

The first practice on IT Procurement provided an overview of the four commodity types of software, hardware, services, and support and maintenance. This practice, number two in the series, takes a closer look at IT software procurement and its unique considerations such as licensing, source code, and data ownership.

STANDARD

Public sector software procurement is challenging and requires special skills and strategies for success. Whenever possible, the entity should use templates developed specifically for IT software procurement. Entities should examine the feasibility and desirability of using cooperative contracts, which can save time and effort, if they meet the actual needs and procurement rules of the entity. The procurement professional must take the highly technical information inherent in IT procurements and communicate it clearly and effectively in solicitations, negotiations, contracts, and during implementation. This effort includes keeping IT jargon to a minimum and understanding licensing issues. Procurement must be aware of implementation needs during the solicitation process and serve as a resource during the actual implementation, if issues arise.

Element 1: Procurement should use solicitation templates specifically developed for the procurement of IT software. These templates must safeguard the ownership and security of data, records, and other procurement-related information from contract award through contract completion, while guiding the parties to a mutually acceptable contract.

Solicitation templates for software procurement must be updated regularly to stay current with the rapid change of technology and should:

- Include the appropriate contract period of performance with language detailing the length of the award.
 - A long award period may require additional justification during the planning phase
- Allow for a pre-proposal conference to provide suppliers with the opportunity to suggest solutions, ask questions, and provide information.
- Require the supplier's terms and conditions in the response so the entity is aware up front of conflicting terms and conditions.
- Include options for purchasing additional licenses, software upgrades, custom programming or configuration, and ongoing support.
- Reserve the right to require a demonstration (demo) of the software. Demonstrations may also be presented in a proof of concept, trial period, or pilot program.
- Request implementation, training, and transition plans.
- Detail information ownership rights, e.g., data, documentation, source code.
- Request applicable cost discounts, e.g., trade-in, conversion, license quantity, support.
- Allow for potential escrow agreements that detail conditions for information release and financial arrangements.
- Specify special insurance requirements, e.g., cyber liability.
- Specify required security clearances.
- Detail ownership of licenses upon retirement of any software.
- Request that Service Level Agreements (SLA) be listed and detailed.
- Detail the hardware necessary to house the application.
- Specify file and data storage requirements.
- State agency-specific security and confidentiality requirements, if applicable, e.g., HIPPA.
- State how users will access the application, if applicable.



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Element 2: The entity must ensure participation of qualified procurement personnel who understand the concepts, unique attributes, and language of IT and possess the knowledge required for IT software procurement.

IT procurement is complex, full of details, uses its own language (jargon) and often involves a significant, i.e., long, timeline. The ability of the procurement professional to translate IT concepts and technical terms for the business teams and to translate key business concepts and terms to IT staff members is essential to the success of any IT procurement project. Procurement functions as a liaison between the business and technical sides of IT procurements. Often a procurement professional takes the highly technical IT language and translates it into a readable solicitation document.

A knowledgeable procurement professional can develop a well written solicitation document that mitigates the likelihood and impact of systems failure or a new software package not performing as expected. When emergency situations do occur, a qualified procurement professional is available and equipped to render assistance and communicate the situation effectively to relevant parties.

The procurement professional should:

- Involve and partner with the IT (internal department or consultant), Legal, and Procurement Departments to discuss and/or address:
 - Communication between IT, the business side, and the supplier, including terms and basic understanding of definitions
 - Responsibility for complying with requirements regarding seat licenses, e.g., assess, update, and report number of licenses being used
 - A shared understanding of how the IT procurement integrates into and impacts the processes of IT and Procurement and the entity as a whole
 - Securing the system, e.g., from hacking
 - Balancing the speed of the procurement process against the complexity and impact of the procurement
 - Updates/upgrades that should occur after initial implementation
 - Contracts that recognize and require entity ownership and full control of the use of any data supplied by the organization
 - Source code ownership and/or use
 - Integration with existing information systems
 - Need for and availability of widely-accepted technical standards for interfaces with other systems or modules
- Differentiate between situations that require an accelerated procurement process and those that are subject to typical procurement process timelines.
- Balance innovation and obsolescence.
 - The rate of innovation may render a solicitation obsolete before it has been issued. The procurement professional should develop streamlined procurement processes and a mechanism to identify and address short lifespan items, e.g., security processes and products
 - Establish a mechanism that allows modification to the procurement processes of predetermined types of goods or services, e.g., if requirements change during the process without requiring a complete restart of the procurement process

