PAID VS OPEN-SOURCE SOFTWARE SOLUTIONS

HOW TO CHOOSE BETWEEN PAID AND OPEN-SOURCE SOFTWARE SOLUTIONS

The choice between paid and open-source software tools can be a confusing one for decision makers. The promise of obtaining software that can reduce costs while providing the same level of functionality can be very alluring. There are very few software procurement professionals who are not interested in saving their organizations some money.

At first glance, going with an open-source solution may appear to be an easy decision. But as with many other supposedly less expensive offerings likely to be encountered throughout a lifetime, there may be underlying issues that are not immediately apparent. When all aspects are considered, the answer is not so clear-cut, even if the only goal was to use the less expensive alternative.

In this whitepaper, we will take a look at the differentiating factors that inform the decision to use an open-source or paid software tool. The terms paid and commercial will be used interchangeably in our discussion. We will refrain from referring to open-source as free software since there can be license fees involved with these types of solutions.

COST IS NOT A SIMPLE CALCULATION

The most obvious difference between a paid and open-source software tool is the initial cost of the product. Implicit in the term "paid software" is the understanding that there will be a financial cost to use the product. Open-source software, on the other hand, owes much of its popularity to the fact that it is available with no initial financial commitments.

The cost of using a commercial or open-source solution is not as simple as comparing the sticker price on the software package. Multiple factors contribute to the total cost of ownership when using either type of application. These factors need to be carefully considered when choosing the software that will serve an organization's needs.

Let's look at a breakdown of the kinds of costs associated with both methods of procuring software solutions. We will include the time spent by an information technology (IT) staff in implementing the software as part of its total cost.

PAID SOLUTIONS

The costs of a paid software solution are usually fairly straightforward, although it is always a good idea to thoroughly read and understand the licensing agreements that accompany the product.

- The initial price of the product should be well understood before committing to a purchase.
- Licensing fees required for the continued use of the product and its propagation across multiple computers or systems need to be calculated as part of the cost.
- Support and maintenance fees are often available in different configurations. Software used on mission-critical systems may necessitate obtaining premium 24-hour support with its commensurate financial costs. Upgrades may also require additional payment to keep up with the vendor's technical advances or changes in the computing environment.

OPEN-SOURCE SOFTWARE

There are potentially substantial hidden or overlooked costs linked to open-source software that can dramatically affect an organization over time. Once the software has been obtained with no financial commitment, other costs may begin to appear which can negate the benefits of the open-source solution.

- Unless there are personnel who have experience with the specific open-source solution, it may be necessary to engage third-party consultants to assist with the installation of the product and training of staff members.

- An open-source solution may require extensive time and effort to integrate it with existing systems. Customizing the software to meet business requirements can also be a time and resource-consuming process.

- Hardware issues can contribute to the final price of an open-source solution, as specialized drives may be required to run the product on an enterprise's proprietary hardware.

- Maintenance is another area that will entail costs in the time spent by staff members or financing additional resources from outside the organization.

- Unless the organization is satisfied with receiving support from forums or user groups, third-party support will need to be identified and engaged.

Over the length of time that the software is in use, the additional costs of using an open-source solution can wind up being more expensive than a similar commercial product.

COMPLEXITY, FUNCTIONALITY, AND EASE-OF-USE

Open-source solutions can often provide similar overall functionality to commercial solutions. However, some tradeoffs may make them unsuitable for enterprise-grade implementations. Here are some aspects of these two approaches to software procurement that may influence the choice made by an organization.

COMMERCIAL SOFTWARE

Commercial vendors have a vested interest in providing the features that appeal to the user community they are targeting. If they do not furnish a product that addresses their audience, their product will not achieve the wide adoption that is required to justify the expense of developing and marketing the product. Here are some areas where this impetus is evident.

- Paid software tools are expected to completely provide the level of functionality and feature set promised by the vendor. Failure to live up to marketing claims will doom an application as potential users are made aware of its shortcomings. Commercial development teams have an incentive to address oversights brought to their attention by their customers.

- Commercial tools usually offer user-friendly interfaces that contribute to team productivity. Applications that are easy to use are more likely to gain traction in the organization over complex solutions.

- Customizing a commercial solution to fit the needs of an organization can often be accomplished with well-documented procedures made available by the developers. The customization options may not be as extensive as with an open-source product but will be more clearly defined in a paid application.

OPEN-SOURCE SOLUTIONS

The purveyors of open-source software range from teams of professional developers to sole individuals toiling in their basements. While they would like their products to be used by the computing community, there are no overriding financial implications if their efforts fail to attract a wide audience. This fact results in certain characteristics that may make open-source applications unsuitable for an enterprise.

- Reduced functionality and sporadic implementation of feature sets can limit the usefulness of open-source tools. Without the financial incentive of commercial products, these gaps may not be addressed by the developers and result in reduced user productivity.

- Many open-source solutions rely on users accessing the software through command-line interfaces. This can involve a steep learning curve and the memorization of arcane commands that reduce the team's interest in using the tool.

- Customization is a two-edged sword when looked at from the perspective of open-source software. On one hand, the very nature of the solution implies that the code can be modified in any way the customer desires. This can be an attractive feature if the organization has the appropriate resources available. If not, it may require an investment in third-party consultants to customize the software.

The initial savings inherent in an open-source solution can quickly disappear as productivity and functionality are impacted by less viable alternatives to commercial products. It's a trade-off that may not be acceptable when dealing with business-critical systems.

VENDOR SUPPORT

The support offered by a software vendor often rises to the level of the utmost importance when problems come up. The difference in the type of support options available with commercial and open-source applications can be the deciding factor when selecting a solution.

