

Module 19 - Contracting for IT (Software)

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Introduction

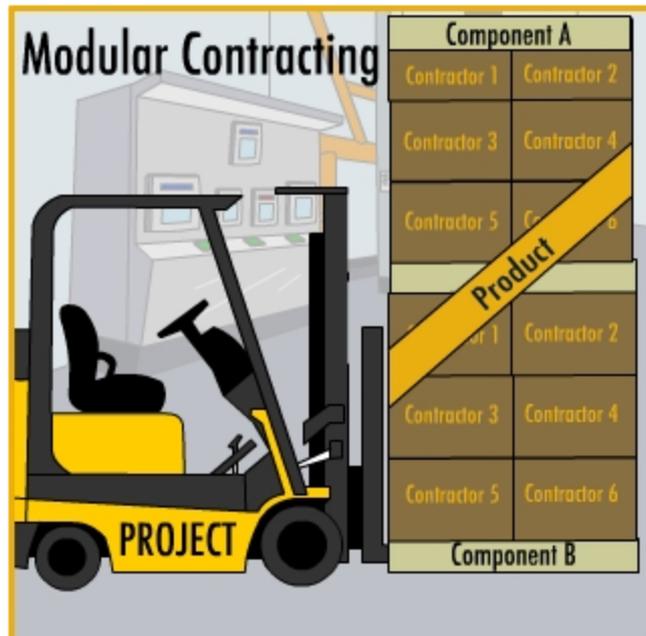
There are many regulations derived from public laws that govern the contracting for systems within the federal government.

These regulations are the Federal Acquisition Regulation (FAR), the Defense Federal Acquisition Regulation Supplement (DFARS), and other service and agency-specific acquisition regulations.

Within the FAR, Part 39 provides the regulatory basis for IT contracting. A key requirement here is the use of a strategy called Modular Contracting.

This lesson discusses a way to acquire IT systems known as "Modular Contracting."

When you have completed the lesson, you will be able to define the term "Modular Contracting" and summarize when Modular Contracting should be used.



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Lesson Objective

This lesson discusses a way to acquire IT systems known as "Modular Contracting."

After completing this lesson, you will be able to:

- Define the term Modular Contracting.
- Identify when Modular Contracting should be used.



Objectives

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The Federal Acquisition Regulation (FAR)

The Federal Acquisition Regulation (the "FAR") codifies and publishes uniform policies and procedures for acquisition to be followed by all Federal agencies.

These policies and procedures are grounded in a variety of public laws. One of these significant public laws is the Title 40, Subtitle III, Clinger-Cohen Act.



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Title 40, Subtitle III, Clinger-Cohen Act

Title 40, Subchapter III Clinger-Cohen Act significantly changed the face of IT management within the Federal government.

Prior to the passage of the Title 40, Subchapter III Clinger-Cohen Act, Congress conducted its own investigations as to the source of IT failures within the Federal government.

One common source was a flawed acquisition approach that used single step to implement a complex IT system. The result was almost always disaster!

The framers of the act realized that a "divide-and-conquer" approach to complex projects was a good way to limit risk and control program development.

This is the essence of Modular Contracting and the Title 40, Subchapter III Clinger-Cohen Act includes a requirement mandating the use of Modular Contracting to the "maximum extent possible."



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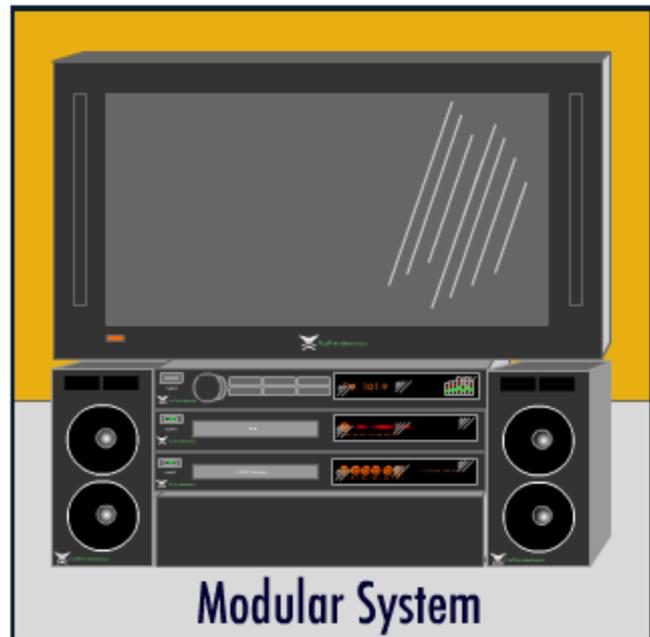
Modular Contracting

Modular contracting is intended to reduce program risk and to incentivize contractor performance while meeting the Government's need for timely access to rapidly changing technology through an incremental acquisition of Information Technology (IT) systems.

