



# The IAE Digest

News and Program Updates from  
the Integrated Award Environment



Volume 3, Issue 3  
3<sup>rd</sup> Quarter FY2016

## From the Deputy Assistant Commissioner



As you no doubt have noticed, we spend a lot of time talking about change here at the Integrated Award Environment. In previous editions of *The IAE Digest* we've detailed updates to our current ten award management systems and we've provided previews of the new environment that we are building. Now, having served roughly five months as IAE's deputy assistant commissioner and as the program manager, I want to share a few exciting updates on some recent strategic actions we've taken to ensure we are maximizing

our potential as an organization and delivering the product that users deserve.

As changes have come and gone throughout the process of building the new, integrated environment, so too has the product vision. In Agile, the product vision is critical in that it provides a "quick pitch" about what it is you're trying to deliver. The product vision is your "elevator speech" that you might give to someone in a fast 30 seconds to describe the end goal.

Being new to the program, I thought this was an excellent time to take another look at our product vision and make sure it aligns with what we're actually creating. To that end, we gathered as a staff in the middle of the 3<sup>rd</sup> quarter and spent a day talking about the (new) SAM.gov product vision.

The process itself was a positive experience for all in that it gave us a rare opportunity to get away from our computers and reconnect with one another for the day.

We used the time to think aspirationally about what we will deliver to our users in both the short- and long-term. Further in this edition of *The IAE Digest*, you can read about the product vision statement we developed and how it will be guiding our development work in the coming months.

As we reached consensus and clarification about the IAE team's vision for the new SAM.gov, we also began to evaluate and identify opportunities to build upon the brand identity. During the past two years, we listened to hundreds of our system users as they shared what they want and need out of the new SAM.gov. Our goal is to have the technical solution, user experience, and brand experience to reflect your input. Leveraging the U.S. Web Design Standards created by our colleagues at GSA's 18F, we're confident we are well on our way to creating a visual style and brand that enables users to enjoy the time spent engaging with the future environment

As the IAE modernization effort continues and we move forward with building the new SAM.gov, we recognize the need for continuous improvement and evaluation of our organization's structure and

### In This Issue:

- From the Deputy Assistant Commissioner
- Did You Know?
- IAE Governance Recap
- IAE Awards Core Services Task Order
- The IAE Shares Program Updates
- (new) SAM.gov Product Vision
- Quarterly System Updates
- IAE and DevOps: The Journey So Far

## From the Deputy Assistant Commissioner (continued)

trajectory. We recently made the decision to organize our team into a set of smaller, cross-functional integrated product teams. These teams will allow us to break down silos and more effectively focus on product. We also identified two key staff needs to ensure our development efforts remain focused and efficient and have recently hired a dedicated design lead and product manager. I am excited to have these talented professionals join our team; they will play a key role in overseeing our development efforts going forward and ensuring our work adheres to the product vision we've validated for the new SAM.gov. I look forward to introducing these team members to the larger IAE community very soon.

As we continue to change and evolve, we are happy to have our stakeholders along for the journey. I encourage all of you to engage with the IAE beyond the confines of *The IAE Digest*, whether it's through our IAE Industry Community, following the GSA Twitter account at @USGSA, or joining us for our next Industry Day event.

You can also reach me anytime with questions, concerns, comments, or suggestions at [IAEOutreach@gsa.gov](mailto:IAEOutreach@gsa.gov).

Warm Regards,

Vicky

### Did You Know? SAM Registration

Doing business with the federal government requires a DUNS number and other specialized paperwork requirements.

In addition to free DUNS Number resources, including Dun & Bradstreet (<http://fedgov.dnb.com/webform>), there is free technical support available from the Federal Service Desk (FSD) to help answer questions at any stage of the SAM registration process. While utilizing third-party firms at a charge to help you register within SAM is an option that may work for some, registration remains free to all users, and help is a click or phone call away throughout the entire process.

