

**Child Welfare IT Managers' Webinar Series: Child Welfare Information Technology
Systems Managers and Staff**

*Demystifying the Capability Maturity Model Integration: Improving Organizational
Performance and Quality*

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Coordinator: Welcome and thank you all for standing by. I would like to inform all participants you will be in a listen only mode until the question and answer session of today's conference call. If you would like to ask a question, please press star 1 on your touchtone phone.

Today's conference call is also being recorded. If you have any objections you may disconnect the call at this time. Now I would like to turn the call over to Elizabeth Mertinko. Thank you ma'am. You may begin.

Elizabeth Mertinko: Great. Thank you Lisa. Welcome to the Child Welfare Information Technology Systems Managers' and Staff Webinar Series, brought to you on behalf of the Health and Human Services Administration for Children and Families, Children's Bureau, and presented by ICF International.

Today's webinar is entitled CMMI and You, the Right Fit. I'm Elizabeth Mertinko. I'm your host and your moderator for today's webinar.

For new attendees and for those who may have missed previous webinars, here's the list of the previously recorded webinars which are posted to the Children's Bureau Web site. We're currently working to identify future webinar topics for the summer and for early fall.

We encourage our attendees to participate in our webinar with questions and comments as well as polls that we'll be operating throughout the session. All of the participant lines are muted now, but we will open them for a Q&A session at the end of the presentation.

Please be aware that you can submit questions at any time using the Go to Webinar Chat feature. And those will be addressed during the Q&A session. Should we run out of time, we'll respond to your questions via email.

And should you have additional questions, you may submit those to me at the email address listed on the slide.

Also, if you have any topics that you would like to recommend as potential webinars, or if you would like to volunteer to be a presenter on one of our webinars, please contact me at the email address listed above.

The Division of State Systems within the Children's Bureau, continues to provide a series of monthly webinars supporting information sharing and discussion.

Understanding who is attending the webinars helps us identify content that's applicable for everyone participating in an agency's CWIS efforts. I'm going to go ahead and start our first poll and ask that you identify your role on your project.

And for the first time ever our technology is failing me and has jammed on the poll. Okay. I'm just going to ask our audience to hold for one moment while we unjam our technology. While we wait I'm going to go ahead and introduce today's presenter.

Audra Stewart is a certified scrum master with over 17 years of experience in information technology, including software development, cybersecurity, information assurance, process improvement and quality assurance.

Ms. Stewart has worked extensively with various software development lifecycle models, including spiral, incremental, waterfall, iterative and agile.

She currently leads the ICF Agile Working Group, an internal team focused on training, coaching and assisting project teams in transforming and adopting agile practices.

In her current role, she serves as the Quality and Process Improvement Manager at ICF International, which includes ensuring that the organization maintains a credible CMMI maturity level 3 credential.

Audra, I'm going to ask that you go ahead and start your presentation while I restart the Go to Webinar software. And if folks on the phone could just hang in there, we'll have the visual up for you in just a moment.

Audra Stewart: Okay. Excellent. Thank you Elizabeth. CMMI and You, is this the right fit? The short answer? Maybe. Today you'll learn more about that. And perhaps be able to make an educated decision. What about all of the other models that are out there?

I like to refer to this as models; processes; certifications; oh my. We'll have polling questions that we'd like your feedback on, as part of this section of the webinar. We'll review the results once the poll has closed and of course once the technology will allow you to participate in the poll.

So we'll come back to that polling question. The first slide that you aren't able to see at the moment, is slide 7 which is a representation of the traditional approach to project management.

Before we evaluate which process improvement models or best practice models are right for your organization, let's get on the same page about models. Let's take the traditional model for example - initiate; plan and design; execute; monitor and control; and lastly, closing. Simple right?

This is the model we're most familiar with in project management and the PMI, the Project Management Institute would agree that these are the most common project level approaches to project management.

The next model that I'm sharing with you is the agile project management approach on slide 7. More specifically, agile delivery of business values to end customers.

Some of you may already be using scrum, kanban or even lean principles in the management of your project or perhaps at the state level. But basically,

looking at this diagram, you can see that you plan a backlog of items that need to be accomplished.

You perform iterations – some of you may refer to them as sprints – and conduct daily reviews. Typically, if you're using a scrum approach, you perform various releases of your project, whether it be software development as a release, or perhaps it's something else, such as training. And those are your deliverables. You receive feedback and loop back through this approach known as iterations.

And this is at a high level, a good example of agile project management. Next, with regard to models, we have agile program management. So let's take this a step further. How do you know if a program management and portfolio management at scale?

What if you have multiple teams across an enterprise or an entity, that need to be following similar practices for the most part? How does it all fit in?

In this diagram, while it has a lot of parts to it, demonstrates why program management and portfolio management needs a common set of practices and perhaps approaches, if you want all the parts to come together.

