

Chapter highlights

Purpose: This chapter provides policies and guidelines for the purchase of licensed software and maintenance, including COTS, and related support services. It also presents a comprehensive discussion on intellectual property.

Key points:

- The well-prepared solicitation will set the stage for negotiating a successful software and/or maintenance contract. Addressing IP ownership issues during the solicitation phase helps ensure an even playing field for the Commonwealth and potential suppliers.
- Whatever the agency's business objective in buying the software, it's to the agency's advantage to build flexibility into the software licensing and/or maintenance contract to ensure that the licenses can adapt to changes in a fast-moving technical environment.
- Except for small, one-time, or non-critical software purchases, VITA recommends that a supplier's license agreement not be used, but that the final negotiated license terms are included in the agency's contract.
- For value-added reseller (VAR) software products, VITA requires the use of an end user license agreement addendum with certain non-negotiable terms.

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27.0 Introduction

Typically, in a software license agreement, the licensor (the entity licensing the software technology to the customer), also known as the “supplier,” will grant certain rights to a licensee (the agency or customer). The licensor will retain ownership to each copy of software delivered, but the agency will have a license to use it. The agency’s rights to use, transfer, modify, access and/or distribute the software are defined in the license grants.

The supplier generally has an interest in restricting the rights granted. The supplier is also interested in protecting the secrecy of the software and its associated trade secrets. The agency, on the other hand, generally wants the grant from the supplier to provide broad rights and few restrictions. The specific types of rights and restrictions negotiated, depends on many factors including:

- Type of a software to be licensed
- Intended use of the software
- Bargaining power of the supplier and agency
- Fee the agency is willing to pay for the license

Many rights can be negotiated into or out of a license agreement if the agency is willing to pay the fee. Many of these negotiated rights, such as bundled training or consulting, can often lead to positive bottom-line results for the Commonwealth.

Some guidance, but not all guidance in this chapter, may be applicable to cloud/Software as a Service (SaaS). Refer to Chapter 28 for more information regarding cloud/SaaS procurements. If you have any questions, please contact scminfo@vita.virginia.gov.

27.1 Understanding the agency’s business problem

For successful drafting and negotiation of software licensing and maintenance contracts, the customer must determine:

- Why do we need this software?
- What is the business problem the software is intended to solve?

It is important to understand the agency's business problem that the software being purchased is intended to solve. For example, is the agency planning remote locations? Will existing licenses be adequate for any expansion? The more information the software buyer gathers, the more effectively the contract can be customized to protect the agency's and the Commonwealth's interests.

Read the license terms very carefully. Ensure that the contract provides for the following:

- What happens if the agency's needs or customer base should change/grow/shrink?
- What happens if the supplier changes/grows/shrinks/disappears?
- What if the technology changes?
- What if the project is delayed/changed/scrapped?
- What happens to agency's continuity of business if the supplier has the ability to automatically terminate the license?
- What if the license agreement does not allow for access to the software by agency's agents for conducting the business of the Commonwealth?
- What interruption of services or business happens to the agency if supplier requires random license audits? Who conducts the audits? Who pays for the audits? What are supplier's remedies if audit finds agency out of compliance?

Whatever the agency's business objective in buying the software, it is advantageous to build flexibility into the software licensing and/or maintenance contract to ensure that the licenses can adapt to changes in a fast-moving technical environment.

27.2 Software license user base

Always consider geographic usage when drafting and negotiating a software contract. For example, if an agency is aware that it will use the software licenses in many locations throughout the Commonwealth, the agency should be careful that the software contract does not tie user licenses to agency's primary location. Some software contracts tie user licenses to an agency's physical location and do not allow licenses to "travel." If a software contract contains location-specific restrictive contract language, new licenses would be required for remote locations. Agencies should always use planning, foresight and negotiation, to minimize additional fees that may be charged for any kind of license expansion. Additionally, software access by VITA infrastructure providers may be required at some point, so it is important to include access rights for them or "other Commonwealth agencies and partners" to reduce restrictive language and requirements for contract modifications later.

27.3 Software licensing costs

Licensing of software presents a unique negotiating opportunity. First, the license price accounts for the software buyer's major initial cost. Secondly, the agency should determine the appropriate type and term of the license to help contain ongoing costs. Agencies should not purchase more licenses than they need or additional software functionality or add-ons that can drive up the price.

A major expense in purchasing software licenses is the cost of ongoing software support and maintenance. Try to concentrate on negotiating up the scope of what is included in license support rather than negotiating down the price first. Fees for support and maintenance are generally charged as a percentage of the license cost, payable up front for the first year and as an ongoing cost throughout the life of the software license. The agency can negotiate the percentage increase of maintenance costs and write cost-increase caps into the software contract to head off arbitrary inflation of annual fees. Remember that the percentage fee charged for support and maintenance is always negotiable.

