The Office of Management and Budget

Digital Service Contracting Professional Training and Development Program Challenge



GOVERNMENT

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For questions, please contact:

Jeffrey Neal Senior Vice President, ICF +1.703.934.3331 jeffrey.neal@icfi.com

Lisa Akers President, Products & Solutions Division, ASI +1.301.392.1895 lisa.akers@asigovt.com

icfi.com



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1. PROGRAM DESCRIPTION

To meet the demand and realize the value of digital services, Federal acquisition professionals must develop a solid understanding of modern technology and the services they are procuring for their customers. Therefore, the Office of Management and Budget (OMB) and the United States Digital Service (USDS) seek a training and development program that introduces creative techniques and innovative methods for acquiring digital services that help drive transformational culture change. As described in our Phase I white paper submission, the ICF-ASI team has developed a curriculum using Agile Learning Design principles that allow us to adapt the learning experience to the needs of each learner while promoting progress against established learning objectives.

Specifically, for the structured portion of our curriculum (60%), we have developed a curriculum that will produce digital service acquisition professionals who:

- Effectively engage with program owners and digital service practitioners using the language of digital services.
- Structure flexible acquisition solutions that promote modular development strategies, meet the needs of customers, reduce transaction costs and process complexity, manage risk, and reach innovative, non-traditional competitors.
- Form strategic partnerships with agency personnel to support program delivery within their assigned agencies.
- Operate with a high degree of confidence using critical thinking and creativity to leverage the flexibilities inherent in the Federal Acquisition Regulation (and as documented in the TechFAR).
- Appropriately measure the success of digital services contracts based on industry standards and mission outcomes achieved.
- Accurately describe and define the value received through an acquisition of digital services.
- Deliver disruptive but measured innovation within their assigned agencies to support transformational change across the acquisition system.

Participants who complete our program will know how to build innovative contracting models to balance industry best practices with the principles of public procurement while catalyzing transformational change across the Federal government. We organize our curriculum in the form of a product roadmap (see Figure 1 below) with six "releases," each representing a general learning goal that supports the overall program vision. In accordance with Agile Learning Design, each release has defined objectives to deliver learning and affect behavior change without being "locked-in" to a curriculum structure that may not reflect the disparate needs of its participants. In addition, the sequence within each release reinforces habit creation and promotes critical thinking by moving participants from awareness of concepts to practical application.



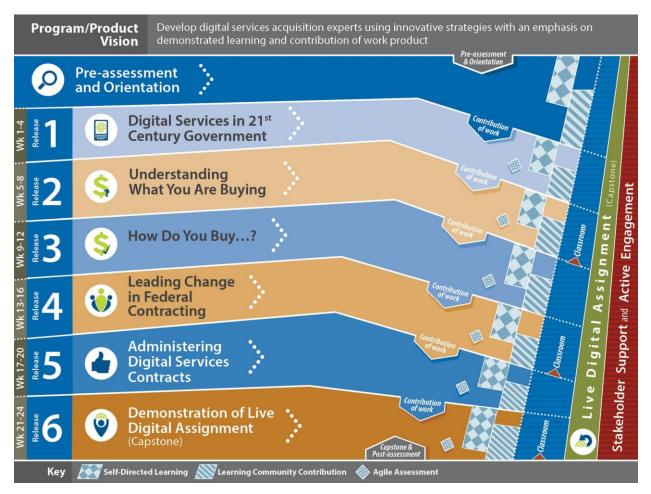


Figure 1: Product Roadmap Outlining Major Content Focus Areas

Each release is four weeks in length and includes two, two week iterations that provide opportunities to demonstrate learning through a live digital assignment and other activities and exercises. The concept of iteration is paramount to our approach, as participants work on assignments in a modular fashion with regular feedback from curriculum faculty, their peers, and their program customer. Iteration enables our curriculum to respond with specific instructional support as participants identify new challenges. As participants experience success through demonstrated learning, they will be encouraged to contribute solutions to repositories such as the Acquisition Gateway, 18F Guides, or a TechFAR "hub."

Our program will develop cadres of certified professionals to procure digital services (see the <u>Assessment</u> <u>Plan</u> section for a discussion of certification). They will gain the skills needed to serve as digital service acquisition change agents, charged with leading change throughout the government and sharing knowledge, success, and best practices with future program participants and the acquisition community at large. At the conclusion of the curriculum, participants will have created work products that support their live digital assignment and their customer's digital service need. By encouraging concrete participant contributions to change, we build buy-in and empower participants to continue furthering this change back on the job. Similarly, by involving stakeholders throughout the program, participants build a network of individuals who can support them and help accelerate the change process both during and after the program. Combined, this approach contributes to the digital services acquisition culture change and positions program participants as catalysts for change in their agencies.



To help illustrate how participants will move through the program and the learning activities for each release/iteration, we start with a high-level, generic release "rhythm" schedule (see Figure 2 below) that shows the general types of learning activities that participants will complete during each week of the program. In the <u>Curriculum Details</u> section, we also include a more detailed schedule for each release that stays true to this generic release "rhythm" while reflecting release-specific activities and adjustments.

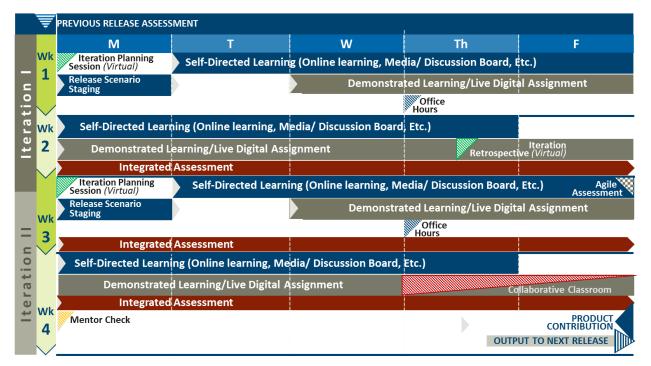


Figure 2: The release "rhythm" schedule establishes predictability for participants and reflects the mix of instructional strategies/educational methods used to achieve performance objectives.

1.1 Instructional Strategies & Educational Methods

In this section, we describe the program components, instructional strategies, and educational methods used to achieve the program outcomes. We will employ a mix of instructional strategies to achieve the performance objectives within each release. These strategies promote comprehension, experiential learning, and practical application of knowledge and skills. They also emphasize communication and engagement with key stakeholders inside and outside the participants' organization to contribute to the overall acquisition culture change.

We describe the program components, along with the instructional strategies and educational methods we will use to achieve program outcomes, below.

Peer Learning & Community of Practice Creation

To support the goal of culture change and to increase learning effectiveness, participants will move through the program as a cohort. Organizing participants into cohorts has three functions: 1) it creates a safe space for participants to discuss challenges, take and defend points of view, and implement solutions; 2) it develops a lasting network of colleagues beyond the program; and 3) it supports the iterative nature by which participants will complete their live digital assignment.



Participants who successfully complete the program will be asked to continue to support the program in one or all of the following ways:

- Serving as mentors for future program cohorts
- Championing the program as program "fellows" throughout the government to attract future participants, including acquisition professionals who will directly participate in the program and other government professionals who will provide support and feedback
- Sharing knowledge, success, and best practices with future program participants and the acquisition community at large

Pre-Assessment & Customized Learning Paths

To support the responsive portion of our curriculum, participants will complete a pre-assessment to identify gaps in their knowledge while providing program faculty with an understanding of their on-the-job needs. The pre-assessment leverages realistic role-based job scenarios that foster critical thinking. The goal is to have participants reflect, reason, and develop alternatives so we can evaluate how they apply concepts in their operational environment. Following completion of the pre-assessment (which occurs prior to the program's start), participants will receive a summary report identifying their individual strengths and weaknesses relative to the performance objectives. The summary report is used to generate a customized learning path that can be quickly assembled to reflect the unique knowledge and capability needs of each participant and support them with resources as they encounter emerging on-job challenges. We will use the results of this pre-assessment, both at the individual and cohort level, to inform the 40% responsive portion of our curriculum. This approach enables us to adapt to evolving participant needs without sacrificing development against established objectives.

Participants will use their customized learning path to create an Individual Development Plan (IDP), which they will commit to fulfilling with support from mentors, supervisors, and agency leadership. The IDP will be accessible through the learning portal (described in the Learning Portal section) and is linked with the participant's customized learning path. As participants progress through the program, they will update the IDP based on their interaction with program material. Actively managing the IDP motivates participant commitment to addressing their knowledge gaps while providing opportunities for demonstrated learning that support transformational change throughout Federal acquisition. See Figure 3 for a sample of the IDP format.



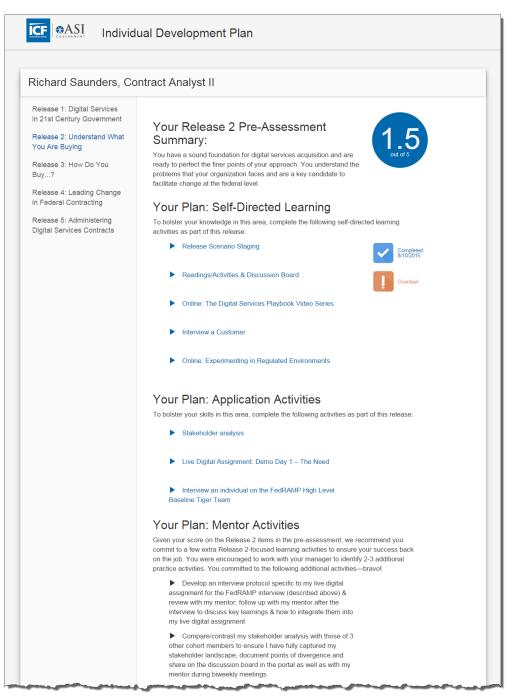


Figure 3: This sample Individual Development Plan (IDP) shows the learning activities for a participant who scored low on the Release 2 pre-assessment items (see the <u>Curriculum Details</u> section for a discussion of these activities).

Live Digital Assignment

Prior to the start of the program, participants will select a live digital assignment that addresses an actual agency, customer, or program owner need. They will craft an acquisition solution to this need throughout the program with support from program faculty, mentors, and their learning peers. Participants will



collaborate with the customer to develop the solution through a series of iterative versions, culminating in a final presentation and delivery at the conclusion of the program. As described in the <u>Assessment Plan</u> section, participants will complete this assignment as the practical application portion of the Capstone for the program. When completed, participants will contribute their assignment and associated materials to an appropriate repository for use by other acquisition professionals (see discussion below for suggestions around organizing these contributions).

Participants should work with the appropriate individuals in their agency (e.g., supervisor, acquisition career manager, program owners) to identify an assignment and submit it to program faculty in advance of the virtual orientation. The following guidelines should be considered when selecting the live assignment.

Requirement	Description
Must Be a Digital Service that is Being Acquired or Likely to Be Acquired	The selected assignment must deal with a digital service of some type. According to the Digital Government Strategy, "digital services" refers to "the delivery of digital information (data or content) and transactional services (e.g., online forms, benefits applications) across a variety of platforms, devices, and delivery mechanisms (e.g., websites, mobile applications, and social media)."
Must Be Early in Acquisition Lifecycle	Participants will first need to develop a market research document or a pre- solicitation artifact as part of their assignment. Given the timelines usually associated with the appropriation/apportionment/allotment process, selected assignments must have initial funding approved (e.g., funding for the MVP, first 6 months of aaS, pilot).
Solves an Actual Need and Has a High Likelihood of Advancing through Procurement Lifecycle	The assignment is intended to be <i>live</i> in that it solves an actual need; it should not be simulated. Therefore, participants must select assignments that address needs that a program owner or customer has identified as end-user needs (note: these needs may or may not have been validated with end-users). The selected effort should also have a high likelihood of progressing from the pre-solicitation phase.
Has Sufficient Scope and Complexity	 Participants will be required to complete the following six parts of their assignment over the 5+ month program: Market Research Document or Pre-Solicitation Artifact Demo Day: The Need – presentation of the customer's requirement/problem to be solved and how they arrived at that solution leveraging stakeholder input Demo Day: Version 1 – presentation of participant selections around contract type, provisions & clauses, and other advanced techniques, as appropriate and given need/problem, as well as soliciting feedback, concerns, and risk considerations Demo Day: Version 2 – participants make updates to their assignment based on feedback received on Version 1 Demo Day: Version 3 – presentation of a final version of their acquisition solution and a "dry run" of their final product demonstration Demo Day: Final Product – presentation/defense of their approach with judging by a panel of experts, leaders and peers



Requirement	Description
Presents a "Wicked Problem"	The assignment should have unique challenges that require participants to use non-traditional and creative approaches.
Has a Program Owner Who Is Willing to Provide Iterative Feedback to Participant	Program owners (or customers) selected for the live assignment will provide feedback on the development of the acquisition solution and should endeavor to attend demo days when possible (several of which will be virtual). This relationship will be crucial to the participant's professional development, so we advise participants and their mentors to identify an individual likely to provide thoughtful feedback and consistent energy throughout the program.

In cases where participants are not able to identify an assignment that meets the above requirements in their agency, program mentors will work with OMB, 18F, and/or USDS to identify an appropriate assignment from elsewhere in government.

Support Network for Live Digital Assignment

To support participants in execution of their live digital assignment, they will work with the following individuals/groups:

- **Supervisor/Acquisition Career Manager.** Throughout the program, participants will work with their supervisor to solve technical and other challenges, while helping to reflect on key learnings and experiences (with support from the acquisition career manager).
- **Mentor.** Participants will be paired with a mentor to support their selection of the live assignment, guide them through the process of completing it, and provide a "sounding board" for ideas and approaches. For the pilot, participants may select their own mentors or do so in conjunction with OMB in advance of the program. During program implementation and sustainment, former cohort participants will have the opportunity to serve as program mentors to continue supporting the digital services acquisition professional community.
- **Program Owner.** Participants will work with their program owners to evolve their assignment throughout the program. Program owners will be consulted iteratively and be present during the demo days that occur in the collaborative classroom sessions.
- Learning Teams. Participants will be encouraged to self-organize into learning teams based on the type of live assignment they select. These teams are important resources for participants throughout the program, providing not just support but critical feedback during small group demo days.

Program faculty will curate resources, readings, sample acquisition documents, and other materials to support the participant's progress in completing the live assignment.

Contributing to the Digital Services Acquisition Professional Learning Community

Throughout the program, participants will present on their assignments and contribute them to the TechFAR "hub" or another repository identified by USDS or OMB. The materials will be organized in a useful and searchable manner. In addition, participants will define lessons learned and key takeaways following their Capstone presentations in Release 6 and share them in the appropriate repository for use by the digital services acquisition community at large. See the discussion of Release 6 for additional information.



Program Orientation

The program will begin with a program orientation (in-person with a virtual option) during which the faculty will welcome participants, set expectations for the program, and introduce participants to each other. Where possible, the orientation will be scheduled for the afternoon so that co-located participants can easily gather afterward for an informal, self-organized networking event. Specifically, the orientation will cover the following topics:

- Overview of the program, its outcomes, and the Agile Learning Design philosophy
- Learning portal
- Expectations for participants and others who will be supporting participants throughout the program (i.e., supervisor/acquisition career manager, mentor, program owner)
- Class schedule, including classroom sessions
- Review of pre-program assessment results at the cohort level
- Using your pre-program assessment results to build your IDP
- Check-in on selection of live digital services assignment and discussion of goal, process, and expectations, including self-organization into learning teams
- Evaluation: rubrics, grading, and badging
- Introductory activity to get participants in the program "mindset"
- Overview of Release 1



The self-directed learning component of each release will allow participants to gain requisite knowledge and begin to apply skills in preparation for the collaborative classroom session. The specific self-directed learning topics that each participant explores will be customized based on his/her pre-assessment. The types of self-directed learning activities will include:

- Release Scenario Staging. The release will kick off with an online scenario where learners are
 presented with a scenario or case study followed by decision points that encourage them to think
 about the situations they will face on a day-to-day basis and how they will respond; participants
 receive a score based on their performance and are shown the outcomes associated with their
 choices. Program facilitators will use these scores to gauge initial participant familiarity with the
 content.
- Media/Discussion Board. Participants will be provided with a selection of relevant media (readings, resources, blogs, podcasts, etc.) based on the content being discussed in each iteration. They will self-select which media to review, based on their IDP and individual learning needs, and will be encouraged to post both thoughts and solutions to mini-activities. They will receive points based on the number of times they complete activities and contribute demonstrated learning either to the discussion board or other platform, such as the TechFAR "hub", Acquisition Gateway, or relevant 18F Guidebook. They will eligible for learning badges based on their effort.
- Online Learning. Engaging online learning that integrates content and interactive elements will be
 presented to teach core, foundational knowledge and skills. Online learning will incorporate
 examples, case studies, and activities that will place the content within the context of participants'
 jobs. Participants can then focus on applying this foundational knowledge during the collaborative



classroom sessions to transfer theory into practice. All content and modules will be developed with reusability and scalability in mind to support the ongoing effort to train and develop digital services contracting professionals. In addition, this content will also be available as refresher and reference materials to support each participant's continued learning journey.

- **Stakeholder Engagement.** Throughout the program, participants will engage with and interview key stakeholders and will do so in-person, whenever possible. These individuals may include their supervisors, acquisition career manager, acquisition policy analysts, agency IT professionals, members of the general counsel/inspector general/GAO, other stakeholders, and potentially industry professionals. This approach continues to reinforce the cultural change element, gains the buy-in and support of key stakeholders, provides reinforcement from others outside the program, reinforces key messages, and holds participants accountable.
- **Demonstrated Learning.** As with the live digital assignment, participants will demonstrate learning by completing various exercises and activities related to each release. They will contribute their solutions and results to the broader acquisition community to support the development of new techniques and creative approaches to acquiring digital services.

