



Commercial Software Licensing

CHAPTER 4:

Software Publisher Products & Services

Prepared by DoD ESI | January 2013

- Publishers generally create one or more of three major types of software products:
 - *Applications software for transactions, information analysis, and presentations.*
 - *Middleware to link various applications so they can share information.*
 - *Database software organizes/stores information used by applications and middleware.*
- Applications software typically fits one of three categories:
 - *Enterprise applications enable efficient business processes.*
 - *Shrink-wrap applications*
 - *Custom-software applications fill the gaps where Enterprise and Shrink-wrap applications do not exist.*
- Maintenance, Support and Services provide recurring revenue:
 - *Implementation Services are sometimes offered*
 - *Maintenance provides funding for product improvements provided to customers*
 - *Consulting Services and Education available to enhance customer efficiency*



Common Terms in Software Licensing

Term	Definition	Applicability
License	A set of rights granted by a Publisher to use Publisher's software.	Apply to all.
Maintenance	A set of services Publisher can sell to Customer for the on-going development and delivery of software fixes and product upgrades.	If Maintenance & Support apply, then Assurances do not.
Support	A set of Publisher services for receiving reports of software malfunctions, analyzing cause, creating fixes and delivering them to Customer within agreed upon time frames.	If Maintenance & Support apply, then Assurances do not.
Warranty	The contractual duty of Publisher to correct product defects, usually limited to certain kinds of defects and for a specific time period.	Apply to all.
Assurance 1 (<i>DoD Software Assurance Initiative</i>)	Software assurance relates to "the level of confidence that software functions as intended and is free of vulnerabilities, either intentionally or unintentionally designed or inserted as part of the software" (<i>as described by DoD Software Assurance Initiative</i>).	If Assurances apply, then Maintenance & Support do not.
Assurance 2 (<i>Microsoft</i>)	New software versions, deployment planning services, 24x7 phone and web support, end-user training, unique desktop technologies and more.	If Assurances apply, then Maintenance & Support do not.
SLAs Service Level Agreements	Usually structured as a combination of conditions and performance, for example, all reported high priority performance issues will be addressed within 4 hours.	Individually established.



Software License Timeline

Initial Acquisition

Full License Term

Warranty covers initial period:

Warranty Period

For extended protection, choose either:

Warranty Period



Maintenance & Support Contract

(or)

Warranty Period



Contracted Assurances



Product Types

- Applications.
- Middleware.
- Databases.

Applications Categories

- Enterprise.
- Shrink-wrap.
- Custom.

Services

- Software implementation.
- Other consulting.
- Training.
- Maintenance & support.



Software Product Types

Capabilities

Applications

- Use data to execute a business process or sub-process.
- Enable creation of documents or other presentations of information.

Middleware

- Connect applications that use different data structures or architectures.
- Provide a framework or platform to establish consistency across different applications.

Databases

- Organize and stores data.
- Enable easy retrieval and presentation of data.



Representative Publishers

By Software Category

Applications

- Microsoft Office
- SAP Logistics
- Siebel Customer Relationship Management (CRM)
- GE Centricity (Healthcare)