So at the top what you're seeing, on the left arrow, is the activity at a portfolio level that would be mapped to the industry best practices of the PMI or the Project Management Institute.

In the center you're seeing two bands - one for program management and the ones directly below it, for project management. Within those bands there are different level of activities that are being performed in order to satisfy and fulfill the portfolio's objectives.

This could be, for example, an agency such as Children's Bureau, where you need to maintain multiple programs and implement projects within those programs. These are two areas where agile practices could benefit an organization across the board.

At the bottom there you're seeing operations or the service line. Some of you may be familiar with a term known as SLA. What's important here is that it's service level management. And operations needs to interact with all the other levels of a program or a portfolio based organization.

And sometimes having a different model to implement those activities is necessary and perhaps required. On the right hand side there are various terms listed here, some that you may be familiar with.

But in reality, there are programs that require federal consideration such as compliance with regulations. Perhaps the type of acquisition or the color of the money that you're using to run your program organization or your agency or backers that need to be taken into consideration.

And so those are listed as just an example or a representative sample of the types of things that need to be considered throughout an entire program's life. So one of the polls that we wanted to conduct at this juncture, was have you ever worked with any of these system development models.

If you could participate in the poll that would give us an understanding of how much exposure you've had.

Elizabeth Mertinko: And Audra, it looks like the software is back up and running and the polling feature has not crashed. So we've got about 30% of people who have

cast their vote. If I could ask all of you to just go in and let us know what your experience is, that would be really helpful to us.

And we just need the last 18% of you to hop on there and answer the question for us. I'll just give you another couple of seconds to do that. Okay. We have almost everybody having answered the question so I'm going to go ahead and close this one and share the results. And there we go.

We have 87% that have experience with traditional Waterfall; 47% agile scrum; and 13% agile kanban.

Audra Stewart: Excellent. So this gives you all a feel for each other as to where most of your experience lies with regard to models. And it's not uncommon that traditional or known as Waterfall, would be the one that most of us have exposure to. I know it certainly was one of the first that I learned.

So let's take that information and let's talk about it a little bit from the perspective of common sense. Now I just used common sense please. There are so many models out there. Let's take a look at that further. There are many acronyms available to us.

With so many of them it's common that people don't understand what they're supposed to be doing; why they are doing it. If, for example, your organization is off agile and the constituents of your organization don't understand agile or kanban or lean kit or CMMI or PMI.

They don't know what they need to be doing. They just don't know what they don't know. And some do and will ignore the processes anyway.

So this seriously - the important message is to your organization, is that you communicate what you want them to be doing; what model or best practices you want them to be leaning on; and how they are going about doing it, so that the acronym soup is palatable to your staff.

Let's explore this further. I like the representation of the umbrellas hanging from trees. Do models grow on trees? It may feel like it. But in reality, there are branches within a tree if you will, a model, where all of them intersect.

In reality, PMI, CMMI, agile, IEEE, Kanban, Six Sigma, traditional iterative recursive - all of these different approaches to managing our program's projects and implementing process improvement, have a lot of overlap and similarities.

The question to ask your organization is which of these is right for you and your organization? You may consider that question at the level of portfolio management; program management, perhaps just at the project team level, and maybe just within your interactions with your state's constituents.

But before we can ask and answer those questions, you want to ask yourself what problem or challenges the business is trying to solve. If we move onto learning about the CMMI, it may help you identify some solutions to your problem statement.

So what you're seeing on the screen is an example of the CMMI known as the Capability Maturity Model Integration, a representation of it with its five maturity levels. At level one, you will see that it's considered initial. This does not yield a rating to any vendor or organization.

It basically says we've got processes, we're following them. No, we haven't written them down. Perhaps we're not controlling them. No one's enforcing anything. It's largely reactive. It's an organization designed to leverage the CMMI to help them improve upon their processes.

And they decide that they would like to achieve a CMMI level 2 maturity rating. This is an organization that is managing their processes. They've characterized them at a project level. And it's still often a bit reactive. An organization that is going a step further is saying let's define our processes.

Let's train our people. Let's ensure all projects have exposure to the processes, to training and let's set some expectations if you will, some policies and guidelines for how the organization should operate. This would be considered a level 3 maturity.

The box to the right of this waterfall-ish looking diagram includes process areas that would be implemented by an organization at level 3. So at level 2 you would be implementing several of these process areas.

And at level 3 you'd build upon that and it includes organizational process areas, represented by the OT and that OPS and OPM, which are not listed. At level 4 an organization is saying okay, let's take our defined processes that we've been following, and let's measure them quantitatively.

This is where Six Sigma can offer some insights for an organization or other types of measurement or quantitative analysis approaches can be used.

At level 5 the organization is looking at that data very discreetly and saying, how do we optimize or get the most out of these processes that we've been measuring? And where do we improve and make changes?

So let me tell you a little bit about the CMMI as far as what it is and where it came from. It's a capability improvement model that can be adapted to solve any performance issue at any level of the organization, really in any industry.