Guided Learning

The guided learning component includes regularly scheduled collaborative sessions with the cohort, either live or in person. The exact times during which the guided learning component will occur will be discussed with each cohort at the outset of the program, but the general schedule is described below.

- Iteration Standup Call (30 minutes; occurs first Monday of each iteration)
 - On the first Monday of each iteration, facilitators will hold a standup call to discuss the schedule and goals of the iteration and provide an opportunity for participants to ask questions and discuss challenges they are having. Attendance at every standup call is strongly encouraged, but we recognize that schedule conflicts arise so this is not a strict requirement. Participants who miss more than two standup calls will be required to document this and may be required to complete remedial measures.
- Office Hours (2 hours during the first week of each iteration unless otherwise noted, typically occurring on Tuesday or Thursday depending on the release schedule; special office hour appointments may be considered upon request)
 - Office hours provide an opportunity for participants to discuss their progress with facilitators and mentors and to receive personal instruction and coaching as they work to fulfill the expectations of the program.
- Iteration Retrospective (~2 hours; occurs last Thursday of each iteration)
 - After each iteration, participants will gather virtually with program faculty to reflect on the release and share ideas about the program in general. (These sessions will also be recorded and archived for those participants who cannot attend.) These sessions are designed to keep participants on track and serve as a "forcing function" to motivate progress against their live assignment. In addition to reinforcing the need for frequent and continual feedback, guest speakers (e.g., individuals who authored some of the selfdirected reading materials) may be invited to share new perspectives or other advice.
- Collaborative Classroom Sessions (Up to 2 days; occurs at the end of Releases 2 and 4, and the first iteration of Release 6)



 Classroom learning sessions will focus on an interactive and collaborative review of the self-directed learning as well as delivery of new content when applicable. Activities will focus on applying what was learned to real-world problems and situations. This hands-on practice and engagement helps participants gain confidence and be empowered to act as change agents when they return to the workplace. Classroom learning sessions will also allow for in-person product review sessions with customers and stakeholders and opportunities for practical application.

Program Faculty and Guest Speakers

Program faculty will serve as teachers, coaches, mentors, and peers to the participants moving through the program, though their primary goal will be as facilitators. We understand that adults learn best when they are intrinsically motivated and understand why the instruction is required; therefore, program faculty will primarily be responsible for curating resources, designing and supporting the delivery of online learnings, and supporting demo days and classroom sessions. They will also identify guest speakers to participate in portions of the program where appropriate to reinforce key learning points or expand upon concepts with which participants are struggling. In <u>Appendix 3</u>, we describe our program faculty for the pilot and a suggested cadre of guest speakers. This cadre was selected based on their areas of expertise, demonstrated leadership in relevant disciplines, and demonstrated success participating in similar collaborative learning or guest speaker endeavors. We will select specific guest speakers from this cadre for each program delivery depending on cohort needs and speaker availability.

Learning Portal

Participants and program faculty will use an edX-based learning portal to access program materials and collaborate throughout the program. The portal will allow participants to:

- Effectively navigate, access, and interact with the program components. The easy-tonavigate interface was designed with the user in mind, and we have customized it for this program.
- **Easily track progress.** The platform functions as a learning management system (LMS) but provides a streamlined user experience and modern look and feel.
- **Collaborate with other participants.** The portal provides opportunities for participants to collaborate via discussion boards and to earn badges.
- Access learning on any device. The portal is fully responsive.

In keeping with Play 13 from the Digital Services Playbook, "Default to open," edX is an open source platform. In addition, the portal will allow program administrators/content creators to easily modify and update program components (without requiring advanced programming knowledge). The portal can also integrate with the Federal Acquisition Institute Training Application System (FAITAS), if and when required. We present a draft portal homepage in Figure 4.



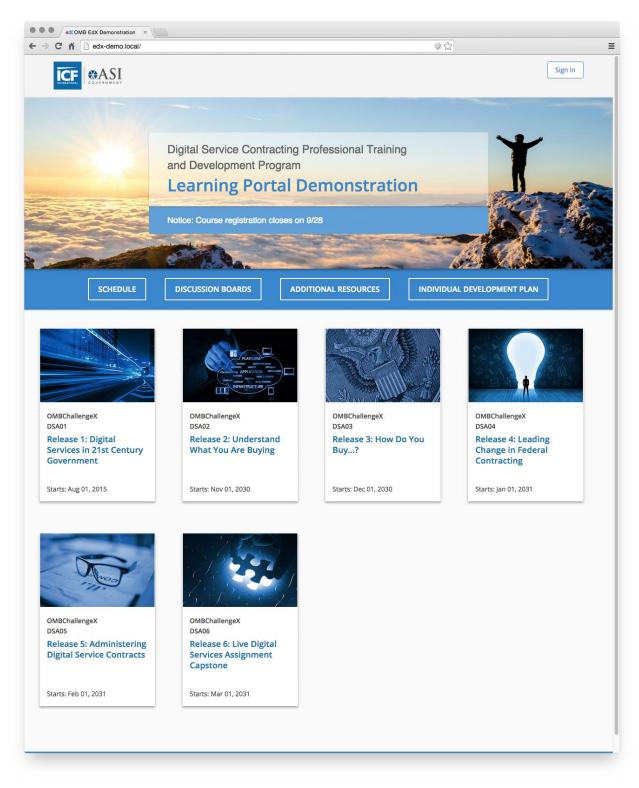


Figure 4: The learning portal provides an easy-to-navigate, easy-to-collaborate, and easy-to-use-on-the-go experience for participants as well as an easy-to-update backend for program administrators.



2. Assessment Plan

In the following section, we describe our overall assessment plan to simultaneously measure the extent of participant mastery of key performance objectives and to demonstrate the program's contribution to the acquisition community. The ICF-ASI team's experienced industrial-organizational psychologists use research-based methods to create assessment instruments. We go beyond measuring participant information recall and instead measure how participants both comprehend and apply learning to high-fidelity situations. Not only does this approach yield quality assessment data for ongoing program refinement, but the very experience of completing each assessment becomes integral to participants' learning – for what is measured sends a message about what is important to achieving desired outcomes on the job. Below, we present the key questions we seek to answer with assessment data, the mechanics of assessment activities (i.e., who will be assessed, how, and when), and how remediation strategies will be used to assist participants in attaining desired individual behavioral change. Alongside the curriculum and instructional design strategies, assessments will provide evidence of learning and the use of desired procurement behaviors that strengthen Federal digital services acquisition expertise.

2.1 Key Questions

Our assessment plan will yield data across the four traditional training evaluation levels¹: Level 1 (L1) (reactions), Level 2 (L2) (learning), Level 3 (L3) (behavioral change/application), and Level 4 (L4) (unit and/or organizational impact). Assessment activities will address the following key questions:

- Measuring Individual Learning and Behavioral Change:
 - To what extent do learners intend to immediately apply what they have learned on-the-job? (L1)
 - To what extent do learners demonstrate improved knowledge and increased ability to perform target duties? (L2, L3)
 - How do learners differ in their pre- and post-program demonstration of knowledge and skills? (L2)
 - To what extent do learners demonstrate desired behaviors? (L3)
- Measuring Participant Needs and Evolving Marketplace Trends for Agile Content Customization:
 - Given marketplace trends and cohort-level emerging learning results (i.e., during the program), what curriculum and/or instructional strategy adjustments have a high potential for enhancing training impact? (L1, L2, L3)
- Measuring Program-Level Impacts (Retrospective/After-Action Review): Demonstrate overall digital services procurement impact and value to the organization, its customers, and stakeholders
 - How effective is the current implementation (e.g., instructor consistency, topics, pacing, length, customization, course administration) of the program? (L1)
 - To what extent is the curriculum configured and delivered optimally for adult knowledge and skill acquisition? (L1)
 - What are participants' expectations of the program and are those expectations met? (L1)

¹ Kirkpatrick, J.D. & Kirkpatrick, W. K. (2009). Kirkpatrick Then and Now: A Strong Foundation for the Future. CreateSpace Independent Publishing Platform.



- Are there changes that will have a high potential for enhancing the effectiveness of the curriculum? (L1)
- What factors facilitate and/or inhibit the application of learning to job performance? (L3, Brinkerhoff)
- What organizational outcomes arise as a result of program participation (e.g., identified procurement success metrics)? (L4)

Answering these questions will provide robust evidence to both demonstrate where desired fundamental changes are occurring as well as identify where shifts are more problematic and require additional reinforcement or adjusted learning experiences. Our assessment plan prescribes choreographed administration of assessments integrated with the curriculum, as well as immediate data analysis and interpretation of results to facilitate maximum program impact even within a changing digital services market landscape. While these are somewhat lofty goals, we view assessment activities as embedded in program design and infrastructure, as detailed below.

2.2 Mechanics of Assessment Activities

Simultaneously measuring participant learning and demonstrating the impact of the program requires a set of well-planned activities coordinated with key program events. As the table below indicates, assessment will occur before the program begins (pre-assessment), at Week 3 during each release, during the first two classroom sessions, during the Capstone session, and after the formal program concludes. In addition, assessment is also integrated into several program components and demonstrated learning activities to collect key metrics regarding learning progression.

The following tables below specify what will be measured, how and when measurement will occur, and from whom we will obtain assessment data.

Measuring Individual Learning and Behavioral Change				
What How		When	Who	
 Utility Reactions (L1) Mastery and Application of Learning Objectives (L2, L3) 	 Likert-scale judgement items (e.g., How useful is the content?) Knowledge acquisition items (e.g., Have participants learned the content?) Scenario-based assessments (e.g., Can participants reflect, reason, apply content?) 	One assessment per release, timed at Week 3 (deadline for participants to complete self-directed learning and other core learning activities)	Participants	
Application of Learning and Behavioral Change (L3)	 Expert review of contributions to repositories such as the Acquisition Gateway or other "hub" using structured rating form Expert ratings of each deliverable using structured rating form 	 One assessment per content contribution event, occurs on-demand upon contribution One assessment per deliverable, occurs upon deliverable submission 	 Expert rating/judge panel (ideally 3 raters) comprised of instructor(s), SMEs, customers, stakeholders, fellow training cohort members (randomly appointed) 	
Capstone/Skills Test/Certification	 Expert rating of final live digital assignment using structured rating form Skills test comprised of in-depth realistic role-based job scenarios with video-taped (behavioral) and written responses 	 One assessment during Capstone session Skills test administered remotely immediately post-program 	Certification panel (ideally 3 raters) comprised of instructor(s) and SMEs	



Measuring Participant Needs and Evolving Marketplace Trends for Agile Content Customization					
What	How	When	Who		
 Utility Reactions (L1) Curriculum Content and Instructional Strategies (L1) 	 Pick-from-a-list items and open-ended questions to measure both what participants have learned sufficiently and what they believe they need to learn more about Administered through learning portal Ask instructor(s) to report their assessments of cohort needs Cohort-level results will inform instructional design approaches (how is the mix of instruction working for participants (e.g., do I need more interaction with my mentor? Do I like the readings/discussion forums?)) Cohort-level results will inform adjustments to what's covered in the Week 4/end of release classroom or virtual session (e.g., participants are really not understanding or demonstrating X digital service concept, so we need to spend time focusing on that in the classroom) See the <u>Customization Work Plan</u> section for a discussion of how inputs from these assessments, as well as a content relevancy/currency review, inform updates to the upcoming release 	 One assessment per release, timed at Week 3 Synchronized with content updating cycle Could also be "tacked on" to assessments described above to minimize respondent burden 	 Participants Instructors 		

Measuring Program-Level Impacts (Retrospective/After-Action Review)					
What	How	When	Who		
 Post-Pilot Utility Reactions (L1) Curriculum Content and Instructional Strategies (L1) 	 Attendance summary Survey to collect participant reactions and feedback on curriculum and program administration Interviews (either census or sample) to explore survey findings in more depth Expert content review 	Immediately post-pilot	 Participants Records reviewer Stakeholders, Customers 		
 Post-Pilot Sustained Behavioral Change and Application (L3) Procurement Success Metrics (L4) 	 Survey to assess application Success case interview to share more detailed examples of application and report on those factors (either within training or in the on-the-job environment) that facilitated application Inspection of procurement success metrics, at the unit/department level 	 4-month post-pilot (survey, interviews) 6-month post-pilot (success metrics) 	Participants		

Analysis & Reporting

Assessment activities are designed to yield bursts of data that inform individual learners, program facilitators, and mentors on how to maximize learning as well as how to increase the adoption of desired procurement behaviors, enduring cultural change, and a thriving community of acquisition professionals. Reports will be accessible through the learning portal, allowing assessment activities (and the use of assessment data) to be synchronized with core learning activities. Some highlights of what analysis and reporting will generate are as follows:



- Before the program, pre-assessment individual-level analysis and reports will serve as input to each participant's customized learning path and IDP. Further, pre-assessment cohort-level analysis and reports will be provided to facilitators and curriculum specialists for evidence-based curriculum customization.
- During Week 3 of each release, assessment analysis and reporting will provide participants' assessments of the relative utility of various program elements (i.e., content, instructional strategies) and participants' mastery of learning objectives both in terms of knowledge acquired as well as the use of new behaviors and strategies. These data will both further refine customized content and influence refinement of subsequent releases.
- Alongside each demonstrated learning event (i.e., contribution to TechFAR), expert review of
 participants' contribution will provide customized feedback to refine real-world application of
 learning, and cohort-level (aggregate) summary reports will demonstrate evidence of program
 impact.
- At the close of the program, assessment analysis and reporting will provide aggregate evaluations
 of curriculum content and instructional strategies, descriptions of successful application of learning,
 and documentation of those on-the-job factors that either facilitate or inhibit successful application
 of learning. Post-program assessment reports will also summarize specified procurement success
 metrics and over time will yield trend data useful for capturing unit- and organizational-level
 program impacts.

By using the multi-faceted assessment approach described here, data can answer the key evaluation questions, from inspecting patterns in individual- and cohort-based learning to identifying the factors that drive participant use of, and advocacy for, modern procurement strategies.

2.3 Remediation Plan

We recognize that mastery of this curriculum and, more importantly, playing an active role in the larger cultural transformation within the procurement discipline are difficult yet attainable goals. These goals both require that each individual participant's unique needs and requirements are met, and thus an integrated remediation strategy is critical to the overall success of the program. It is important to note, however, that our recommended remediation approach is an inclusive one that, instead of isolating the "under-performers" for assistance, provides data and support mechanisms to help every participant maximize their learning and mastery, as well as serve as a catalyst for fellow cohort members' achievement.

Remediation will occur during each of the classroom sessions, where facilitators will receive cohort summary reports that display participant scores in comparison to the cohort average and include structured interpretation guidelines to assist instructors in identifying areas below average. Facilitators will conduct brief (i.e., 10 minute) diagnostic interviews with each participant, on an as-needed basis, to review strengths and areas for improvement, with emphasis on corrective approaches for the weakest areas (e.g., structured interactions with mentor, prescribing targeted reading on a given topic). During these interviews, facilitators and participants will review the IDP to refine the customized learning path and planned activities.

Participants will receive assistance not only from the facilitators, but from fellow cohort members. Assessment reports provided to facilitators will suggest small groups (i.e., pairs or trios) where lower- and higher-performing participants are matched such that higher performers can mentor lower performers. Small group composition will be calibrated to ensure each participant is assigned the "higher-performer" role in some capacity. Small groups will receive structured templates to conduct two 30-minute virtual



learning sessions focused on those areas found to be more problematic. Virtual learning sessions will serve as an efficient, flexible method for reviewing content, discussing nuances, and identifying common risks and mitigation strategies, and will be included on participants' IDPs.

While remediation results will be used directly by facilitators and participant cohorts to enhance learning, results will also be combined with Week 3 assessment findings and used at a more macro level to inform ongoing program refinements. Facilitators will provide an aggregate summary of interview results to program faculty and curriculum specialists. Results may indicate that adjusting what is planned for the next release could benefit the majority of participants, and thus these data can provide evidence-based rationale for iterative content adjustment.

2.4 Capstone/Skills Test

Since demonstrating learning is absolutely central to the effectiveness of this program, any Capstone or summative evaluation must be application-based. Consistent with our assessment approach to integrate assessment into learning activities rather than experience assessment as an additional event, we will build on the live digital assignment for the Capstone/Skills Test. The Capstone/Skills Test will have two sections, each weighted to form a summary score. The first section consists of the expert panel ratings for the live digital assignment (Demo Day: Final Product). For the second section, participants will take what occurred during their Demo Day: Final Product presentation and prepare a response (either written and/or videotaped) with the goal of ensuring they demonstrate mastery in each of the required performance objectives. Participants can "fill in" where they might have fallen short during the live presentation and can use their creativity to convey mastery in a virtual environment. For example, a participant might record him/herself in a role play dialogue with a fellow cohort member and submit that video alongside a written explanation. This second section of the Capstone/Skills Test will thus give participants the opportunity to further strengthen critical thinking via reflection, reasoning, and conveying alternatives. Participants will be required to submit this second section within one week of the Capstone session and will be scored by an expert panel within three business days. Taken together, these two skill demonstrations will constitute the final assessment of participant mastery within the program. Participants will submit an up-to-date IDP upon submission of the skills test, and when results are shared with participants, they will convene with their manager to review, further refine their IDP, and continue their learning journey.

In addition, our comprehensive assessment approach will provide the skills assessments and context needed to help develop the anticipated Digital Services Acquisition "Core-Plus" Specialization/Certification designation. Once awarded, our team will work with OMB to determine which data being collected would be used to develop the specialization/certification. Furthermore, the ICF-ASI team has a strong track record of working with DAU, FAI, and accrediting organizations to provide CEUs/CLPs for its acquisition courses and will provide those for this program as well.

