ISA 201
Intermediate Information Systems Acquisition
Given a DoD IT/SW development scenario, apply the best practices of IT Contracting that result in a best-value, competitive acquisition.

- Describe the connection between the IT acquisition process and the required rules and regulations prescribed in the FAR and DFARS.
- Identify characteristics of contracting for Agile Software Development projects.
- Given a scenario, identify the requirement for a Modular Contracting solution.
- Describe the relationship among the Contracting Officer, Program Manager, and Contracting Officer's Representative (COR).
- Recognize the association of acquisition planning to the contracting strategy.
Learning Objectives

Today we will learn to (2 of 2):

• Recognize the particular aspects of market research unique to IT.
• Given an IT requirement, choose between a development and a commercial acquisition contracting approach.
• Given a scenario, evaluate an acquisition strategy that offers optimal opportunity for competitive acquisition.
• Identify the elements of Performance-Based Acquisitions (PBA) and Performance-Based Services Acquisitions (PBSA).
• Recognize different types of data rights.
Lesson Overview

Lesson Plan

- Regulations & Guidance
  - Contracting for Agile
  - Process Review and Role of the Contracting Officer
  - Market Research
  - Commercial Acquisition
  - Competition
  - Performance Based Acquisition
  - Data Rights
  - Lesson Exercise
Regulations & Guidance

Federal Laws & DoD Regulations

Instructions, Guides, Executive Orders, GAO Audits, reports

Digital Contracting Cookbook

FAR and DFARS provide statutory guidance.
Federal Acquisition Regulations (FAR)

- Part 7 – Acquisition Planning
- Part 8 – Required Sources of Supplies and Services
- Part 10 – Market Research
- Part 12 – Acquisition of Commercial Items
- Part 15 – Contracting by Negotiation
- Part 16 – Contract Types
- Part 39 – Acquisition of Information Technology
- Part 52 – Solicitation Provisions and Contract Clauses
FAR and DFARS provide statutory guidance to the Government. Applicable clauses and provisions are passed to the Contractor in the executed contract.
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## Contracting for Traditional SW Development and Agile SW Development

<table>
<thead>
<tr>
<th>Traditional Pre-Award</th>
<th>Agile Pre-Award</th>
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<tbody>
<tr>
<td>• Needs identified</td>
<td>• Needs identified</td>
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<tr>
<td>• IPT formation</td>
<td>• IPT formation</td>
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<tr>
<td>• Detailed requirements</td>
<td>• Product vision</td>
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<td></td>
<td>• Product road map</td>
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<table>
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<tr>
<th>Traditional Post-Award</th>
<th>Agile Post-Award</th>
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<tbody>
<tr>
<td>• Releases at the end of long, linear development phase</td>
<td>• User Stories</td>
</tr>
<tr>
<td>• Linear approach to design, development and testing</td>
<td>• Release planning</td>
</tr>
<tr>
<td>• Performance measurement – contractor held to standards determined pre-award</td>
<td>• Sprints</td>
</tr>
<tr>
<td></td>
<td>• Releases</td>
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<tr>
<td></td>
<td>• Performance measurement† – document throughout each Sprint</td>
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**Modular or Flexible Contracting**

- **Modular contracting**—acquisition of a system for information technology divided into several smaller acquisition increments.
- Intended to:
  - Reduce program risk
  - Incentivize contractor performance
  - Meeting the Governments need for timely access to rapidly changing technology
- Each increment should utilize an appropriate contracting technique that best facilitates the acquisition of subsequent increments.
- Modularity avoids the potential negative effects of one development-to-production contract by introducing check points and market competition forces key program transition points between module contracts/contractors.
- Recall: **Clinger Cohen Act, element #10**: “To the maximum extent practicable, (1) modular contracting has been used, and (2) the program is being implemented in phased, successive blocks...”
TechFAR Hub

Templates

These templates provide practical, tactical tools to help during the process for digital services.

**Statement of Objectives Template**

This template translates the Digital Services Playbook into an SOO requirements document. It even includes questions for the vendor that they must answer in their quote or proposal.

**Agile Task Order FFP Independent Government Cost Estimate (IGCE) Template Example**

When Firm fixed price per iteration is preferred, this template shows you how to create your estimate.
• **Question** — Are agencies authorized to shape their IT software acquisitions around Agile principles? The FAR does not expressly speak to Agile concepts such as refining technical solutions after contract award based on testing and customer feedback or buying a product with a process rather than an identified solution.