The agency should be careful to identify all the costs linked to software licenses and associated products, services and deliverables. These might include:

- Initial costs
- Hardware

- Software
- Communications
- Installation
- Maintenance/ongoing support costs
- Interfaces
- Application implementation support costs
- Technical support costs
- Training
- Documentation costs
- Integration costs now and when you implement new releases of the software. Will the software be linked to other systems to or from this system such as PDM, CAD, ERP, APS systems? If so, how? It is essential when defining integration parameters that the interface is both specified and stable.
- The Commonwealth's entitlement to new releases/bug fixes.
- The cost of tailoring. Include a clause that specifically precludes other costs now and in the future. Tailoring language to look for and reject will:
 - Say the agency can have new releases but these will be supplied as fixes to the old release or that for a cost the software supplier would integrate the fixes for the agency;
 - Impose a time limit for free upgrades even when the agency subscribes to maintenance. Be sure that the agency's entitlement for free upgrades is not time bound but lasts for the duration of the software agreement.

27.4 Developing an appropriate license agreement

A well-prepared solicitation will set the stage for negotiating a successful software and/or maintenance contract. VITA recommends that a supplier's license agreement not be used, but that the final negotiated license terms be included in the agency's contract. In some cases, especially for small software purchases and value-added reseller (VAR) software products, this may not be possible; however, the same scrutiny described below must be considered. For VAR software products, VITA requires the use of a License Agreement Addendum with certain non-negotiable terms. Two versions of this addendum, one version for VITA SCM and another version for other agency use, are available at the following VITA SCM web page, under the Forms section: <https://www.vita.virginia.gov/procurement/policies--procedures/procurement-forms/>.

27.5 Contractual provisions for software license agreements

The following subsections discuss key provisions that should be carefully reviewed by the agency prior to agreeing to any software license agreement terms. Each subsection contains a description of the provision, as well as suggested language that should be incorporated into the contract. Readers will find a helpful table in [Appendix 27.5\(A\)](#), IP/IT Contract Checklist, which describes software usage rights and other recommended IT contract provisions as well as a list of "Best Practice Tips for Software Agreements" in [Appendix 27.5\(B\)](#). Refer to Chapter 25 of this manual, IT Contract Formation, for further discussion.

An important tool, "VITA Minimum Contractual Requirement for "Major" Technology Projects and Delegated Procurements," must be used by agencies for obtaining VITA approval on major technology projects and is recommended for use in delegated IT procurements may be found at the following VITA SCM web page, under the Forms section: <https://www.vita.virginia.gov/procurement/policies--procedures/procurement-forms/>. Contact VITA's Supply Chain Management Division with any questions at: scminfo@vita.virginia.gov.

27.5.1 Assignment of software license and maintenance contracts

Assignment clauses deal with the rights of each party should the software supplier sell to, merge with, or decide to transfer the agreement to another supplier. The language will typically read that the supplier has all of the rights to assign the agreement, while the agency has none. Each party to the agreement should have equal rights to assign or not assign the agreement. It is recommended that purchasing agencies ensure that they have

the right to assign the agreement to any other Commonwealth entity or private entity upon providing notice of the assignment to the supplier. The suggested contract wording would allow the supplier to assign the agreement, but only with the written consent of the purchasing agency. Suggested contract wording: *“This agreement may not be assigned or otherwise transferred by either party, in whole or in part, without prior written consent by the other party.”* Should a supplier absolutely reject this language, the agency may be successful in getting supplier to accept a limited right of an agency to assign the contract: *“Notwithstanding the foregoing, Name of Agency may transfer its license (i) to another Commonwealth agency due to legislative action or if such transfer is in the best interests of the Commonwealth or (ii) to the Commonwealth’s infrastructure partner, if this Contract is so transferred under direction of the Commonwealth’s Secretary of Administration or Chief Information Officer.”*

27.5.2 Payment of software licenses

This term outlines the payment requirements of the agency. A software supplier will often require either full payment in advance or a significant percentage in advance with the balance due upon shipment or receipt of product. Obviously, making a full or major payment in advance limits the agency’s leverage to not pay or withhold payment should there be a problem with the product.

It is suggested that agencies make payment arrangements based on the successful completion of specific events or milestones. For example, a percentage of payments can be made based upon delivery, installation, preliminary testing, and final testing. The actual percentages will vary by project. Suggested contract wording: *“Payment shall be made in the listed increments based on successful completion and agency acceptance of the following events: (assign the actual percentages as appropriate to delivery, installation, preliminary testing and final testing). Written acceptance of the deliverable and invoice approval must be given by the agency before payment will be issued.”*

Supplier hosting of Commonwealth applications and supplier- provided Software as a Service models normally bill monthly or annual subscription fees which include maintenance and update costs. Agency should try to obtain in-arrears payments rather than advance payments. It is also recommended to negotiate scalable usage fees so that payment is only for what is used.