2.5 Conclusion

Assessment results will demonstrate how program participants develop new behavioral habits and apply critical and creative thinking as they make the desired transition from awareness of concepts to practical application. Our curriculum and associated assessment activities foster sustainable behavioral changes through a combination of individual-level, customized results and cohort-level, aggregate data that together support and maximize learning. Our assessment approach does not wait until after the program ends to assess learning but instead integrates and embeds assessment throughout the program. Only by transforming learning into behavioral change can OMB and USDS create digital service acquisition



professionals who can balance industry best practices with the principles of public procurement. Similarly, only by producing robust assessment data can one make high-impact investments to refine the program, as well as demonstrate how the program supports transformational change within the Federal acquisition community.

2.6 Customization Work Plan

To create the 40% responsive portion of our curriculum as part of the Agile Learning Design, we will follow a customization work plan that allows us to evaluate participants at set points in each release and then to tailor the curriculum based on the results of those evaluations. We provide an example of how this customization process would work for Releases 1 and 2 in Figure 5; this process would be repeated for all other releases. Levels 1, 2, and 3 evaluations will be conducted at the end of Week 3 during each release (see the <u>Assessment Plan</u> section for discussion of these evaluations in more detail). The results of these evaluations are then used to update content for the current and upcoming release, as well as inform long-term updates (future releases and post-pilot). The steps in the process are described below.

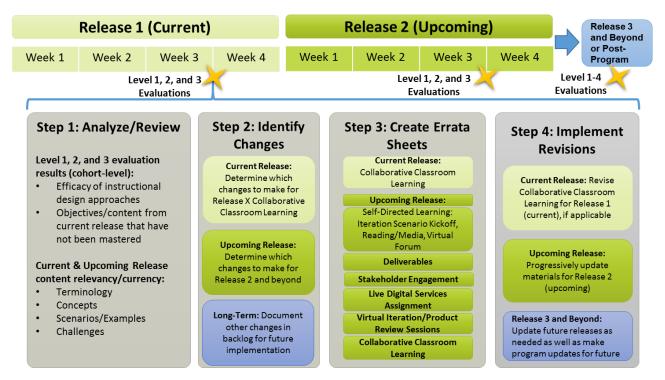


Figure 5: This diagram shows the process for updating Releases 1 and 2 in a systematic, accurate, and agile manner based on the customization work plan.

Step 1: Analyze/Review

During this step, facilitators and content creators will analyze the assessment results at a cohort and individual level to determine:

- Relevancy of the content and effectiveness of the current instructional approaches (Level 1).
- How well participants have mastered the content addressed in the current release (Level 2).



They will also use content from the individual remediation interviews conducted by the facilitator to inform this analysis and review step. In addition, they will survey the current and upcoming release to determine content relevancy and currency, given the evolving nature of the digital services acquisition field (e.g., terminology, concepts, scenarios, examples).

Step 2: Identify Changes

Based on the analyses conducted in Step 1, the facilitators and content creators will identify the changes (including remediation needs) that should be made to the current release, upcoming release, and in the long-term. For instance, if Level 2 evaluations reveal that participants are not mastering the Agile content in Release 1, then additional emphasis may be added to this during the conclusion of the current release and/or additional materials may be created to supplement their understanding in the upcoming release (e.g., offering of an extra webinar, addition of self-directed reading, additional stakeholder interactions). Similarly, if digital service concepts are changing or new challenges have been identified, then facilitators and content creators can update the upcoming release content accordingly.

More time intensive updates will also be flagged and prioritized at this time (e.g., large shifts in areas of focus), but they may or may not be able to be made rapidly enough to be timed with the beginning of the next release. This determination will need to be made by facilitators and content creators.

Step 3: Create Errata Sheets

Once changes have been identified, prioritized, and agreed to, errata sheets will be created that detail where and how updates are needed in each of the impacted components of the curriculum and their ripple effects. These sheets will also be synchronized with our digital workflow to track errata sheet creation and change implementation.

Producing such errata sheets first, and then incorporating their updates into all the affected components, is an iterative, rapid, and efficient method of delivering the most current information to participants in a consistent manner as opposed to going directly into each of the training media components one-by-one.

Step 4: Implement Revisions

Once errata sheets are created, revisions will be implemented in a systematic and efficient manner. As a part of this change implementation, the ICF-ASI Team will utilize our 3-tiered impact review system whereby the:

- First tier reviewer ensures content accuracy,
- Second tier reviewer ensures instructional soundness, flow, and effective use of engagement, and
- Third tier reviewer ensures consistency, interconnectivity, and integration with the "big picture" of incorporating the updates (with all the learning components).

These approval checkpoints ensure seamless integration with the overall curriculum. Finally, after revisions are made and reviewed, the final materials will be uploaded to the learning portal (and old materials will be archived).



3. ANTICIPATED COST TO IMPLEMENT THE PROGRAM

Based upon our program design and materials developed, we estimate that the pilot program will cost approximately \$258,000 or \$8,600 per participant, assuming a cohort of 30 participants. However, given the nature of the program design, we expect that after three to four deliveries of the program, subsequent deliveries would cost approximately \$216,000 or \$7,200 per participant. In the first few deliveries of the program, we anticipate that the customization work plan will include additional content developed as part of the responsive elements of the program. After three to four deliveries, we expect that the delivery cost will decrease since the previous content can be reused as instructional content or tweaked (rather than developed from scratch) for each subsequent delivery. As a result, fewer design hours for the responsive and customized parts of the program will be needed post-pilot, and there will be a reduced level of effort for the program facilitators. In addition, we expect assessment costs to be slightly higher in the pilot as our set of instruments and metrics are refined. Once this has occurred, it will require less time for assessment delivery and review. The major cost areas for program implementation include:

- Program facilitation, communication, and coordination
- Content/material customization and maintenance
- Assessment development, delivery, and review

Each major cost area is described below.

3.1 Program Facilitation, Communication, & Coordination

The estimated cost reflects running the program using two experienced, senior facilitators who are also subject matter experts. Program facilitators play a key role in the program that is larger than their time spent in the classroom. In essence, they act as guides and resources for participants, providing both instruction and one-on-one interaction, as well as support during the self-paced components of the program. In addition, because of their high level of contact with participants, program facilitators are also part of the assessment team for both collecting data as well as assisting with feedback and remediation. It is important to note that our cost also assumes that the government will provide continued support with program communication, mentor selection and training, participant selection, program logistics, classroom locations, and helping maintain the network of graduates (e.g., by inviting them to participate as mentors for future deliveries of the program).

Should the government wish to reduce costs in this area, it may be possible to do so by using different types or more junior facilitators once the program matures. Should the government choose to explore this option, we would also recommend the development of a train-the-trainer program to create a strong cadre of junior facilitators. This approach would potentially lower the overall program cost in subsequent deliveries as well as assist in scalability, as it would expand the facilitator pool beyond just senior, subject matter expert facilitators.

3.2 Content/Material Customization and Maintenance

This area covers costs associated with the 40% responsive portions of the program as well as general updating of course materials, assessment instruments, and resources such as the learning portal and hosting, selecting guest speakers, etc. Given the pace of change in digital technologies as well as the evolving nature of digital procurement, the customization work pan and overall program design facilitates streamlined updating and adjustments to the curriculum to maintain currency as the market develops and matures. This allows the program to stay up to date without requiring complete program revisions or



overhauls, which are costly and time-consuming. In addition, as noted above, because participants generate products throughout the program and materials are customized during each delivery, major portions of the next iteration updates to the content will be developed or will already be incorporated for subsequent deliveries of the program.

In addition, it is important to note that in Release 4, we recommend using the DiSC assessment to help participants understand their communication styles and most effectively communicate about/lead change. Currently, the DiSC costs approximately \$30 dollars per student. Our total anticipated cost includes the cost of using this assessment.

While the use of self-directed, web-based, and virtual components as part of this work do create a higher initial development cost to the program, they also allow for greater access to content, knowledge retention, and repeatability and scalability across the government with minimal impact to cost. We selected instructional strategies that balance the need to minimize update costs while also allowing achievement of the performance objectives. For elements that have a higher likelihood of changing in the near future, we selected instructional strategies/delivery modalities that are most cost-efficient to update (e.g., written content versus an animated video sequence). For elements that have a lower likelihood of change, we used strategies/modalities that increase engagement and have more visual flair and pizazz (but which are also more costly to update) (e.g., animated videos, narrated scenarios). Along with this, many of the program elements are designed to serve multiple purposes to reduce costs, without impairing achievement of the program outcomes. For example, the design embeds student assessment throughout the program as a means of evaluating progress during each release to 1) inform content and instructional strategy customization, 2) provide participants with real and immediate feedback for self-development purposes, and 3) send a signal to participants about the importance of continual assessment (in keeping with the theme of our program design being a signal for a new way of thinking about procuring digital services).

Finally, if the program were to be delivered to several cohorts simultaneously, additional cost savings could be achieved by reductions to content/material maintenance costs. This would occur because any program maintenance could occur once for all simultaneous deliveries as opposed to having to occur for each individually. Depending on how many deliveries are occurring per year, the anticipated cost could reduce further through economies of scale as well as having less need for content/material maintenance. In addition, because of how the online and in-person events are timed, the program can easily be scaled for multiple deliveries, while reducing costs, the program could have multiple staggered starts, which would reduce overall instructor and program customization time. This could be achieved also by using a staged start for multiple cohorts (i.e., starting cohort 2 when cohort 1 has completed Release 1).

3.3 Assessment Development, Delivery, and Review

A critical part of this program is how assessment is interwoven into the delivery to allow for incremental progress measurement for individual evaluation as well as programmatic effectiveness. Using this approach, the program culminates in a final validated post-skills assessment or Capstone. The advantage of this approach is that it allows the assessments to be used in its proposed form for certifications by establishing threshold knowledge checks as part of the program, without additional costs or resources. While development to the assessment instruments and metrics occurs prior to the pilot, the pace of the program dictates several assessment expert activities throughout the program. These activities are divided into two categories:



- Administration and Reporting. This covers deploying items such as the pre-assessment, the agile assessment in Week 3 of each release for customization, Capstone, and the 4 and 6 month post program assessments
- **Review and Rating.** While much of the assessment is automated, there are portions of the program that do require reviews to ensure skill mastery has been achieved versus being able to provide the right end product or answer. Examples of these elements include: release work contribution products, classroom session reports, and the live digital assignment.

3.4 Intangible Benefits

Finally, the program has the potential to provide additional benefits in the areas of cultural transformation, content creation, and information access that assist in determining the overall return on the investment in this challenge. These benefits are shown in the table below.

	Cultural Transformation	Content Creation	Information Access
 ✓ 	concept for Agile Learning Design and learning paths which could be applied to other growing areas of Federal services/management	 Contribution of tactical work product/templates/samples/ best practices to repositories/ guidance documents (TechFAR, GitHub, IT Category Hallway, etc.) that other contracting professionals can leverage, thereby increasing the knowledge base of the government at large and 	 Learning resources that participants can access both during and after program completion to support them on their learning path and as they progress in their career Increased awareness, use, and sharing of already-existing government resources
	contracting professionals in the future, thereby making interactions more effective and efficient	 minimizing the time required to get a needed digital service to market ✓ Scalable and repeatable 	that support digital service acquisition (Digital Services Playbook, TechFAR, Buyers Club,
~	More strategic acquisition of digital services that meet agency needs and will work within agency organizational context/constraints via the development of innovative and aligned digital procurement professionals	 program Development of repeatable evaluation techniques and metrics for assessing value of services procured 	Behind the Buy, FAI Media Library, IT Category Hallway)
~	Creation of a network of digital service acquisition professionals from across government who have worked together for six months and who can call on one another for support in the future		



4. ACHIEVING THE DESIRED PROGRAM OUTCOMES

The ICF-ASI Team is excited about the opportunity to partner with OMB on this important initiative. Our approach is specifically designed to strengthen digital services expertise within the contracting community by using an Agile Learning Design approach that serves as a signal for the behavioral changes OMB is attempting to achieve. Our approach will enable participants to apply strategic thinking and adapt industry best practices to digital service acquisition. Our curriculum informs participants on the nomenclature of digital services described in the TechFAR and the Digital Services Playbook to motivate sound decisionmaking. In addition, the program will allow acquisition professionals to measure the success of digital service contracts by understanding agile concepts such as continuous delivery and metrics that show work in progress and results from acceptance, security, and performance tests. Our use of Lean thinking principles allows the program to adapt to unique participant needs and a dynamic operational environment; as participants solve real-world challenges, they are encouraged to publish their work on resources like the TechFAR "hub" for others to reuse, remix, and repurpose. Finally, our curriculum advocates blended learning and innovative approaches including cohort and self-redirected methods, panel discussions, and competitive debate-like events that engage participants and drive behavior change. We are excited to join the effort to transform the way the Federal government maximizes the value of digital services from acquisition to deployment.



5. CURRICULUM DETAILS

In the sections that follow, we describe the curriculum in more detail, including the overall goal of each release (which maps to the program outcomes described in the <u>Program Description</u> section), each release's performance objectives, the instructional strategies and educational methods that allow achievement of these objectives, release-specific assessment activities, and an overview of the week-by-week release "rhythm" or schedule. In Figure 6 below, we present a high-level week-by-week schedule overview for each release. Participants in the program will have access to a similar overview on the learning portal.

release ONE

Week 1 - The Language of Digital Services

Iteration Planning Meeting: 9-930am Monday

Week 2 - Digital Services: The Who, What, & How office hours: 3-5pm Tuesday guided learning: 12-1pm Thursday

Week 3 – Sources of Supply, Communication, and the Problem to Be Solved Iteration Planning Meeting: 9-930am Monday office hours: 3-5pm Thursday

Week 4 – Market Research & Pre-Solicitation

Level of Effort: 12 Hours Deliverables: Guidebook & Market

Research Document

release FOUR

Week 13 – Building Self-Awareness and Emotional Intelligence Iteration Planning Meeting: 9-930am Monday Week 14 – Building Consensus Week 15 – Creating a Culture of Innovation Iteration Planning Meeting: 9-930am Monday Week 16 – Action Planning (+ Top CO! Digital Service Edition) two-day in-classroom [TBIC Level of Effort: 13 Hours Deliverable: Challenging Convo Video

release TWO

Week 5 – Requirements vs. Outcomes Iteration Planning Meeting: 9-930am Monday

Week 6 – Experimenting in Regulated Environments office hours: 3-5pm Thursda

Week 7 – Preparing to Buy: The Acquisition Solution Iteration Planning Meeting: 9-11am, Tuesday

Week 8 – Prepare for Classroom & Demo Day two-day in-classroom [TBD

Level of Effort: 11 Hours Deliverables: Stakeholder Analysis (+16 in-classroom hours)

release FIVE

 Week 17 – How Solutions Get Done

 Iteration Planning Meeting: 9-930am Monday

 Week 18 – Quality, Scalability, & Security

 Protected Time: 9-11am Monday

 Office hours: 3-5pm Thursday

 Week 19 – Building Flexibility into the Contract

 Iteration Planning Meeting: 9-930am Monday

 guided learning: 10-12 Thursday

 Week 20 – Demo Day: The Dry Run

 office hours: 3-5pm Tuesday

 Demo Day: 10-2 Thursday

 Level of Effort: 15 Hours

release THREE

Week 9 – How Do You Buy...? The Mechanics Iteration Planning Meeting: 9-930am Monday

 Week 10 – Demo Day: Live Digital Assignment Version 1

 office hours: 3-5pm Tuesday
 Demo Day: 10-12 Thursday

Week 11 – Contributing to the TechFAR & 18F Guides*

eration Planning Meeting: 9-930am Monday office hours: 3-5pm Thursday

Week 12 – Demo Day: Live Digital Assignment Version 2 Demo Day: 10-2 Thursday

Level of Effort: 12 Hours Deliverables: Contribution*

release SIX

Week 21 – Making Change Stick

office hours: 3-5pm Thursday

Week 22 – Presenting Your Live Assignment office hours: 3-5pm Tuesday Demo Day: in-class, 9-5pm Thursday

Week 23 – Retrospective: Digital Services & You

guided learning: 10-12 Thursday

Week 24 – Conclusion & Program Assessment Protected Time: 9-10am, Monday

Level of Effort: 10 Hours Deliverables: Final Version & Assessment (+8 in-classroom hours)

Figure 6: This week-by-week schedule overview for each release helps establish rhythm for participants & orient them to weekly focus areas.



5.1 Release 1: Digital Services in 21st Century Government [Weeks 1-4]

Торіс	Description
Goal	Describe digital services in 21 st century government, including what they are, who provides them, how they are delivered, and why they are important.
Overview	Consistent with the principles of user-center designed (as described in Digital Services Playbook Play 1), the program begins with a focus on the customers with whom participants will be interacting or serving, including both internal government customers and those outside government (vendors and end users/citizens). This release provides the participant with an understanding of the role of digital services in a 21st century government, a focus on the role of the digital services professional (developers, operations, testers, UX designers, security professionals, product owners, etc.) and insight into the digital services marketplace. While detailed technical understanding is not the goal, acquisition professionals must know enough to maximize quality and to assess the value of what vendors deliver.
Level of Effort (Core Components) ²	 Iteration 1.A: The Digital Services Professional: 5 hours Iteration 1.B: The Market for Digital Services: 7 hours³

² The Level of Effort estimate for each release reflects the total instructional hours for the core self-directed learning activities, core guided learning components, and assessment (estimated at 30 minutes per release and included in the Iteration X.B level of effort estimate). It does not include instructional hours for elective activities completed in support of participants' IDPs, other optional guided learning components, or self-directed work on the live digital assignment. We expect that completion of the live digital assignment is already an on-the-job responsibility, not an extra program responsibility; however, our estimate does include hours for demo days and other cohort collaboration activities centered on the assignment, since those require time and effort beyond normal job responsibilities.

