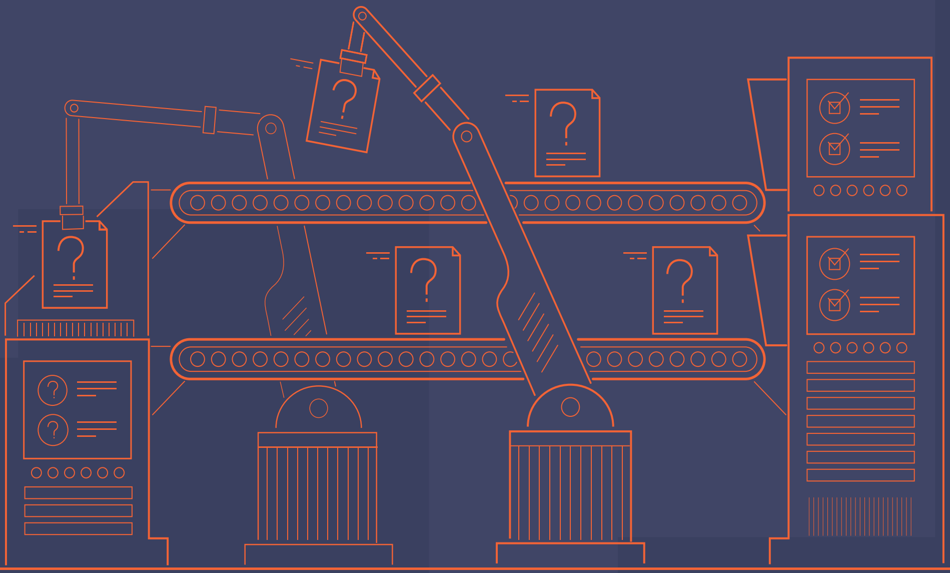

IN-HOUSE DEVELOPMENT VS. PACKAGED SOLUTIONS

Workflow Management Guide

A Publication by Integrify

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Section 01 Introduction

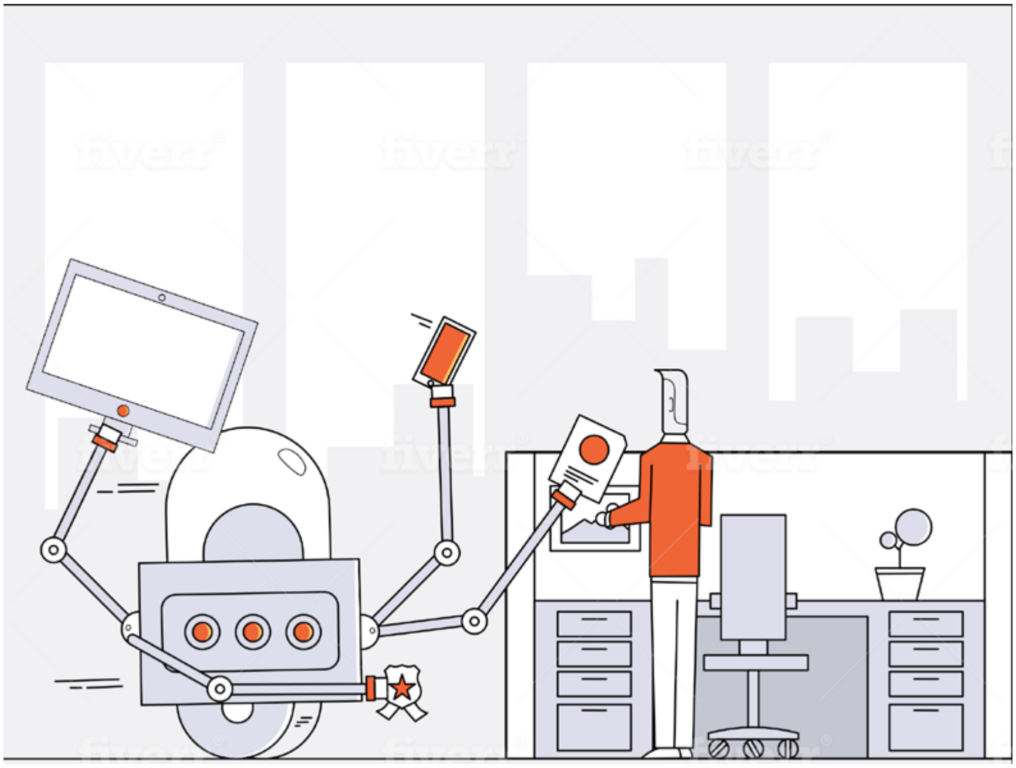
In-House Development vs. Packaged Solutions

This eBook looks at the advantages and disadvantages of developing software in-house, using the company's resources against buying a readymade packaged software solution from a vendor.