A key precondition for the effective use of Modular Contracting is an overall system architecture. This approach divides the system into several smaller acquisition modules.

Each module must comply with applicable IT standards so that it is compatible with the entire system.

Modular contracting is implemented using systems engineering principles that support modularity.



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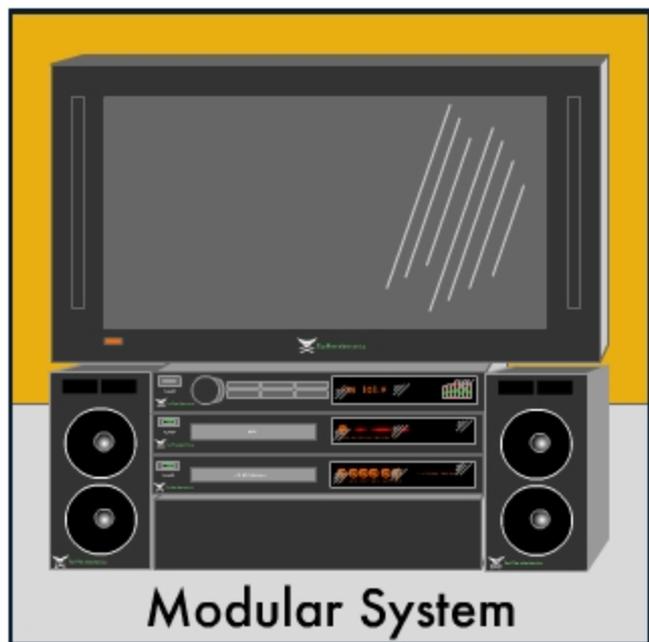
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Modular Contracting, Cont.

There are advantages to acquiring a system as several smaller modules. Smaller modules:

- Are easier to manage
- Allow complex IT objectives to be addressed incrementally
- Provide for delivery, implementation, and testing of a workable system in increments
- Allow subsequent modules to better take advantage of any evolution in technology
- Reduce risk of potential adverse consequences on the overall project
These modules are acquired in successive acquisitions of interoperable increments.

Putting the large pieces (modules) of a complex IT system "back together" can be a risky process. An overall IT systems architecture is required to ensure that all the "pieces fit" as envisioned.



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Modular Contracting: Timing

As part of the modular contracting process, the Title 40, Subchapter III Clinger-Cohen Act established various schedule goals.

These goals reflect both the time required to award a contract and the timing of deliverables (modules) after award of that contract. These goals are:

- Should comply with common or commercially acceptable information technology standards
- Should address interface requirements with succeeding increments.
- To the maximum extent possible, contracts for IT systems should be awarded within 180 days after the solicitation has been issued
- The contract should be structured in such a way so that modules (functional products or deliverables) should be delivered at intervals of not more than 18 months after contract award



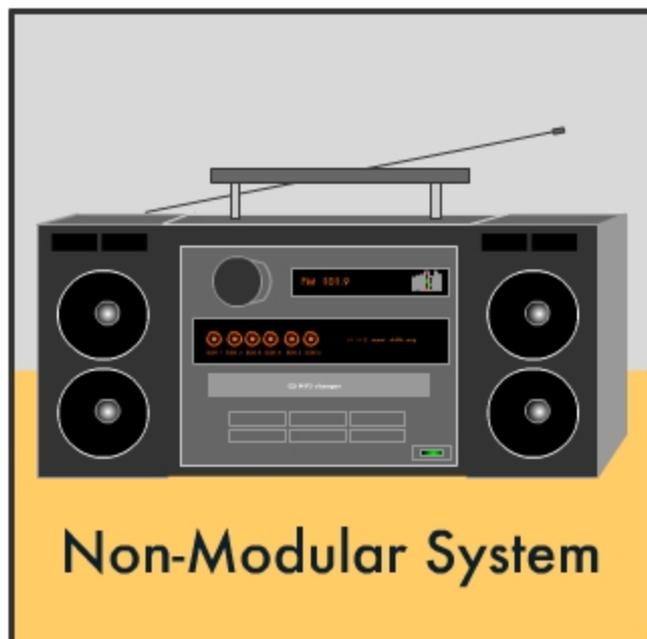
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Modular Contracting: When Not to Use

Not all systems easily lend themselves to Modular Contracting. Factors that could warrant not using Modular Contracting in an acquisition include:

- High development and/or integration risks
- A monolithic system with no logical breakout of modules



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Knowledge Review

Select the true statements.

- Modular Contracting is legally required to be considered for all IT acquisitions.
- Ideally, modules in a Modular Contracting effort would be delivered every 36 months.
- A key precondition for the effective use of Modular Contracting is an overall system architecture.
- An advantage of Modular Contracting is that it provides a way to accommodate technology evolution.