COMMERCIAL SOFTWARE VENDORS

Many commercial software vendors pride themselves on the support options offered to their customers. Organizations can often choose between different levels of support that reflect the criticality of the systems in question. In extreme cases, 24/7/365 support is available with a phone call and high-level engineers will quickly be engaged to address the issues.

Support packages can often be tailored to the specific requirements of an enterprise. Vendors want to grow their business, and the inclusion of variable support options goes a long way toward fostering good customer relations.

Commercial software products include documentation that is designed to assist users understand the application and take advantage of its full functionality. The inclusion of comprehensive documentation is another aspect of the support offered by a reputable commercial vendor.

OPEN-SOURCE DEVELOPERS

Support is commonly offered for open-source software products through online communities or user forums. While this allows customers to tap into a large population of users and their accumulated knowledge, it does not usually provide on-demand assistance. This can be a huge point against the adoption of an open-source solution for systems that are important to a business.

Organizations cannot afford to be waiting for a reply to a query on a user forum when mission-critical systems are experiencing a problem. Professional-grade support can sometimes be obtained from third-party consultants. If this kind of support is available, it may come at a price that can minimize the financial advantages of using an open-source solution.

Documentation is often lacking in open-source projects or is included as an afterthought. Users do have access to the source code which is not an option with commercial offerings, but this does not compensate for an absence of documentation that can hinder the use of the product.

STABILITY AND RELIABILITY

The decision to obtain software tools to assist teams with tasks such as managing and administering databases is not taken lightly. These applications are required to obtain the levels of performance the organization needs from their computing environment. Generally, the environment and associated systems drive the search for support tools. An enterprise will rarely change something like a database platform simply to avail themselves of a new tool.

With these factors in mind, an organization must be comfortable with the reliability and stability of their software providers. There can be vast differences in how commercial and open-source products are viewed through this lens.

PAID SOFTWARE VENDORS

Many commercial software vendors have extensive track records of providing viable solutions to their customers' computing needs. Their reputation is on the line and profitability is only guaranteed with a combination of reliable and stable products and a trustworthy corporate philosophy. They are not likely to suddenly lose interest in their products and leave customers in an untenable situation.

Commercial products are traditionally kept updated to take advantage of new features in operating systems or the applications they support. Vendors of commercial software will find themselves lagging behind the competition if they do not keep their products relevant by taking advantage of new technological advances.

OPEN-SOURCE SOFTWARE DEVELOPERS

The driving forces behind open-source solutions can undergo dramatic changes over the lifetime of a product. What once was a hobby for a group of developers can take off and become a popular open-source solution. The initial development team may focus their attention on another project, leaving it up to the user community to make further modifications.

Without the financial incentive to maintain and upgrade open-source projects, they may provide users with less confidence that timely updates will be available. As new versions of operating systems or applications are released, open-source tools can fall behind, limiting their functionality. In some cases, open-source projects can be abandoned altogether, leaving customers floundering for a new solution.

SECURITY AND COMPLIANCE

In today's IT landscape, the related concepts of security and compliance cannot be ignored when considering which software solutions an organization chooses to use. This is especially true when selecting tools that interact with enterprise data resources such as the information residing in corporate databases. There can be a vast difference in how security and compliance are handled when comparing open-source and commercial software.

COMMERCIAL SOFTWARE PRODUCTS

Security flaws in commercial software can linger for months before patches are made available. This can pose serious problems for organizations that depend on the product to secure their systems. Sometimes, a commercial vendor will address an egregious bug with an emergency fix, but in general, they prefer to maintain a regular schedule of software updates.

There is less likelihood of malicious code being present in commercial software products. While the possibility of hidden backdoors can never totally be negated, a reliable commercial software vendor will engage in quality control and testing to minimize these risks. Since the vendors are the only entities that can modify the source code, commercial software is often seen as a safe choice.

OPEN-SOURCE SOLUTIONS

Proponents of open-source software point to the fact that the availability of source code and an extensive technical user community results in strengthened security. As vulnerabilities are discovered, they can be patched immediately to provide increased security to affected users. This iterative approach can result in very secure applications that benefit from communal development.

The downside of security in open-source projects is also a consequence of the ability of anyone to modify the code. Skilled programmers can embed malware or leave backdoors open to subvert security. There is no real solution to this problem except to rely on the vigilance and moral standing of the product's user community. This may not be enough to instill organizational confidence when critical systems are involved.

Compliance with data privacy and security standards has assumed a more prominent role in the management of IT resources. Organizations experiencing a data breach that exposes personal information may be subjected to substantial fines, and an associated loss of reputation. The auditors performing a post-mortem following a data breach will not change their findings based on the type of software that was found to be deficient. This makes it critically important to use a trusted software solution when handling sensitive data.

CONCLUSION

Whether to use commercial or open-source software has many nuances that need to be addressed on an individual basis. The low initial cost and freedom to modify source code may be a deciding factor in some cases. The enterprise must have the skilled resources required to maintain the software and be willing to live with the potential shortcomings that can accompany open-source solutions.

When issues like support, stability, security, and functionality are considered, a paid solution will often be the best option. While the initial cost of implementing the software may be greater, the benefits of working with a reliable commercial vendor will become evident over time. The peace of mind that comes with the ability to call the vendor when a problem occurs cannot be overstated.

As with many of the decisions that drive IT environments, the choice between open-source and commercial software is not always clear. Organizations need to look at the issue with an open mind and consider more than just the initial costs. Making the correct choice involves considering factors such as the employees who will use the software and the critical nature of the systems with which it will be used. It may be better to spend the money upfront to assure that the enterprise has obtained the best solution for its unique situation.

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