Language

The use of special words or expressions by IT (jargon) should be limited and defined to ensure consistent understanding. To effectively communicate IT concepts to business teams, end users, and other stakeholders, procurement professionals must be conversant with the terms necessary to discuss knowledge areas such as:

Storage

- Bytes, Gigabytes, Terabytes

Types of software

- Commercial off-the-shelf (COTS)
- Customizable

Data and general software security

- Drivers
- Licensure (See Element 3)
- Service Level Agreements
- Software as a Service
- Software maintenance

System integration

- Systems software and application software

Types of software environments (local, hosted, and hybrid)

- Virtual Servers

The IT procurement professional must stay current with terminology as terms and definitions change and new terms come into existence, e.g., agile.

Element 3: To facilitate effective procurement actions, procurement professionals must understand license types, issues, and requirements.

During development of the Request for Proposals (RFP) and contract negotiation for software purchases, the license arrangement must be considered in view of legal, operational, and financial factors. A software license is a contract between the entity and the software supplier to provide a certain number of rights for the organization to use the product. The license allows the entity to use the product subject to certain conditions and keeps the entity from committing copyright infringement. The type of software license will determine:

- Where, how, and how often the entity may install the program.
- Whether the entity may copy, modify, or redistribute the program.
- Whether or not the entity has access to the source code.
- Which entity owns the data entered into the software.
- What rights the entity has to receive updates, and how often.
- What constitutes breach of licensure.
- Usage or duplicate usage on mobile devices or other secondary rights.
- Functionality included with the license.
- The maximum annual increase of the maintenance and support costs.

The entity must examine the software and determine the types of licenses available and, if there are choices, the best fit for the entity. License types include:

- End User License Agreement (EULA)
- GNU General Public License



- Proprietary
- User
- Device or Workstation
- Sharing, Networked, or Concurrent Use
- Site
- Seat
- Enterprise
- Pay Per Use
- Volume

The entity must also examine the software license term and determine which works best for the entity. If there is only one option, the entity needs to consider the impact during evaluation and negotiation. Examples of license terms include perpetual licenses, non-perpetual licenses, and subscriptions.

License audit

Once use of the software is initiated, software companies may audit the entity's usage to determine the actual number of users. Entities need to keep license documentation (including the product name and version number), all installation disks (or emailed product keys), original manuals, other documentation, and the product serial number.

When a governmental entity breaches the license terms, significant ramifications can result, including fines, negative press, and legal action. Breach examples include:

- Making or selling copies of software.
- Installing or using unlicensed copies of software.
- Using legally acquired software on more computers than the license allows.
- Allowing employees or other contacts to make unlicensed copies of software.

Element 4: Adequate time must be allotted for negotiations. Procurement, Finance, IT, Legal, and other stakeholders must work together to ensure a clear and concise contract (sometimes known as an agreement) that follows the software through its lifecycle.

The contract should incorporate the total cost of ownership, liability, security, agreements, clauses, and exhibits that cover the entire life cycle, risks, and service level plans. Prior to entering negotiations, procurement professionals should develop a plan or strategy detailing:

- Alignment of the expirations of all agreements within the contract.
- Third party agreements that are part of the software purchase.
- Embedded terms and conditions, e.g., hyperlinks.
- Post implementation pop-up terms and conditions, e.g., click-throughs to accept terms and conditions separate from the terms and conditions of the contract.
- Future costs, e.g., future software and hardware upgrades, including maintenance and support of any upgrades.
- Implementation and training.
- Schedules and milestone payments.
- Service level agreements and penalties.
- Separate maintenance agreements.
- An escrow account when purchasing software for the source code to protect the entity and supplier interests.
- Risk mitigation for security. Use specific language in the contract for:
 - Metrics
 - Liability
 - Performance Management