The model provides guidelines and recommendations for helping organizations guidance its problems and improve their performance overall. It is used by over 5000 organizations from more than 70 countries all over the world. The CMMI can help identify and achieve measurable business goals.

What you're seeing on the screen is a process maturity model quick look. This came from the CMMI Institute who is now the sponsor of the CMMI. And what you're seeing are the various appraisal responses from different parts of the world.

For example, Asia has had 6412 appraisals; 50% – 56% of their organization is – organizational population is using the CMMI. And that has increased over the years. North America is still using the CMMI as a best practices framework but certainly not as much as Asia is.

What this tells you is that it's still an international model that makes sense. While it's not always being used within the United States or in North America, primarily the United States, it's a model that has a common language across our international borders.

The CMMI consists of a set of process requirements based on industry best practices that are organized into 22 different process areas across four categories. Those categories are process management; project management; engineering; and support.

So the Cliff's Notes for you are that the CMMI is a capability improvement model that includes guidelines and recommendations for an organization to implement in order for them to be well positioned for a CMMI appraisal which yields ratings.

It's used by over 5000 organizations in more than 70 countries. So we're in good company in other words. The CMMI also comes in various flavors. They call them constellations. These are known as the CMMI core development for organizations that are doing software or system development.

Whether they're using agile or not. They also have CMMI for services which primarily is used by organizations that have a service component such as professional services, such as help desk; call centers; those types of services that may also have a little part that is considered IT or software development.

They have people in them which is a model used for managing an organization of resources that are human in nature, meaning how do we interact with the people within our organization? And how do we improve upon the interaction of our organization at the people level?

There's also the CMMI for acquisition which is a model that can help organizations determine how do we want to manage and run our acquisition lifecycle, i.e. procurement? This is very relevant in the - in the world of contract management.

So there are various constellations of the CMMI that can be leveraged by organizations. Many organizations leverage CMMI as a process improvement framework and a capability baseline tool to help them ensure performance needs and internationally recognized standards.

Now as far as some background information, the CMMI and its predecessors, known as the CMM, the Capability Maturity Model has been worked on by the Software Engineering Institute for over 25 years.

Now the Software Engineering Institute was funded by the Department of Defense for many years as a research and development tool so that the DOD could have a measurable way to work with contractors, i.e. consultants; i.e. vendors so that when they were doing software development or system development or ship systems building or air frame development, aircraft development, etc., they would be able to have a common language between all of those types of work and deliver a result of high quality.

In 2012 the DOD decided that it wanted the SCI to focus all of its resources on evolving other technologies more urgent to the DOD. And they believed that the CMMI had reached the level of maturity that it no longer needed to be its sponsor.

Therefore, the CMMI Institute came about with Carnegie-Mellon, the university to basically the sponsor for CMMI at the juncture. You can go out to the CMMI Institute Web site and see all about it. So let's take this information a step further.

So what if your organization does want to leverage CMMI? We'll talk further about models on the next slide, where we take a look at the CMMI ideal model. What you're seeing on the screen in this graphic is basically an organization has a stimulus for change of some time.

Context needs to be set for the type of change that is needed. And sponsorship needs to be developed. This is a model for improvement and CMMI has

coined the phrase, the ideal model. So it has multiple phases - initiating; diagnosing; establishing; acting; and learning.

And within each phase there are very specific activities such as creating a charter, characterizing your current stage. That would be doing an analysis of your current capabilities against a particular model.

Say for example, you wanted to assess your organization against the CMMI for development, then you would do a gap analysis based on that in your diagnosing phase.

And perhaps you already know some of the areas of improvement in your business and so you would add those on and perhaps try to align them to where the CMMI might help you to address them.

You would then develop recommendations, set priorities, develop a tactical approach within your organization, create action plans, derive some solutions, perhaps pilot and test some solutions within your organization. Refine those solutions. Implement them across the board.

Analyze and validate and propose future actions. This is actually the model that ICF International has used for years for its process improvement organization. For more than eight years, I've been managing our in process improvement - our process improvement organization.

And for more than 15 years we've had a capability in house of leveraging the CMMI ideal model as a way for us to look at and solve our business challenges internally. Or perhaps optimize the business processes that exist.

Another model that could be helpful for an organization is Six Sigma. In this graphic Six Sigma is here - define; measure; analyze; improve; and control. You'll notice that a lot of the same terms are used in Six Sigma as are used in the process improvement model known as CMMI Ideal.

Six Sigma may be used in an organization that is interested at perfecting its process as close as possible to being a defect free organization. This is not necessarily the most appropriate for all organizations, but perhaps part of your organization would benefit from it.

It's often used in manufacturing or as part of lean principle adoption. Project management, while it is not a process improvement model, could be seen as a way to improve upon your work. And that's why it's represented here as plan, do, check, act.