### Federal Service Desk Goes Millennial

Texting is the preferred communication method for Millennials—they are “texting more and talking less” according to Forbes. With a goal to increase customer satisfaction, the Federal Service Desk (FSD) made a small change to its website that has produced significant results. Recognizing that sending text messages is preferred over making phone calls, FSD made their link to send chat messages for help more prominent on their web page—making it the obvious choice over the phone number.

The results? In December 2015, there were approximately 500 web chats. Now, after the change in the web page, they have received a high of 3,300 web chats per month. And the numbers keep growing. The advantages? An easy way to enable customers to use their preferred method of communicating, and increase customer satisfaction (quicker problem resolution); and an easy change to enable Service Desk Agents to handle multiple chats at the same time, when before, they could handle only one phone call!

## (new) SAM.gov Product Vision

Many people are familiar with the concept of organizational or corporate visions, but have you ever thought about a product vision? For organizations, the vision serves as a bold and ambitious concept of what that organization wants to become or accomplish. Often that vision describes the impact the organization wants to have on its customers, employees or other stakeholders. The purpose of the vision is to align employees around a common understanding of what they are trying to achieve, and the organization will then apply resources (human, technological, and financial) to achieve that vision.

A product vision is really no different except that it describes the desired end state of a product that's in development. For example, Facebook's product vision is:

*"People use Facebook to stay connected with friends and family, discover what's going on in the world, and to share and express what matters to them."*

In the case of IAE, we're talking about (new) SAM.gov. The (new) SAM.gov product vision serves as the guiding star that influences our product roadmap (the order in which we'll build the functions and features of the new technology), the architecture (how those functions and features are organized and relate to one another), and our release plans (what specific functions and features we build during a particular 12-week period).

In developing the (new) SAM.gov product vision, we were careful to keep our end users in mind – the federal employees, the large and small businesses, the grantees, and the public users, to name a few. We know that ultimately you will be the judge of our success, so we are excited to share the (new) SAM.gov product vision with you now:

***The (new) SAM.gov vision is to be the trusted, essential place to seamlessly connect to the business of government.***

That sounds great, right?! But what does it really mean? Let's break it down.

**The (new) SAM.gov**—The (new) SAM.gov is the technology solution that will result from the merging of 10 disparate federal IT systems. Those systems that are used today (including FBO.gov, FPDS.gov, and the current SAM.gov) are used to research, manage, administer, and report on federal awards. The (new) SAM.gov will unify the functions of all of today's 10 systems into one environment.

**Trusted**—The (new) SAM.gov will be regarded as a trustworthy source for all things related to federal awards. The secure platform will provide consistent and dependable access to reliable, accurate and timely data and business intelligence. Presented in a transparent manner, the (new) SAM.gov will serve as a credible source for insight into award opportunities and expenditures

**Essential**—The (new) SAM.gov will serve as a 'one-stop shop' for all stakeholders participating in the federal awards process. A modern and leading-edge technology tool users can't live without, the (new) SAM.gov will offer a comprehensive suite of capabilities enabling users to accomplish their required task when they need to, in the way they want to, and in collaboration with the people they need to work with.

**Seamlessly**—The (new) SAM.gov will be simple, straightforward, and easy to use and maintain. It will eliminate task redundancy and reduce

## (new) SAM.gov Product Vision (continued)

reduce barriers to participating in federal awards processes. Constructed with users in mind, the (new) SAM.gov strives to model the TurboTax® experience, allowing users to be up and running quickly with minimal training or experience, while offering extensive user resources to help when needed.

**Connecting to the Business of Government**—We define the “business of government” as transactions, exchanges, or interactions made internally—within the federal government—and externally—with other organizations. The (new) SAM.gov will be the singular entry point that joins up anyone seeking to do business with, or on behalf of, the federal government.

At IAE we are working together to build a technology solution that meets the criteria expressed in our product vision. As (new) SAM.gov is built and introduced to our customers and stakeholders through the transition.sam.gov site, we hope you’ll begin to see this product vision unfold.