[Check Answer](#)

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Summary

Modular Contracting is a time-driven and phased-approach. It is used to limit the risk of acquiring large IT systems.

Using this strategy, independent modules that will interoperate in the ultimate system are acquired in smaller pieces in a logical sequence.

Modular Contracting can make acquisition of a system more manageable, provide for incremental implementation and testing, and allow the purchaser to take advantages of evolutions in technology that occur during the acquisition process.



Summary

Lesson Completion

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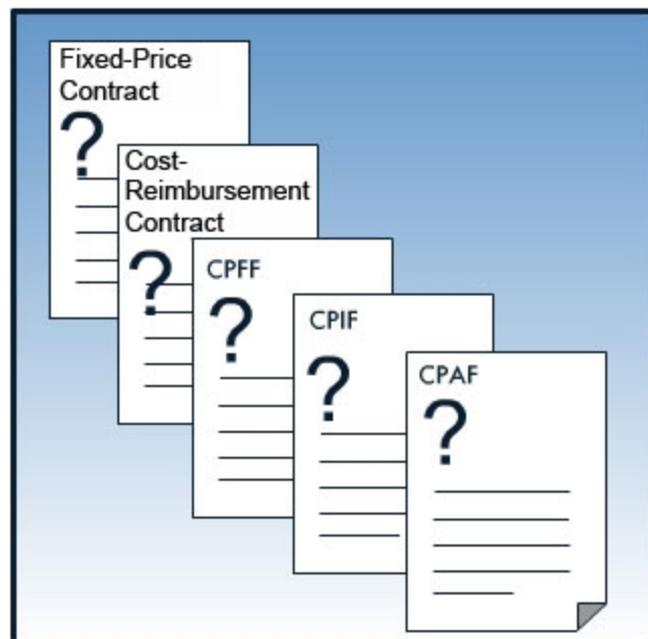
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Contracting Methods

Different contracting approaches are outlined in the Federal Acquisition Regulation (FAR) for use in the Federal government. Not all types are best for the acquisition software systems.

The wrong choice of contract type for Information Technology (IT) and software systems can increase development risk, limit Program Management Office (PMO) visibility into project status and ultimately contribute to project failure.

Selecting the right contract type is critical to the successful acquisition and implementation of a software based system.



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Learning Objectives

This lesson explains different contract types and how they are best used.

After completing this lesson, you will be able to:

- Identify the contract types best suited for software systems.
- Describe the DoD Enterprise Software Initiative (ESI).
- Identify the conditions under which the DoD Enterprise Software Initiative (ESI) should be used.



Objectives

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Selecting the Best Methods

During the Pre-Solicitation Phase of the contracting process it is important to:

- Select the best method of contracting for the acquisition
- Determine the specific contract type that should be used

Contracts can be grouped into a variety of different types. Two types commonly used for defense systems acquisitions are cost-reimbursement and fixed-price contracts.



Fixed Price Contracts

Fixed-Price Contracts are characterized by:

- Low risk to the Government
- Presence of well-defined, stable requirements
- Guaranteed delivery by the contractor
- Payment after delivery or performance (progress payments may be made)
- Profit based on efficient performance and cost control

There are certain situations where fixed-price contracts are desirable.

Fixed-price contracts can be appropriate for:

- Those parts of an IT system using commercial hardware or off-the-shelf software which have known, fixed prices
- Systems that have extremely well defined and static requirements
- Systems that are highly [precedented](#)



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DoD Enterprise Software Initiative (ESI)

The DoD Enterprise Software Initiative (ESI) is a joint project designed to implement a software enterprise management process within the Department of Defense.

By pooling commercial software requirements and presenting a single negotiating position to leading software vendors, the ESI provides pricing advantages not otherwise available to individual Services and Agencies.

Agreement negotiations and retail contracting actions are performed by IT acquisition and contracting professionals within participating DoD Services and Agencies, as Enterprise Software Initiative "Software Product Managers."



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DoD ESI and SmartBUY

The [DoD ESI](#) has been endorsed for DoD-wide use. Procedures and criteria for ESI processes are specified in the FAR.

At the Federal level, [SmartBUY](#) is a similar effort. SmartBUY is a government-wide commercial software asset management and enterprise-licensing project.

Managed by the [GSA](#), the purpose of SmartBUY is to:

- create a federal agency business process to manage commercial software as an asset, and
- obtain optimal pricing and preferred terms and conditions for widely used commercial software products.

OMB directives require that agencies, to the maximum extent feasible, refrain from renewing or entering into new license agreements without prior consultation with the SmartBUY program.



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Cost Reimbursement Contracts

Many DoD software systems, especially weapons systems and Command, Control, Communications, Computers and Intelligence (C4I), are acquired using some type of cost-reimbursement contract.