You may have heard these terms before with regards to project management. And the bottom line is you do some level of planning. You perform the work. You check in on your work and you see how that work is going against the plan, i.e. monitoring and controlling it.

And then you take action. Some may refer to it as corrective action. Others may refer to it as improvements. And you basically continue through that process over time. So these are some examples of models at work and what's included in them.

So let's have a polling question to see your level of experience with any of these models.

Elizabeth Mertinko: Okay Audra. I've gone ahead and opened up the poll. So I'd ask our participants to go ahead and let us know. The question - which of the project

management models have you worked with or are you working with currently? You can choose multiple answers.

And we have a little under half of you that have voted. So if the rest of you could just jump on there and let us know what your experience has been with these different models. And I'll give you just a few more seconds to go ahead and put your answer up there.

Okay. With about 80% of our audience voting, I'm going to go ahead and close the poll. And there are our responses. So it looks like 15%, CMMI Ideal; 23%, Six Sigma; 46%, Project Management Institute or PMBOK; and 77%, state level or agency specific PMO models.

Audra Stewart: Excellent. This is also very insightful. And in our question and answer session I'll ask some questions around the PMO models. Thank you for taking that poll. It's very helpful. So let's move to the next area which is reality checks and takeaways.

So I don't know if you've heard this on the radio before. It's the Washington Post so if you don't get it you don't get it. This is really going to take us into the next part of this webinar. So let's go forward with that and talk about risk. It's in there.

There's one way to think about if we don't get it we don't get it, which is the organization that's truly embraced whichever model or approach they are going to leverage; train their people and have identified risks associated so that they can move from the paradigm of magic and art to the other side which is where risk is reduced in the realm of predictability, repeatability. And some may call that more science or hard science and engineering.

The idea is that we would move from heroics and luck and agility and unpredictability to a more productive higher quality environment.

And that typically comes with an organization setting the tone, setting the practices, training their people, listening to their needs and then moving into what we call a monitoring phase, which is ensuring that it's being performed. This is not an easy task. But models are a great way to help us with that.

Let's look at that a little bit further and talk about what's in it for me? So here are some questions that you may be asking yourselves and you may have other questions that you've been asking yourself. I bet you want some answers.

So let's look at the first question - what do I get when a vendor has a CMMI rating? Vendors do not have, get or do CMMI. That's one of the first things that should be known.

They leverage the model and create policies, practices, techniques, possibly templates for how they do business, against a CMMI model. So for example, if my organization has adopted the CMMI for development at 22 process areas there that I need to demonstrate my organization is implementing.

Well what if my organization has 3000 projects? Are all of them doing all of these processes? Likely not. Some organizations will - will ensure that one project is implementing all activities at level 2 and level 3 and are compliant 100% with the CMMI's goals.

But not all parts of the organization may be implementing all of those activities. On the opposite end, an organization that has 3000 projects may not

need to have all of them following the exact same process or the exact same set of processes, because perhaps the business is different.

It's very important to understand your organization and its business and not apply a general rule to the organization as a whole, but fully understand its dynamics, its processes and the nature of the work. Because there may be multiple approaches to performing that work.

When it comes to PMO, not exactly sure what your PMOs are saying to you specifically.

So if it's something like we want more repeatable approaches to the way we run projects, programs, interfacing with vendors, I can tell you that the CMMI will likely help them, it could likely help you if they understand how to leverage the model as a tool but not as say for example, as the bible, as this is the de facto way of doing business.

Which can sometimes create a rigidity that doesn't allow for the business to be flexible. Want to know how to evaluate a vendor?

I thought it would be good to show you how you can leverage the CMMI one process area at a time, even if your organization doesn't need to leverage all aspects of a particular CMMI constellation.

So at this time Elizabeth, I'd like to give them a demonstration of the decision analysis and resolution workbook.

Elizabeth Mertinko: Okay.

Audra Stewart: And to do so, I will share my screen.

Elizabeth Mertinko: Let me go ahead and change over to you. And it should be inviting you to share your screen.

Audra Stewart: And it is.

Elizabeth Mertinko: And there we go.

Audra Stewart: Okay. So one of the most popular process areas of the CMMI in our organization is decision, analysis and resolution.

This is the process area of the CMMI that allows an organization to use a quantitative approach to make decisions, significant decisions, such as which vendor should I use for a particular contract? How do I know that that's the right vendor?

So one of the things that we did in implementing the decision analysis and resolution process, was to create a workbook that would allow us to do quantitative and qualitative analysis of particular vendors. You could also leverage it for various technologies.

So what you're seeing on the screen is a workbook where basically we've created a template which was actually the template that our staff would use, where they are able to fill in this information specifically for the decision that needs to be made.

They would conduct an evaluation and then they would make a decision and document that decision as to why they came up with it. So what I thought I would do is share with you one that is fully filled out, so that you can see an example of how you could leverage one of the process areas at CMMI.