The Federal Integrated Award Environment is currently composed of 10 disparate systems that together help the government, business, and other stakeholder groups manage and participate in the Federal award and acquisition processes. These 10 systems include the following:

- ❖ Catalog of Federal Domestic Assistance (CFDA)
- ❖ Contractor Performance Assessment Reporting System (CPARS)
- ❖ Electronic Subcontractor Reporting System (eSRS)
- ❖ Federal Awardee Performance and Integrity Information System (FAPIIS)
- ❖ Federal Business Opportunities (FBO)
- ❖ Federal Funding and Accountability Transparency Act Subaward Reporting System (FPRS)
- ❖ Federal Procurement Data System (FPDS)
- ❖ Past Performance Information Retrieval System (PPIRS)
- ❖ Wage Determination Online (WDOL)
- ❖ System for Award Management (SAM)

The IAE program office is in the process of integrating the functionality of these 10 systems into one technology environment that will be known as (new) SAM.gov.

## IAE Governance Recap

If you are a regular reader of *The IAE Digest*, you've learned a great deal about the IAE's governance bodies throughout the past year. By highlighting the important work of each of these four groups, we've demonstrated what a critical role they play in providing guidance to the IAE program office. These groups each have a distinct impact on the IAE's systems and services, from policy to operations and beyond. To conclude this series, we wanted to provide a quick recap of each entity. The Award Committee for E-Government, or the ACE, provides a disciplined process and approach to decisions, priorities, and community needs for the IAE systems. The ACE helps to identify policy considerations for Office of Management and Budget (OMB) decisions or actions, and is also responsible for approving associated funding levels required of the 24 CFO Act agency partners.

The Procurement Committee for E-Government, also known as the PCE, serves as the community voice regarding data collection, reporting, and the analysis of the outcomes expected from the IAE portfolio of systems. The PCE resolves any decisions regarding scope that are unique to federal procurement.

The Financial Assistance Committee for E-Government, or FACE, is dedicated to addressing the needs of the federal financial assistance community as it relates to collecting, using, disseminating, and displaying federal financial assistance data.

Last, but certainly not least, the Change Control Board plays a critical role in the implementation of the IAE's strategic vision and expected outcomes. The CCB acts as the decision-making body for proposed Change Requests that affect the IAE systems and the Federal Service Desk. Comprised of a chairperson—the IAE Business Operations Director

or his/her designee - one representative from each of the 24 CFO Act agencies, and one non-CFO Act agency representative, the CCB meets monthly.

Stay tuned next quarter, as we'll begin a new series spotlighting organizations that play policy and oversight roles to the IAE.

### IAE Awards Core Services Task Order

The IAE PMO advanced its modernization effort by awarding the FBO, eSRS, and FSRS Core Modernization Task Order to Octo Consulting Group, Inc. The objective of this task order is to design and develop the key functionalities of FBO, ESRS, and FSRS for the future SAM.gov environment. Octo Consulting is tasked with developing business opportunity and subaward reporting functionality that will build upon the existing capabilities of the current award management systems.

The IAE PMO looks forward to working with Octo Consulting to advance its modernization effort.



## From DC to Across the Atlantic: The IAE Shares Updates and Best Practices

In the third quarter of fiscal year 2016, the IAE team stayed busy, speaking with several stakeholder groups about our modernization effort, and sharing with our colleagues from around the globe best practices regarding our online award management capabilities.

### Federal Acquisition Conferences

On April 6th, IAE Deputy Assistant Commissioner Vicky Niblett and Director of Business Operations Nancy Goode spoke at the 26th Annual Government Procurement Conference, hosted by the Federal Business Council in Washington, DC. Niblett and Goode shared updates on IAE's modernization strategy with a group that included small, minority, service disabled veteran-owned, veteran-owned, HUBZone, and women-owned businesses. It was a great opportunity to preview what these stakeholders will experience with the new SAM.gov and answer questions about how to use the IAE's current systems to identify and manage business with the federal government. Later in the quarter, on May 24th, IAE Assistant Commissioner Eric Ferraro provided a similar update on IAE's modernization strategy as part of the Department of Commerce's Big A Acquisition conference.