³ Iteration 1.B's level of effort estimate includes the Agile "Mini Detail" (3 hours); however, this detail can be completed any time during Release 1. See Week 2: The Who, What, & How of Digital Services for a discussion of this detail.



Iteration 1.A: The Digital Services Professional [Weeks 1-2]



Who is this person? What do they do? Get inside the role of this professional as we explore the origins and evolution of digital government. From the PIFs to 18F to USDS, we map the rise of technology inside the U.S. government – and discuss why many of our challenges are self-created. In our first week, we will focus on the digital service professional and understanding what digital services are, who provides them (individuals, firms, government), how they are delivered (e.g., processes/methodologies like Agile and DevOps as well as tools and technologies used by digital service teams), and why successfully buying and delivering them is so critical. Importantly and consistent with modern "show, don't tell" procurement strategies and change management theory, this iteration will help build buy-in for modern digital service design and development approaches by 1) showing you the value of this "new way" and 2) comparing what you know today against the range of what you may know tomorrow.

	Iteration 1.A Outline				
Performance Objectives	Syllabus	Resources & Readings⁵	Learning Activity Menu/Instructional Strategies		
Summarize the current state of digital services in 21 st century government.	 Speaking the language of digital services 	 <u>Obama and His Geeks (Fast</u> <u>Company)</u> <u>Large scale development culture</u> <u>change: Google and the U.S.</u> <u>government (18F)</u> 	 Core: Release Scenario Staging Readings/Activities & Discussion Board Demonstrated Learning: Digital Services Guidebook 		
		 Industry Insight: Why DevOps is good for government White House Digital Services Governance Recommendations 	 Elective: Online Learning: Digital Services – The Who and What Other self-directed activities as agreed to by participants and their managers based on IDP 		

⁴ In our discussion of the Self-Directed Learning and Guided Learning Programs in each release, we use second person to simulate the slightly more personal and informal (but still professional) tone and language we will use for the participant syllabus and learning materials.

⁵ Within this document, we include hyperlinks to curated resources & readings (18F materials, Harvard Business Review articles, etc.). During the program, we will include these hyperlinks as well as PDF versions of the included content to ensure participants have full access, even if URLs change. We will also review/update links as necessary during content our review/customization process.



	Iteration 1.A Outline			
Performance Objectives	Syllabus	Resources & Readings⁵	Learning Activity Menu/Instructional Strategies	
Discuss the various profiles and methods of digital services professionals, and understand the challenges of their environment.	 Delivery (how work gets done) Category management, commercial best practices, and an emerging community of peers Popular software engineering tools & technologies 	 <u>Same, but different: a common</u> <u>international approach to digital</u> <u>government (UK Digital Services)</u> <u>Agile Overview (18F)</u> Digital Services Categories and Examples (see <u>Appendix 2</u>) 	 Core: Stakeholder Engagement: Agile "Mini Detail" Elective: Activity: Contribute to 18F Agile Overview Guide Online Learning: Digital Services – The How Other self-directed activities as agreed to by participants and their managers based on IDP 	

Weekly Overview

Week 1: The Language of Digital Services

The release will kick off with an online activity in which participants are presented with a scenario followed by decision points. Participants will receive a score based on their performance. The scenario for this iteration will focus on challenges that participants may face in discussing digital services with program owners in their agencies. For instance, a scenario like the following could be used as the first decision point:

A program owner approaches you. She explains that her team needs to make it easier for law enforcement officials in the field to make quick determinations about people's criminal history in order to make on-the-spot determinations about whether to detain them. She explains that she has worked up a draft statement of work and wants your signature on it. As she explains, "We want to do this the agile way, so we've clearly defined our product vision—we want a responsive mobile application using a specific technology stack that we identified in our product roadmap. We also included performance measurement standards against which we'll measure the contractor's ability to complete each feature of our detailed specification. We want to minimize risk, so we're sticking to a fixed firm price contract." How should you respond to the program owner?



Based on their pre-program assessment, participants may complete the online learning module "The Who, The What...⁶" of digital services and begin to review the resources and readings provided in the syllabus. Participants can select which article(s) to read, based on their IDP and individual learning needs, but will be expected to read/post a response to at least one article each week as well as comment on others' posts.

Week 2: Digital Services: The Who, What, & How

Participants will explore modern design and development practices used to deliver digital services, in an effort to demystify some of the terms and practices used by professionals in this space. Based on their pre-program assessments, some participants will complete the online learning module "...and The How." All participants are then expected to contribute content to the 18F Digital Services Guidebook (more detail below) and discuss their reactions to self-directed content on the discussion board. Participants will also complete an Agile "Mini Detail⁷" during which they engage with a digital service team in their agency (or other agency, if necessary) that is using an agile development process. It is expected that the participant will sit in on 1-2 meetings, interview members of the team, and document their findings on the discussion board.

In addition, participants will be directed to a new 18F Digital Services Guidebook guide that has been created for this effort. Following the 18F Guides Template, they will post digital service and acquisition terms and concepts for use by others in the digital service/acquisition community. Participants will begin populating the guide during this iteration and will continue doing so throughout the remainder of the program (and beyond). By the end of the first iteration, each participant will contribute a new concept along with a definition, and/or review and revise concept definitions provided by others.



Guided Learning

For Iteration 1.A, our Iteration Planning Meeting will serve as the pre-program orientation (described previously). Office Hours will be reserved for those of you wishing to discuss IDPs and pre-program assessment results. The Iteration Retrospective will be an opportunity for us to discuss key points from the self-directed learning activities (which we recognize are not firm requirements, although we hope you will take advantage of them when they support your pre-assessment results so that you can share new knowledge amongst your peers) and answer any questions you might have. We'll complete the iteration with an online review and discussion of our contributions to the Digital Services Guidebook, jointly refining any definitions and concepts that may need further attention.

⁶ See Appendix A for a detailed content outline & design vision for this online learning.

⁷ This approach is consistent with ACT-IAC recommendations for overcoming the challenge of acquisition professionals lacking familiarity with Agile (see the Acquisition Best Practices to Procure Agile IT Services report, March 2014: <u>https://actiac.org/AcquisitionBestPracticestoProcureAgileITServices</u>). It also helps engender trust among acquisition professionals and their government customers. This mini detail may be completed any time during Release 1.



Iteration 1.B: The Market for Digital Services [Weeks 3-4]



A decade ago, the screen upon which you're reading this document was technically unfeasible. Laptops had floppy disc drives, tablets were the white whale of personal computing, and the Blackberry was more status symbol than smartphone. What Moore's Law has done for consumer technology is nothing short of amazing, and the race against the machine is challenging procurement organizations to keep pace with an accelerating software development lifecycle that shutters tech darlings and creates new ones overnight (Hello, Snapchat?). As we look across the field of technology, you will explore available sources of supply while considering how to introduce non-traditional vendors to the Federal marketplace. The results of your Agile "Mini Detail" should help as you work to complete the market research document or other pre-solicitation artifact. Our resources and readings will provide food for thought, and we'll discuss tips on how to conduct responsible and effective pre-solicitation communication on the discussion board. After all, it takes a lot of market conditioning to keep pace with disruptive technology.

	Iteration 1.B Outline			
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies	
Illustrate the available sources of supply for digital services.	 Sources of supply & the problem to be solved 	 Behind the Buy Podcast Series Case Study: Agile Government and the General Services Administration Fast Company's Most Innovative Companies – 2015 ASI's Solicitation Development Decision Tree for Part 8 	 Core: Readings/Activities & Discussion Board Stakeholder Engagement: Agile "Mini Detail" Elective: Online Learning: Understanding Sources of Supply Other self-directed activities as agreed to by participants and their managers based on IDP 	
Communicate effectively with customers and users.	 Responsible pre- solicitation communication Involving non-traditional vendors 	<u>Acquisition</u>	 Core: Live Digital Services Assignment: Market Research Document or Pre-Solicitation Artifact Elective: 	



Iteration 1.B Outline					
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies		
Determine which digital services concepts are applicable to a given customer need.			 Online Learning: Responsible Pre-Solicitation Communication Activity: Conduct a three-year trend analysis of companies on the Fast Company Most Innovative List Other self-directed activities as agreed to by participants and their managers based on IDP 		

Weekly Overview

Week 3: Sources of Supply, Communication, and the Problem to Be Solved

In Week 3, participants focus on identifying sources of supply that may be able to address their customers' problem to be solved. From GSA Schedules to GWACs to Shared Services, participants will identify traditional and non-traditional vendors with relevant capabilities. Based on their pre-program assessment, participants may complete the online learning module "Understanding Sources of Supply" and begin to review the resources and readings provided in the syllabus.

Week 4: Market Research Document & Pre-Solicitation Artifact

Throughout Release 1, participants should be thinking not only about the curriculum components, but also about their live digital assignment. Given the expectation that this should be an early phase effort, participants will need to be prepared to demonstrate progress towards a Market Research Document or other relevant Pre-Solicitation Artifact that incorporates lessons learned and progress towards the IDP.

To support this deliverable, participants may complete two online learning modules: 1) "Understanding Source of Supply" (described in Week 3) and 2) "Responsible Pre-Solicitation Communication." Participants will complete these, as needed, based on the results of their pre-program assessment.



The Iteration Planning Meeting will set expectations for the second iteration in this release, which focuses on your live digital assignment and related activities. Office hours will be available on the third Thursday for anyone wishing to ask questions and get support on their live assignment (and we



encourage you to take advantage of this time). The Iteration Retrospective offers a chance for us to discuss key points from the self-directed learning as we begin to build a peer network that will serve you not only throughout this program, but hopefully throughout your career. In your individual learning teams, you will review each other's market research document or pre-solicitation artifact and discuss your experiences as a group.

Release 1 Assessment

The assessment during Release 1 will use the following building blocks:

- Level 1 Assessment Utility Reactions & Curriculum Content and Instructional Strategies: The Level 1 assessment will consist of two central components. First, we will measure the extent to which participants believe Release 1 learning will be useful on-the-job (i.e., utility reactions). In other words, we will determine how strongly participants believe "what" they learned will help them be successful. These assessments will help facilitators and content creators validate the relevancy and utility of Release 1 learning objectives. Second, we will ask participants to discriminate among the various instructional strategies used to teach concepts and/or provide structured opportunities for practice and refinement. In other words, we will determine how strongly participants believe "how" they learned what they learned helped maximize learning and achieve mastery. Results from both of these Level 1 assessment components will inform agile content customization moving forward.
- Level 2 and 3 Assessments Mastery of Performance Objectives & Application of Learning: The Level 2 and Level 3 assessments to
 measure participants' mastery of learning objectives and ability to apply learning to real-world situations will take the same form as the preassessment. Participants will review specific scenarios and select optimal responses. In addition, an expert rating/judge panel will assess
 participants' Digital Services Guidebook contribution & Live Digital Assignment: Market Research Document or Pre-Solicitation Artifact using a
 structured rating form.

See the <u>Assessment Plan</u> section for additional discussion.



5.2 SRelease 2: Understand What You Are Buying [Weeks 5-8]

Торіс	Description		
Goal	Determine the problem to be solved while effectively supporting and communicating with the customer.		
Overview	In this release, participants focus on the customer and end user as they explore the distinction between needs, requirements ⁸ , and outcomes. Through a stakeholder analysis, they catalogue the individuals and institutions that make up their environment while honing their interpersonal skills through stakeholder engagement. Understanding the needs of stakeholders supports the development of the acquisition solution, as participants consider their findings while surveying technical contracting details like requirements documents, cost and pricing strategies, terms and conditions, and evaluation tips and tricks. Participants will present their work in progress to their learning teams during the Week 4 demo day.		
Level of Effort (Core Components)	 Iteration 2.A: Requirements vs. Outcomes: 5 hours, 30 minutes Iteration 2.B: Developing the Acquisition Solution: 5 hours, 30 minutes (self-directed & guided learning components) and 16 hours (two days) for the in-classroom collaborative session 		

Iteration 2.A: Requirements vs. Outcomes [Weeks 5-6]

Self-Directed Learning

By their nature, digital services typically have a user on the other end. But who is this person, and what do they do? Maybe the more important question is, what do they need to help them do it better? Many times, especially in government, the solution lies somewhere between what a customer needs and what his or her requirement is because these are not always the same. However, if you can navigate this space, the chances that your acquisition outcome supports the end user's need will vastly improve. Our self-directed program for this iteration is all about understanding the requirement vs. the outcome. You will study how the requirements development process makes communicating the need challenging. Through this study, it is our hope that you begin to appreciate where you can use the acquisition process to support value creation in a responsible and compliant manner.

⁸ The TechFAR distinguishes *contract* requirements from *system* requirements. Unless otherwise specified, the term "requirements," as used in this document refers to contract requirements; it should not be confused with the detailed systems requirements documents used in waterfall-based software development projects.



Iteration 2.A Outline				
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies	
Recognize the importance of user input. Understand needed time to market.	 Understanding your "space" Customer requirements and desired outcomes 	 The Digital Services Playbook Help! I'm a government product owner. Rulemaking 2.0: Understanding and Getting Better Public Participation – IBM Center for the Business of Government FedRAMP High Level Baseline (Available September) Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations, and other selected NIST Resources The FITARA Common Baseline: implications for the acquisition professional (ASI At a Glance) Improving Cybersecurity Protections in Federal Acquisition 	 Core: Release Scenario Staging Readings/Activities & Discussion Board Online Learning: The Digital Services Playbook Video Series Stakeholder Engagement: Interview a Customer Elective: Other self-directed activities as agreed to by participants and their managers based on IDP 	
Identify the product owner & other stakeholders, as described in the Digital Services Playbook. Appreciate the need for security in digital service contracts.	 Delivering efficient solutions using MVPs and experimentation Navigating compliance, security, regulatory requirements & oversight 		 Core: Online Learning: Experimenting in Regulated Environments Stakeholder Engagement/Demonstrated Learning: Stakeholder Analysis Elective: Activity: Interview an individual on the FedRAMP High Level Baseline Tiger Team Other self-directed activities as agreed to by participants and their managers based on IDP 	



Week 5: Requirements vs. Outcomes

As with all other releases, this release will kick off with an online activity (to be designed based on pre-assessment results and participant identification of the live digital assignment). Participants will be presented with a realistic situation, followed by decision points. They will then receive a score based on their performance. During Week 5, participants interview their customer, identify the need within the requirement, and watch a video tour of the Digital Services Playbook to support their customer interview. Program faculty will support this interview by suggesting questions about the customer's experience implementing the plays to date. To transfer the learning into practice, participants will present their draft contracts requirements document to their learning teams and mentor, incorporating new learning into their live digital assignment (which will be presented in Week 7).

Week 6: Experimenting in Regulated Environments

This week's online learning will help participants begin to digest technical details on regulation and compliance, which are crucial to any successful acquisition outcome. Topics will include:

- Principles of Modular Contracting
 - o Beyond FAR Part 39
 - o Buy small, miss small: why digital services are best bought in bytes bites
- Permissible exercises of authority
 - \circ Using the FAR for impact
 - o An introduction to syllogistic reasoning
- Navigating the internal review process
 - Why does internal review exist?
 - o Peer review judo: the "gentle" defense against aggressive redliners

In addition to the online learning, participants will complete a stakeholder analysis in which they catalogue the individuals and institutions that make up their environment. The customer interview is a key component of this stakeholder analysis, but participants will also gather data, inputs, and feedback from other individuals in their orbit.



Guided Learning

During our Monday morning Iteration Planning Session, we will discuss expectations and assignments for our third iteration while setting the stage for the release scenario. Office hours will be available during the second Thursday (Week 6), and we encourage you to schedule time with program faculty to discuss your learning progression to date. Not only is this a critical part of your professional development, it is also helpful for the program faculty to understand the challenges you are dealing with so that we can leverage Agile Learning Design principles to provide support. You should also have met with your mentor at least once by now; this individual will be most helpful as you develop materials for your live digital assignment. With our first demo day coming in the next iteration, you don't want to be playing catch up.

Iteration 2.B: Developing the Acquisition Solution [Weeks 7-8]



Before you can acquire anything, you must understand what you are buying. This was the intent behind the customer interview, and we hope it was a valuable conversation because our fourth iteration is the first step towards solving that need. As you and your customer continue your dialogue, you will craft a solution that doesn't just check the contract boxes, but molds them into the most advantageous and lowest risk acquisition strategy. That was the purpose of the Week 6 online learning. You will apply those lessons to support a critical choice: what type of requirements document (or other contract action) will help you balance the need for flexibility with a reasonable assurance of outcomes? This choice will dictate the entire design of your procurement. Therefore, be thoughtful and diligent in your selection, but take comfort in knowing that your network of peers, mentors, and faculty will keep you from walking alone.