Cost-Reimbursement Contracts are characterized by:

- Higher risk to the Government
- Requirements that may not be well defined
- Normally, the contractor's best effort rather than guaranteed delivery
- A fee or formula that is used to compensate the contractor beyond cost
- Payment is made as costs are incurred



Types of Cost Reimbursement Contracts

Contracts commonly used to acquire software systems fall into three categories. These types of contract are: Cost-Plus Fixed Fee (CPFF), Cost-Plus Incentive Fee (CPIF), and Cost-Plus Award Fee (CPAF).

Select the tabs to learn more each contract.

CPFF

CPIF

CPAF

In a CPFF contract, the Government pays all allowable costs and a fixed fee to the contractor.

There is minimum incentive for contractors to control costs in a CPFF effort. CPFF contracts are best suited for research efforts, preliminary exploration, or feasibility studies.

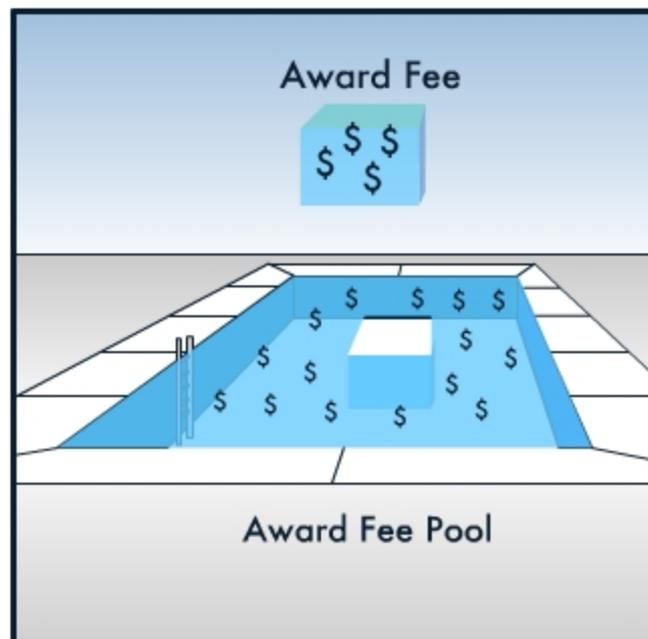


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Award Fees

In CPAF contracts, a percentage of a previously set -aside "award fee pool" may be given to the contractor.

This award is made based on the Government's evaluation of a contractor's performance over a designated time period. This evaluation is done subjectively using a variety of "award fee criteria."



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Award Fee Criteria

Award fee criteria for software systems generally fall into one or more of the categories listed below:

- Cost criteria
- Schedule criteria
- Performance criteria
- Quality criteria
- Software reuse levels

These categories are broken down into more detailed sub-categories. Percentages are often used to "weight" categories by importance.

When using a CPAF contract, it is important to consider the level of effort required to establish fair award criteria, communicate criteria to the developer in a timely manner and administer the award fee process.



Award Fee Determination

The table depicts the award fee criteria for a specific project. The specific categories, sub-categories and criteria weighting factors prescribed for the current rating period are shown. The Award Fee Plan would contain "scoring criteria" as well.

Select Cost Control to see an example of scoring criteria.

Category	Weight	Sub-Categories
Time of Delivery	50%	Adherence to Schedule
		Conformance with Standards
Quality of Work	25%	Conformance with Standards
		Thoroughness and Accuracy of Work
		Technical Competence
		Independence and Initiative
Cost Measures	25%	Cost Control
		Performance to Cost Estimate

Knowledge Review

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Select the Long Range Acquisition Targeting System (LRATS) contract that is best suited for a Fixed Price contract.

- A procurement to buy laptops and PCs for administrative use in the LRATS PMO.
- A definition contract to establish high-level LRATS requirements and system architecture.
- A contract for software development for the LRATS MOPTIS C4I system.

[Check Answer](#)

[TOC](#)**Knowledge Review**

What is the best contract type if the PM desires early delivery of the LRATS Training and Maintenance System (TAMS) and offers an incentive to the contractor to meet his early delivery requirements?

 CPIF CPAF CPFF[Check Answer](#)

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Summary

There are different types of contracts that can be used to acquire software systems. They can be broadly categorized as either Fixed Price or Cost Reimbursement.

Cost Reimbursement contract types are: Cost Plus Fixed Fee (CPFF), Cost Plus Incentive Fee (CPIF), or Cost Plus Award Fee (CPAF).

It is important to choose the type of contract that best suits the requirements of a particular project. For many types of software systems, CPAF approaches are best.

For commercially-available IT products and services, the DoD has negotiated enterprise-wide agreements at highly favorable rates. These are provided by the DoD Enterprise Software Initiative (ESI). At the Federal level, SmartBUY provides similar services and products.



Summary

Lesson Completion

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