In talking to businesses about their processes, every company considers itself unique and thus believes that their requirements for their business are specific to them. However, when you document and analyze their requirements, you find that they employ many best practices common to other organizations.

When assessing your business needs, you must ultimately choose between in-house developed software or commercial (out-of-the-box) packaged solutions.

We will look at some of the advantages and disadvantages of each approach.



Section 02 Advantages of In-House Built Software

Custom Built for You

The thing about in-house built (custom) software is that, by its nature, it is built to meet your specific needs. It is explicitly designed to solve current business issues or to exploit an innovation opportunity.

You're unlikely to run into the problem of not having a feature that matches your unique requirements. This is assuming the features you want are possible within the constraints of your development team and tools.

However, ensure that what you are building is truly unique and gives your business an edge. Validate that you are not using your resources to build something that is already available off-the-shelf.

There are some advantages to building software in-house as you can see below.

Cost-Effective

One of the significant advantages of an in-house solution is that there are no wasted features. With this type of solution, you are not paying for any features you do not expect to use. Instead, you are only paying for what you expect to need.

This also means the application will be limited to the features you can envision for your application rather than the collected wisdom applied to an existing software product.

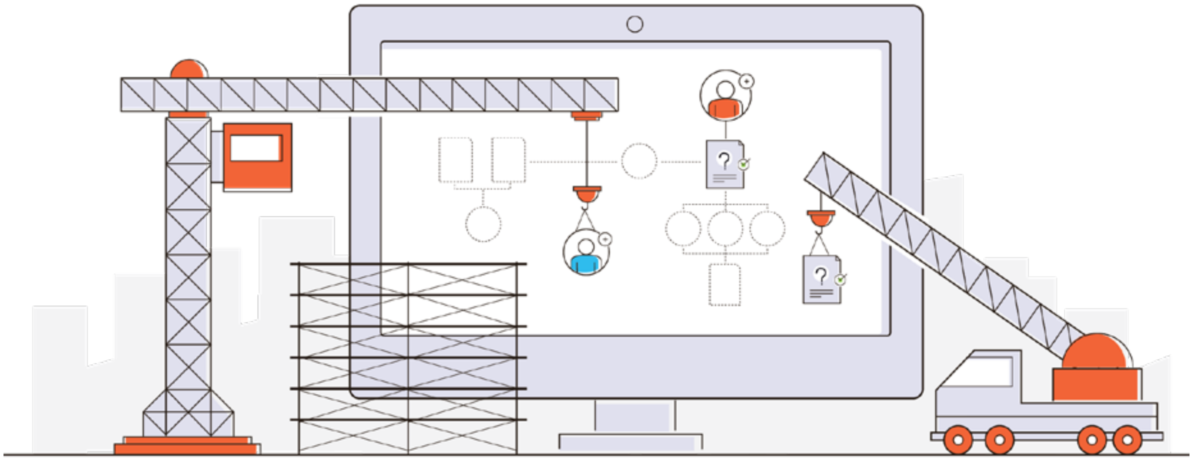
Scalability

While a packaged solution may work, it may not integrate with your other tools, especially if they are legacy tools that have been in use for a long time. You can have your in-house software specifically designed to integrate with your other applications/tools so that you can use everything from one platform. Since the IT/DevOps teams are likely already familiar with the existing tech stack, they would likely have experience with their APIs.

Ongoing Support

With customized software comes specialized support. Custom software generally comes with more in-depth training and more personalized support to help your company resolve issues with the software as they come up. Typically, some of the skills involved in the development will move into the support role or help develop documentation, so your support team will better understand the software.

Keep in mind that cost-effectiveness relies on a good combination of appropriate talent, good project management, and clear requirements. Without these in place, in-house development projects can overrun and diminish expected cost savings.