Iteration 2.B Outline				
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies	
Develop requirements for digital services. Discuss options with a customer	 Selecting the right requirements document Cost & pricing strategies Evaluation strategies 	 ASI Advisory & Webinar: Developing Solid Requirements <u>Creating a Balanced Portfolio of</u> <u>Information Technology Metrics</u> – IBM Center for the Business of Government 	 Core: Online Learning: Digital Services Requirements Small group presentations: Stakeholder Analysis Elective: Readings/Activities & Discussion Board 	



	Iteration 2.B Outline			
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies	
based on analysis of their need.		How Fixed Price Contracts and Agile Can Go Together	Other self-directed activities as agreed to by participants and their managers based on IDP	
Demonstrate how to structure procurements that deliver outcomes. Define appropriate evaluation strategies, given definition of success.	 Terms & Conditions and their implications Building measures, data collection, & reporting into the contract 		 Core: Live Digital Services Assignment: Demo Day 1 – The Need Elective: Readings/Activities & Discussion Board (1 hour) Other self-directed activities as agreed to by participants and their managers based on IDP 	



Week 7: Preparing to Buy: The Acquisition Solution

Participants discuss their stakeholder analysis at the small group session on Tuesday (see reserved time in program calendar and discussion in the Guided Learning section below), learning from each other and contributing ideas to the discussion board. As participants near the conclusion of Release 2 and the first demo day, it is imperative that progress is being made on the live digital assignment. Therefore, participants will schedule a meeting with the program faculty and their mentor(s) to brief them on effort to date.

During this week, participants will also review online learning to help them make crucial decisions about requirements documents and other early-stage acquisition decisions. Topics will be refined to reflect participant needs, but will generally deliver instruction on the following:

- Selecting and Developing Requirements Documents: FAR Part 11 in the context of digital services
 - SOWs vs. SOOs vs. PWS
- The advantages of performance-based acquisition



- Building quality assurance, scalability, and metrics & measures into your requirements document
- Security and other compliance considerations
 - NIST, FedRAMP, and FITARA

Week 8: Prepare for Collaborative Classroom Session & Demo Day

Participants will prepare for the in-classroom collaborative session at the end of Week 8. This classroom session will include demo day presentations during which participants describe their understanding of the customer's need, their requirements document (or other relevant contract action) selection decision, and their plan for striking the delicate balance between flexibility and assurance of delivery. Participants are encouraged to conduct virtual dry runs of their presentations with mentors or the program faculty. Participants should plan on a five-minute presentation with five-minutes for question and answer during the classroom session. To make demo day presentations more efficient, program faculty will organize participants into small group learning teams [organization of teams will be decided after seeing IDPs and pre-assessment results; see <u>Support Network for Live Digital Assignment</u> section].



Guided Learning

As we conclude our second release, our focus turns to the program's first demo day. We recognize that presenting to a live audience can be intimidating, so we strongly encourage you to take advantage not only of mentor and faculty support but also the opportunity to "test drive" your presentation through a virtual dry run. Nothing steels the nerves quite like practice. As we move from understanding the customer to designing the type of acquisition solution we will deliver, we dive deeper into technical contracting areas like requirements development, compliance, and the regulatory environment through our online learnings. These will further prepare you for presenting on your customer need and the logic behind your selection decisions. The feedback you get from this presentation will provide validated learning that will be crucial in future versions of this assignment, so the more you put in, the more you will take away. See you in the classroom!

In-Person Collaborative Classroom Session

The in-person collaborative classroom session will focus on debriefing questions and concepts that have presented participants with difficulty as well as relevant collaborative exercises. Importantly, customers will be invited to participate in demo day presentations as part of participants' live digital assignments. The general agenda will be as follows, recognizing that adjustments will be made based on cohort needs:

Day 1: Retrospective, Lessons Learned, and Scenario-Driven Learning

- AM: Participants share lessons learned and their reflections on the program to date, learning from each other and growing as professionals.
- Working Lunch: Participants work in small groups to contribute something of value to the repository of their choice.
- PM: Exercises & Case Studies in Digital Services [to be developed in accordance with pre-assessment outcomes and the general nature of participant live digital assignments]



Day 2: Demo Day!

- AM: Warm-up Exercise
- AM: Cohort A Group Presentations, Feedback, and Validated Learning
- Working Lunch: Practicing Difficult Conversations
- PM: Cohort B Group Presentations, Feedback, and Validated Learning
- After Hours (optional): A celebration of progress to date

Release 2 Assessment

The Release 2 Assessment will use the same building blocks as <u>Release 1</u>, including a Level 1 assessment to measure utility reactions & curriculum content and instructional strategies, and Level 2 and 3 assessments to measure mastery of performance objectives & application of learning. As part of the Level 3 assessment, an expert rating/judge panel will assess participants' *Stakeholder Analysis* and *Live Digital Assignment: Demo Day 1 – The Need* materials/presentation using a structured rating form. Participants will be assessed on presentation skills and critical thinking in addition to the mechanics of the acquisition solution.

See the Assessment Plan section for additional discussion.



5.3 SRelease 3: How Do You Buy...? [Weeks 9-12]

Торіс	Description	
Goal	Effectively use techniques for acquiring digital service solutions in your solicitation or acquisition strategy.	
Overview	Participants will learn how to acquire digital services by studying solicitation development and related pre-award principles through scenario-based learning and a case study. Participants will apply what they learn by completing two updates to their live digital assignment. To support innovative and creative thinking, participants will study the TechFAR, Digital Services Playbook, and other guidance from a practical standpoint, as they apply guidance and best practices to address their specific on-job challenges.	
Level of Effort (Core Components)	 Iteration 3.A: Acquiring Digital Services: 6 hours Iteration 3.B: Innovative Contracting Methods & You: 6 hours 	

Iteration 3.A: Acquiring Digital Services [Weeks 9-10]



How do you buy it? Forests have been cleared and much ink spilled in pursuit of the perfect answer to this simple question. However, as any acquisition professional will tell you, the answer is almost never clear cut, especially for complex items and wicked problems. The only proper (and understandably frustrating) answer is that "it depends," and we will spend this iteration helping you identify just what it depends on. Fortunately, we have the results of our stakeholder engagement and analysis from Release 1 to inform this analysis, and if you were diligent in your first demo day, then you will also have validated learning to help draw these initial parameters. In our fifth iteration, we will venture deeper into technical acquisition territory as we begin to consider contract type, pricing strategies, and the role of competition in advanced contracting scenarios.



	Iteration 3.A Outline					
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies			
Analyze a digital service scenario to define the actual need or problem to be solved. Critique existing acquisition solutions and describe their implications for digital service delivery.	 Contract type & pricing considerations Effective use of competition 	 <u>Behind the Buy Podcast Series</u> <u>Video Analysis of the 18F Agile</u> <u>Delivery Services BPA</u> TechFAR ASI Advisory and Webinar: Solicitation Development <u>Agile Government Handbook</u> – Agile Government Leaders 	 Core: Release Scenario Staging Online Learning: Case Studies in Solicitation Development Readings/Activities & Discussion Board Elective: Activity: Demonstrate how you applied a #govconhack Other self-directed activities as agreed to by participants and their managers based on IDP 			
Design an acquisition outcome by applying innovative practices. Revise preconceived notions based on lessons learned from traditional methods of procurement.	Advanced contracting techniques		 Core: Live Digital Services Assignment: Demo Day 1 – The Need Elective: Readings/Activities & Discussion Board Other self-directed activities as agreed to by participants and their managers based on IDP 			



Week 9: How Do You Buy...? The Mechanics.

Learn about the art of Federal contracting while we transfer theory into practice using solicitation development techniques. Participants analyze the TechFAR, apply lessons learned to their solicitation or acquisition solution, and map how validated learning has informed their decisions to date. The case study will support this process, as program facilitators lead an analysis of the 18F Agile Delivery BPA and other exemplars of acquiring digital services. This will be done within the learning teams, providing more opportunity for the faculty to select examples that are most relevant to the participants' live digital assignment. The outcomes of this case study will support the participants' live digital assignment, which will be delivered in the Version 1 Demo Day during the Iteration 3.B Retrospective session.

Week 10: Demo Day: Live Digital Assignment Version 1

Based on their understanding of the need and the design of their acquisition strategy (developed throughout Releases 1 & 2), participants will have selected contract type, provisions, and clauses for their acquisition solution and will have incorporated other advanced techniques into Version 1 of their live digital assignment. Each participant will prepare a presentation to walk their cohort through the current state of their assignment with the goal of leveraging the wisdom of the crowd to tackle thorny challenges and wicked problems. Participants should prepare for a 10 minute virtual presentation with five minutes of question and answer from their small group.



Nothing is ever complete; you will experience this lesson firsthand as you evolve your live digital assignment from a description of the agency's need into a solicitation or other acquisition strategy document. Our Iteration Planning Session will be used to discuss expectations and answer questions about the Week 10 Demo Day, while the Iteration Retrospective will provide an opportunity to hone your presentation skills as you deliver Version 1 to your peers. As always, we encourage you to take advantage of office hours to receive individual support on your live digital assignment from program faculty and your mentor.

Iteration 3.B: Innovative Contracting Methods & You [Weeks 11-12]



Fortunately, acquisition professionals are no longer limited to traditional procurement methods like RFQs and RFPs (though they are the bedrock of Federal acquisition). Innovative methods like contests, challenges, two-stage selections, and basic ordering agreements are proving that you can innovate in government. Don't believe us? Go back and watch our analysis of the 18F Agile Delivery BPA. This iteration is all about building your confidence and



fostering an appreciation for the fact that innovation does not have to be earth-shattering to be effective. In fact, it may only be a simple #govconhack away from reality. Our demo day at the end of this iteration is your chance to experiment, so it's time to get those right brains working.

	Iteration 3.B Outline				
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies		
Summarize the lessons of the Digital Services Playbook, TechFAR, and other emerging guidance.	 Practical application of the TechFAR, DSP, and other guidance 	 Innovative Contracting Case Studies NASA's Solicitation to evaluate effectiveness of challenges (FBO) NASA to Evaluate the Effectiveness of Challenges (Public Spend Forum) Constructive Criticism: A lighthearted and slightly irreverent primer for awkward conversations A Primer on Rights in Data from DISA 	 Core: Release Scenario Staging Readings/Activities & Discussion Board Deliverable: Your Contribution to the TechFAR or 18F Guides Activity: Practice constructive feedback by critiquing a participant's solution Elective: Online Learning: Digital Services Requirements Other self-directed activities as agreed to by participants and their managers based on IDP 		
Illustrate the challenges identified in acquiring digital services. Apply guidance and best practices to address challenges.	 Intellectual property & data rights Mitigating contracting risks 		 Core: Live Digital Services Assignment: Demo Day - Live Digital Assignment Version 2 Online Learning: Compliance & Other Legal Issues Elective: Activity: Describe a compliance or risk scenario and your mitigation strategy Other self-directed activities as agreed to by participants and their managers based on IDP 		



Week 11: Contributing to the TechFAR and/or 18F Guides

Participants will support the acquisition community by contributing knowledge or a technique to the repository of their choice. The self-directed learning will support this process, as participants complete practical application scenarios based on the Digital Services Playbook and TechFAR. For example, participants will identify a situation that they are struggling to address, in order to gain feedback and validated learning from their learning teams. Program faculty will recommend ideas for solutions based on current guidance, and the participant will determine how best to incorporate that guidance into a contracting technique. After this technique has been designed, participants will practice delivering constructive feedback by critiquing each other's effort. This two-way conversation will start to build confidence in leading change through delicate conversations while strengthening the value and relevance of each participant's contribution-to-be.

Week 12: Demo Day: Live Digital Assignment Version 2

Participants will be learning from each other's digital service acquisition challenges. As these challenges are identified and addressed through participant contribution, everyone will be encouraged to adapt those contributions into Version 2 of their live digital assignments, which will be presented at the Week 12 Demo Day. Participants should plan on delivering a five minute virtual presentation to their learning team using virtual media.

As participants work towards Version 2, they will also complete an online learning about compliance and other legal issues in Federal acquisition. This online learning will be developed by program faculty during Release 2 after participants identify their customer need so that it is closely associated with the relevant challenges faced by the cohort. Topics will generally include:

- Intellectual property
 - What is IP in the digital age?
 - Contribution, attribution, retribution...oh my!
- Rights in Data & Copyrights
 - o Applying FAR Subpart 27.4 to an acquisition of digital services
 - Who owns open source code?
 - o If I store my data in the cloud, does that make it public? And other cloud-related confusions.
- Legal liability in digital services
 - o Latent vs. patent defects
 - Liability in the open: who is responsible when open source software breaks?
 - o Getting to know your Office of Chief Counsel



Guided Learning

We are over halfway through with our program, and my, how time flies. Hopefully by this point you have a full appreciation for the fact that, while acquiring digital services requires some creativity, it is not impossible or incongruent with Federal Acquisition Regulations. We wrap up our third release with Live Digital Assignment Version 2, which will be delivered to a live (virtual) audience. As always, we encourage you to take advantage of office hours and mentor meetings to further develop your acquisition solution and continue to fulfill the goals in your IDP.

Release 3 Assessment

The Release 3 Assessment will use the same building blocks as <u>Release 1</u>, including a Level 1 assessment to measure utility reactions & curriculum content and instructional strategies, and Level 2 and 3 assessments to measure mastery of performance objectives & application of learning. As part of the Level 3 assessment, an expert rating/judge panel will assess participants' *Contribution to the TechFAR* or 18F Guides and Live Digital Assignment: Demo Day – Live Assignment Version 2 materials/presentation using structured rating forms.

See the Assessment Plan section for additional discussion.



5.4 WRelease 4: Leading Change in Federal Contracting [Weeks 13-16]

Торіс	Description	
Goal	Apply techniques to create a culture of innovation within your sphere that enables you and others to effectively lead and influence customers to the best solutions.	
Overview	Participants analyze different interpersonal skills that can build trust and buy-in from their customers, including communication styles, leading without formal authority, and dealing with difficult situations and risk aversion. Participants also learn and test techniques to lead and encourage innovation and change.	
 Level of Effort (Core Components) Iteration 4.A: Getting to Yes – Obtaining Buy-in from Your Customer: 6 hours, 30 minutes Iteration 4.B: Making Your Case – Supporting Transformational Change through Critical Thinking & Delivery: 6 30 minutes (self-directed & guided learning components) and 16 hours (two days) for the in-classroom collabo session 		

Iteration 4.A: Getting to Yes - Obtaining Buy-in from Your Customer [Weeks 13-14]



Self-Directed Learning

How do I obtain buy-in from the various stakeholders who are buying a digital service? How do I lead without formal authority and build consensus? How do I build bonds, not barriers, with my customers while doing this? This iteration helps answers those questions and more by first developing your self-awareness on how you relate to others – using a combination of emotional intelligence theory and the DiSC assessment (description below). Next, you will focus on developing social skill and using empathy and humor to build rapport and common ground, including identifying and leveraging champions to support your cause. You will apply these skills by reflecting on your live digital assignment, identifying any potential customer "trouble spots," practicing a simulated challenging customer conversation related to these trouble spots with a learning peer, and then reflecting on the experience. Following this practice segment, you will apply what you learned and hold a live conversation with your customer on this same topic.



		Iteration 4.A Outline	
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies
Exercise interpersonal skills to solve problems before they start. Illustrate how interpersonal skills result in win-win solutions and positive program outcomes.	 Responsible navigation & creative conformance See past black and white. Instead of saying "no", find a new solution. Leading without formal authority Empathy, social connectedness, and trust (foundational elements of emotional intelligence theory) are present in the most successful and effective teams and are also key to influence. Identifying the specific techniques to influence each stakeholder in your network Identifying champions – the importance, role, and characteristics of an effective champion 	 <u>Customer Engagement (FAI</u> <u>Acquisition Seminar)</u> <u>Leading When You Don't</u> <u>Have Formal Authority</u> (Harvard Business Review [HBR] Blog) <u>Without Influence,</u> Knowledge And Skill Are Not Enough To Build Your Brand (Fast Company) <u>Connect, Then Lead (HBR)</u> <u>The Rise of the Network</u> <u>Leader (CEB)</u> <u>What Makes a Leader (HBR)</u> <u>Leading with Humor (HBR)</u> <u>Seven Ways to Cure Your</u> <u>Aversion to Risk (Fast</u> <u>Company)</u> 	 Core: Release Scenario Staging Readings/Activities & Discussion Board DiSC Assessment⁹ Elective: Online Learning: The Value of Self-Awareness Online Learning: Leading without Formal Authority Online Learning: Dealing with Challenging Customer Situations Online Learning: Using Humor to Reach Common Ground Other self-directed activities as agreed to by participants and their managers based on IDP

⁹ The DiSC Assessment is described in more detail in the Iteration 4.A Weekly Overview section; associated costs are reflected in the Anticipated Costs section of this document.



	Iteration 4.A Outline			
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies	
Dramatize a challenging customer situation to find the humor in it, learn how to diffuse it, and move forward. Examine risk mitigation strategies.	 Dealing with difficult situations & risk aversion Changing your perspective on risk, then changing others' Learning to tolerate ambiguity Break decisions and actions into small, modular, and incremental steps Recognize and move past "analysis paralysis": the importance of making decisions with imperfect information Applying these concepts to conversations about modern design and development practices for digital services 		 Core: Demonstrated Learning: Practice a Challenging Customer Conversation Stakeholder Engagement: Hold a Challenging Customer Conversation Elective: Online Learning: Opening Your and Others' Minds – Breaking Out of Mental Ruts that Limit Innovation Other self-directed activities as agreed to by participants and their managers based on IDP 	



Week 13: Building Self-Awareness and Emotional Intelligence

The release will kick off with the release scenario staging online exercise. The scenario for this iteration will focus on challenges that participants may face in dealing with customers who have seemingly competing priorities but who must reach common ground.



Based on their pre-program assessment, participants may complete various online learning modules and begin to review the resources and readings provided in the syllabus. Participants can self-select which article(s) to read, based on their IDP and individual learning needs, but will be expected to read/post a response to at least one article each week as well as comment on others' posts.