Middleware

- Oracle Fusion
- IBM WebSphere
- JBoss Enterprise Open Source

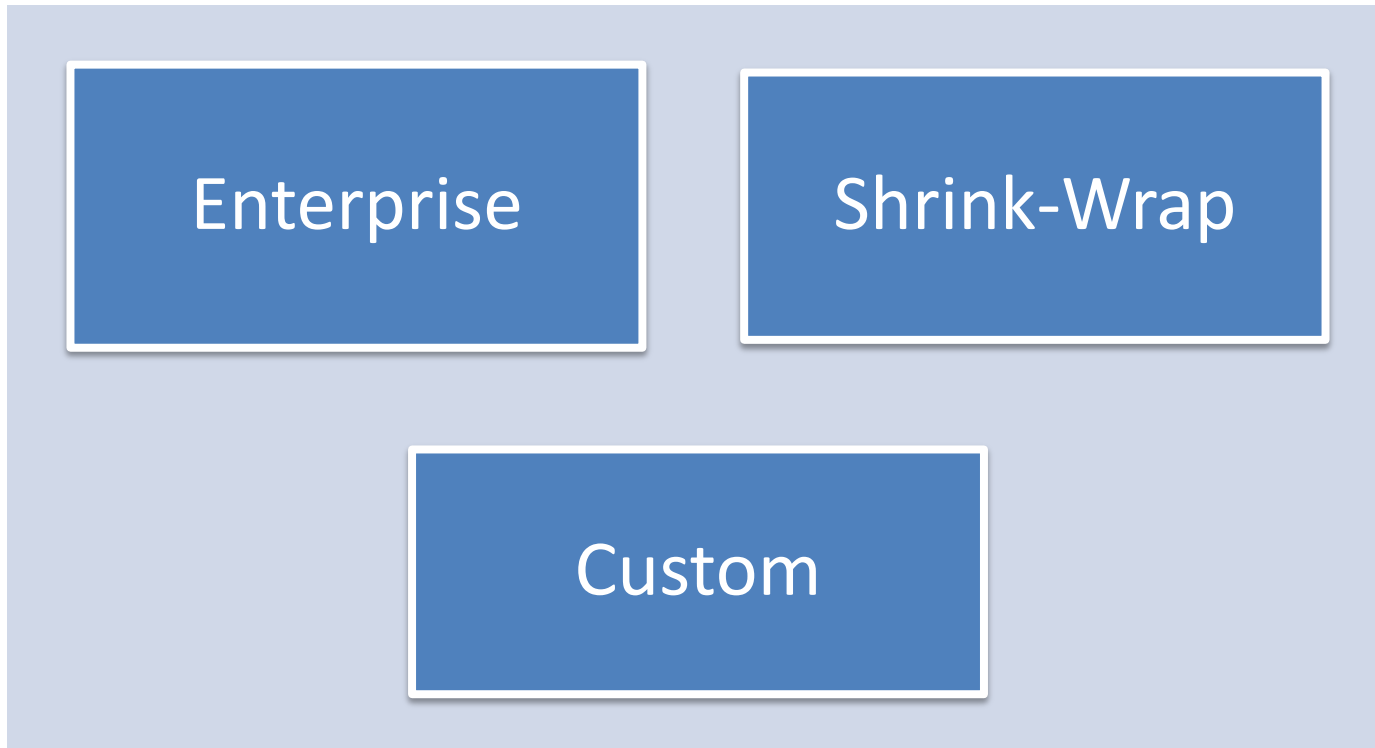
Databases

- Oracle
- Microsoft SQL Server
- Linux



Applications Software Categories

Commercial Software Licensing:
Software Publisher Products & Services



Your Preferred Source for
IT Acquisition Across the DoD

Applications Software Categories

Enterprise Software

Definition

- A comprehensive set of software capabilities for an enterprise.
- Usually addresses mission-critical business requirements.
- Provides significant flexibility but requires extensive configuration.

Examples of Enterprise Software Applications

- Financial accounting.
- Logistics.
- HR.

