

CD: Yeah, I love that. I mean the legal app store, absolutely.

BM: Yeah, so I think we'll --. We have some examples of how the cloud based solutions are used in other industries that I think will apply very nicely to the legal community, who as we saw from the data earlier are not afraid of the cloud, they just don't necessarily always define it as the cloud just yet. So let's kind of take a step back to say what are the benefits to the litigant? I'm sitting here I'm at the corporation perhaps I'm at the law firm guiding the corporation. What's in it for me to utilize a cloud based model? Clearly 75% of the legal market believes that some form of SAS based deployment is going to be the way that they go. So why is it? Or what's compelling about that? Obviously it's a lower cost, and in this economy, everyone is looking at ways to lower cost. And this is not necessarily just about avoiding some of the eDiscovery cost, like processing and downstream review. This is more about being able to get lower cost tools because the providers able to spread some of the bigger costs of the software across multiple clients. And so, you have that sort of multi-tenancy piece here allowing the SAS model to be a lower cost model, a more of a monthly pay as you go, no big upfront investment. You know that kind of, you know, cost avoiding and lower cost. But it's also about easy access to data, and not having to have multiple applications in which to pull up data. You know, not having to have an application deployed to your machine. And you know, being able to do what you need to do quickly

because of the scale and speed that the cloud has to offer. And for a corporation, it's a really big win not to have to manage the infrastructure on an ongoing basis. You know, having to do that requires, you know, more human resources, more data center resources, and just adds more complexity to the overall IT environment. And complexity is certainly not the friend of anyone when it comes to eDiscovery and especially for an IT person who may have to sit on the stand later. Along those same lines, you know using a cloud based methodology or a SAS based methodology to get at these tools, allows you to make sure you've got the latest in the future functionality game without having to manage the upgrade process and maintain the application. So as Colby was talking about, being able to leverage the best of breed approach without any increased cost to doing it right? The cost is now incurred as a cost of doing business by the SAS provider. And every organizations going to have some level of internal project management staff, but utilizing a service provider is going to allow you to bolster that as needed. Again it's all about labor arbitrage for the service provider, about being able to provide the project management expertise when a case load gets too big for a corporation to handle it with their own project management. And really having that over flow capability and the experience of someone who's worked on multiple clients across -- or multiple matters across multiple clients I should say. The ability to have that is really sort of a "help me sleep better at night" kind of benefit for the organization. You know much related is the use of experienced expert witnesses as needed. So like I mentioned, no IT person wants to sit on the stand and be deposed on how evidence was handled and you know, exactly where it went from one place to another. Rather, the expert witnesses from a service provider, you know, they're experienced doing this. They know how to do the testimony. They know how to do the declarations. They've got the methodologies documented on how they do things and why it's best practice. They know how to work with litigators, and they know the tricks that might be out there in order for someone to try to trip them up. And they are really legal experts. So these folks are forensics or criminologists or you know, really experienced in how to collect, handle and maintain chain of custody in a way that's defensible. So it gives you that sort of added blanket of security, knowing that your risk is kind of covered off.

CD: Just real quick. I'll say cost, I've seen as the leading thing. Everybody's wanting to get to the lowest possible cost, and certainly there's a value to doing that in SAS. As you pointed out, the SAS providers are able to spread that cost over multiple clients, so the savings get passed on down. But just being able to hyper responsive, you know, you never know if the case is going to grow too large or you might get, you know, just that one extra case that puts others at risk in terms of all the processing or review that you have to do. So to SAS, one of the things we could say about SAS is that it's on demand and that it

tends to be scalable. I mean it's just part --. Not tends to be, it is scalable. So lower cost and the ability to respond as unanticipated needs arise are I think, very critical.

BM: It's a great point. I didn't mention a lot about the scalability. I think one of the promises of SAS is that infinite scalability, which makes it so attractive in the legal market. You know, it gives you another security blanket to know that if my dataset is this large, I don't have to worry about, you know, taking out my whole data center to be able to process it and get it ready for review. You know one of the benefits that's not necessarily talked about too much because this is sort of a new component to all this, but it is the ability of a SAS model to, you know, help make collaboration amongst multiple parties more efficient. So if you look across sort of the eDiscovery workflow here, there's a lot of different players. Whether it's the corporation, the law firm or the service provider, each of which may have a very discreet or set of discreet tasks to do that depend on each other. You know, and I won't read them all off here. But for example, you know a law firm may be involved in project management, while the service provider is actually doing, you know, the hosted review and you know it's all based off of an early case assessment dataset that came from the corporation. You know the more that you can keep that in sort of one system with the data in one place and allow everyone to get easy access to the data at the time and place that they need it, you know, not only do you defray a lot of the risk by not moving data around too frequently, but you just make the process that much smoother. So the corporation can do what they need to do, the service provider gets things up there and the law firm goes in there and does what they need to do. And it's all managed, it's all documented and it doesn't require long wait times between the different parties. And that really goes for as Colby mentioned, however you set up your process. Whether you're a corporation that does a broad scale collection and then sends data to the service provider and then does early case assessment, and then has the law firm do linear review. Or, whether you're a corporation that sends out as little data as possible and uses your law firm for everything else, it really is all about making sure that people have fast access to data, without having to move data around too frequently, and with the documented methodologies around project management. And so as Colby mentioned, cost savings are really the driving factor right now, but I think over time the ability to let multiple parties interact with the data in new and innovative ways will be a really nice thing. And it will really be one of the bigger requirements that folks have in discovery. So you know, sort of pulling it all together, you know, there's some major questions that you need to be asking yourself about leveraging SAS, whether you're a provider or a consumer of cloud base or SAS services. You know as I mentioned in our research, the biggest concern was around security and privacy. And so you need to set requirements and understand how data's