Participants also take an online version of the DiSC assessment¹⁰. The DiSC is a short self-assessment designed to help participants understand their style and tendencies, so they can work and interact with others more effectively. Self-assessment results are organized into four dimensions. They are:

- D Dominance. The D's are driven by results and control. They fear losing control of the environment and being taken advantage of.
- I Influence. The I's are driven by people, involvement, and recognition. They fear rejection and loss of approval.
- S Steadiness. The S's are driven by security and stability. They fear sudden change and loss of security.
- C Conscientiousness. The C's are driven by accuracy and order. They fear criticism of performance and lack of standards.

During Week 14, participants will reflect on and debrief the results of their DiSC assessment as a group (see description in Guided Learning Program section below) as it applies to building consensus and buy-in from their customers. For example, the "I's" are driven by people and involvement, so they may naturally chat with their stakeholders to build buy-in and ensure that the team is on the same page. However, they are also inclined to be ideas generators whose new ideas may derail a project or process that is already in progress.

Week 14: Building Consensus

Participants apply techniques for building consensus to their agency and live digital assignment, taking into account the results of their DiSC assessment and how it influences their communication and interaction with others. Based on their pre-program assessment, some participants complete relevant online learning modules to inform their skill development.

Participants also complete two practice exercises:

• Demonstrated Learning: Practice a Challenging Customer Conversation: At this stage in their live digital assignment, participants will have developed two drafts of their assignment. Based on interactions to date, participants identify a potential customer "trouble spot," e.g., a legal representative who does not fully agree with the evaluation criteria. Then, based on the potential trouble spot they identify, participants practice a simulated customer conversation with a learning peer who plays the role of the customer. Then, the participant and his/her learning peer create a 3-5 minute video (if it's not feasible to do this video in person, participants may wish to record a virtual teleconference or Google Hangout) where they host a retrospective of their experience to discuss what worked and what didn't. The video should be edited, but does not have to be movie-quality. The video should be posted on YouTube, and a link to the video should be posted on the discussion boards. Participants should

¹⁰ Additional information about the DiSC assessment can be found here: https://www.discprofile.com/what-is-disc/overview/.



watch at least three other participant videos and offer constructive comments. Participants can also vote for their favorite videos and add a comment to the video about why they think it stands out (because of innovation, unique situation, excellent example, and so forth).

• Stakeholder Engagement: Hold a Challenging Customer Conversation: Participants apply what they learned in their practice session and hold a live conversation with the customer on this same topic. They then reflect on the experience and post lessons learned/insights to the discussion board.



Guided Learning

For Iteration 4.A, we will use the Iteration Planning Session to discuss expectations and logistics associated with the DiSC assessment. Office Hours will be reserved for participants to discuss any issues with the DiSC assessment as well as any questions surrounding the two activities that occur in Week 14. We will use the Iteration Retrospective will be used to debrief on the DiSC assessment, how insights gained from it informed your approach to your challenging customer conversations, and lessons learned from your customer conversations.

Iteration 4.B: Making Your Case – Supporting Transformational Change through Critical Thinking & Delivery [Weeks 15-16]



Taking what I learned in Iteration 4.A, how do I help create an environment where people feel able to innovate and open to change, even when I'm not in an official leadership position? How do I help others get over mental blocks that stop them from innovating? And specifically, how do I build support for agile philosophies and ways of approaching problems (e.g., embracing change, encouraging and planning for frequent and regular feedback)? In this iteration, you will focus on how to become change and innovation "agents" in your agency and within your "spheres of influence" by identifying and practicing techniques to build support for new ways of thinking and to drive behavior and culture change. The final output of this iteration is an action plan that details how you will continue to implement lessons learned in your agency.



		Iteration 4.B Outline	
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies
Apply specific techniques to promote behavior change, innovation, and cultural shifts.	 Defensible innovation, or how to overcome the "we've always done it this way" prejudice Techniques for encouraging innovative & creative thinking that is realistic to solve the challenge Creating a logical argument and communication strategy for the stakeholders in your network Achieving lasting, sustainable culture change The Build-Measure-Learn Cycle & employing lean philosophies to public sector procurement Build a Minimum Viable Product Conduct experiments and measure and document user feedback Pivot or persevere Validated learning positions you to focus resources solely on customer-driven needs rather than untested hypotheses. 	 <u>Change Management in</u> <u>an Evolving Acquisition</u> <u>Landscape Moderated</u> <u>Panel, Inaugural</u> <u>Conference for Innovative</u> <u>Acquisitions (Federal- wide Buyers Club)</u> <u>Cultural Change That</u> <u>Sticks (HBR)</u> <u>Culture Change That</u> <u>Sticks (HBR)</u> <u>The Innovator's DNA</u> (HBR) <u>Culture Of Courage:</u> <u>Creating A Culture That</u> <u>Breeds Bravery (Forbes)</u> <u>Design Thinking Comes</u> <u>of Age (HBR)</u> <u>Leading Change (HBR)</u> <u>The Tipping Point by</u> <u>Malcom Gladwell</u> (<u>Excerpt)</u> <u>How Have Kotter's Eight</u> <u>Steps for Change</u> <u>Changed? (Forbes)</u> 	 Core: Release Scenario Staging Readings/Activities & Discussion Board Demonstrated Learning/Stakeholder Engagement: Creating a Communication Strategy to Help Move Stakeholders to Action Elective: Online Learning: Promoting Defensible Innovation Online Learning: Communicating to Move Stakeholders to Action Other self-directed activities as agreed to by participants and their managers based on IDP



Iteration 4.B Outline			
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies
Distinguish champions, supporters, roadblocks, and detractors for change and transformation. Organize expected challenges into an action plan.	 Building a "guiding coalition" or "volunteer army" to support change and transformation Using your stakeholder map to identify champions, supporters, roadblocks, and detractors Stepping outside of traditional "siloes" and collaborating Document challenges in an action plan for leading change in your agency, including techniques for using your live digital services assignment as a "test case" 		 Core: Demonstrated Learning: Creating an Action Plan Stakeholder Engagement: Reviewing Your Action Plan Elective: Online Learning: Leading Change (30 minutes) Other self-directed activities as agreed to by participants and their managers based on IDP

Week 15: Creating a Culture of Innovation

The release kicks off with the iteration planning meeting. In this instance, participants review a real-life scenario of a private sector company or agency engaged in a transformation as a result of a new innovation in their industry. The scenario will encourage them to think about the role of leaders at different levels—from CEO down to the newest employee—in supporting and helping to sustain this change. Depending on their pre-program assessment and continuing discussions with their supervisor about their IDP, some participants may take the online learning for this iteration that focuses on innovation.

Participants will also use what they have learned about their communication style from the previous iteration as well as how to build support for innovation to create a communication strategy for a particular stakeholder group related to their live digital assignment. They will be encouraged to select a stakeholder group that they think may still have biases or "mental blocks" that are preventing them from fully endorsing the approach the participant is using in their



assignment (e.g., continued statements or actions that indicate they are worried about risk, desire to wait until they have perfect information to take action). Participants review this communication strategy with their supervisor or mentor and tweak it, as needed.

Week 16: Action Planning

Participants apply techniques for creating an innovative culture and supporting change by creating an action plan, leveraging what they considered in their communication strategy from the previous iteration and thinking more strategically and universally about all stakeholders in their network. Participants will be provided with a suggested format for their action plan and can adjust it, as needed, to fit their needs. Participants review this communication strategy with their supervisor or mentor and tweak it, as needed. Participants will also share challenges they anticipate in implementing their action plans during the Iteration Retrospective meeting (described in the Guided Learning section below) and will identify a learning peer who will serve as their "accountability partner." This individual will be charged with supporting the participant in implementing his/her action plan during the remainder of the program and beyond. Participants will also receive support from their mentor.



Guided Learning

For Iteration 4.B, the Iteration Planning Session will be used to discuss expectations and questions. Office Hours will be reserved for participants to discuss any issues with their communication strategies as well as any questions surrounding the two activities that occur in Week 16. We will use the Iteration Retrospective to debrief on participant action plans. You will be asked to share challenges you anticipate in implementing your action plans and identify an "accountability partner" from your cohort who will support you in implementing your action plan during the remainder of the program and beyond. Participants work with their mentor to identify an appropriate in-agency champion who can support them in their role as a change agent.

In-Person Collaborative Classroom Session

The in-person collaborative classroom session will focus on debriefing questions and concepts that have presented participants with difficulty since the last in-person session (which occurs at the end of Release 2) as well as relevant collaborative exercises. The general agenda will be as follows, recognizing that adjustments will be made based on cohort needs:

- Day 1:
 - Opening Group "Thinking Outside the Box" Marshmallow Challenge¹¹: Participants will be divided into their learning teams. Each team will be given 18 minutes to build the tallest free-standing structure out of 20 sticks of spaghetti, one yard of tape, one yard of string, and one marshmallow. The marshmallow needs to be on top. Debrief:
 - Self-reflection activity: Any surprises? What did you learn about yourself and teams in this exercise?

¹¹ The Marshmallow Challenge is a design exercise that helps teams experience lessons in collaboration, innovation, and creativity. Additional information is available here: http://marshmallowchallenge.com/Welcome.html.



- Group discussion: What does the exercise have to do with creativity and innovation? What parallels can you draw between this exercise and your work in acquisition? How did environment add to/ detract from creative solutions? How can you create an environment supportive of innovation?
- Leading Your Stakeholders through Change Exercise: An overarching scenario that deals with change is presented, and small groups take on the role of the major stakeholder groups and come up with questions/thoughts to inform their approach. Each group is given additional details about their needs and priorities in the situation; these details are not shared with the other groups. Then, a representative from each group participates in a large group conversation/role play about the overarching scenario to figure out a path forward. The scenario will require participants to practice leading without formal authority as well as how to lead stakeholders through change. Then, a group debrief is held to discuss how the conversation went and how it could be improved as well as how DiSC communication styles impacted the approaches used.
- Top CO! Digital Service Edition "Backstage Prep": Small groups are given a new digital services initiative, objective, or challenge that requires them to apply concepts and topics discussed in the current release as well as earlier releases. Importantly, each group is given the same challenge to tackle. They are asked to leverage what they included in the action plans they created as part of their self-directed learning to build the action plan for the initiative, objective, or challenge. They will have the afternoon and evening of Day 1 to create an action plan and pitch around it.
- Day 2:
 - Top CO! Digital Service Edition "Lights, Camera, Action!": Participants will present their pitch to the program faculty as well as to invited guests (see the <u>Program Faculty and Guest Speakers</u> section for additional information). The faculty and invited guests will judge each presentation, similar to Top Chef's "Restaurant Wars" and "The Voice," and select the winning group based on provided evaluation factors. The participants will also vote on various other "badges" or awards.
 - Innovation/Change Management Guest Speakers: The invited guests who participate in the Top Innovation Standoff will also
 participate in a panel during which they discuss their experiences related to leading without authority, getting past their own and others'
 mental barriers that limit innovation, fostering innovation, and facilitating the change process.
 - Live Digital Assignment & Leading Change: Learning teams will break into their small groups and be paired with one of the guest speakers or a program faculty member. They will share progress made towards their live digital assignment to date and how what they have learned in the classroom activities and discussions to date will impact their live digital assignment and their on-the-job responsibilities.
 - **Retrospective:** Participants will share key lessons learned during the in-person session and document how they will (or will not) adjust their action plans based on what they learned.



Release 4 Assessment

The Release 4 Assessment will use the same building blocks as <u>Release 1</u>, including a Level 1 assessment to measure utility reactions & curriculum content and instructional strategies, and Level 2 and 3 assessments to measure mastery of performance objectives & application of learning. As part of the Level 3 assessment, an expert rating/judge panel will assess participants' *Communication Strategy* and *Action Plan* materials using structured rating forms.

See the Assessment Plan section for additional discussion.



5.5 Release 5: Administering Digital Services Contracts [Weeks 17-20]

Торіс	Description
Goal	Evaluate vendors who deliver digital services using instantaneous, objective metrics on project health, developed via appropriately applied lean thinking and agile development methods while experimenting with flexible contract design and administration strategies.
Overview	This release focuses on how digital service procurements can promote the values espoused in the Digital Services Playbook and how flexible contract design and administration facilitates delivery. Participants discover the strengths of agile methods, distinguish among them, understand their relationship with lean thinking, and appreciate when they may not be suitable. The Product Owner is identified as the stakeholder representative responsible for critical duties like prioritizing user stories and defining acceptance criteria. While acquisition professionals need not delve into low-level technical detail, they will see how techniques like version control, continuous integration for automating builds and tests (for acceptance, performance, and security), and DevOps for automating deployment all build quality into digital services and convey objective metrics for project health. The learning experience in iteration 5.A informs the activity in 5.B, culminating in the final "dry run" of the live digital assignment.
Level of Effort (Core Components)	 Iteration 5.A: Digital Services Delivery (or How Solutions Get Done): 7 hours Iteration 5.B: Designing Flexible Contracts: 8 hours

Iteration 5.A: Digital Services Delivery (or How Solutions Get Done) [Weeks 17-18]



Technology evolves at a breathtaking pace. Government does not. While many private businesses have made great strides with digital services by maximizing quality while minimizing cost for the benefit of shareholders, government has struggled under the weight of real challenges and wicked problems to do the same for its stakeholders. Terms like Agile, Lean, DevOps, cloud, API, x-as-a-service, and Big Data emerge every day, but assessing their value to your agency amidst a haze of buzz and confusion is all but impossible when you have a core mission to accomplish and an ever-tightening budget. Still, you know government can do better, and this release will empower you to prove it. You will learn both about digital services and the art of building them the right way. Discover how modern practices like those espoused in the Digital Services Playbook can inform the acquisition process to maximize value and quality and minimize cost and risk.



	Iteration 5.A Outline				
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies		
Identify high-level principles of agile development that make it effective while dispelling misconceptions. Distinguish agile methods like Scrum and Kanban and identify where each is preferable. Identify situations where agile methods may not apply. Describe the relationship among Lean, Agile, and DevOps.	 Agile principles relevant to digital service procurement Delivery of working software at frequent, rhythmic pace Key metrics displayed on information radiators to drive decisions The critical role of the Product Owner Kanban as a meta-process not as prescriptive as Scrum; use of one or the other depends on the circumstances Categories of digital service deliveries and where among these agile methods apply Principles of lean manufacturing and how they influence modern digital service delivery Building quality, performance, security, and accessibility into digital services 	 Scrum Guide Industry Insight: Struggling with Scrum? Try Kanban for IT projects Digital Service Categories & Examples (see <u>Appendix 2</u>) Lean Startup Principles Industry Insight: Why DevOps is good for government 18F: Don't underestimate the danger of technical debt 18F Agile Delivery BPA Industry Insight: Testing 1-2-3: Open-source tools to ensure quality applications 	 Core: Demonstrated Learning: Agile Acquisition Scenarios Stakeholder Engagement: The Role of the Product Owner Elective: Online Learning: Modern Software Engineering Other self-directed activities as agreed to by participants and their managers based on IDP 		
Identify software engineering practices for high-quality digital services like version control, continuous	 Survey of modern software development practices and their relevance to digital service procurement Survey of modern technologies 		 Core: Demonstrated Learning: Group Discussion on Technology and Software Engineering Stakeholder Engagement: Digital Service Scattergories 		



	Iteration 5.A Outline					
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies			
integration, and continuous delivery. Identify which problems each technology is best suited to solve.	The value of open-source		 Elective: Online Learning: The Technology Landscape Other self-directed activities as agreed to by participants and their managers based on IDP 			
Identify why it is important to default to open in development as well as production.						

Week 17: How Solutions Get Done

Participants will explore the relationship among Lean, Agile, and DevOps—which are all related and also are often misconceived. They will also come to appreciate the differences *between* agile methods like Scrum and Kanban. They will be presented with multiple acquisition scenarios where they will devise appropriate contractual language that compels vendors to deliver digital services in a way that maximizes quality and value and minimizes cost and risk.

We will also take time to explore the role of the Product Owner as specified in Play 6. As the Product Owner is empowered to represent the interest of all stakeholders, he or she must be readily available to vendors to provide clarification on user stories, prioritize them, define their acceptance criteria, and demonstrate them in a production environment to all interested parties at each review (generally every two weeks). During the Iteration Retrospective, participants will complete a virtual exercise focused on the role of the Product Owner. Each learning team will have a designated, rotating Product Owner (these Product Owners will be members of the program faculty or Product Owners from the participants' live digital assignments) seeking a product with a vision validated against real users. Participants will be given limited time to build the highest-priority features of these products in the time allowed. At the end of each scenario, the Product Owner will demonstrate the product to the other participants. The products will be different among the groups, and the



instructor will play the role of "senior management" for all of them and will provide the product visions. The participants will find that some of their products can make use of each other or duplicate features, so there will also be an "organization-wide" discussion of how to resolve these.

Week 18: Quality, Scalability, and Security

As the material here is quite technical, we will make it accessible. Participants will first engage in group discussions about how their experiences with digital services align with the materials in this iteration. Are there things they would do differently? What remains confusing?

We will also engage in a game of "Digital Service Scattergories" where participants will have to identify potential technical solutions for various categories of need for digital services. The game will proceed much like conventional Scattergories with one key exception. Rather than have players challenge answers they consider correct and remaining players vote on them, each round will culminate in a discussion of the digital service category, the proposed solutions, and how acquisition vehicles can leverage this information.

Guided Learning

This may be the most challenging part of the course because the technical material may be fairly new and could be overwhelming. As a result, take advantage of extended office hours and protected time; we encourage you to use this opportunity to engage program faculty and mentors while studying the resources and readings we have curated for you. While it is certainly not necessary for you to know by heart the technical details of digital services, you will need to develop an understanding of the digital service domain, the kinds of problems various technologies are built to solve, and how you can take advantage of the implicit feedback in agile processes in your contracts. Don't forget to use, reference and continue to populate the 18F Digital Services Guidebook from earlier in the program; you're likely to need it, and so will everyone else!