### Aerospace Industry Association IAE Committee Meeting

On May 4th, Acting Director of Outreach and Stakeholder Management Dennis Harrison and Program Managers Memi Whitehead and Greg Sizemore attended the Aerospace Industries Association's first IAE Committee Meeting. The committee invited the IAE to speak about the System for Award Management's recent releases and AIA member inquiries about SAM, the Federal Service Desk, and IAE's modernization effort. We were glad to have the opportunity to be part of the newly-

minted committee's inaugural meeting and look forward to continuing our close relationship with AIA and all of our industry partner associations.

### GSA Federal Acquisition Training Symposium

Rounding out a busy May, Assistant Commissioner Eric Ferraro travelled to Huntsville, Alabama for GSA's Federal Acquisition Training Symposium, a two-day training event attended by more than 1400 acquisition professionals from several federal agencies and industry. Ferraro provided an overview of IAE's award management systems and update on the modernization effort as one of the event's 64 training sessions. We hope our session's attendees walked away excited about where the IAE is headed.

### Sharing Best Practices with our International Colleagues

In June, IAE leadership had the exciting opportunity to speak with delegations from Canada, Chile, and the United Kingdom about best practices for federal award management. We shared details on how the different IAE systems manage entity registrations, opportunities, and reporting and how we are using technology to improve our data and services. Meeting with our counterparts from other countries allows us to share information and gain valuable perspective on how the acquisition process is managed elsewhere.





## Quarterly System Updates

### Release 6

The IAE Program Team made significant progress throughout the most recent Release, continuing the development effort toward the (new) SAM.gov. Some specific enhancements include those made to the future state Catalog of Federal Domestic Assistance (CFDA), Federal Business Opportunities (FBO), Federal Hierarchy (FH), Identity and Access Management (IAM), and the Common Landing Page (CLP).

One of the major accomplishments during Release 6 was the enhancement of the core functionality for CFDA. These enhancements included the introduction of a search capability for FAL and Agency information, the management of CFDA numbers, agency administration for FALs, account administration for FALs, historical index, notifications and alerts, change requests on existing programs, and an enhanced UX/UI interface. The team also upgraded its capabilities with respect to end-user support with the introduction of enhanced user guides.

Some of the enhancements introduced within business opportunities functions (which mostly are managed today by Federal Business Opportunities (FBO)) were the modernization of the existing database, an improved user login for CLP and CWS, better integration of the Federal Hierarchy, and improvements in legacy web services (including IAM integration). These enhancements are designed to improve the overall reliability and performance of the opportunities application.

The Federal Hierarchy application user interface was completely redesigned and integrated with backend functionality. Usability testing was completed to improve the user experience. New functionality was introduced, notably the ability to **create an office/agency** and **future end-dating** an organization. Finally, the new FBO offices dataset and

updated CFDA organizations were incorporated and provided to the CFDA and FBO legacy applications.

The Identity and Access Management (IAM) Team introduced the capability to support CWS authentication through the IAM platform. Progress was made on role inheritance to ensure users will retain the same level of role access as they had under legacy systems. The related business rules for role inheritance were also completed for government users. Finally, the database user profiles were populated for CFDA and FBO users in staging.

The Common Landing Page Team (CLP) completed three rounds of user testing based on a new integrated design approach. The integrated design approach included a style tile exercise, which described a new “look and feel” for the landing page, including the home page, headers and footers, category switcher, sign in and registration. Google analytics were also included in this release to enhance metrics and search engine optimization.