So one of the first things you have to do is decide what decision am I making? And in this case, with selecting a subcontractor to provide Web design services on a particular project or contract. And you would identify your alternative.

This may ring true to you, especially in the federal government, where you need to do the three comparisons. And so here we have an example of four.

These are specific companies that we've made up as an example, so that we can then describe that company in enough detail that would make enough sense for the individuals reviewing this analysis. Then we would go down and establish the criteria.

So here under criteria name, we've listed a few. You could have as many as needed. For example, if you were evaluating a proposal, you could use this as a way to evaluate a proposal. The criteria of cost - I think that's always important. Experience, timing; for example, when are they available?

Have we done business with them before? And then write a description for that criteria. So I'll evaluate costs as the most important factor in the decision as we have a tight budget. Well how will I evaluate each vendor's costs? We have a column here for evaluation methods.

And we also provide additional guidance through a project team on, you know, here are some evaluation methods - modeling and simulation; engineering studies; cost studies. Well which one makes the most sense for this criteria? A cost study.

So this would be a comparison of quotes received from each potential company or in this case, through evaluating a proposal, each vendor. And you could do the exact same thing for each of the criteria that would be associated.

Then you move over to the evaluate tab. I'm just going to make it a little smaller so we can see it better. Here is where you will see that the criteria we entered in the prepared example, automatically comes over. From there, we can see that there's a column for applying a weight.

It's important to identify how important are the criteria? Well first you must set a scale. And that scale for us is one, is the lowest priority and three is the highest.

So because that's our scale, we are able to evaluate each vendor's costs at a rate of three which in this case, is of highest priority to us, because we're mostly budget constrained for this example. And then this is a 2, a 1 and a 2.

What happens next is that each vendor may provide you with a cost analysis that you want to evaluate that perhaps you want some mins and maxes or some thresholds that you want to look at in more detail.

And that way you can break up your rating from a scale of 0 to 5 and in this case 5 being the best option.

As you move to the right in this workbook you'll see that each company that we're evaluating has populated at the top, which allows us to do quantitative analysis against each vendor based on this specific criteria.

So in this case we would rate the vendor based on cost and say well they came in at 2-1/5 to \$5000 a month for this particular service. And so because our rating details give it a 3, we're going to give it a 3.

You can come up with your own quantitative rating approach. But in this example we have come up with 1 to 5, skipping the 0. Then we calculate a rate or score. Again, quantitative analysis that tells us they found data what the score is for that vendor in the criteria of costs.

This would continue on for each of your criteria and it would give you a total score. Now we're using Excel in this case and we have created some formulas to help us to do the quantitative analysis. What's happening here that you'll see is that this is the only cell in green. Why?

Because it scored the highest. That particular vendor had the overall highest score. Perhaps if you're using other types of techniques in the industry such as Delphi or Wideband Delphi or Kokomo or other types of estimating techniques, you might apply some of that logic to this quantitative analysis.

And say well wait, I thought that AIM Server Services would be the one that we would end up choosing but the data is telling me we should choose Cisco Hosting Corporation. Why is that? And that's exactly the idea behind a quantitative analysis.

It can help you look at the data and then ask questions. Well why did it come out that way? Are we sure we have the right weight? Are we sure we have the right rating details? Perhaps our rating and scoring of a particular vendor and a particular criteria may need to be revisited.

Or perhaps it's actually on the mark and it just means you have to – you are changing your decision that you were preconceived to make, before you came into this more structured approach to coming to the decision.

Whatever your decision is, you would go to the decide tab and you would document that decision. And describe why you chose the company that scored maybe a lower value over the one that was the higher value. And there may be legitimate reasons for that.

So what I'm sharing with you is an example of an organization being able to create a tool to leverage a process area of the CMMI and put it to work for you right away. Now we do have a process description that defines all the details of this process.

But at a minimum, we train our staff in the use of this workbook and hopefully help them to come to make better decisions so that they can provide those recommendations to their customer. So at this time that will conclude the demo of this particular workbook, and we can go back to our webinar.

Elizabeth Mertinko: Okay. I'm just grabbing back control of the slides. And we should be able to see them now.

Audra Stewart: Excellent. So let's advance. Can I get a guarantee - I'm sure most of you got some questions when you work with vendors that say they have the CMMI maturity level rating. The honest and short answer is of course, no. But you can evaluate the scope of CMMI applicability in an organization.

Here are some questions that are potentially valuable to ask of a vendor if they will be working with you, or of the state PMOs that may be assessed at a

CMMI maturity level rating. It's important to note that you can leverage the CMMI and never receive a rating.

And the reason is that the CMMI will allow you to do a staged or a continuous representation implementation approach which means if an organization is doing staged or leveraging a staged approach, and they want their maturity of their capability assessed, i.e. having an outside organization come in and do an appraisal or an assessment of their capability, they will potentially yield ratings.