27.5.3 Maintenance/support/upgrades

If the supplier knows that the agency intends to be largely self-sufficient, which is a recommended best practice, the supplier will usually be more accommodating on maintenance costs. This contract term deals with ongoing maintenance, support fees and future product upgrades after the product is installed. Often, these terms are used interchangeably. Agencies should be wary of maintenance agreements that do not have a cap on increases in annual maintenance or subscription fees, meaning the supplier is free to charge any price in subsequent years. It is recommended that agencies insist on an inflation clause with a “cap” in the contract that states the maximum maintenance fee increase that the supplier may charge the agency per year. Software suppliers may attempt to begin maintenance fees upon delivery of the product.

Typically, the purchase of a software package includes a warranty, which should include maintenance coverage during the warranty period. Be sure that the support start date coincides with the expiration date of the warranty.

The software supplier may look to provide product upgrades to the purchasing agency at an additional cost. The need for upgrades may vary by product. The agency should decide how upgrades will be provided and at what cost. A best practice recommendation is that maintenance support be treated as a separate contract. The purchase of software can be a one-time transaction while maintenance/support is considered an ongoing item with a defined start and end date. Separating the two contracts allows the agency the option to continue using the software even if it later decides to discontinue maintenance/support.

A software maintenance agreement should include remedies or equitable adjustments to maintenance fees for the agency by the supplier if the product does not perform as promised. Often, an agency will judge the supplier’s performance to a problem based on response time, or the amount of time it takes the supplier to respond to the customer’s call for help and to remedy the error. The maintenance agreement can be structured

to charge the supplier for services that do not meet the pre-determined parameters concerning system up-time and downtime or other service level commitments.

The agreed-to terms of any software maintenance agreement should match the agency's business requirements and complexity of the project. Below is an example of suggested language to include in the agreement. The final terms, however, should not conflict with any of the solicitation's requirements (if applicable), or the agency's needs or budget, unless the agency has so negotiated with the supplier.

"Supplier shall provide a separate agreement for any maintenance service provided. This maintenance agreement shall begin upon expiration of the warranty period. Supplier shall provide services for the entire period of the maintenance agreement. Supplier shall adhere to the following response criteria regarding maintenance requests. (This is to be determined by the agency on a case-by-case basis. The response time criteria shall include categories of severity, chain-of-command reporting, and measurement of response times over extended periods, maintaining and providing access to electronic information, and e-mail communications.) Supplier shall provide a service tracking and reporting mechanism, which shall be available to the customer at all times either via e-mail or on the web. Agency, at its sole discretion, may order from Supplier support services ("Maintenance Services"), including new software releases, updates and upgrades, for a period of one (1) year ("Maintenance Period") and for an annual fee of ten percent (10%) of the Software license fee paid by any Authorized User for then-current installed base. Supplier shall notify Agency sixty (60) days prior to the expiration of the Maintenance Period, and Agency, at its sole discretion, may renew Maintenance Services for an additional one (1) year period. The annual fee for Maintenance Services shall not exceed the fee charged for the preceding year's Maintenance Services by more than three percent (3%), or the annual change in CPIW, as defined in the Fees and Charges section, in effect at the time, whichever is less.

Agency can decline to implement enhancements, upgrades or a new release if those programs interfere with the agency's intended usage or operating environment."

Declining enhancements, upgrades or new releases, however, can present other risks, so agency is urged to be mindful and discuss thoroughly before making that decision or including such a statement.

27.5.4 Illicit code

Illicit code may be programming language or additional programs included in the software which allow the software supplier to take action such as automatically disabling the software or providing the supplier with remote access to the software and to agency data and/or systems. Review license agreement terms to ensure terminology is not included that will restrict access by the agency or allow the supplier inappropriate access to the agency's systems. Suggested contract wording:

"Supplier warrants that the licensed software contains no illicit code. Illicit code includes but is not limited to anything not required to perform the functions that the customer contracts for. Supplier further warrants that the software does not contain any keys that could include any locks, time-outs or similar devices that restrict the customer's access. If any illicit code is found, supplier will be considered automatically in default.

Supplier warrants that the licensed software does not contain any illicit code that would allow the supplier unauthorized access to the customer's systems or software."

27.5.5 Source code escrow

A source code escrow account is designed to protect a customer in the event the supplier does not or cannot support the software; e.g., supplier is acquired by another company or declares bankruptcy. Typically, a third party specializing in maintaining code and selected by the supplier acts as the escrow agent. The escrow agent will leave the terms of release of the source code to be negotiated between the supplier and agency. The release conditions (i.e., when the source code escrow would be released to the agency by the agent) could include:

- failure to perform any obligation under the agreement;

- the discontinuance of support, upgrades, or enhancements;
- events that endanger the financial stability or indicate instability of the supplier.

The escrow agreement also requires the software supplier to keep the escrowed software updated. The agency should have the opportunity to verify that all current versions of the software and all modifications and enhancements have been delivered to the escrow agent.

Source code escrows provide significant protection for the agency. Agencies can expect software suppliers to challenge the inclusion of this term. Agencies should insist upon clearly defined conditions in the escrow agreement as well as the ability to deliver effective instructions to the escrow agent. In the event of a bankruptcy filing by the supplier, the Bankruptcy Code allows the enforcement of an escrow agreement that is incidental to a license of intellectual property.