### Follow IAE:

- ✓ Join our [Interact community](#)
- ✓ Follow us on Twitter [@USGSA](#) and [@FAS\\_Outreach](#)
- ✓ Email us at [IAEOutreach@gsa.gov](mailto:IAEOutreach@gsa.gov)
- ✓ Visit our website at [GSA.gov/IAE](http://GSA.gov/IAE)
- ✓ For technical support, please visit the Federal Service Desk at [FSD.gov](http://FSD.gov)

## Quarterly System Updates

### System for Award Management

With each software release, we work to improve the System for Award Management (SAM) user experience, improve the quality of information available from SAM, and reduce the burden for those wish to do and have business with the U.S. government. In addition to minor enhancements and fixing known issues, this release we:

- **Redesigned how you interact with your existing entity registration records, streamlining the process and increasing usability.**
  - Combined the three separate registration pages (Complete, Incomplete, and Inactive) into one page. From this Existing Entity Registrations page, you can search for a registration regardless of its status.
  - Improved the Entity List to sort alphabetically and included the unique identifier (DUNS Number or DoDAAC) next to the entity's Legal Business Name to quickly identify the correct entity from the list.
  - Provided more information in the initial Registration Details returned including Purpose of Registration, CAGE Code, and Activation/Expiration Date.
- **Improved usability for administrators to manage role requests.** Added additional fields on the Manage Role Requests page. Redesigned the page layout to provide enough information for the administrator charged with reviewing and approving role assignments for their entity to take appropriate action at a glance.
- **Enhanced usability of key record date presentation.** Reordered and renamed the key dates displayed within the Core Data module of an entity registration.

- **Improved both the security and look & feel of the API-driven SAM Status Tracker by bringing it into the application template.** The SAM Status Tracker, still accessible from the SAM Homepage, is now visually consistent and provides more clear information about the registration process.
- **Improved site-wide accessibility for blind and low-vision users.** Completed a series of user-focused improvements in this area, presenting information to all users in a more predictable, logical sequence.

For additional details, you may find and read the June 24th release notes posted to [SAM.gov](http://SAM.gov) > General Info > News > Release Notes.



### Common Services Platform: Release 6

During the third quarter, the IAE program team implemented significant enhancements to the Common Services Platform. These enhancements can be broken down into four major areas:

- Upgrading the Hosting side of the Common Services Platform
- Configuration Management
- Software Upgrades
- Implementation of Monitoring and Alert Services

## Quarterly System Updates

### Common Services Platform: Release 6 (continued)

#### Upgrading the Hosting Side of the Common Services Platform

This effort involved a major restructuring of the computer code to improve its overall efficiency. This was facilitated through the Infrastructure as Code (IaC) work that was done utilizing Amazon Cloud Formation capabilities. The upgrade represents a significant step in bringing the platform towards true production-ready status, as well as improving the reliability and scalability of the platform.

#### Configuration Management

Previously the majority of CSP components required manual provisioning. Over time this led to inconsistent configurations and complicated troubleshooting. After completing this feature, the CSP now provides mechanisms to automatically provision or stand up the entire platform from scratch. Completion of this work effort moves the CSP environment towards an automated delivery pipeline and will ensure common configurations for all components.

#### Software Upgrades

Several software patches and upgrades were implemented on critical components of the CSP platform, including vArmor, Sophos Firewalls and ForgeRock/OpenAM.

#### Implementation of Monitoring and Alert Services

Internal and external monitoring services were implemented, including a comprehensive notification service. A platform status dashboard indicating the health of major platform components is now maintained.

To learn more about the IAE's Release 6 accomplishments, please email [IAEO outreach@gsa.gov](mailto:IAEO outreach@gsa.gov).