Section

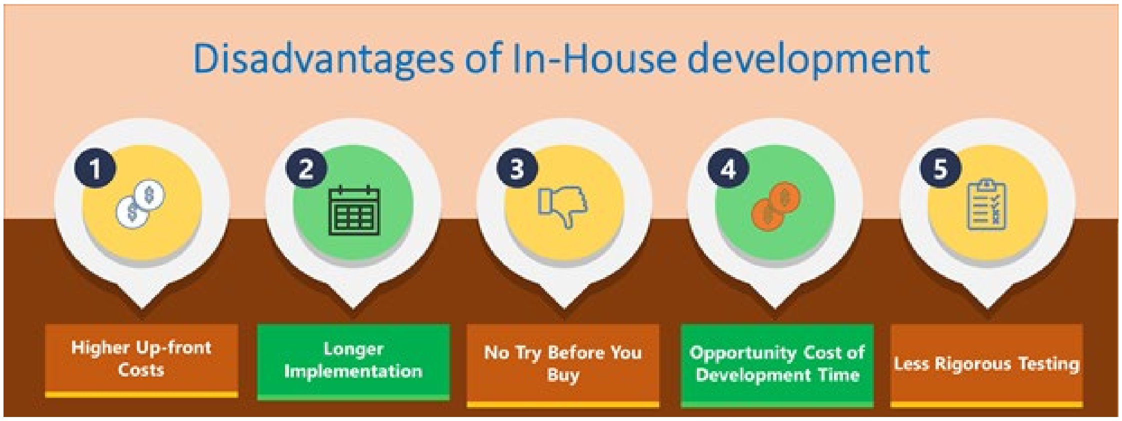
03

Disadvantages of In-House Built Software

Higher Up-Front Costs

With in-house software, the cost of the development sits solely with you. You are not only paying for the solution, but you are also paying for the time spent developing it. These labor costs can stack up and lead to a more significant spend amount upfront. Ensure that you have a solid plan and budget for this work and ensure that the work is solidly managed within the set budget and timescales.

There are also several disadvantages that you should consider for in-built solutions. These include:



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Significantly Longer Implementation

In-house solutions require time to specify, develop and test before deployment. The time spent on the first few stages can be significant and assumes no rework due to requirements, changes, or software bugs during testing. It can also take time to develop training material for user training. With packaged software, implementation can be planned from day one; the solution has already been created. However, there is likely to be a short period for customization to align with specific business requirements.

No “Try Before You Buy”

In most cases, you will not see how your customized software will work until after well into the development cycle. This means that the functionality users requested may not be available upon completion, and further rework or enhancements may be required. This can cause a lot of stops and starts during roll-out and may cause end-users to lose trust with the system.

The Opportunity Cost of Development Time

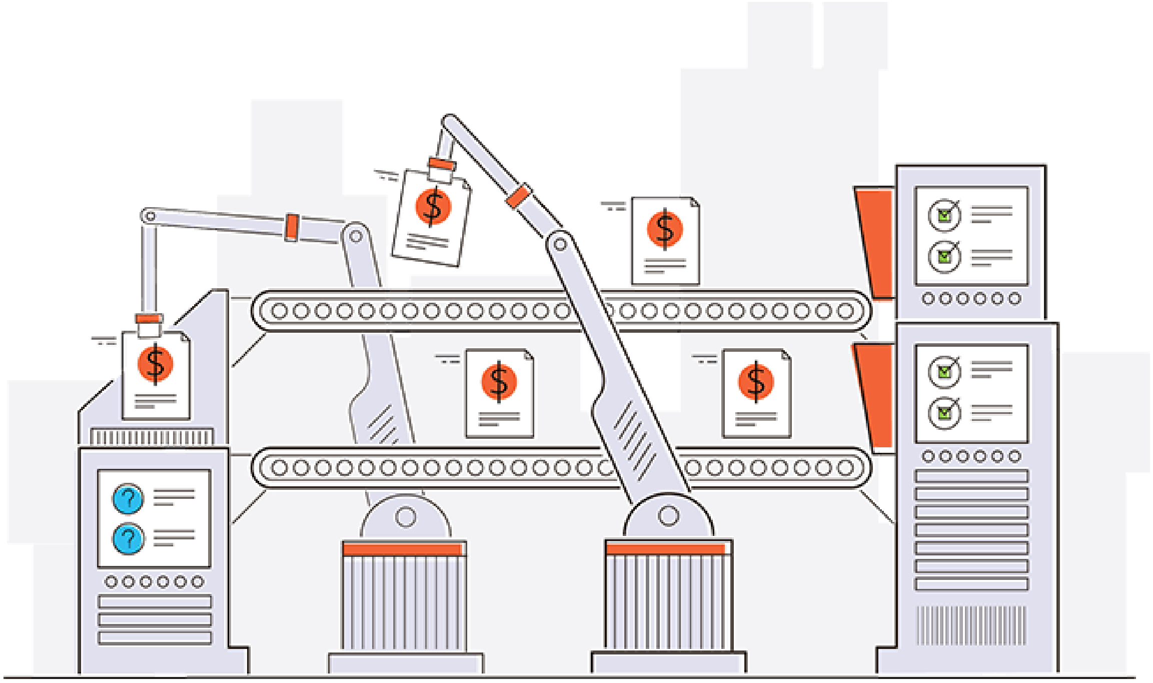
The time taken from the requirements gathering to the availability of the software for deployment is lost opportunity time for your business. You would be more efficient if you had the solution immediately after identifying your requirements. When in-house projects take years to develop a complete solution, the business requirements are likely to change, and the solution may no longer align with your business needs.