Iteration 5.B: Designing Flexible Contracts [Weeks 19-20]

Self-Directed Learning

There are people who will tell you that "flexible contracts" is an oxymoron. Get to know these people because they possess the mindset that our Release 4 is focused on changing. The reality is that flexible contracting is not a "nice to have," but rather an organizational imperative for maximizing the value of an investment in digital services. Our tenth iteration is all about designing flexible contracts that enable digital service teams to react to unknown and changing environments without triggering the need for costly and time-consuming change control procedures. We do not promise that digital service contracts are immune from modification and the occasional change order. However, we do want you to understand that if you design your acquisition solution with flexibility in mind, not only will you save yourself time and energy, you will also provide better stewardship of the taxpayer's investment. We've curated



several resources to help you understand this principle, and our online learning and activity will help you transfer this knowledge into practice as you make progress on Version 3 of your live digital assignment.

	Iteration 5.B Outline				
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies		
Employ creative and flexible techniques to avoid the need for change control.	 Minimizing internal review and the need for change control Accounting for 	 What Successful Project Managers Do (MIT Sloane <u>Review</u>) ASI Advisory and Webinar: Enabling Agile Development in 	 Core: Online Learning: The Relationship Between the FAR & the TechFAR Activity: Fork This Contract! 		
Evaluate how decisions about solicitation elements will impact delivery under contract.	validated learning in digital service delivery	 Federal Contracting Video Series: Applying the FAR & TechFAR to enable contractual flexibility 	 Elective: Other self-directed activities as agreed to by participants and their managers based on IDP 		
Appreciate the impact of contractual requirements on the goals of delivery. Describe why transition	 Transition planning & avoiding "lock in" Incorporating contractual outcomes into the 	 <u>Agile Requirements Change</u> <u>Management</u> (Agile Modeling) <u>An Agile Approach to Change</u> <u>Management</u> (CIO.com) <u>Towards a More Agile</u> 	 Core: Live Digital Assignment: Demo Day – Version 3 Elective: Other self-directed activities as agreed to by 		
planning helps mitigate the risks of vendor lock- in.	agency's digital ecosystem	Government (Ben Balter's Case for Rebooting Federal IT Procurement)	participants and their managers based on IDP		

Weekly Overview

Week 19: Building Flexibility into the Contract

Participants will combine the lessons learned from our curated readings and the online learning to complete this week's "Fork This Contract!" activity. The focus is on designing flexibility into contracts to facilitate delivery while reducing the need for change control. Participants will complete an online learning describing how the TechFAR and FAR provide inherent flexibility. Topics covered in this online learning will include:



- From Product Vision to Roadmap: the advantages of "just enough" planning
 - Using performance-based techniques to facilitate delivery
 - Designing iterative contract line items
- Progressive payment
 - o How to manipulate payment strategies while complying with fiscal law and accounting procedures
 - Controlling against constant modification
- Flexible contract strategies
 - o Basic Ordering Agreements, Requirements Contracts, and Indefinite Delivery Vehicles

After the online learning, participants will work independently to identify a solicitation or contract document that is related to their live digital assignment. Once identified, participants will analyze it for the purposes of extracting useful principles or constructs that can be reused, remixed, and recycled to support their individual needs. This activity is modelled after the practiced used by software developers who contribute code to open repositories like GitHub for other developers to modify and use in support of their own projects. As these contractual examples are forked, participants will be encouraged to contribute them to the repository of their choice.

Week 20: Demo Day – The Dry Run: Live Digital Assignment Version 3

Participants will spend the week integrating learning outcomes into a final version of their live digital assignment in preparation for the fourth Thursday's "dry run" demo day. This virtual dry run will provide participants with an opportunity to deliver their 10-minute presentation to their learning teams and mentor(s). Virtual breakout sessions will be held after the presentations to enable participants to contribute feedback and suggestions to each other's presentation as participants prepare for Week 22's classroom-based, final delivery of the live digital assignment.



Guided Learning

By this point in our program, you should have a near-final version of the acquisition strategy or solution for your customer's need. While our self-directed learning focus will be on designing flexible contracts, office hours and protected time will be built into the schedule to enable you to focus on your final presentation. The Week 20 dry run is the last practice session before the real thing, so we also encourage you to take advantage of the third Thursday office hours to get personalized support from program faculty and mentor(s). Anyone who feels like they are struggling to complete their acquisition solution should make arrangements for additional instruction and support as necessary.



Release 5 Assessment

The Release 5 Assessment will use the same building blocks as <u>Release 1</u>, including a Level 1 assessment to measure utility reactions & curriculum content and instructional strategies, and Level 2 and 3 assessments to measure mastery of performance objectives & application of learning. As part of the Level 3 assessment, an expert rating/judge panel will assess participants' *Live Digital Assignment Version 3 "dry run"* using a structured rating form.

See the Assessment Plan section for additional discussion.



5.6 **Release 6:** Live Digital Assignment, Capstone, & Retrospective [Weeks 21-24]

Торіс	Description	
Goal	Determine the next steps in your digital services acquisition learning journey by integrating and reflecting on insights and lessons learned from your live digital assignment (including presentations that will be delivered in this release) and program learning journey.	
Overview	In the culmination of the program, participants will complete their live digital assignment with support from program faculty, mentors, peers, and stakeholders. It is expected that participants will integrate validated learning received throughout the program into this assignment, which is obtained from the myriad online learnings, activities, and demo day presentations. To promote the continued success and scalability of the program, participants will conduct an after-action assessment of the pilot program and contribute actionable recommendations to program faculty, their peers, and the acquisition community at large.	
Level of Effort (Core Components)	 Iteration 6.A: Making Change Stickier: 5 hours (self-directed & guided learning components) and 8 hours (one day) for the in-classroom collaborative session Iteration 6.B: Acknowledging Mistakes and Celebrating Success: 5 hours 	

Iteration 6.A: Making Change Stickier [Weeks 21-22]

Self-Directed Learning

Change is a tricky thing. Not only must people appreciate the need for change, but they must also feel as though they are part of that change process. There are no Pied Pipers to lure us along the path, and no magicians to accelerate Federal inertia. But change must occur, and our self-directed program in this second-to-last iteration is all about applying new thinking to evolve old habits. We will do this through a demonstrated learning event where you describe a bottleneck that you inevitably experienced through the execution of your live digital assignment, with a specific focus on the steps you took to solve it. We will keep this session brief, as the primary focus in this iteration is on finalizing your presentation of the live digital assignment, which will be delivered in the classroom in front of an audience of your peers, mentors, customers, and program faculty. If you've taken full advantage of the program to date, this will be a positive experience. If not, you better find your magician.



	Iteration 6.A Outline			
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies	
New thinking and old habits: the dynamics of culture change Assemble coalitions and build support for new strategies	 The importance of demonstrated learning Providing support to peers and other parties Self-awareness: what are you doing to help or hurt the project environment? 	 <u>Break Through your Industry's</u> <u>Bottlenecks (Harvard Business</u> <u>Review)</u> <u>Nailing the Failure Bow (HBR)</u> 	 Core: Demonstrated Learning: Describe a bottleneck you navigated or problem you solved, outlining your approach Mentor Discussion Elective: Activity: Design and deliver a learning event for your peers 	
Experiment with new ideas while mitigating the risks of failure	 Practicing "safe innovation" How to nail the "failure bow" 		 Core: Demo Day: Your Solution Activity: Annotate the FAR Elective: Readings/Activities & Discussion Board: Other self-directed activities as agreed to by participants and their managers based on IDP 	

Week 21: Making Change Stick

Participants will read a Harvard Business Review article on breaking through bottlenecks to prepare for this week's demonstrated learning session, which will be conducted in their learning teams in a virtual setting. Participants should prepare a two-minute overview of a bottleneck they experienced during their live digital assignment and the steps they took to address it. Program faculty and mentors will be available during this week's office hours to support participants'



presentations. Participants will spend the remaining time during this week finalizing their live digital assignment presentations in preparation for the final demo day in Week 22.

Week 22: Presenting Your Live Assignment

This week is all about the final demo day, which will take place in the classroom as participants present their acquisition solution and defend their approach to an audience of peers, mentors, project stakeholders, and program faculty. Participants should prepare for a 10-minute presentation of their live digital assignment with five minutes for questions and answers from the panel of judges (judges will be identified and agreed to in collaboration with OMB and USDS). Final deliverables will be contributed to the appropriate repository (e.g., the TechFAR hub, 18F Guides) to support the larger goals of Federal culture change in the acquisition of digital services.

The notional schedule for this classroom session, which will take place on the second Thursday, is as follows:

- AM Session: Cohort Group A Presentations & Solution Defense
- Working Lunch: Assembling coalitions and building support for next generation procurement strategies
- PM Session: Cohort Group B Presentations & Solution Defense
- After Hours: Program Honors and Celebration

Guided Learning

Stand up and raise your dominant hand. Reach across your body and behind your shoulder. Pat & repeat because you have just completed the Digital Service Contracting Professional Training and Development Program! You deserve to celebrate your hard work and efforts. You should be particularly proud that your experience as pilot participants in this innovative learning experiment has not only delivered value to your customer but has also blazed a trail for others as they support the continued evolution of Federal digital services delivery. Good luck in the final presentation, and we look forward to helping you celebrate a job well done!

Iteration 6.B: Acknowledgements & Celebrations [Weeks 23-24]



Our final iteration is a retrospective on your learning journey and a time to congratulate each other's successes. It is also a time for you to give back to the community by sharing your experiences and contributing lessons and guidance for the next class. Your after-action assessment provides an opportunity to reflect on your learning journey while mapping your progress against your IDP that you have honed and worked toward throughout the program. In



recognition of your hard work and efforts, we offer this abbreviated six-day iteration, as we anticipate that your completion of this program will give you the opportunity to meet with agency leaders and others to share your experiences from the program.

	Iteration 6.B Outline					
Performance Objectives	Syllabus	Resources & Readings	Learning Activity Menu/Instructional Strategies			
Practice delivering constructive feedback to direct reports, peers & supervisors. Critique personal performance to identify aptitude and areas for growth. Engage in constructive conversations. Learn from feedback and coaching.	 Post hoc analysis of the program Assessing the participant journey against their IDP Contributing feedback for incorporation into the next iteration of this curriculum 	 Rather than assign resources & readings in this iteration, we ask that you contribute resources that you identified on your own throughout the program that you believe would be useful for future program participants. 	 Core: Program Retrospective: Mapping your learning journey against your IDP & personal critique of your effort Elective: Exchange your retrospective with a trusted peer and offer constructive feedback on each other's performance Contribution of resources to future program iterations 			



Week 23: Retrospective: Digital Services & You

Participants will complete their program retrospective, which is an analysis of their learning journey against their IDP. Participants should pay special attention to any areas where they felt like additional support was needed to improve their development and offer suggestions to program faculty for modifying the program curriculum to address these gaps. See the <u>Release 6 Assessment</u> section below for a discussion of the assessment activities that will occur. Participants are encouraged to engage with a trusted peer to gain constructive feedback on their efforts throughout the program; this is intended to increase self-awareness while also providing yet another opportunity to practice difficult conversations.

Week 24: Conclusion & Program Assessment

Our abbreviated "six day" iteration includes one hour of protected time on the fourth Monday, where program faculty will address the class and offer parting words of wisdom while encouraging participants to continue serving as change agents and offering them the opportunity to support the program for future deliveries (e.g., as mentors for future participants in the Digital Service Contracting Professional Training and Development Program).



Guided Learning

While your program faculty is busy capturing lessons learned and feedback on the overall program to improve future iterations, you will reflect on your experiences over the last five months. This is a critical time for personal growth and development, and we hope you take advantage of the opportunity to share the experience with trusted peers. We also ask that you contribute any additional resources and readings that you used or referenced during the program so that we may consider incorporating them into the program. Our last shared experience will be one hour of protected time on the fourth Monday. We'll have our tissues ready.

Release 6 Assessment

The Release 6 Assessment consists of the Capstone/Skills Test and will be administered as described in the <u>Assessment Plan</u> section. There will be two parts to the Capstone/Skills Test. First, during Weeks 21-22, an expert rating/judge panel will assess participants' *Demo Day: Final Presentation* using a structured rating form. Second, during Weeks 23-24, participants will create and submit a post-presentation response in written and/or video-based format that will be assessed by an expert rating/judge panel using a structured rating form. The combined scores will constitute a participant's final assessment result.

See the Capstone/Skills Test subsection for additional discussion.



6. APPENDIX 1: RELEASE 1 LEARNING DESIGN APPROACH

Since Release 1 will need to launch approximately one month after notification of award status and we will not have assessment results (other than the preprogram assessment) to inform extensive upfront content customization, we have developed additional detail for this release so that upon award, we will be able to efficiently develop the materials in time for the program launch.

6.1 Online Learning: Digital Services – The Who and What

Performance Objectives	Content Outline	Instructional Strategy	References for Development	Estimated Seat Time
Summarize the current state of digital services in 21 st century government. Discuss the various profiles and methods of digital services professional, and understand the challenges of their environment.	 What are digital services? What user needs do they address? According to the Digital Government Strategy, "digital services" refers to "the delivery of digital information (data or content) and transactional services (e.g., online forms, benefits applications) across a variety of platforms, devices, and delivery mechanisms (e.g., websites, mobile applications, and social media)." Digital services may be delivered to internal customers (inside government), external customers (outside government), or both. In simple terms, citizens need to achieve a variety of goals, whether it be understanding tax policy and paying the right amount or getting permission to drive a car or sell certain goods or travel abroad. Government needs to gather and store data about things like businesses, or schools, or imports and exports. The overall definition can be broken down using the three layers described in the Digital Government Strategy: Information Layer. Includes unstructured content like documents and multimedia and structured data typically found in databases and spreadsheets Platform Layer. Includes: APIs, feeds, and web services; and 	Open with images/examples of users interacting with digital services, accomplishing particular goals with them, to keep in line with the focus on the user—both in digital services and within our program (since it serves as a "signal" to this different way of thinking). Introduce profiles of different types of users of these digital services—citizens whose lives are being positively impacted by these digital services. These could be users who interact with particular types of services that integrate in many of the digital services terms/definitions we are going to later introduce. Thus, we start with the user profiles, transition into a discussion of what digital	White House Digital Services Governance Recommendations: https://www.whiteho use.gov/digitalgov/d igital-services- governance- recommendations#i ntroduction UK Government Service Design Manual: https://www.gov.uk/ service-manual https://gds.blog.gov. uk/2015/07/29/sam e-but-different-a- common-	10 minutes





Performance Objectives	Content Outline	Instructional Strategy	References for Development	Estimated Seat Time
	 Web content management systems. Online transactions (e.g., benefits applications, purchases, job applications); and Presentation Layer. "Delivery mechanisms" include all the ways users will interact with the digital service like responsive websites, native mobile apps, and the broader Internet of Things Security, privacy, and data protection must be built in throughout the entire technology life cycle. Thus, the layers of digital services rest on a platform of "Security and Privacy." 	services are at a general level, and then discuss the terms/types of services provided in conjunction with a discussion of who the digital service providers are (i.e., the digital services ecosystem), with a focus on profiling a few to help humanize and contextualize the content being presented.	international- approach-to-digital- government/ Examples of current 18F digital services projects: https://18f.gsa.gov/ dashboard/ 18F Agile Overview: https://pages.18f.go	
	 Contrast this new definition and conceptualization of digital services with "old ways" of thinking about digital services (e.g., focus on information-centric approach vs. thinking about final presentation of data, shared platforms, putting the customer first throughout technology lifecycle) Key principles (White House Digital Government Strategy): information-centric, shared platform, customer-centric, security and privacy 	Deliverable: Participants will create a Digital Services Guidebook as the deliverable for this iteration. Therefore, they will be prompted to leverage content/definitions presented in the online training into this guidebook.	V/agile/index.html UK Government Agile overview: https://www.gov.uk/ service- manual/agile	
	 The Digital Services Ecosystem: Who provides digital services? Private sector/commercial organizations: The Federal digital services landscape encompasses several different types of companies to include: Traditional systems integrators that are trying to develop digital practices 	Digital services/capabilities infographic: An interactive infographic will be created that shows the various types of services/capabilities. When each is selected, a popup opens	https://www.gov.uk/ government/publica tions/digital- services-store- buyers- guide/digital-	



Performance Objectives	Content Outline	Instructional Strategy	References for Development	Estimated Seat Time
	 Niche digital players that have their roots in commercial but are trying to cross over into Federal Re-sellers (of products – no services work involved) Product/software companies Product companies typically have services partners as well that have some kind of formal certification or training in a particular technology and are responsible for performing the implementation work when the software is purchased. Cloud providers Government service providers (e.g., 18F, USDS, internal agency digital services teams) Digital service professionals within these organizations: typical roles/labor categories within the digital services world Challenges 	with a definition, example, and resources for learning more.	<u>services-store-</u> <u>buyers-guide</u>	



6.2 Online Learning: Digital Services – The How

Learning Objectives	Syllabus	Instructional Strategy	References for Development	Estimated Seat Time
Discuss the various profiles and methods of digital services professional, and understand the challenges of their environment.	 How are digital services delivered? What are the modern design and development methods? Customer experience and user-centered design (consistent with Digital Services Playbook Play 1) Ensures digital services meet customers/end users' needs Accomplished via usability studies, journey mapping, etc. Design thinking Data driven decision making – analytics Agile development What agile is vs. what it is not Contrast with waterfall development Importance of iteration Agile Manifesto Elements of agile development lifecycle Product vision Product roadmap Release planning Sprints with reviews and retrospectives Deployment at least at the end of each sprint if not continuously Key players Agile project constraints Planning for performance in agile development Delivering functionality to support the product vision 	 The module will open with a "myth-busting" quiz, modeled after popular Buzzfeed quizzes and leveraging TechFAR questions, about how digital services are developed. Participants will receive a myth buster rating based on their responses. We will include items like the following: Agile development is the only way to develop digital services. (Correct response: False) Agile is an entirely new way of approaching digital service development. (Correct response: False; feedback will briefly explore history of agile and describe agile mindset via an everyday example or leveraging Mikey Dickerson's SXSW interview about his role in fixing healthcare.gov as a way to "demystify" agile and link it 	ASI Acquisition for Agile reference materials OMB's Contracting Guidance to Support Modular Development Industry Insight: Why DevOps is good for government: http://gcn.com/articl es/2015/02/12/devo ps-defined.aspx	20 minutes



Learning Objectives	Syllabus	Instructional Strategy	References for Development	Estimated Seat Time
	 Concluding an Agile development contract DevOps: Application of lean and agile principles and practices to operations Modern stack: Centered around IT modernization and using the latest and greatest technology (which could be COTS) Open source: Avoiding vendor lock in and producing at a lower cost Open data Minimum Viable Product (MVP): Part of Lean Thinking. Focuses on delivering the smallest product possible to test hypotheses about customer needs. Involves measuring and documenting the results, and pivoting and persevering accordingly. Rapid delivery: Consistent with 18F's mission to "just ship it." Focus on delivering working software in short, regular iterations to generate feedback and promote learning about 	 to what participants are already familiar with) Agile equals higher risk. (Correct response: False) [Other modern design and development processes to be included in additional to agile] Next, participants will explore each modern design and development method using the Iteration Scenario Kickoff scenario or some other concrete example/case study so as to "show," not just tell, the value of agile. 		
Fc	 both the project and the process. Continuous delivery (automating deployments) and continuous integration (automating builds and tests) Refer to the <u>Appendix 2</u> for additional discussion of categories/types of digital services and examples within each one. Unique security and accessibility requirements that technologies 	Case Studies: Participants will explore how various tools and technologies are used to deliver various everyday digital services. This will serve as a way to introduce these technologies in context to improve learning transfer.		10 minutes
	 must meet to be able to be used in the Federal space: FEDRAMP and implications for digital services Section 508 compliance and implications for digital services 	Integration with Iteration 1.A Deliverable: Participants will create a Digital Services		



Learning Objectives	Syllabus	Instructional Strategy	References for Development	Estimated Seat Time
		Guidebook as the deliverable for this iteration. Therefore, they will be prompted to leverage content/definitions presented in the online training into this guidebook.		