It is advisable to require that the escrowed code is verified to ensure the deposited material is complete, correct, and that it works. While your technical team may require other verification activities, here are some basic steps that could be included in an escrow agreement to perform an escrow verification:

- Have the files catalogued and confirm they are readable
- Ensure that all documentation needed to compile and run the code and any associated run-time is included in escrow
- Identify any tools that may be required to maintain the deposit
- Have the product compiled and build the executable code
- Test the functionality of the compiled deposit
- Confirm the usability of the files built when installed

There is a fee associated with an escrow account and additional fees may apply to any escrow verification. If the agency does not want to pay this fee, be sure that the solicitation states clearly that the cost of any escrow account will be paid by the supplier. Suppliers typically will take the position that the escrow fees are an extra cost. Having the agency pay the escrow fee has the potential advantage of expediting release of the software, since a bankrupt supplier may fail to maintain escrow payments.

The approved contract templates used by VITA SCM include very complete and comprehensive language. Other agencies, if not using VITA's language, may also consider the following contract language:

“Customer reserves the right to request a third party specializing in maintaining code acts as an escrow agent. This agent will be authorized to release source code information in the event the supplier is unable or unwilling to support the software. The terms of release will be included in Exhibit XX.”

27.5.6 Bankruptcy of supplier

All licensing agreements should be drafted in anticipation of the risk of the supplier/licensor's insolvency or bankruptcy, particularly for mission-critical software. Specific provisions of the United States Bankruptcy Code are designed to protect the rights of intellectual property licensees in the event of a licensor's bankruptcy.

To protect the Commonwealth under Section 365(n) of the Bankruptcy Code, the contract should provide the following:

- Licenses granted under the supplier's license are deemed to be “intellectual property” as defined under Section 101(35A) of the Bankruptcy Code, and that the licensee shall retain and may fully exercise its rights under Section 365(n) in the event of the bankruptcy of licensor.
- The Commonwealth (licensee) should have a present right to use and repair the intellectual property and to make derivative works as of the effective date of the license, even if the Commonwealth is not presently in possession of the source code.

- The agreement should include sufficient ongoing duties on the part of licensor and licensee that the license will be deemed “executory” in the event of a bankruptcy filing. Examples of obligations which are executory include a duty for the licensor to notify the licensee of patent infringement suits and to defend the licensee against infringement claims; as well as indemnities and warranties.
- If feasible, create separate agreements for: (i) trademarks and trade names, which do not fall within the Bankruptcy code definition of “intellectual property”; and (ii) affirmative obligations imposed upon the licensor, such as maintenance and support services, to which Section 365(n) does not authorize the licensee to retain rights. If maintenance and support services are included in the agreement, separately itemize that portion of the fees payable by the licensee that correspond to these obligations and stipulate that such fees will be reduced or eliminated if the licensor ceases to perform the services.
- Include a statement that failure by the licensee to assert its rights to benefits provided by Section 365(n) will not be deemed a termination of the agreement in the event that it is rejected by the licensor.
- Create a separate technology escrow agreement (cross-referenced to the license agreement) by which the licensor must provide source code for all intellectual property, including upgrades and modifications, to a third-party escrow agent. In addition to audit provisions and requirements concerning storage and maintenance of the software, the escrow agreement should recite that it is an “agreement supplementary to” the license as provided in Section 365(n) of the Bankruptcy Code and specify trigger conditions for automatic release of the source code to the licensee, such as the cessation of business operations or failure of supplier to support the licensed property.

27.5.7 Supplier audit rights

Most software suppliers will want to include a provision allowing the conduct of a compliance audit. While the contract may specify the supplier's right to audit, the agency should negotiate more control over the process. The agency's information security officer should include any agency or Commonwealth security, confidentiality and access restrictions or parameters for any such audit. COV ITRM policies, standards and guidelines (PSGs) for compliance with security audit requirements and restrictions are available at this location:

<https://www.vita.virginia.gov/it-governance/itrm-policies-standards/>. Recommended general contractual language may include and be customized for agency and aligned with any security audit restrictions and any negotiations with supplier:

“Supplier shall provide forty-five (45) days’ written notice to (name of your agency) prior to scheduling any software license audit. The notice shall specify name(s) of individual(s) who will conduct the audit, the duration of the audit and how the audit will be conducted.

Further, the Supplier and its representatives, agents and subcontractors shall comply with any access, security and confidentiality requirements and restrictions of (name of your agency). No penalty shall be levied against (name of your agency) or the Commonwealth for unlicensed software found during the course of the audit. If (name of your agency) is determined to be using unlicensed software, the maximum liability to (name of your agency) shall be the cost of licensing the subject software. All costs associated with the audit shall be borne by the Supplier.”