Those are called SCAMPI and there's an applicable model for conducting a SCAMPI. And only SCAMPI As which there are three types; As, Bs and Cs; only As yield ratings. You can scope an appraisal in an organization to only look at level 2 maturity practices.

Or you can have it look at levels 2 and 3 and 4. And if an organization is going to go for a level 4 appraisal that means they've demonstrated level 2, level 3 and level 4 process areas of the CMMI. So they build upon each other.

There is a technical report that I have provided to Elizabeth as well, to Patricia, that goes into more depth with regard to evaluating a vendor and their CMMI credentials.

Because it's very important that the industry and the federal government as well as local and state governments, as well as commercial industry, understand what they're getting when an organization says they are CMMI. And not always do we know.

So is the organization named in the appraisal disclosure statement? So for example, if I tell you that I worked at ICF and I worked within a specific

division in ICF you may want to ask the question well, what is your appraisal disclosure statement regarding the organization you work in, that will be performing the work?

Has that organization been subject to an appraisal? Or how many programs were included in the appraisal?

For example, a 30,000 person company with over 20,000 projects could have one project appraised and they claim they are CMMI level something, which would be an inaccurate representation of their capabilities. Was the appraisal performed less than three years ago?

Why is this question important? Because every three years the CMMI requires a reappraisal of the capability. Let's see. Why would that be important? If an organization is continually reassessing their capability then they're truly committed to the improvement activities that go into that.

Because it is not an easy feat for an organization to be in the position of being rated at a CMMI level. And so they expire every three years. So for example, ICF expires in February. We are going for a reappraisal in February. Which process areas were included in the appraisal?

This is also important, because an organization could only focus on three of 22 process areas, which means that perhaps the problem they're trying to solve is only in those three process areas.

But they may communicate that they do all of CMMI. And remember do is not something that an organization does with regard to CMMI. They leverage it and use it as guidelines to help them come up with a process that they will implement in their organization.

So while you can't get a guarantee there are some things you can do. You can leverage the DAR approach and do an analysis quantitatively of your various vendors against their credentials with CMMI. So at this time we're going to move onto some key takeaways.

So process improvement is a journey, whether it's at your state level from a PMO perspective or within your particular agency, or in private industry. No model will solve process challenges on its own. It's people, processes and tools. Processes and practices are implemented by people.

In order for them to succeed, we have to give them what they need in order to do so. And that can be a hurdle to overcome in an organization. Right size your program management office processes by assessing the need and/or gaps. And you could leverage with CMMI I feel, as an approach to doing that.

So at this time, I've come to the end of the presentation. So that's all folks. I'm able to open it up to questions Elizabeth, if you think the timing is appropriate.

Elizabeth Mertinko: Sure. First, I just want to take a minute and - and give you a huge thank you. And when I asked you to do this presentation I didn't know that you were prepping ICF for recertification in CMMI.

So I thank you particularly with the timing, for taking time out of your schedule to put all of this together and present it for us. And also, for dealing so gracefully, when our software crashed on us. So I really appreciate that.

Lisa, could you give us instructions on how folks can line up on the phone for questions please? Do we have our operator?

Coordinator: Thank you. At this time if you would like to ask a question, please press star 1 on your touchtone phone. You will be prompted to record your name prior to asking your question. Again, if you have a question, please press star 1 on your touchtone phone.

Elizabeth Mertinko: And while we're waiting for questions on the phone, we do have one that's come in online. Who is the entity that conducts the CMMI level re – level – reappraisal and then awards the appraisal disclosure statement?

Audra Stewart: That's an excellent question. So the CMMI Institute which is now the organization that sponsors all of the CMMI models and the products that come out of the CMMI, they require what they call CMMI lead appraisers, to go through extensive training in the model and in the fancy ARC requirement which is the required methodology for conducting an appraisal.

Since yes, there is a process for that. And that lead appraiser would work with an organization and develop an appraisal team that would conduct an appraisal. So to bring it home, for example, our appraisal in February is a ten day appraisal.

It consists of six ICF staff and one CMMI lead appraiser. So a CMMI lead appraiser can perform level 2 and level 3 maturity assessments with a team for high maturity appraisals, i.e. there's that level 4 and 5. The appraiser must have high maturity appraisal training.

So they have to understand in more depth, what level 4 and level 5 organizations need to achieve where someone at level 2 and level 3 don't have to have all that additional extensive training. Hopefully that answered your question. Let me know if it didn't.

Elizabeth Mertinko: Okay. Perfect. Thank you. And can an agency lose a level? So can you be a level 4 and then go down to a level 3?

Audra Stewart: We, in the industry, call that backsliding. And can you lose it? Technically, let's put it to you this way. You're sort of – You're – CMMI does not certify you, but I know that's a term that you use. So for the sake of conversation, a CMMI appraisal rating, i.e. certification, does not get lost.