stored, where it's stored and who's in control, because that's going to be critical, not only for compliance purposes but for chain of custody purposes. You need to determine the level of physical access controls that are necessary for where data's physically located and what kind of electronic controls there are and how you're managing security level, whether it's for data in motion or data at risk and what that might mean for your storage requirements. You know for example, whether or not you've got the capacity of WORM disk that's needed. And then any regulatory requirements that may exist from bodies like FINRA or the National Association -- I'm sorry NAR, the National Archives. Or any kind of DOD certifications that there may be that are required of the security of the data. Importantly, you know, scalability it's only a one word bullet here, but it can mean everything, and it's really about understanding that if the data center can scale to the volumes that are necessary. And that's whether I'm a provider, I need to estimate how much data I'll be able to handle. Or if I'm a consumer, I want to make sure that whoever I'm looking at has the capacity to scale to what I'm going to need. And I need to think about, you know, where is the data physically going to live? So if I'm a provider, am I going to be able to have partners in various countries where I might need to have data, or do I have the resources to build data centers in those places? You know, and are there going to be regulations if I'm a multinational global organization and I'm doing business in France and Germany, there's certainly going to be some regulations to where my data has to reside and I need to consider that in my requirements from anything I might source from the cloud. And then the final consideration is really getting back to the point Colby made. What's the process, and within that, how do people in various systems work with the data? So this gets to the best of breed approach, and what applications are in use? How are those applications developed? How does data get between the application? How do people access the application? All of those things are going to be really, really important. You know understanding, you know, the roles of various people as they go through this. You know who's the project managing the litigation? Who's running the actual discovery searches? Who's going to be responsible for expert witness testimony if needed, and what documentation will be available to that expert witness as time goes on? And then who's the guardianship for the data? So this is going to be important for chain of custody. And then what's the process for responding to any kind of request for information or documentation of the process. So all of these are critical questions which you know, when I look at it, it's overwhelming right? Or it can feel overwhelming. But I think ultimately if you go with what Colby was saying and say let me put down on paper or you know in some sort of graphical form, what my process is, who the players are within that? It can become a lot easier. You know the right people can start to ask these questions, whether it's the security ones or the geography ones. Get the answers to those and really tell your provider, this is what I need

to have you meet. And that provider can then determine can they meet that on their own? Do they do it with a partner network? How can they best meet those needs? And I think over the next two or three years, you'll see our market evolve to where as consumers get better at defining what they need, the providers will get better at putting together a menu of items that meet those requirements. So with that, I will turn it over for any questions that there may be. And if you need to contact me, there's my contact information. I'm happy to answer any follow-up questions as well.

CD: So Barry, we have a couple questions here, and I'm going to just get to the one. We'll have to follow-up with others by email and just really in the interest of time. The question here, what difficulties do firms have when moving from on-premise to hosted solutions?

BM: I think a lot of times the difficulty is dealing with data movement. And so that's one element on a sort of a more pragmatic level -- I'll come back to that one in a minute. On a more pragmatic level, you're dealing with, you know, lawyers and folks who have been used to various applications for a long time and are not often very happy with change. So there's a lot of on-premise solutions that have dominated the linear review market for a long time for example. But they've also bothered the litigation support people who want the enhanced functionality of the new and innovative solutions. So if they move to a SAS model, for a new application, they often encounter a lot of user frustration with new interfaces that they have to learn or things like that that may change how they do their job. Now that's typically quickly overcome with showing them the benefits and the new features and functions and all that. But the other thing I was mentioning is the data transfer. This becomes a tricky thing because they're wondering, do I just take all my data that I have on-premise and throw it up in the cloud? There's some cost to doing that, and there's some issues with being able, you know --. The typical notion is to think, I'm going to upload all my data through the Internet into the cloud. And in practice, that's actually not the way that it happens. It's typically shipped via encrypted hard drive because the bandwidth required for upload is a lot more than is required for download. So that tends to be something that trips folks up. They assume, "Oh I'll just quickly get all my data over there", but there's a lot more that goes into it in terms of determining how do I want to do this? And how do I make sure this happens in a way that's defensible.

CD: Thanks Barry. There's one question here that I'll just take. It was about examples of Digital Reef software that are used in SAS. And I'll just call it the Digital Reef software is ECA, an Early Case Assessment platform that does high scale processing an analysis of data. And so our software is used by legal service provider's law firms, and we have in our own data center for burst capacity, this software running. So when I say large scale data

processing, we're talking on the order of 17 terabytes in a day -- very, very high volume. And then in early case assessments the analytics, such as conversation analysis, document similarity analysis search and in dozens of reports, so there's a lot of stuff that's in there. But ??, the question, it's the Digital Reef Early Case Assessment platform. One last thing Barry before I hand it back over to Dave, there's the question that maybe you -- is a project for you. But, are there any reports showing the cost comparison between on-premise and SAS?

BM: Not that I've seen specifically, but we are in the midst of looking at, you know, more SAS usage in eDiscovery and other types of issues around SAS. But you know it's hard to do an apples to apples comparison. You know, what you can -- like we can say that, you know, the up front cost, you know, always in the years one through three are always lower with SAS, simple because of the way software's typically sourced. And it think that's why we've seen, you know, such a move to it. Plus the software's evolving so quickly that investing in it for in-house purposes is often overwhelming because of the amount -- or number of upgrades that will happen in a nascent market like this. But it's something we'll continue to look at and see if we can't come up with a framework for that.

INT: Well Barry, I'd like to thank you and thank Colby for your insight and time today. You can reach Barry Murphy on the email that you see on the screen. Colby -- if you have questions regarding Digital Reef -- can be reached through email at cdyess@digitalreefinc.com. And I thank everyone for there time and participation today.