27.5.8 Documentation and training

The supplier should be required to provide documentation to the agency that provides instructions on how to install, use and modify the software. The supplier should also be responsible for training the end-users in the use of the software. While negotiable, the following language is suggested as a beginning position:

- Documentation: *“Supplier shall provide to agency documentation, such as a user’s manual, that will provide information necessary to utilize the software. This manual shall include at minimum, a product overview and step-by-step procedures, which include any on-line help desk functions. The supplier shall agree to deliver sufficient copies and allow agency the freedom to use those copies as needed. The supplier warrants that the documentation is sufficient to allow appropriately skilled people to use, modify, and enhance the software. The supplier further agrees to provide documentation to agency for*

any third-party software that is embedded in the supplier's software or that supplier's software is dependent upon."

- Training: *"The supplier must provide hands-on training at the agency's site and at the supplier's expense. Training materials should include features designed to train users for certain identified functionalities."*

27.5.9 Right to customizations or enhancements

The Commonwealth should have the right to own or have a perpetual license to any software customizations it performs or enhancements that it creates or pays to have created. All applications software developed and installed by the supplier for the Commonwealth should become the exclusive property of the Commonwealth unless the contract specifically states otherwise. If the Commonwealth has a license for any such customizations or enhancements, then it also should have the right to modify those customizations or enhancements at its own discretion. Usually, contracts for COTS software make it difficult for a customer to obtain ownership to enhancements or modifications because these contracts are highly standardized. Contracts for consulting services (state ownership with a license to the contractor) may be negotiated to provide for state ownership of customizations and/or enhancements.

27.5.10 Software license agreement recommended language and expectations

The "Guide to Commonwealth Expectations for Software License Agreements" provides valuable information regarding recommended language or expectations for software license contractual provisions. This tool is located on the SCM website at the following URL: <https://www.vita.virginia.gov/procurement/policies--procedures/procurement-tools/>.

27.5.11 Software terms and usage information

The following table provides general software licensing terms and descriptions:

Software term	Usage/need to know
Acceptance of COTS	Governed by terms and conditions of license agreement.
Custom software	Acceptance upon written notice of acceptance or 60 (could vary) days after installation or implementation date, whichever better favors the project's complexity. Any notice of rejection will explain how product fails to substantially conform to the functional and performance specifications of the contract. If contractor unable to remedy deficiency within 60 (could vary) days of notice of rejection, the Commonwealth shall have the option of accepting substitute software, terminating for default the portion of the contract that relates to such custom software or terminating the contract in its entirety for default.
Future releases	If improved versions of any software product are developed by supplier and are made available to other licensees, they will be made available to the Commonwealth or agency at the Commonwealth's option at a price no greater than the Contract price.
License grant	Non-exclusive, perpetual, transferable license, state may use in the conduct of its own business and any division thereof.
License for government purposes	Allows the Commonwealth (including local governments) to use the intellectual property (IP) as long as it is for a "government purpose." Term should be clearly defined in the RFP and contract. A supplier may have an incentive to permit sharing a government purpose license where there is a possibility of future

	modifications or support and maintenance. Government purpose licenses should address: • Redistribution rights - Who to? • Modification rights - Can the Commonwealth or agencies modify IP or create derivative works without the supplier's permission? • Length of a license – Does agency need a fixed number of years or non-expiring? IP indemnification/copyright infringement – Include rights and obligations of both parties in the event of IP infringement/ copyright infringement issues. The Commonwealth should have the right to own or have a perpetual license to any customizations it pays for, performs or enhancements it may create to supplier's software. If the Commonwealth has a license for any such customizations or enhancements, then the Commonwealth also should have the right to modify these at its own discretion.
Maintenance	Correction of residual errors will be considered maintenance – will be performed by contractor at no additional charge for duration of contract. If error caused by State's negligence, modification - Contractor can charge on time and material basis – rates in accordance with SOW.
Procurement of COTS/ancillary services	Standardized licensing agreements, contractor retains COTS software enhancements or derivative works. Contractors should maintain ownership over deliverables related to the maintenance, installation and configuration of COTS software.
Procurement of standardized IT services	(Hosting, Disaster Recovery Services) Be sure that Commonwealth or agency receives appropriate use rights through the licensing of IP embedded in the service.
Procurement of consulting services with customized deliverables	Unless the Commonwealth or agency has a compelling need to exclude contractors from using the deliverables, a license back to the contractor may facilitate competition and resolve negotiation of terms.
Procurement of system integration services	May involve COTS software, custom deliverables with newly created IP with pre-existing contractor IP. (May want to use combination of categories of ownership approach.)
Right to modify/copy	May be copied to perform benchmark tests, archival or emergency restart purposes, to replace a worn copy provided that no more than the number of copies specified in the SOW are in existence at any one-time w/o prior written consent of contractor. State may modify for its own use and merge into other program material provided does not conflict with third party license agreement.