But an organization can backslide if they do not continuously monitor the implementation of their – their – processes that were appraised. Hence the reason why there's a three year expiration on an organization's appraisal.

Elizabeth Mertinko: Got it. Lisa, do we have any questions on the phone?

Coordinator: At this time I show no questions.

Elizabeth Mertinko: Okay. So next question that we have online, is this an expensive process? Does it make more financial sense to – for an agency to add CMMI processes to their own state PMO approach without getting the appraisal?

And I'm just remembering back to our poll, I think about 72% of our participants were using a state or an agency specific PMO approach.

Audra Stewart: So back to the PMO approach is being used, I'm not sure what they're based on. But I'm going to take a gander to assume that they're stocked with expertise from the industry. Which means they probably have been exposed to the PMI.

They may have been exposed to the CMMI at some point in their lifetime, especially if they're in the software development community. But it's also possible that they haven't. So not knowing exactly where the level of adoption is with regard to best practices, I'll answer you this way.

It can be an expensive process. It depends on the size of your organization and the scope of an appraisal should you decide to go for an appraisal. So let me give you some tangible examples.

If an organization wants one project to be appraised within a particular bureau, agency, division, etc., that level of effort to get that one project appraised, could in actuality, almost be the same amount of effort to raise the capability to an organizational level and have it implemented by multiple entities, multiple projects.

We kind of call that CMMI in stealth mode or CMMI at level 3 – at CMMI at level 2 with level 3 in mind. So you're basically looking ahead with your vision and saying, we want to demonstrate a level 3 capability but we just don't have the manpower to do it right now.

You may choose to take the bigger chunk and say let's go ahead and put the infrastructure in place for level 3, meanwhile we'll also be doing activities at level 2. And at some juncture, milestone, intersection point, we'll bring it all together holistically for the organization.

If you choose to just do one division, line of business or entity within an agency, and there are six projects there, they all do similar work, they have similar costs and fees but they don't communicate well.

Their intersections with, you know, interfaces or perhaps stakeholder involvement or core – you may find it advantageous to take some of the level 2 and, you know, project management activities and monitoring and control and stakeholder involvement activities and hone in on those.

And just focus on those and come to a common understanding across those projects without ever going for a maturity level rating. There will still be a level of effort and costs incurred but it's different.

Yes. We have to pay for an outside lead appraiser as an organization, for that person's time, plus the past time spent for that period in an appraisal and yes, that's a cost to the organization.

At ICF we have another layer which is we invest quality and process improvement activities in the performance of the work. So we have a function and a team of people who are responsible for these activities, which do not bill to our clients.

So it's an investment that the company has made, in ensuring these best practices are available and in place. So hopefully that answered your questions; maybe more than you needed.

Elizabeth Mertinko: No. That sounded perfect. Thank you. What is the key limitation for government in approaching CMMI? And related to that, what is the key effort required for CMMI implementation?

Audra Stewart: Elizabeth, could you repeat the first part of that a little bit slower for me? I had a little connection problem. Sorry.

Elizabeth Mertinko: Sure. What is the key limitation for government in approaching CMMI?

And then secondly, what is the key effort required for CMMI implementation?

Audra Stewart: I'm not sure what key really means in this case so I'll try to read into that a little bit. There are potential government limitations in the areas of sponsorship.

Maybe you believe it's a good idea because you've been exposed to the model and worked with companies that really understand why they're leveraging the model. And so you want your program managers or your CIOs or your, you know, to adopt the philosophy or in other words, drink the Kool-Aid.

That is a stakeholder involvement sponsorship hurdle to overcome; I believe to be the most critical element. And there are ways in which you can bring them along. One is to clearly identify the problems within your organization in a – in a bulleted way, something very simple. Tie it to business value.

What is lacking in the organization because we performed poorly in this area? And what would be your to be state and what could be the business value associated with that to be state, if you were to implement specific activities based on the guidelines of the CMMI?

That package right there is informational to your senior management and sponsorship is critical. So that could be a key limitation because there may be some folks who believe that the CMMI is archaic, shouldn't exist, isn't relevant, etc.

And I understand why, because there are implementations of it in the industry, that make you feel that way. So it's all about how you employ it. The second part of your question, Elizabeth could you repeat that please?

Elizabeth Mertinko: Let me see if we still have it here.

Audra Stewart: Key limitations...

Elizabeth Mertinko: Yeah. And what is the key effort requirement – required for CMMI implementation?

Audra Stewart: Okay. So again, you're not implementing CMMI. You're implementing process improvement practices in an organization. Therefore, it's a hard question to answer because depending upon how you big your organization is; how many of your processes you want to improve over time, can dictate costs.

So to make it tangible for you, for example, we've implemented CMMI level 3 for over the last at least 15 years, in a holistic way. We've invested in over eight appraisals during that time at level 2 and level 3, as well as having a staff internally that manages the process and performs an auditing function.