## IAE by the Numbers

### Federal Service Desk 3<sup>rd</sup> Quarter FY 2016

- Call volume was at an average of 40,188 calls per month, an increase of 13.4 percent from Q2
- Average speed to answer was 26 seconds, compared to the industry standard of 30 seconds
- Average handle/talk time remains approximately 15:32 minutes, compared to 14 minutes in Q2
- First call resolution rate increased to 94 percent and continues to exceed the industry standard of 80 percent

### System for Award Management 3<sup>rd</sup> Quarter FY 2016

- Average number of registrations activated per month:
  - New registrations: 7,498
  - Updated registrations: 54,470
- Average cycle time in 3Q FY2016 was 2.00 days
- Average number of site visits per month was 1,073,239
- Average number of searches performed per month was 5,248,059

## IAE and DevOps: The Journey So Far

The Integrated Award Environment (IAE) Program has been on a journey to implement DevOps for the past year, as IAE transforms our organization to “modernize” its 10 systems onto a single platform using a customized SAFe approach, what is being called “the new SAM.”

### Assessing IAE DevOps Maturity So Far

So where is IAE in the DevOps Maturity Model? First, one should point out there are many ways to do DevOps and there are many DevOps assessment and maturity models. At the Agile in Government Summit 2016, the DevOps maturity model below was presented:

#### DevOps Maturity Model – 5 Levels

<http://www.cloudtp.com/2015/11/04/10-steps-for-devops-success-in-the-cloud/>

Maturity Level	People	Process	Technology
Level 1 Ad-Hoc	<ul style="list-style-type: none"> <li>Silo based</li> <li>Blame, finger pointing</li> <li>Dependent on experts</li> <li>Lack of accountability</li> </ul>	<ul style="list-style-type: none"> <li>Manual processes</li> <li>Tribal knowledge is the norm</li> <li>Unpredictable, reactive</li> </ul>	<ul style="list-style-type: none"> <li>Manual builds and deployments</li> <li>Manual testing</li> <li>Environment inconsistencies</li> </ul>
Level 2 Repeatable	<ul style="list-style-type: none"> <li>Managed communications</li> <li>Limited knowledge sharing</li> </ul>	<ul style="list-style-type: none"> <li>Processes established within silos</li> <li>No standards</li> <li>Can repeat what is known, but can't react to unknowns</li> </ul>	<ul style="list-style-type: none"> <li>Automated builds</li> <li>Automated tests written as part of story development</li> <li>Painful but repeatable releases</li> </ul>
Level 3 Defined	<ul style="list-style-type: none"> <li>Collaboration exists</li> <li>Shared decision making</li> <li>Shared Accountability</li> </ul>	<ul style="list-style-type: none"> <li>Processes are automated across SDLC</li> <li>Standards across organization</li> </ul>	<ul style="list-style-type: none"> <li>Automated build &amp; test cycle for every commit</li> <li>Push button deployments</li> <li>Automated user &amp; acceptance testing</li> </ul>
Level 4 Measured	<ul style="list-style-type: none"> <li>Collaboration backed on shared metrics with a focus on removing bottlenecks</li> </ul>	<ul style="list-style-type: none"> <li>Proactive monitoring</li> <li>Metrics collected and analyzed against business goals</li> <li>Visibility &amp; predictability</li> </ul>	<ul style="list-style-type: none"> <li>Build metrics visible and acted on</li> <li>Orchestrated deployments with auto rollbacks</li> <li>Non functional requirements defined and measured</li> </ul>
Level 5 Optimized	<ul style="list-style-type: none"> <li>A culture of continuous improvement permeates through the organization</li> </ul>	<ul style="list-style-type: none"> <li>Self service automation</li> <li>Risk &amp; cost optimization</li> <li>High degree of experimentation</li> </ul>	<ul style="list-style-type: none"> <li>Zero downtime deployments</li> <li>Immutable infrastructure</li> <li>Actively enforce resiliency by forcing failures</li> </ul>

Figure 1: The DevOps maturity model focuses on the degree that an organization is able to obtain value from DevOps processes and technology. (Source: Cloud Technology Partners)

IAE’s new SAM.gov is not yet in production for Continuous Integration and Continuous Deployment/Delivery and hence has yet to undergo the full cycle of work to deliver to our users. IAE has been working multiple Agile teams applying the evolving “IAE DevOps and IV&V Processes” document that has been collaboratively created across the teams. IAE DevOps is on the cusp of moving from manual testing and deployment to automated testing and deployment, and so, like most emergent Agile DevOps organizations, has had to first go through the bumpy road of Level 1 so that we can now cross into Level 2 in maturity. Adopting DevOps is often painful initially, so it’s significant IAE is moving forward.