Sole source escrow issue with COTS software	Large suppliers less likely than smaller suppliers to provide the Commonwealth with a source code escrow. • Clearly state need for source code escrow in RFP including whether the Commonwealth or the purchasing agency will bear the administrative costs of an escrow agreements or for collecting the source code. • If determine need source code escrow – allow proposers to suggest parameters for escrow. • If source code is not supplied ensure that ownership of the source code is held in "escrow" on the customer's behalf if the supplier for some reason is unable to provide maintenance in the future. (In which case, other support arrangements could be made.) There are a number of independent "escrow agents" available.
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27.6 Intellectual property (IP) and ownership

The ownership of IP created or used under a state IT contract is an important issue for the Commonwealth, its agencies and suppliers. Suppliers invest significant sums of money in the development of IP and then seek to market their IP to multiple government and commercial entities in order to generate revenue. Purchasing agencies also invest a substantial sum of money in the development of IP by contractors. State and local governments may seek the ownership of IP when they have paid for the creation of changes to an existing system or other work products. In instances where a state or locality takes ownership of IP, the state may then permit other government entities to use the IP, thereby saving those government entities time and money in creating similar IT systems.

IP means the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields. There are two main reasons for the protection of IP. One is to give statutory expression to the moral and economic rights of inventors in their creations and the rights of the public concerning those creations. The second is to promote creativity and the dissemination and application of such creativity while encouraging fair trading which would contribute to economic and social development.

IP refers to creations of the mind. IP rights can be licensed or assigned. IP should be treated as an asset that can be bought, sold, licensed, or even given away at no cost. IP laws enable owners, inventors, and creators to protect their property from unauthorized uses. The following subsections provide an overview of the different types of IP rights and protections.

27.6.1 Copyright

Copyright is a legal term describing the economic rights given to creators of literary and artistic works, including the right to reproduce the work, to make copies, and to perform or display the work publicly. Copyrights offer essentially the only protection for music, films, novels, poems, architecture, and other works of cultural value. As artists and creators have developed new forms of expression, categories of copyrights have expanded to include them. Computer programs and sound recordings are eligible for copyright protection.

For software code written to a medium, the copyright must be registered before a party can sue for its infringement.

Only the creator or those deriving their rights through the creator—a publisher, for instance—can rightfully claim copyright. Regardless of who holds the copyright, rights are limited. In the United States, copyright law allows the reproduction of portions of works for purposes of scholarship, criticism, news reporting, or teaching. Similar "fair use" provisions also exist in other countries. Copyright protects arrangements of facts, but it does not cover newly collected facts. Moreover, copyright does not protect new ideas and processes; they may be protected, if at all, by patents.

27.6.2 Patents

A patent serves as a contract between society and an individual inventor. Under the terms of this contract, the inventor is given the exclusive right to prevent others from making, using, and selling a patented invention for a fixed period of time—usually for up to 20 years—in return for the inventor's disclosing the details of the invention to the public.

Patents are not easily obtained. Patent rights are granted not for vague ideas but for carefully tailored claims. To avoid protecting technology already available, or within easy reach of ordinary individuals, those claims are examined by experts. Patent claims may vary as much in value as the technologies they protect.

27.6.3 Trade secrets

Any information that may be used in the operation of a business and that is sufficiently valuable to afford an actual or potential economic advantage is considered a trade secret. For purposes of Commonwealth contracts, “trade secrets” is defined in § 59.1-336 of the *Code of Virginia*. Trade secrets are subject of reasonable efforts to maintain their secrecy. Examples of trade secrets can be formulas for products, such as the formula for Coca-Cola; compilations of information that provide a business with a competitive advantage, such as a database listing customers; or advertising strategies and distribution processes. Unlike patents, trade secrets are protected for an unlimited period of time, and without any procedural formalities.

End user license agreements (EULAs) traditionally contain prohibitions against the reverse engineering of software to protect the trade secrets contained in the code.

The extent to which a supplier can claim information provided in the course of entering a contract as a trade secret and thus protected from disclosure by FOIA laws is governed by §§ 2.2-4342 and 2.2-4343 of the VPPA.

27.6.4 Trademarks

Trademarks are commercial source indicators, distinctive signs, words, phrases or symbols (including packaging) that identify certain goods or services produced or provided by a specific person or enterprise. Trademarks are especially important when consumers and producers are far away from one another. The brands for Barbie dolls, Lego building blocks, and Hot Wheels are all trademarks. Trademarks assist consumers with choosing (or avoiding) certain goods and services. Throughout most of the world, trademarks must be registered to be enforceable, and registrations must be renewed.

27.7 Intellectual property license types

An IP “license” means the right to use the IP (and perhaps to copy, modify, and do certain other things to it as well). That right can be limited or unlimited, exclusive or nonexclusive, perpetual or for a finite duration, etc. “Assignment” means a transfer of the ownership of the IP—that is, a transfer of all IP rights.

The basic rule is that a supplier that creates IP owns it unless and until it assigns the IP to someone else. Possessing a copy of the IP is not the same thing as owning the IP itself. When a supplier licenses or provides a deliverable to the Commonwealth that does not mean that the Commonwealth owns the IP embodied in that deliverable.