• **Answer** — The principles of Agile software development are consistent with modular contracting, a risk reducer, which is discussed in FAR Part 39, Acquisition of Information Technology. In addition, as a general matter, an agency may pursue acquisition practices that are not expressly endorsed in the FAR, including Agile software development, as long as they are not expressly prohibited by law.
Lesson Overview

Lesson Plan Status

• Regulations & Guidance
• Contracting for Agile

• Process Review and Contract Administrative Team
  • Market Research
  • Commercial Acquisition
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DCMA does a thorough review of RFPs to make sure they have appropriate IT-related clauses.
FAR 15.303: (b) The source selection authority shall -- Establish an evaluation team, tailored for the particular acquisition, that includes appropriate contracting, legal, logistics, technical, and other expertise to ensure a comprehensive evaluation of offers;

For any acquisition team and/or IPT, these members should be included. A testing representative may also be required.
The Contract Administrative Team

- **Program Manager**
  - Key role in monitoring contractor performance
  - Drives the AP and AS

- **COR/COTR**
  - Sometimes the technical expert for the acquisition
  - Evaluates/accepts deliverables

- **Contracting Officer**
  - Legal authority to sign contract and make changes
  - Ensures contracts comply with laws/executive orders/regulations
  - Ensures government as well as the contractor are in compliance with the contract

- **Engineer/Technical Team/Testers/Logisticians**
  - Required specific skill sets to support the evaluation and acceptance of deliverables
  - Ensure right skills are used to monitor performance and provide feedback to PM and COR
What tools does a COR need to monitor contractor performance?

- Contract
- Letter of Appointment
- Contract Administration Plan
- Quality Assurance Surveillance Plan (QASP)
Lesson Overview

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• Regulations & Guidance
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• Process Review and Role of the Contracting Officer

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Market research information can be used to:

- Shape the acquisition strategy
- Determine the type and content of the product description or statement of work
- Develop the support strategy
- Craft the terms and conditions included in the contract
- Formulate the evaluation factors used for source selection

Contracting for IT has unique characteristics that set it apart from traditional weapon system program contracting and can be best achieved through robust **continuous** market research.
Strategic and Tactical Market Research

**Market Surveillance**
- Ongoing Familiarity With a Market
- Trade Shows
- Research Reports
- Trade Journals
- Symposia Proceedings
- Internet
- Professional Organizations
- Other sources

**Market Investigation**
- Collect, Evaluate & Analyze
- Specific Information to meet Agency Needs
- Identify potential sources
- Survey Manufacturers
- Analyze Responses
- Terms and conditions
- Demonstrations
- Site visits

**Product Available**
- Proceed with
  - Commercial Buy
  - Components
  - Non-commercial

**Purpose**
- Revise Requirement?
- New Development?
- Existing Documents?
Market Research Analysis

Collect Market Data:
- Define Market Segments
- Develop View of Basic Market Data
- Understand Value Chain and Cost Drivers
- Identify Market Competitive Dynamics
- Review External Best Practices

Assess from many angles:
- New Technologies
- Market Trends (Supply/Demand)
- Market Leverage
- Compare/Contrast to Needs
- Pricing/Value Comparisons
- Competition
- Small Business Opportunities
- Performance Metrics

Conduct Market Analysis:
- Whole Team Review Assessments
- Market Research Report
- Contracting Officer puts in Contract File
### Myth Busters

<table>
<thead>
<tr>
<th>Situation</th>
<th>Myth Or Reality?</th>
</tr>
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<tbody>
<tr>
<td>The Contracting Officer cannot meet with a potential offeror one-on-one, but the PM can.</td>
<td>Myth</td>
</tr>
<tr>
<td>In the pre-solicitation period, a vendor who provides information risks being excluded from the resulting solicitation due to organizational conflict of interest (OCI) concerns.</td>
<td>Myth</td>
</tr>
<tr>
<td>While the PM typically talks to Industry about technical requirements, it should be the Contracting Officer’s responsibility to get feedback on pricing, performance metrics, evaluation criteria, and other contractual issues.</td>
<td>Reality</td>
</tr>
<tr>
<td>Industry days are of low value because vendors won’t provide useful information in front of competitors.</td>
<td>Myth</td>
</tr>
<tr>
<td>Based on information gathered from Industry, the Acquisition Team may decide to take a different approach than the one originally planned, in order to increase competition, provide for more small business participation, achieve lower prices, or better define the requirements.</td>
<td>Reality</td>
</tr>
</tbody>
</table>

Source: [http://www.whitehouse.gov/sites/default/files/omb/procurement/memo/Myth-Busting.pdf](http://www.whitehouse.gov/sites/default/files/omb/procurement/memo/Myth-Busting.pdf)
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- Regulations & Guidance
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- Market Research

**Commercial Acquisition**

- Competition
- Performance Based Acquisition
- Data Rights
- Lesson Exercise
Acquisition processes for Information Resources must:

- Conduct market research to determine whether commercial items or Non-Developmental items (NDI) are available to meet requirements
  - A NDI is any previously developed item of supply used exclusively for government purposes by a federal agency, a State or local government, or a foreign government with which the US has a mutual defense cooperation agreement.
- Acquire COTS or NDI when they are available; and
- Require prime contractors and subcontractors at all tiers to incorporate, to the maximum extent practicable, commercial items or nondevelopmental items as components

Reference: FAR Part 12, Acquisition of Commercial Items

IT Contracting affords a great opportunity for utilizing commercial practices.