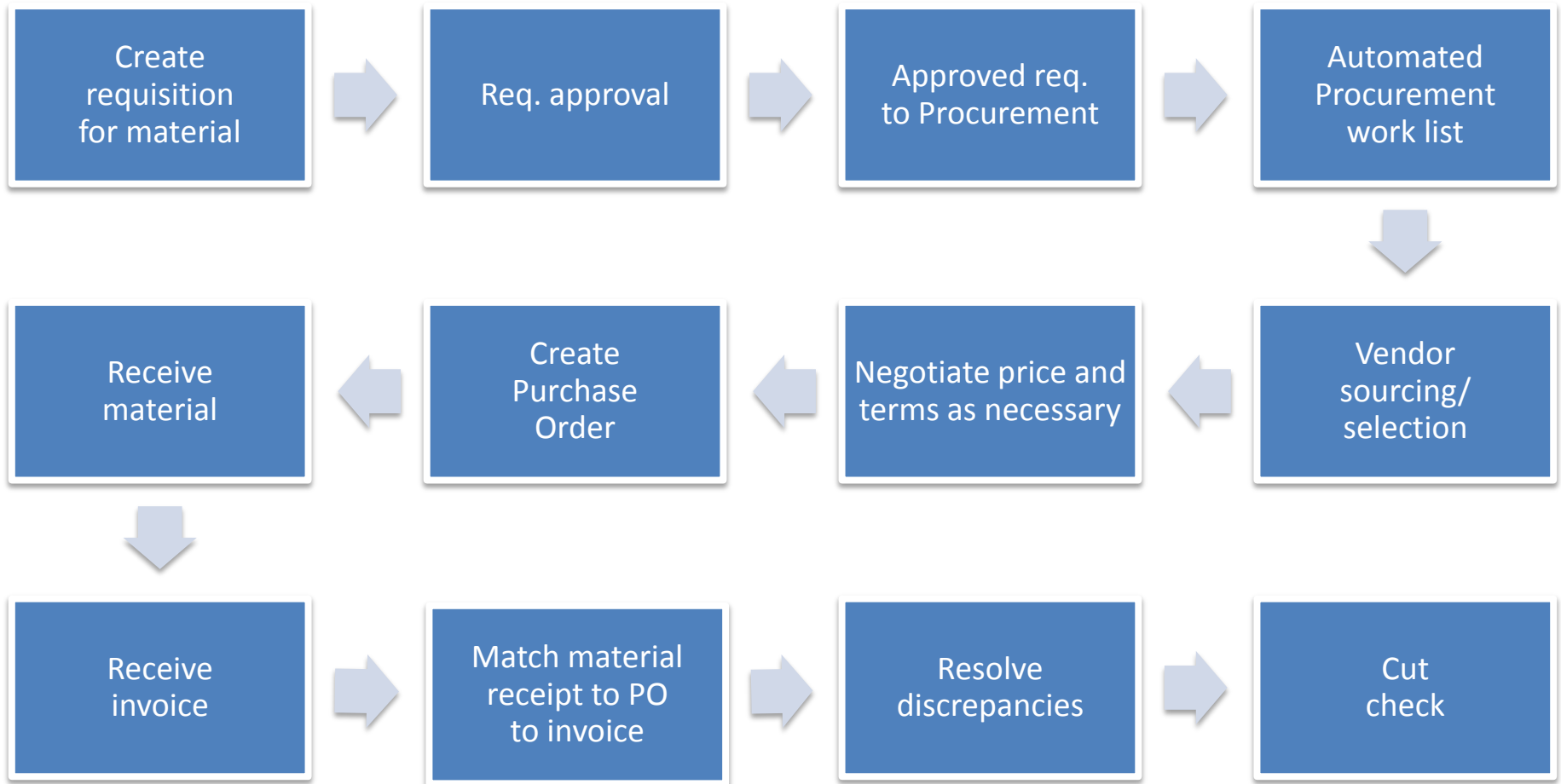
Examples of Enterprise Software Publishers

- SAP.
- Oracle.



Sample Enterprise Business Process

ERP “From Req. to Check”



Applications Software Categories

Shrink-wrap Software

Definition

- Focused on a purpose-specific set of capabilities—often a tool or an administrative application.
- Can be used across an enterprise, but usually not mission-critical.

Examples of Shrink-wrap Software Applications

- Microsoft Office—Word, Excel, PowerPoint.
- Adobe—Acrobat, Reader, LiveCycle Designer, Distiller.
- Trend Micro—Office Scan.

Examples of Shrink-wrap Software Publishers

- Microsoft.
- Adobe.



Open Source Software

Evolution of the Concept

Concept

- The concept behind open source software grew out of the practice of early programmers sharing code-writing solutions for mutual benefit.
- The term “open source”—first used by the software industry in 1998—generally refers to software whose **source code** is developed in a collaborative fashion by unrelated parties and **made available to the public** under the widely accepted terms of the GNU General Public License.