27.7.1 Unlimited

The Commonwealth and its executive branch agencies as defined by § 2.2-2006 usually obtain “unlimited rights” in acquired software/technical data. Under certain circumstances the Commonwealth or an agency may be willing to accept “government-purpose rights.” Under other circumstances, the Commonwealth may be willing to accept “limited rights” in technical data or “restricted rights” in software. “Unlimited rights” mean the rights to use, modify, reproduce, release, perform, display, or disclose software/technical data in whole or in part in any manner and for any purpose whatsoever and to authorize others to do so.

Such “unlimited rights” are so broad that they are tantamount to ownership rights.

A supplier's grant of unlimited rights in a deliverable precludes the supplier from making any further sales of that particular deliverable to anyone. Moreover, the Commonwealth may freely disclose the deliverable to supplier's competitors. An unlimited license grant also limits the contractor's ability to commercialize the deliverable.

27.7.2 Government purpose

"Government purpose" license grant means that the software may be used for any activity in which the government is a party, including cooperative agreements with international organizations or sales or transfers by government to foreign governments or international organizations. Such purposes include competitive procurement. Such "government purpose license grants" do not include the rights to use, modify, reproduce, release, perform, display, or disclose software/technical data for commercial purposes or to authorize others to do so.

27.7.3 Limited or restricted

Limited rights and restricted rights apply only to noncommercial software/technical data, not to commercial off-the-shelf items. Such rights are similar to the rights that a supplier would acquire if it obtained software from a developer pursuant to a negotiated, two-party software license. Typical restrictions on software include limitations on the number of authorized "seats" (i.e., simultaneous users), on making more than minimum number of copies required for archiving, backup, etc., and on modifying software except as required for maintenance purposes.

27.8 IP ownership and rights for Commonwealth agencies, as pursuant to § 2.2- 2006 of the *Code of Virginia*

The Commonwealth generally obtains unlimited rights in software/technical data which is developed solely at Commonwealth expense. The Commonwealth may obtain government purpose rights (usually for up to five years, when they then become unlimited) in software/technical data developed partly at government expense. The Commonwealth obtains limited/restricted rights in noncommercial software/technical data developed solely at private expense.

"Government or Commonwealth/agency expense" is defined as that IP developed exclusively at Commonwealth expense or that software development was not accomplished exclusively or partially at private expense or IP that was developed with mixed funding: (1) partially with costs charged to indirect cost pools and/or costs not allocated to a Commonwealth contract, and (2) partially with costs charged directly to a Commonwealth contract.

Agencies should strongly consider utilizing licensing arrangements with suppliers in which the supplier retains ownership of its IP and grants the agency (or Commonwealth) a license to use the IP. This licensing approach will lower the overall contract cost by allowing the supplier to retain their IP ownership and the right to market it to others. In addition, a licensing approach will increase the pool of suppliers willing to submit proposals thus increasing competition. Through a licensing approach, agencies will also avoid potential liability in the event of an IP infringement suit by a third party against the owner of the IP and will avoid the administrative and resource burdens associated with future IP support and maintenance issues.

If an IT system or project is federally funded, then the agency should determine if any federal laws or regulations mandate the type of IP arrangement. A federal law or regulation may mandate that an agency acquire a broad license to all IP produced at the government's expense.

27.8.1 Determining the appropriate type of IP ownership for the Commonwealth

The agency should specify in the solicitation the type of IP ownership arrangement that it is seeking and whether the IP terms and conditions are negotiable. This approach may reduce the likelihood of protests as well as the expense and time spent by the agency and supplier negotiating IP rights. The IP ownership arrangement should be selected after carefully considering the options available to the Commonwealth and determining which ownership option best suits the agency's business needs or the IT project.

Addressing IP ownership issues during the solicitation phase helps ensure an even playing field for the Commonwealth and potential suppliers.

In instances where an agency, as defined by § 2.2-2006, is contemplating procuring software products, services and related deliverables for which IP ownership may be needed, the agency should consider whether the benefits of total ownership will outweigh the costs. Agencies should consider: (1) the cost of IP ownership, (2) the cost of alternative IP ownership arrangements, such as a licensing arrangement with the supplier, and whether a sufficiently broad license right can be procured, (3) the number of potential users of the IP, and (4) the potential risks associated with IP ownership, including possible IP copyright and patent infringement suits and future support and maintenance. If an agency insists upon total IP ownership with no license back to the supplier, suppliers may be discouraged from submitting a proposal at all and this could increase the total amount of a contract.