Less Rigorous Testing

In-house software often has fewer QA reviews than packaged software. This means it can be challenging to determine whether a piece of in-house software will perform as expected the first time around. IT and DevOps teams tend not to have the specialized testing skills or the tools to perform complete technical and functional testing. This part of the development cycle is unlikely to pick up all the errors/bugs in the software until deployment.

Turnover

It is not uncommon for the developers involved in an in-house application design to move on to other areas of the business or even leave the business entirely. Development skills are in high demand and developers are anxious to seek new challenges. This leaves in-house application users in a bind, as the best person to make an enhancement or fix a bug may no longer be available. Documentation becomes critical as new developers may need to jump in to support the application. However, even with good documentation, the nuances and intricacies of a custom application could be lost.



Section 04 Advantages of Using Packaged Software

Quicker Deployment

As there is no software development, the time taken is in assessing and purchasing the software before deployment. This is one of the major selling points of packaged software. Depending on your knowledge and technical skills, you can have a packaged software solution up and running in a few weeks and most certainly months.

Most software vendors provide service options for more complex deployments either through the vendor or a partner. It is in their best interest to get you up and running as quickly as possible.

There are several reasons for organizations to use packaged software. Listed below are some of the primary reasons:

Advantages of Packaged Software
01
Quicker Deployment
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Lower Initial Cost
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Try Before You Buy
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User Reviews
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Community Support

Quicker Deployment

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Lower Initial Costs

For the most part, packaged software will be cheaper than an in-house developed solution. This is because the software has been developed to be competitive for the mass market. As it is meant for many organizations, the overall cost for research and development is spread over many users and many years, allowing prices to stay competitive.

Try Before You Buy

One of the great benefits of packed solutions is that you can scan the market to find the solution you like in terms of functionality and look and feel. Most suppliers will offer you access to a trial solution that you can try out with your users and your data before making any commitment to purchase. Some vendors may also offer POC (proof of concept) deployments or build mock-ups using your data and requirements.

User Reviews

You can assess how other people use the software and gain from their experience in terms of the software functionality, usage, and the supplier's ongoing support.

Community Support

There is a lot of power in software communities. For instance, you can assess user reviews before buying, you can review help documentation, and once you have purchased the software you can leverage access to user groups and forums. You can find other users with similar problems and find out how they resolved them.

Finally, remember that the software vendor's reason for existence is their software product, so the quality is likely to be much higher than an in-house bespoke solution.

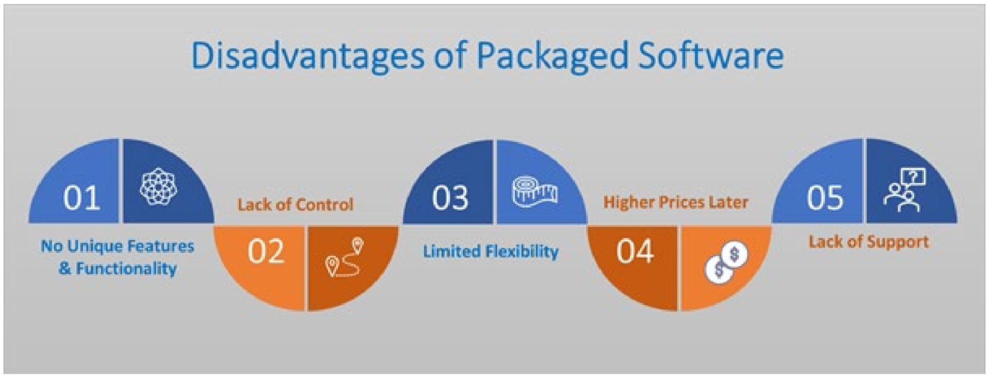
Section 05

Disadvantages of Using Packaged Software

No Unique Features and Functionality

Packaged software is designed to work for as many people as possible. Due to this, it may not have all the functionality you need and will undoubtedly have some functionality that you may never use. Ensure that your organization understands why its processes are unique if your competition uses standardized industry best practices.