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Procurement must review the terms and conditions submitted by the supplier and negotiate those that may conflict with entity policies, procedures, and laws. Examples of negotiable terms include:

- Any terms that conflict with what is in the solicitation such as:
 - Term of agreement
 - Which documents make up the “entire agreement”
 - Automatic renewals
 - Governing Law/Venue
- Terms that are governed by state or local law, e.g., indemnification, solicitation of staff, taxes, legal fees, background checks.
- Liquidated damages.
- Language specific to the lease, if any, and recovery of assets.
- Future features or enhancements covered by the current terms and conditions.
- What is considered part of the the “system,” e.g., self-contained or part of a larger whole.
- What happens if the:
 - Supplier goes bankrupt
 - Supplier management changes
 - Service quality declines
 - Priorities of the public served and/or governing body change
 - System becomes obsolete
 - Entity’s needs change dramatically
 - Supplier ceases active support of the product
- How to protect the agency from staff changes at the IT firm and new interpretations at any point in time of the agreement and its extensions.
- Price increases.
- Payments and invoicing.
 - When invoices will be received
 - Payment terms, e.g., Net 30 vs Net 45
 - Milestone payment schedules
 - No payment until acceptance and sign off
 - Upfront payments, which are used in maintenance and as-a-service agreements

Element 5: Entities should consider the risks and rewards of alternative procurement strategies to meet the requirements.

Cooperatives and piggybacks, sole source, and General Services Administration (GSA) procurements are used as alternative strategies to an entity issuing their own solicitation and should be fully evaluated before use. Cooperatives and piggybacks can serve as a valuable procurement tool for software procurements as they do for non-technology related purchases with benefits that include:

- Pricing, e.g., economies of scale.
- Increased capacity for market research and analysis.
- Resource of staff to properly evaluate the technology offered.
- Accelerated procurement cycle.

The challenges of using cooperatives and piggybacks must be addressed when used for technology purchases and include:

- Large, cumbersome scopes of work or limited, narrow scopes of work.
- Terms and renewals that rely on the lead public agency.
- Customization, including appropriate integration into existing systems, for each entity.
- The entity using the cooperative contract having sufficient and technically competent staff to handle the project.
- Pre-established terms and conditions that cannot be modified to fit the entity’s needs.





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GSA contracts are cooperative contracts in which state and local jurisdictions utilize a federally solicited contract. Benefits of GSA contracts include:

- Pre-vetted suppliers.
- Set ceiling price.
- Early access to newly developed technologies.

Use of GSA contracts come with challenges, such as:

- State and local jurisdictions must negotiate pricing and terms with suppliers.
- Contract must be amended by the federal government to allow for cooperative purchasing by state and local jurisdictions.
- State and local entities' needs/requirements may be considered after the Federal government's needs/requirements.
- State and local entities are not able to use all schedules.
 - Schedule 70-Information Technology and Schedule 84-Total Solutions for Law Enforcement, Security, Facilities Management, Fire, Rescue, Clothing, Marine Craft and Emergency/Disaster Response are the only schedules allowed
- Not all jurisdictions allow the use of GSA contracts.

Sole source contracts are sometimes used to access new technologies and to maintain use of currently implemented and installed technologies. Best practicable source contracts are used to access technologies when competition is limited by the supplier to the point where competition is not in the best interest of the entity.

Benefits of sole source or best practicable source contracts:

- Faster process to evaluate and award
- Easier to develop a scope of work that fits entity needs and make modifications as entities progress through the product lifecycle
- Staff time is freed to develop, publish, receive, and evaluate proposals
- Equipment standardization for operational needs is established

Challenges of sole source or best practicable source:

- More difficult negotiation due to nonexistent or limited negotiation
- More difficult to control costs
- Lack of backup supplier if the selected company goes under or simply ceases to perform
- Difficult to assess if the public's best interest is served by the sole source procurement
- Difficult to maintain a fair and competitive procurement environment
- May not discover other innovations that would emerge through issuing an RFP

Element 6: Planning for implementation is a key element to the successful procurement of software.

Implementation, while not typically a procurement function, must be understood and incorporated into the final contract. Successful implementation requires:

- End user input, involvement, and preliminary testing.
- Management support.
- Communication.
- Transparency.
- A project plan with clear roles and responsibilities, milestones, testing, and acceptance.