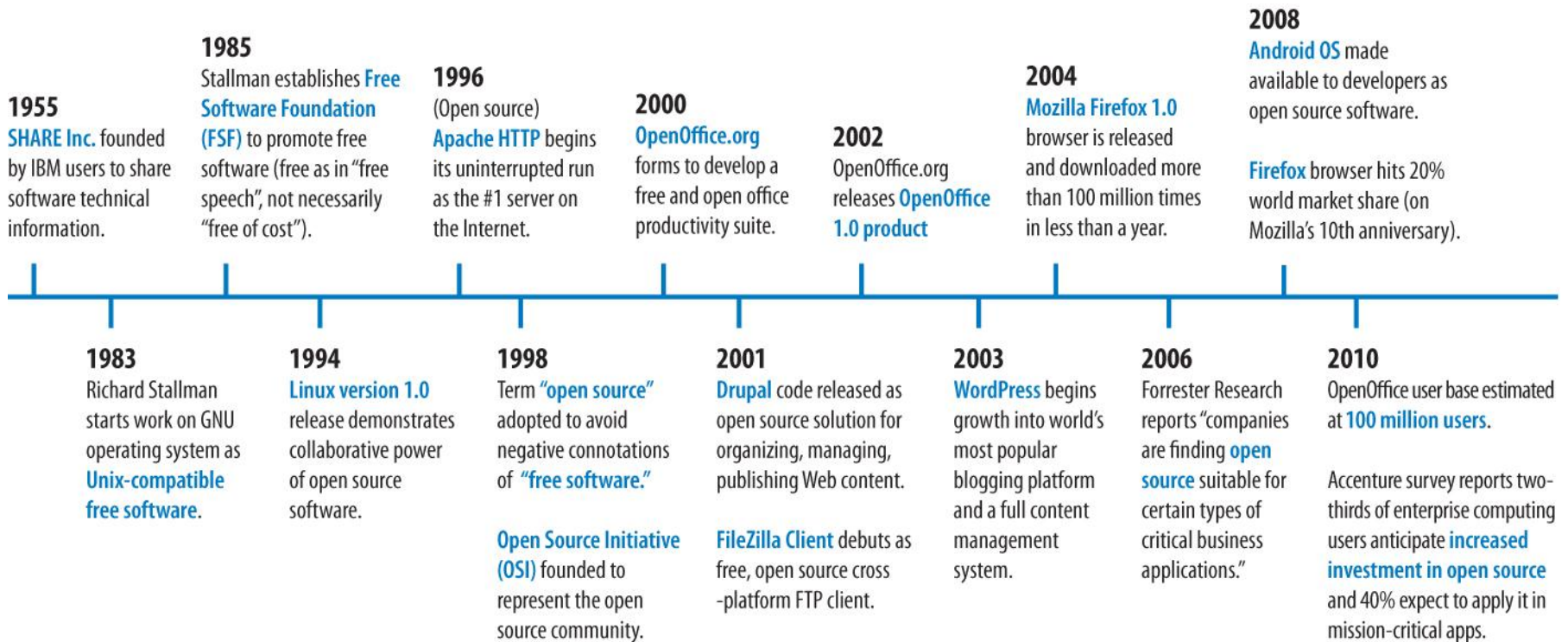
Definition

- Here is how the Open Source Initiative’s mission statement defines it today: *“Open source is a development method for software that harnesses the power of distributed peer review and transparency of process. The promise of open source is better quality, higher reliability, more flexibility, lower cost, and an end to predatory vendor lock-in.”*
- Do not confuse “open source” with “free” software. In fact, the term open source was adopted to eliminate confusion with any negative connotations of free software.
- As the open source community describes it, *“Think ‘free’ as in ‘freedom’, not as in ‘free beer.’”*



Open Source Software

Acceptance Over Time



Open Source Code

- How Publishers Use Open Source
 - Some are well-known stand-alone apps (e.g. Mozilla Firefox, Apache, Linux, OpenOffice, etc.). They can work in concert with other applications without becoming embedded in copyrighted applications.
 - Other applications (or chunks of functionality) have found their way into products published by commercial software companies who copyright their applications and sell licenses.
 - In both cases, Publishers of copyrighted software must use caution to avoid violating the Open Source standards and license provisions.



Open Source Software

Advantages and Concerns

Advantages

- Although this can be a very complex topic, mainstream open source is governed by the Open Source Initiative (OSI)—using well-accepted practices.
- OSI requires free open source licenses to software developers with very liberal re-use and distribution rights—protecting against end users being restricted from an ability to modify source code for their purposes.
- Generally accepted open source software assures ongoing acceptance and development—examples include Apache HTTP Servers and the Mozilla Firefox browser.





Concerns

- Security—Open Source has unique security vulnerabilities due to its open nature.
- Support—Not always supported by the original author, although open to support and modification from the general community of users.
- GNU GPL (*General Public License*)—A form of free software with limited derivative works rights.
- For its own protection, the government must insist on disclosure of open source content.