The norm for most IP ownership is that the supplier retains ownership of the IP and the customer takes a perpetual, non-exclusive license. Some different licensing/ownership configurations are discussed below:

- Supplier owns IP with a license to the Commonwealth (or agency)— Supplier retains ownership of IP but provides the Commonwealth (or agency) with a license to use the IP. This arrangement tends to be favored by suppliers, since it makes it easier for them to use the IP in projects for other clients. The supplier can grant the agency a license tantamount to ownership in terms of the breadth of the rights. The benefit to the agency or Commonwealth of this arrangement is that the agency does not have to assume the burdens of IP ownership, including the potential for copyright infringement lawsuits.
- Agency/Commonwealth owns IP with a license to the supplier— Commonwealth or the agency owns the IP that is the subject of the IT contract. The agency grants the supplier a license to use the IP developed under the contract with other customers, to create derivative works and to authorize others to use the IP. License granted to supplier allows supplier rights tantamount to ownership and mitigates supplier's concern over surrendering IP ownership.
- Commonwealth or agency owns IP with no license to supplier— Commonwealth or agency owns the IP that is the subject of the IT contract, and the supplier does not retain a license to the software to use the IP for other customers or purposes. Suppliers reject this type of arrangement as they want to retain their IP and any future revenue. Suppliers will charge higher prices to offset the value of IP ownership. Only a few suppliers would be willing to agree to this type of ownership arrangement, thus reducing competition and increasing pricing.
- State-contractor joint ownership— Commonwealth and supplier claim joint ownership over IP. Joint ownership may create an opportunity for both the Commonwealth and the supplier to benefit from the revenue generated by the redistribution of the IP to other states or entities. Both parties should assess all potential issues of IP indemnification and copyright infringement and determine how they may be appropriately handled in the context of joint ownership.

27.8.2 Determining the appropriate IP rights for the Commonwealth

In determining IP rights, agencies should examine the particular requirements of the acquisition to help determine the appropriate rights the Commonwealth will need:

- Procurement of commercial software and ancillary services— COTS software is virtually always subject to standardized licensing agreements. In certain instances, the terms of the license may be negotiated, particularly regarding financial terms; however, suppliers should not be expected to divest themselves of ownership of COTS software enhancements or derivative works of such software. Also, suppliers will want to maintain ownership over deliverables related to the maintenance, installation and configuration of COTS software.
- Procurement of standardized IT services (such as hosting or disaster recovery services)— These offerings typically do not pose difficult IP issues, and the Commonwealth can receive appropriate use rights through the licensing of IP embedded in the service.
- Procurement of consulting services involving customized deliverables— In this instance, the Commonwealth may legitimately require ownership of certain deliverables. However, the

Commonwealth can still retain the IP rights in work product deliverables while allowing a license back to the contractor. This approach usually provides for increased competition and greater negotiation success.

- Procurement of systems integration services— A systems integration contract may involve COTS software and ancillary services, custom deliverables and deliverables that combine newly created IP with pre-existing supplier IP. In this situation, it is advisable for purchasing agencies to utilize IP ownership clauses in the contract in which particular types of IP can be designated as licensed back to the Commonwealth, owned by the Commonwealth (with or without a license back to the supplier) or jointly owned.

27.9 Defining IP ownership and license rights in the contract

A license can be tantamount to ownership, since it can bestow upon the Commonwealth all of the benefits of ownership without actually transferring title to the state. Agencies, as defined by § 2.2-2006 must carefully detail their license rights within the contract to ensure they have the rights to deploy the technology acquired under the contract. The subsections below provide an overview of the types of license rights.

27.9.1 License for government purposes

This type of license permits the Commonwealth to use the IP as long as it is for a government purpose. The term “government purpose” should be clearly defined in the RFP and contract. Suppliers may be incentivized to permit sharing via a “government purpose” license where there is a possibility of future modifications or support and maintenance.

27.9.2 Redistribution rights

The Commonwealth should clearly define whether it will have the right to redistribute IP to other entities, such as other agencies or local governments.

27.9.3 Modification rights

The contract should specifically address whether the Commonwealth can modify IP or create derivative works without the supplier’s permission.

27.9.4 Length of license

The contract should clearly define the length of a license in terms of whether it will last for a specific number of years or whether it is perpetual.

27.9.5 IP indemnification/copyright infringement

The contract should include language regarding the rights and obligations of both parties in the event that IP indemnification or copyright infringement issues arise. For IP owned by a supplier under the terms of the contract, the payment of royalties to the Commonwealth by the supplier upon redistribution or use of IP is typically rejected by suppliers due to legal, financial and administrative concerns.

27.10 Software access, ownership and license issues that may arise

The Commonwealth may request that a supplier place its source code in an escrow that would be accessible by the state if certain events occur, such as a contractor’s bankruptcy. Escrow is usually not suitable for packaged, off-the-shelf software. In the current IT market, large contractors are less likely to provide customers with a source code escrow, while smaller contractors may be more likely to put their source code in escrow. If an agency determines that it needs the protection of a source code escrow, this requirement should be clearly stated in the RFP, including which party will bear the administrative costs of an escrow agreement or for collecting the source code.

There are risks if the supplier keeps the source code and delivers only the object code to the Commonwealth. The Commonwealth may need the source code at some point to avoid relying on the supplier for support and maintenance should the platform not perform or in the event the supplier goes out of business. In addition, auditors may need to access the source code to perform required audits. One solution is that the

Commonwealth can create a source code escrow account whereby a trustee has control over a copy of the supplier's source code. If the supplier goes out of business or bankrupt, the trustee may distribute the software to all of the supplier's existing customers.