7. APPENDIX 2: DIGITAL SERVICE CATEGORIES & EXAMPLES

This list of digital services categories/types and current examples will be used as an initial starting point to help participants understand the types of digital services they may encounter. This is a living list; therefore, as the program and technology evolve so too will this list.

- Collaboration
 - o Wikis (e.g., Confluence, Twiki)
 - Portals (for document versioning, workflow, e.g., SharePoint, SalesForce)
 - oQ&A sites (e.g., OSQA, <u>QHub</u>, <u>AnswerHub</u>, <u>AnswerBase</u>, <u>AskBot</u>)
- Content Management Systems
 - $_{\odot}$ Wordpress
 - ∘Drupal
- Learning Management Systems
 - $_{\circ}$ Coursera
 - $\circ \text{Moodle}$
 - $_{\circ}\mathsf{EdX}$
- Web application development
 - ○Numerous options, e.g., RoR, Play Framework, Django, AngularJS--in a variety of languages/platforms
 - $_{\odot}\text{CDNs}$ in the cloud (ancillary)
- REST API development (similar to web application development)
- Data
- RDBMS
- $_{\odot}$ Document databases
- Graph databases
- Columnar databases
- $_{\circ}\text{Hadoop}$
- $_{\circ}$ Elasticsearch
- Data Analytics and Visualization
 - ∘Excel
 - $\circ R$
 - o Python tools (Pandas, NumPy, SciPy, Anaconda)
 - $_{\circ}$ Hadoop MapReduce
 - $_{\circ} \text{Apache Spark}$
 - $_{\circ}$ Tableau
 - ∘D3
 - $_{\circ}$ Bokeh
- Cloud
 - ∘AWS
 - $_{\odot}$ Microsoft Azure
 - oHeroku
 - o OpenShift
- Mobile/Internet of Things
 - Android
 - oiOS
 - oHTML5



- Virtualization
 - ∘VMWare
 - $_{\circ}$ Oracle VirtualBox
- Enterprise Integration (related to API development)
 - $_{\circ}$ Camel
 - $_{\odot}$ Spring Integration
 - Messaging (JMS, RabbitMQ, ActiveMQ)
 - $_{\circ}$ Kafka
- Scripting
 - o Shell/batch scripts
 - Scripting languages (Ruby, Python, Groovy, Scala)
- Security
 - $_{\circ}$ Encryption
 - ∘PKI
 - $_{\circ}$ Certificates
 - Digital signatures
 - $_{\odot}\mbox{Authentication}$ and authorization/access control
- Software engineering
 - Version control (Git, Subversion, Mercurial, etc.)
 - olssue tracker (Jira, Trello, etc.)
 - $_{\circ}$ Wiki or other collaboration tool (Confluence, SharePoint, etc.)
 - o Continuous integration (Jenkins, Hudson, Travis, etc.)
 - o Continuous delivery/DevOps (Docker, Puppet, Chef, etc.)
 - Cloud providers for the above services (GitHub, GitLab, Cloudbees)
 - Automated testing tools (Cucumber/Selenium for functional, JMeter for performance, BDD-Security/OWASP ZAP for security)
- Social Media
 - \circ Facebook
 - $_{\circ}$ Twitter
 - ∘Vine
 - \circ Pinterest
 - \circ Instagram
 - Meerkat
 - $_{\circ}$ YouTube
 - HootSuite
 - ∘Tumblr



8. APPENDIX 3: PILOT PROGRAM FACULTY & GUEST SPEAKER CADRE

Name	Anticipated Program Role	Relevant Experience/Focus Areas
Pilot Program F	aculty	
Lisa Akers	Program Faculty/Design Team: Program Leadership & Guest Speaker Cadre	Lisa Akers is the President of the Products and Solutions Division at ASI Government (ASI). She is an acquisition and program management expert with more than 16 years of Federal experience and 7 years in the private sector. She is the Product Owner for ASI's Virtual Acquisition Office (VAO) and Applied Learning On-Line products. Lisa is currently supporting the GSA Common Acquisition Platform, Army Knowledge Management Portal, and OPM HCaTS programs. She is an instructor for ASI's Acquisition for Agile course. Since joining ASI, Lisa has held the position of the Training Director, Civilian Account Executive, and President of the Consulting Division before leading the Products and Solutions Division. Prior to ASI, she was the Director of GSA FEDSIM that procures and manages more than \$1.4 billion in annual obligations.
Peter Bonner	Program Faculty/Design Team: Facilitator, Organizational Development SME & Cultural Transformation	Peter Bonner is an instructional designer, learning facilitator, and innovator in organizational learning systems. He has over 25 years of experience in adult learning, performance measurement, learning evaluation, organizational assessments, work and process redesign, public-private partnerships and other methods to improve organizational effectiveness in Federal agencies, the private sector, and non-profit associations. He has worked with over 40 different Federal agencies and more than 20 interagency or multi-sector partnerships, including the Department of Veterans Affairs, the Department of the Interior, the Internal Revenue Service, the Department of Defense, and the Environmental Protection Agency. Peter is the Vice President, Civilian Consulting for ASI Government. Previously, he was a member of the senior management team of the American Society for Training and Development (ASTD) as Senior Vice President of Programs and Membership, managing strategic planning, product development, customer satisfaction, chapter services, operations planning and training trend analysis. He gives presentations and keynote speeches at conferences on strategy consulting, human capital trends, learning and professional development, and workforce development.
Neil Chaudhuri	Program Faculty/Design Team: Facilitator, Content Creator, Digital Services SME	Neil Chaudhuri is the founder and president of Vidya. He has well over a decade of experience building complex software applications using numerous technologies for a wide array of government and commercial clients. Neil believes as strongly in the art of software engineering as he does in technology itself. A frequent author and presenter, Neil has written for Government Computing News and was selected as one of the "experienced users" to contribute to a GAO report called SOFTWARE DEVELOPMENT: Effective Practices and Federal Challenges in Applying Agile Methods. Neil teaches Scrum and technology courses and is a Certified ScrumMaster, Certified Scrum Professional, and PMP.



Name	Anticipated Program Role	Relevant Experience/Focus Areas
Heather Govoni	Program Faculty/Design Team: Facilitator, Content Creator, Leadership/Cha nge Management SME	Heather has seven years of experience in learning and development with a variety of organizations including NASA, the Consumer Financial Protection Bureau (CFPB), and the Smithsonian. From 2008-2013 at NASA, Heather led an assessment and developed a catalog of external development opportunities at recognized best-in-class organizations such as Harvard University, the Center for Creative Leadership, and MIT Sloan School of Management. She also worked on a team that won NASA's Group Achievement Award from the Administrator for advancing learning and leader development at NASA. Ms. Govoni is currently in the second year of her MBA at Georgetown University and received her B.A. in Public Relations from Syracuse University.
Frank McNally	Program Faculty/Design Team: Facilitator, Content Creator, Acquisition SME	Frank has 13 years of government and acquisition experience, having supported the Transportation Security Administration's Secure Flight program as a Contracting Officer prior to spending four years as a curriculum developer and instructor at the Department of Veterans Affairs Acquisition Academy. In this role, Frank applied his subject matter expertise to develop and deliver high impact, practical application courses with a focus on interpreting and leveraging the Federal Acquisition Regulation for pragmatic and innovative contracting solutions. As an acquisition subject matter expert and instructional designer, Frank has developed and delivered technical courses on all phases of the acquisition lifecycle, the Federal budget process, business writing, program management, and soft skill courses focused on customer service and the management of public spending.
Government Gu	lest Speaker Cadr	e
Avi Bender	Release 1 and 4 Guest Speaker	Mr. Bender is the Chief Technology Officer at the U.S. Census Bureau. He may be asked to speak about his experiences at the Census Bureau, including the creation of the Bureau's Innovation Center – the Center for Applied Technology, and/or insights around open data, innovation, service-based architecture, and change management.
David Bray	Release 1,2,3, or 4 Guest Speaker	Mr. Bray is the Chief Information Officer at the Federal Communications Commission (FCC). Mr. Bray may be asked to speak about his experience with transforming the FCC IT infrastructure and championing multi- stakeholder, public-private partnerships and initiatives.
Jeff Butler	Release 1 Guest Speaker	As Director of Research Databases within the IRS Research, Analysis, and Statistics division, Mr. Butler can offer insights about digital service topics such a big data.
Chris Cairns	Release 1 Guest Speaker	Mr. Cairns is the director of 18F Consulting. His may be asked to speak about any of his vast specialty areas: digital and technology strategy, full stack development, product management, agile development, and agile acquisitions.
Mikey Dickerson	Releases 1 and 4 Guest Speaker	As the USDS Administrator, Mr. Dickerson can offer insight and inspiration on a variety of topics related to digital services acquisition and the role participants in the program play in achieving the government's digital service cultural transformation goals.



Name	Anticipated Program Role	Relevant Experience/Focus Areas
Greg Godbout	Releases 1 or 4 Guest Speaker	Mr. Godbout is currently the Chief Technology Officer (CTO) at the EPA and was formally the Executive Director and Co-Founder of 18. Depending on the needs of the cohort, Mr. Godbout may be invited to speak about his experiences with digital services in the government and private sector and/or his experience leading change and innovation in this space.
Luke Fretwell	Releases 2 or 3 Guest Speaker	Mr. Fretwell is an entrepreneur and writer focused on civics and technology. He is the founder of the civic technology blog GovFresh, called the "TechCrunch of Gov 2.0" and named one of the "50 Must-Read Federal Government IT Blogs." He has also been influential in establishing key organizations aimed at making civics and government more effective and collaborative, including Agile Government Leadership, focused on bringing agile project management awareness to government. Mr. Fretwell may be asked to share insights related to modern design and development practices for digital services.
Noah Kunin	Release 1 Guest Speaker	Mr. Kunin is the Director of Delivery Architecture + Infrastructure at 18F. He works to ensure 18F has the systems and services they need to succeed. Prior to coming to 18F, he helped launch the Consumer Financial Protection Bureau (CFPB). Mr. Kunin may be asked to speak to his experiences at 18F and in the government digital services space.
Dave McClure	Releases 1 and 2 Guest Speaker	Mr. McClure is an entrepreneur and prominent angel investor who founded and runs the business incubator 500 Startups. Mr. McClure may be asked to speak on digital services writ large and the digital services/technology market space.
Marina Martin	Releases 1, 2, 4 Guest Speaker	As the Chief Technology Officer at the Department of Veterans Affairs, Ms. Martin is responsible for establishing the first Federal agency digital service team. At the VA, she champions enterprise technology initiatives and responsible adoption of modern technology across the agency. She may be asked to share firsthand experiences and best practices related to these efforts.
Jonathan Mostowski	Releases 2-4 Guest Speaker	As the author of the TechFAR and a member of USDS, Mr. Mostowski may be asked to share firsthand experience about the contents of the TechFAR as well as his work in helping to drive the digital transformation across the Federal government.
Mark Schwarz	Releases 1 or 4 Guest Speaker	Mr. Schwarz is currently the Chief Information Officer at U.S. Citizenship and Immigration Services (USCIS) and was formerly a nationally recognized CIO in the private sector. Mr. Schwarz may be invited to speak on his experience implementing modern design and development practices for digital services in both the government and private sector and/or his experience leading change and transformation.
Chad Sheridan	Release 2, 3, 5 Guest Speaker	Mr. Sheridan is the Chief Information Officer at the United States Department of Agriculture Risk Management Agency. He may be asked to speak about his relevant specialty areas, which include IT strategy, IT acquisition, contract negotiation, IT management, and/or government contracting.



Name	Anticipated Program Role	Relevant Experience/Focus Areas
V. David Zvenyach	Releases 1-5 Guest Speaker	Mr. Zvenyach is currently the 18F Acquisition Manager. Through his focus on ways to improve the ways the government purchases digital services, Mr. Zvenyach may be asked to speak on a variety of topics related to digital service acquisition best practices.
Private Sector (Guest Speaker Ca	dre
Richard Brown	Release 3 Guest Speaker	Richard Brown joined ASI after leaving federal service where he served as general counsel at Department of Commerce and HHS having started as a Contracting Officer. On ASI's VAO content team, he supports inquiry research and develops webinars and publications on topics such as protests, appropriation law and the impact of legislative changes.
Teresa Carlson	Release 1 Guest Speaker	Teresa Carlson is Vice President of the Worldwide Public Sector for Amazon Web Services. She is a recognized leader in the private sector technology space and may be asked to speak on a variety of issues related to digital services in the private sector and government partnerships.
Dan McLaughlin	Release 2 Guest Speaker	Dan McLaughlin brings high level strategy and stakeholder management experience from his work at ASI, the Department of Homeland Security (DHS) Office of Procurement Operations (OPO); Treasury; Energy; and the Navy. At ASI, Dan advises NOAA Acquisition and Grants Management Office and is an Instructor. Prior to joining ASI, Dan served in various leadership roles at DHS OPO, most recently as the Executive Director and Head of Contracting Activity (HCA) where he improved workforce capabilities and processes for the 375+ person staff, obligating \$4-6B annually. Dan worked with DHS OPO principals and stakeholders and the DHS CIO Council to understand and document the root causes of current acquisition and staffing challenges. Dan led the establishment of DHS' most successful strategic sourcing vehicles, This led to established of DHS's EAGLE and FIRSTSOURCE.
Glen Phillips	Release 5 Guest Speaker	Glen Phillips brings more than 27 years of program management and federal acquisition experience, serving as an ASI Training Institute Senior Instructor with 12 years of overall instructional experience. Glen is currently facilitating DTRA's on-line cohort program for acquisition innovation. He managed the Accelerated Acquisition Center at DHS CBP facilitating the requirements definition and acquisition of large IT programs. With an average instructor-led course evaluation rating of 4.53 out of 5, Glen brings a wealth of Federal experience and demonstrated expertise in IT program management, IT acquisition risk management, scheduling, strategic planning, and acquisition workforce development.
Balaji Ramanajan	Release 3 Guest Speaker	Balaji Ramanujam is ASI's Chief Information Officer supporting all internal operations, ASI's VAO as well as client engagements. Balaji led the agile development of the Army Acquisition KM portal (Procurement.Army.Mil) that was stood up in less than six months for more than 6,000 contracting users. User adoption has been strong through the use of engaging user interface and dynamic content integrating knowledge artifacts from Army and ASI's Virtual Acquisition Office (VAO).



Name	Anticipated Program Role	Relevant Experience/Focus Areas
John Fallon	Release 2 Guest Speaker	Dr. John Fallon has over 15 years of acquisition and training experience in the Federal government and as a consultant working with Federal agency clients including GSA Common Acquisition Platform, DAU and USAID. John's experience covers all facets of the acquisition and training spectrum, including: services, supplies, major weapons systems, policy, eGov systems management, strategic sourcing, and performance-based acquisitions. Recently at DAU, John led an effort to integrate standalone modules weaving in key concepts of Communications, Stakeholder Engagement, and other soft skills critical for strategic procurement, logistics, and teaching. He has led large scale acquisition efforts in both domestic and international settings. John is currently serving as an Adjunct Professor at University of Maryland University College and Villanova University.