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A well written project plan for implementation should include:

- Contract kick off.
- System Audit/Review of the current environment.
- Clear descriptions of how the end users will utilize the software, e.g., what does the successful software look and act like.
- Process design that promotes responsibility and includes transparency.
- Implementation Methodology.
- Customization, if applicable.
- Data cleanup and conversion in time for “live” date.
- Configuration of roles and access.
- Clear milestones for meeting business needs.
- Integrations and interfaces, if applicable.
- Client/end user training plan.
- Knowledge transfer to key personnel.
- Test cases and scenarios written and prepared.
- Product testing (user testing completed by the entity).
- Implementation Schedule.
- Acceptance and sign off.
- Payment schedule, e.g., tied to milestones.

References

- California Task Force on Reengineering IT Procurement for Success. *Recommendations to Improve Large Information Technology Procurements: A Road Map for Success in California*. August 2013
- Varda, Kristy. *Negotiating Software and Technology Agreements*. Webinar. NIGP. November 16, 2016.
- Williams, Matt. *Longtime Tech Advocate Reflects on Achievements, Procurement Reform*. Government Technology. Web. December 22, 2015.

Resources

- Agile Alliance. *Agile 101*. 2017.
- Branscombe, Mary. *Why You Still Need to Care About Software Licensing*. CIO. March 12, 2015. IDG Communications, Inc. Web.
- Foster, Cormac. *Software Licensing: What You Don't Know Can Hurt You*. Hardware & Software. AllBusiness.com. 1999-2017.
- Francois, Carol. *What is Technology Procurement?* wiseGEEK. Edited by: Heather Bailey. Last Modified Date: 19 November 2017. Copyright Protected: 2003-2017. Conjecture Corporation.
- GOV.UK *Service Manual*. Crown copyright.
- Heckman, Robert L. *Managing the IT Procurement Process*. IT Today. From IS Management Handbook. Eighth Edition. Carol V. Brown and Heikki Topi (Editors). Auerbach Publications. 2003.
- Hon, Dan. *A New Approach to Procuring Government Technology in California*. CODE for AMERICA Blog Archive. Nov. 30, 2015. Code For America, released under the MIT license.
- Keating, Michael. *Cooperative purchasing trends - Part 2*. Government Product News, an American City & County sister brand. Jan. 4, 2016.
- Keating, Michael. *More vendors may rely on cooperative purchasing*. Government Product News, an American City & County sister brand. Dec. 1, 2015.



PRINCIPLES AND
PRACTICES OF
PUBLIC PROCUREMENT



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INFORMATION TECHNOLOGY (IT) PROCUREMENT SERIES — NO. 2

King, Jennifer. *Six Things to Know Before Accepting a Software License Agreement*. Posted December 7, 2010, in Consumer Law. Lawyers.com.

NIGP: The Institute for Public Procurement (NIGP). *Use of Cooperative Contracts for Public Procurement*. 2012. CIPS and NIGP.

Ogilvie, Bill. *5 Ways to Better Government IT*. CivicActions. August 12, 2014.

The University of North Carolina at Greensboro: Information Technology Services. *Software Licensing*. 2017.

The U.S. Digital Services. *Digital Services Playbook*. 2017. GitHub, Inc.

The U.S. Digital Services. *The TechFAR Handbook*.

Virginia Information Technologies Agency. IT Procurement Policy Manual; Buy IT. *Chapter 02 - How IT Procuring Information is Different - V6 2017.docx*.

Resources that define IT terms:

Grabowska, Gosia. IT Job Interview Tips: Know Your IT Terminology. Pluralsight. April 21, 2008.

IT Law Wiki. FANDOM Lifestyle Community. Content is available under CC-BY-SA.

IT Terminology. Copyright © 2014. Connet, Inc.

Tech Terms Computer Dictionary. TechTerms. 2017. Sharpened Productions.

The National Institute of Standards and Technology (NIST). U.S. Dept. of Commerce. Software. Services & Resources. Created January 05, 2015, Updated August 25, 2016.