**Generally reduces acquisition schedules!**
Commercial Planning Process

• Define requirements both at a high level and at a detailed engineering level

• Identify a candidate commercial or nondevelopmental item that appears to best meet the requirements

• Develop a life-cycle support plan for the item

• Test and evaluate the item to determine its ability to satisfy the requirements

• Plan and implement the acquisition strategy.
1. Read SD-2, *Buying Commercial Items and Non-Developmental Items* (pp. 4-5)

2. Answer these questions:
   i. How might buying commercial offer improved scheduling?
   ii. How might buying commercial produce cost savings?
   iii. How can buying commercial result in superior performance or higher quality?
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Competition

- Lowers prices
- Spurs innovation
- Drives quality improvements
- Encourages performance improvements by using “best value” source selection/evaluation criteria
- Provides opportunities for capable small businesses or non-traditional sources
- Enhances or maintains a strong defense industrial base
- Promotes transparency and fairness in the Defense Acquisition System

“Real competition is the single most powerful tool available to the Department to drive productivity.”
How does competition create lower prices?
Competition Spurs Innovation

How does competition spur innovation?
How does competition promote transparency and fairness; why is this important?
Exceptions to Competition

• Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements
  - Not the same as the only source we know about
  - Must determine a boundary prohibiting all but one contractor from performing – for example proprietary data rights
• Unusual and Compelling Urgency (no time to compete fully)
  - Can’t be due to poor Government planning or potential loss of funding

These 5 Exceptions are the Result of Decisions Outside of or Above the Level of the Program Office or Contracting Officer

• Tailored Competition to Support Industrial Mobilization; Engineering, Developmental, or Research Capability; or Expert Services at a National Level
• No Competition as Part of an International Agreement
• No Competition Authorized or Required by Statute
• Support for Special National Security Issue
• Support for Special Public Interest
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**Performance Based Acquisition**
- Data Rights
- Lesson Exercise
Performance Based Acquisition

Seven Steps
to Performance-Based Services Acquisition

1. Establish the team.
2. Decide what problem needs solving.
4. Develop a PWS or SOO.
5. Decide how to measure and manage performance.
6. Select the right contractor.
7. Manage performance.

Performance Based Acquisition

The established Government preference to describe a contract requirement in performance based terms

For Services
- Describe the work in terms of the required results rather than either “how” the work is to be accomplished or the number of hours to be provided
- Enable assessment of work performance against measurable performance standards
- Rely on the use of measurable performance standards and financial incentives in a competitive environment to encourage competitors to develop and institute innovative and cost-effective methods of performing the work

For Hardware or Software Items
- Describe the requirement in terms of functionality or resulting output rather than production or manufacturing level characteristics or drawings/specifications
- In essence, the what, not the how
Government may write a Performance Work Statement (PWS)

- Describe the work in terms of the required outcomes, results, or even impact
- Identifies measurable performance standards by which after contract award the contractor will be judged for contractual acceptance
- Contract may include financial incentives to foster higher than required quality, innovative and/or cost-effectiveness

Government may issue solicitation with no PWS but with a Statement of Objectives (SOO)

- SOO describes overarching objectives of the contract in broad terms and outlines constraints that will bound the contractors work
- Contractors write/proposal a PWS that incorporates their particular methodology to meet SOO objectives
- Government selects the best offer and uses successful offerors’ PWS as the contract work statement
**Performance Based Acquisition**

*For example:*

Not Performance Based –

“Contractor shall provide two senior IT specialists, as defined in section 4.3.2 of this Statement of Work (SOW), from 0600 to 1800 Monday through Friday and shall perform the tasks as outline in Air Force Instruction 36.001 paragraphs 7–11 through 7–55 to insure optimal functionality of the system”

Performance Based with measurable performance outcome –

“Contractor shall insure that the system allows full functional usage by organizational personnel for at least 95% of the time during the hours 0600 to 1800 Monday through Friday.”

*IT Contracting should be performance or outcome focused, rather than method prescriptive or procedurally defined.*
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Technical Data, Software and Intellectual Property

- Data Rights, Rights to Software, and Intellectual Property Issues have been the downfall of many programs
- Awareness and planning upfront is the best safeguard
- Can be very legalistic—consult with the contracting officer and attorneys
- DFARS 252.227-7013(a)(15): Technical data is “recorded information… of a scientific or technical nature”
- “Data rights” refers to the rights in that data granted to the Government by the applicable license
- The ideas and creative works embodied in technical data may be protected as intellectual property (IP). IP refers to creations of the mind that are recognized as property.