So that our processes do not become stale, we're constantly taking feedback from the users of the process and improving upon it, to meet the needs of our customers better. So an exact key element here is right size it.

If you want to achieve a maturity level rating and that's critical, then yes, there will be an investment, a level of effort and costs associated. To give you some perspective, when we did it, we had two people developing the processes initially.

We created a software engineering process group of 20 constituent that it was not their full time job. And we had them go out to the projects and grab the best of the best, the cream of the crop examples of what they were doing.

We came together as a working group, evaluated them against the CMMI in the particular process area, and determined what's the right size of this for our organization; we developed it and then we piloted it; and then we rolled it out organizationally.

Elizabeth Mertinko: Thank you.

Audra Stewart: Hopefully that gives you some insight.

Elizabeth Mertinko: Lisa, do we have any questions on the phone?

Coordinator: At this time I still show no questions.

Elizabeth Mertinko: Okay. We have several more online. So one of our online participants says I can only read PMBOKs materials if I join PMI. But can I read CMMI content on the CMMI site without having to pay?

Audra Stewart: The answer to your question is yes.

Elizabeth Mertinko: Excellent.

Audra Stewart: The CMMI model for development services, etc. are available on the CMMI Institute. One caveat to that is this - it used to be sponsored by the Federal Government, i.e. DOD. It is now a for-profit organization. So it's important to note that while it was free, I'm not sure it will always be free.

Elizabeth Mertinko: So go now. Okay.

Audra Stewart: I'm sorry?

Elizabeth Mertinko: I said, so go now, would be the take home message. Go get it now while it's still free. So the next question - how can I verify that a vendor has actually achieved the level that they may have stated in response to an RFP?

Audra Stewart: Okay. There is a Web site through the CMMI Institute - I can provide the URL and it can be sent to you later - where you can go out and see the appraisal disclosure statement for a particular vendor.

And I highly recommend that you do that if you're trying to do a contract or an acquisition with a vendor who says they are. You should most definitely verify that it exists. It will list the scope of the appraisal.

It will list - it will list the projects involved, the entity or the specific organization that was appraised, the percentage of the organization that was included in the appraisal and what level and what CMMI model they're using.

Elizabeth Mertinko: Okay. Perfect. Next question - now that Carnegie-Mellon owns, operates and supports, what do you think the future is for CMMI?

Audra Stewart: Well that's an excellent question. I was just doing some research on that as a matter of fact, in preparation for this webinar. And they are expanding how they view the world, because they realize the world is changing in front of them.

So what they're trying to do and they really have a president who is interested in meeting industry needs, not just the DOD specific needs of the past. But today we have these agile environments. We have the - the need to be more like a digital strategy approach.

And so what the CMMI is doing is looking at the specific and I'll talk specifically about development, they're looking at the development model and they're thinking of ways that they could remove some of the less valuable practices that are included in the model.

And they want industry to feed them that information by going out to their Web site and submitting change requests so that they can note specifically what is valuable to you within your organization and what isn't.

They're also wanting to change the way in which appraisals are performed and conducted minimizing costs to industry so that more and more folks will continue to have appraisals and be recognized for that standard.

They're modifying the model which they did in their last release of it, version 1.3, by including specific language related to if you're an agile implementation, here are some case studies and here are some modifications in the way an organization may do the work.

And - and one way to think about it is where we used to have binders on the shelf for everything, we now have Web sites and Web enabled tools, how we perform our job. So how do we show evidence that we're doing something? So they're working towards improvements in that area as well.

They're also evaluating their appraisal approach so that they can respond to some of the feedback they've been receiving over the last few years.

Elizabeth Mertinko: Thank you. Lisa, do we have any questions on the phone?

Coordinator: At this time I show no questions or comments.

Elizabeth Mertinko: Okay. All right. Well then I'm going to go ahead and wrap things up for today. Audra, I just want to thank you again. I know you put a great deal of time and thought and effort into this presentation. And I think you shared some really valuable information with us.

So thank you again for agreeing to be our participant today and bringing us all a little bit further in our understanding of CMMI.

Audra Stewart: Thank you so much. It was my pleasure.

Elizabeth Mertinko: Okay. So to our audience, I hope that the information we shared with you today was informative and valuable. I want to remind you all to register for the June webinar once that announcement is released.

And that will go out over several of the Children's Bureau listserves, so keep your eyes peeled for that.

If you have any questions regarding today's topic, that you didn't get a chance to ask or you'd like any information about any of our scheduled webinars or particularly if you would like to either suggest a topic or volunteer to be a presenter, please contact me at the email that's listed above.

That's ElizabethMertinko@ICFI.com. I also want to remind you that this webinar has been recorded and we'll make it available online at the Children's Bureau's DSS Web site. When it's complete and posted, we also will notify you via the SACWIS managers' listserve, with the link.

And with that, I'd like to close things up for today and thank you all for your time and participation.

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