- Maintenance
 - *Since Open Source is collaboratively developed and peer reviewed, there might be no formal infrastructure for providing fixes, patches, enhancements and updates.*
- Support
 - *Possibly no formal support organization to assist with diagnosing/fixing problems.*
- License rights and Intellectual Property
 - *Open Source licenses can require sharing of enhancements or derivative works.*
 - *“Encapsulation” can be used to isolate Open Source code from copyrighted IP.*
 - *Make sure the EULA includes the following covenants from the Publisher:*
 - Disclosure of all third party software included with the licensed software, including Open Source.
 - No additional licenses or fees required to use the licensed or third party software.
 - No obligation to share enhancements or derivative works of licensed software or included third-party software.



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-  In 1998, the term **“open source”** was adopted to avoid negative connotations of “free software”.
 -  **Open Source Initiative (OSI)** founded in 1998 to represent the open source community.
 -  **True or False:** Government agencies **do need to make their code available** to the public in order to enjoy the benefits of the open source model.
 -  2010 survey reports **2/3 of enterprise computing users** anticipate increased investment in open source and 40% expect to apply it in mission-critical apps.

Maintenance

- Maintenance generally refers to two aspects of licensing software:
 - Developing, receiving, and applying patches and fixes designed to address software bugs. (*Publisher develops; customer applies.*)
 - Developing, receiving, and applying new or upgraded releases of licensed software.
- Maintenance fees are used by Publishers to fund development of fixes and new releases.

Support

- Software Support refers to processes for addressing apparent software deficiencies/malfunctions with the goal of identifying/correcting them.
- Support issues are often due to lack of training or other user issues.
- Most Publishers offer increasing levels of support at increasing prices.



Start Date of Maintenance

Publisher and End-User Perspectives

Publisher Perspective

- Maintenance starts on Day 1 – the date the acquisition is executed
- If large sale, Publisher may acknowledge that many licenses will not be in use. However, the end-user has received a large discount on maintenance (via License discount), which offsets use issue.
- Smaller orders generally not willing to address

End-User Perspective

- If not using licenses, why pay maintenance?
- Only potentially valid if never used (Shelf-ware)
- Reasonable approach to seek phased in Maintenance on large orders






Software Versions

Nomenclature and Numbering

Nomenclature	Description	Numbering Scheme
Upgrade /New Version	New functionality and improved features. <i>(Always ensure that a new version is covered under annual maintenance, at no charge.)</i>	Usually represented by a new number in front of the decimal point. <i>(i.e. 3.0 becomes 4.0)</i>
Update	A release with enhanced features and consolidation of all prior bug fixes.	Often represented by a change one place to the right of the decimal point. <i>(i.e. 4.1 becomes 4.2)</i>
Bug Fix/Maintenance Release/Patch	Corrects issues, errors, and bugs in previous release of the same version.	Often represented by a change two decimal places to the right of the version number. <i>(i.e. 4.2.1 becomes 4.2.2)</i>



Caution: New Product/New Program Fees

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-  Publishers may try to release a major change/version as a “New Product”, not included under S/W Maintenance and requiring new license fees.
 -  User Community and Industry Analysts are the best sources to track if this is perceived a fair practice and truly a new product .
 -  Watch for combining of existing programs into a “New Product”. Example; separate programs a, b, and c get combined into product D, which must be bought if you don’t already license all three (a, b, and c).



Support Levels & Who Can Provide Them

Level	Definition	Best Source	Comments
1	Low impact on system operation & users.	Usually provided by the Customer via a help desk.	Level 1 are often user issues and not true software issues.
2	Moderate impact on system operation & users. Most functions still operate normally.	Can be provided by Publisher, Reseller or Customer – usually provided by Publisher or Reseller.	Level 2 are usually provided by the direct seller. These issues are usually software issues which require significant knowledge of the software.
3	Significant impact on system operation & users.	Should be provided only by Publisher.	Level 3 issues generally require significant code changes which can only be created by the software development organization due to IP & expertise.



Advanced Topics

SLAs for Response Time

- Refers to the requirement imposed on the Contractor for responding to Customer reports of deficiencies.
- Usually contained in packaged offerings from Contractor with response tied to severity of the issue.