IT Contracting by its nature will include considerable focus on technical data rights.
Quick Review of Data Rights

Development Funding

100% Private

Limited Rights (LR)
- or - Restricted Rights (RR)

Government Purpose Rights (GPR)

Unlimited Rights (UR)

100% Govt

Specially Negotiated License

Global Exception: Unlimited Rights for OMIT, FFF, CSD, etc

Operations, Maintenance, Installation, Training; Form, Fit, Function; Computer Software Documentation
Related to commercial software

No DFARS clause for commercial software
- Rights come from licenses available to the general public
- Receive same rights as general public
- These licenses may/may not include a section providing rights to government that are not available to the public (such as rights to government funded modifications)

Contractor is not obligated to provide additional rights to the Government
- Additional rights can be negotiated
- If negotiated, such rights shall be listed/described in a license/agreement which is made part of the contract
• A presumption exists that a commercial item was developed at private expense
  - But this presumption can be challenged when warranted
• Keep track of commercial software licenses
• Know what the license allows
  - Software use, upgrades, bug fixes, maintenance, modifications
• Know what the license does not allow
  - **Restrictions**—one or more locations, number of users, named user or site license, only specified applications, no sub-licensing
  - Reverse engineering prohibition
• Caution
  - Licenses must be governed by/interpreted under applicable federal law—not state law
  - Cannot indemnify Licensor against future law suits or other legal actions (anti-deficiency violation)
  - License may not allow contractors to access software
Specific Needs for Data Rights Varies Acquisition to Acquisition

Every decision about data rights involves tradeoffs

- **Obtaining more rights generally:**
  - More expensive
  - Requires unique for-Government type development which takes longer
  - Assumes ultimately Government will possess more support responsibility

- **Obtaining less rights generally:**
  - Less immediate expense
  - May be available immediately
  - Less control by Government
    - Supportability continues at will of the contractor or added cost
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Lesson Exercise
Contracting Decision
Tradeoffs
The Army intends to use surplus ground vehicles as targets. The requirement is to acquire a single means to create autonomous drones from a variety of types of ground vehicles ranging from: armored personnel carriers, tanks, to future systems yet to be surplus. Cost, simplicity, and ease of system adoption throughout the lifespan to final disposal are program priorities.

Note: There is an IT portion of the system...the guidance system and associated software.
Exercise Assignment – Formulate a High Level Acquisition Plan

Each team is tasked with quickly formulating a high level acquisition plan for an assigned focus area.

The assigned focus areas are:
1. Maximize competition \textit{(Teams 1 and 4)}
2. Maximize the use of commercial products and services \textit{(Team 2)}
3. Maximize performance based acquisition as a strategy \textit{(Teams 3 and 5)}

Give consideration to the following in the acquisition plan:
- The entire system lifecycle (development to disposal)
- Structuring data rights
- Use of modular contracting
- How market research will be conducted

Each team will provide the class with a 5 minute overview of their acquisition plan.
Given a DoD IT/SW development scenario, apply the best practices of IT Contracting that result in a best-value, competitive acquisition.

- Always seek a competitive acquisition to ensure the government has the best chance of receiving a best-value solution.

- Describe the connection between the IT acquisition process and the required rules and regulations prescribed in the FAR and DFARS.
  - Refer to the FAR/DFARS to determine the statutory requirements that guide acquisition planning.

- Identify characteristics of contracting for Agile Software Development projects.
  - Use the US Digital Services “Digital Contracting Cookbook,” “Digital Services Playbook” and “TechFAR” to help derive your Agile RFP.

- Given a scenario, identify the requirement for a Modular Contracting solution.
  - IT Contracting needs to provide flexible, rapid solutions to accommodate speed of development/change of IT technology. Modular contracting accomplishes this by creating smaller acquisition increments.

- Describe the relationship among the Contracting Officer, Program Manager, and Contracting Officer's Representative (COR).
  - Successful contract management requires a team approach.

- Recognize the association of acquisition planning to the contracting strategy.
  - Acquisition strategies have a consequential impact on contracting strategies for IT.
Today we learned to (2 of 2):

- Recognize the particular aspects of market research unique to IT.
  - Contracting for IT can be best achieved through robust market research.
- Given an IT requirement, choose between a development and a commercial acquisition contracting approach.
  - IT Contracting affords a great opportunity for utilizing commercial practices.
- Given a scenario, evaluate an acquisition strategy that offers optimal opportunity for competitive acquisition.
  - IT Contracting affords a great opportunity for competitive sourcing.
- Identify the elements of Performance-Based Acquisitions (PBA) and Performance-Based Services Acquisitions (PBSA).
  - IT Contracting should be performance or outcome focused, rather than method prescriptive or procedurally defined.
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- Recognize different types of data rights.
  - IT Contracting by its nature will include considerable focus on technical data rights.