### The Evolving Lessons Learned

So what have we, learned so far?

**Lesson 1: Culture, Automation, Lean, Measurement and Sharing (CALMS) are the cornerstones of DevOps.** Automation provides those repeatable, predictable processes for building, testing and delivering capabilities to the end user as well as the confidence to continually extend and deliver new functionality without regressing. And it’s critical to continually measure and lean out these processes in order to streamline delivery. *Sharing the good, bad and the ugly within the team and across the organization allows everyone to grow, learn and improve the processes.*

**Lesson 2: DevOps can often necessitate building new organizational behaviors and staffing to become a learning organization with leadership support.** *High performing DevOps culture looks like this: we see problems as they occur, we swarm those with resolutions, we spread the new knowledge, and we have blameless post-mortems (retrospectives), so everyone gets better and better.*



## IAE and DevOps: The Journey So Far (continued)

**Lesson 3: Culture means that we focus on the right people doing the work who can play well, be cross-boundary, and be user-centric to deliver, deliver, deliver.** The key to success is forming the right leadership and teams, with the right backing and support from management, at every level. They say in real estate it is location, location and location. *In DevOps, its culture, culture, and culture.* Culture means getting top management to buy into the necessary organizational changes and people behaviors, eliminating the organizational and policy barriers in the migration path to production and integrating all functions into the organization from project initiation to delivery.

**Lesson 4: It's not, as many tools vendors will lead you to believe, simply about buying products that magically lead you to DevOps nirvana.** Automation is important, but automating without the proper path cleared for services to be delivered to production will simply increase the level of frustration at each roadblock. *That said, choosing the best Agile scalable tool that supports DevOps Continuous Integration and Continuous Deployment with Value Stream, Portfolio and Program views is critical the more complex your enterprise may be. We are assessing our tool.*

### Why IAE Is Doing DevOps? – High Performance Goals

What complex enterprises have already learned by doing DevOps successfully is what motivates IAE to do DevOps, as reflected in the key findings of the 2016 State of DevOps Survey. The Survey had over 4,600 responses from professionals around the world. Key findings include:

- High-performing organizations deploy 200x more frequently than low performers, with 2,555x faster lead times, 24x faster recover times, and 3x lower change failure rates.
- High performers spend 22% less time on unplanned work and rework, and 29% more time on new work than low performers.

- Employees in high-performing organizations were 2.22 times more likely to recommend their organization to a friend as a great place to work.
- High performers spend 50% less time remediation security issues than low performers.
- Lean product management practices, including decomposing product and features and gathering customer feedback to inform product design predicts IT performance and deployment pain.

*What's not to love with those results? Worth emulating.*

### Conclusion

In IAE, we have learned that environment has a lot to do with how you implement a DevOps culture, requiring an over-arching DevOps structure which is part of the entire program, not isolated into a single team. We learned DevOps should be defined by the entire program so everyone buys in. We learned that there is no solid definition or a defined way of implementing DevOps; it falls into two categories – (1) technology and (2) culture. Technology tools have been developed to support building and promoting “stuff” faster. They call it that DevOps.

But the equally if not more important category is the change of organizational and people culture, just as Agile does. Many companies and organizations say they are Agile until you lift up the hood and look inside and discover they are just putting Agile labels on waterfall ways. It's the same with DevOps. Just because they can get stuff deployed faster doesn't mean they are a DevOps culture; a DevOps culture focuses not primarily on speed but on quality and learning from failure to build better working products that users delight in.

So we continue our journey up the DevOps Maturity Model scale, eyes wide open to learning more lessons as we proceed.