SLAs for System Performance

- Refers to system performance as delivered by a hosting provider.
- Usually expressed as a percentage of system availability out of total potential availability.
- Levels of service can vary significantly. *(See subsequent example.)*

Selecting the Right Package

- Because higher SLAs can be expensive, the Customer should weigh carefully the need for quick response time or substantial availability.



Response Time Examples for Support Calls

Issue Severity	Response Time to Acknowledge Issue	Response Time to Fix Issue
<p>Level 1 (Low) Does not have significant impact on users.</p>	<p>Return call or email within 8 hours.</p>	<p>Provide fix within 30 days.</p>
<p>Level 2 (Moderate) Causes some user issues, but most processes are functional.</p>	<p>Return call or email within 4 hours.</p>	<p>Provide fix within 5 days.</p>
<p>Level 3 (High) Significant impact on system use.</p>	<p>Return call or email within 1 hour.</p>	<p>Provide fix ASAP—24 hours or less.</p>



Measuring the SLA for Maintenance

System Availability

Criteria	Measurement	Comments
Minutes in a 30 day month.	43,200 minutes.	
Planned down time (assume 6 hours).	360 minutes.	This is a standard amount of time for monthly system maintenance.
Remaining minutes for scheduled up-time.	42,840 minutes.	
SLA	99.9%.	This is a moderate standard; 5 nines (99.999%) is high.
Minutes of expected up time.	42,797.16 minutes.	
Allowable minutes of unplanned downtime.	42.84 minutes.	Little time for unplanned down time.
Penalties.	Varies.	Usually a credit is given for missing the SLA.



Enterprise Application Implementation

- Primary efforts are focused on business process design and system configuration.

Other Consulting

- Designing and implementing custom software.
- Implementing middleware and databases.
- Providing system optimization and related services.



Maintenance – A Product or a Service?

It's a Product

Maintenance, standing alone, addresses software enhancements, updates and new releases.

The output of Maintenance is Software – a product.

It's a Service

Support, standing alone, is more like a service than a product because it is activity based.

Much of the output of Support, however, is Software code – much like Maintenance.

A source of confusion about this occurs when Maintenance & Support are combined. When sold separately, Maintenance is clearly a Product. When combined, there are arguments to say it is a Product and others to say it is a Service.



Selecting the Right Software Support Package

- Does the customer have specific reasons to require quick response to reported issues?
- Faster response times cost more because this is primarily a labor issue.

Selecting the Right Hosting Support Package

- Does the customer absolutely require maximum system availability or can the customer live with some unplanned down time?
- Higher availability is significantly more expensive because this is primarily a hardware, network, and software issue.



Training



- Publishers provide product training to their employees, their partners, customer project teams, and customer end users.

Software Maintenance & Support Costs

- Often priced as a percentage of License Revenue
- Generally 15% - 22% of License Fees
- Can be % of List License Fees, or Net License Fees (after discount)

- For example if License is \$1,000,000 List, Discounted to \$700,000
- 20% of List License Fees is \$200,000/year Maintenance
- 20% of Net License Fees is \$140,000/year Maintenance



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-  Per Commercial Accounting rules, software maintenance and similar items are considered “Services”, and are reported as such on financial statements. We also refer to software maintenance as a service throughout this chapter and this course.
 -  Per course feedback,, we have been informed that for (at least some) Government Contracting shops, maintenance is acquired as a “Product”. Only acquisitions where FTEs, Level of Effort, Support Personnel are contracted for can be considered “Services”

Describe the three major software product types.

Describe the three major applications software product categories.

Compare and contrast software product types and product categories as defined in the presentation materials. Include a description of each product type and product category and what it does.

Review and discuss the sample business process. Discuss how applications software enables this process or makes it more efficient.

Discuss the services typically offered by Publishers.

Describe the core activities surrounding Publishers' service offerings.



Discuss the basic purposes of Publisher Maintenance and Support Services. Describe both similarities and differences.

Define Software Upgrades, Updates, and Bug Fixes and what you receive when you pay for maintenance.

Define SLA and give examples of how it can be used for maintenance and support services. Discuss the application of SLAs to hosting services.

Discuss how your knowledge of maintenance and support service processes and pricing can help you in your purchasing role.