However, keep in mind that some off-the-shelf packages allow for customization that can be adapted to your organization's unique needs. Be sure to discuss what's possible with the vendors you investigate.



Lack of Control

Generally, you will not have any control over the software. You do not own the source code and while you may be able to influence product direction, you don’t have as direct a channel as with an in-house solution.

Updates and feature changes may be added that may require learning or re-learning. Other changes may impact the way you use the software. Good vendors will take in input via their user groups and communities for developing and enhancing the solution. They’ll also communicate changes in advance. After all, they want to retain your business.

Limited Flexibility

You know precisely what you will be getting with packaged software and nothing else. There is no direct access to the development team to add functionality specifically for your benefit, rather the goal is to provide benefit for all users.

The upside is that you’re able to benefit from the collective experience and feedback of thousands of users, many of whom may want the same features and changes you do.

Potentially Higher Prices Later

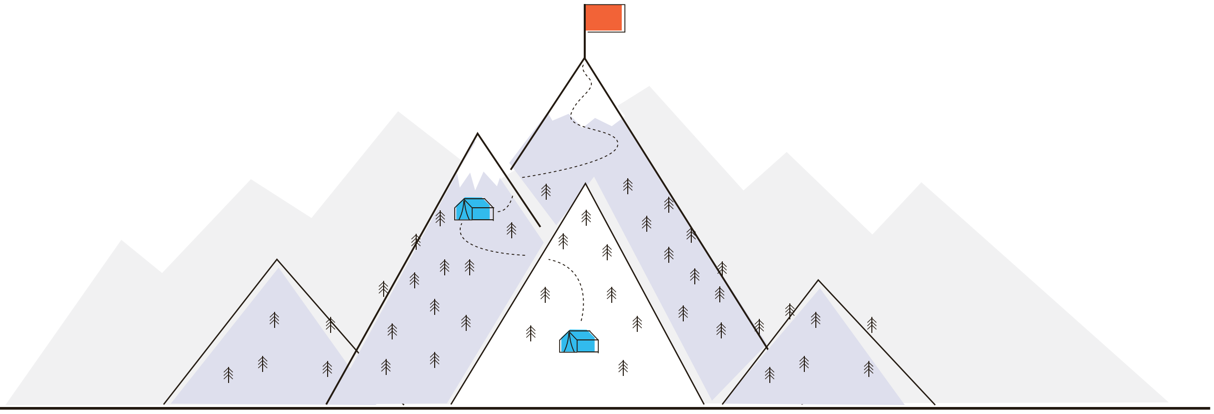
While a packaged solution may be cheaper upfront, it may end up costing you over time. This may include ongoing software support and maintenance costs, optional consulting services, and major software upgrades.

With most vendors, this issue can be minimized by agreeing on prices for a given subscription period at the outset. Get a good sense of how price increases work when talking to vendors.

Lack of Support

Not all packaged software comes with support. The main concern to check out is the level and quality of support. This can be addressed at the time of purchase regarding what is available and what you require. Many vendors also have their help and documentation sites open to the public so you can browse them.

Again, with SaaS solutions, support can be tailored to your needs. Ask about support costs and levels of support.



Section 06

What Is the Best Solution?

From the above evaluation, we can see that in-house development and packaged software solutions have their unique benefits, at least in theory.

Relying on Software

Almost all today's businesses rely on software, whether for accounting, planning, and scheduling, or customer relationship management. The software market has numerous products for every business requirement and continues to grow. These include company-wide solutions such as ERP, that can cost millions and take years to implement to free or "freemium" solutions that you can have up and running within hours. Add to this the cloud-based offerings available on a subscription basis that organizations can utilize in even shorter timescales.

The business issue for software is not in-house development vs. packaged solution, but it is the users' adoption and uptake of software solutions. The challenge is how do we make the software more intuitive, easier to use, and less threatening for people to adopt and use in their everyday work routines.

Accommodating every feature and user functionality can cause software to become very complex. To ensure user uptake, we need ways to simplify and streamline what the user needs for their daily activities.

For many businesses, if you are considering developing an in-house bespoke solution, chances are you are 're-inventing the wheel.' Many IT/DevOps functions within large organizations believe that they can develop a better solution than the market.

The reality is that these projects will be fraught with dangers such as:

→ Vague and incomplete specification of requirements.

→ Solutions that fix the symptoms rather than the cause.

→ Lack of senior management commitment.

→ Insufficient IT resources or the required technical skills (capacity and capability).

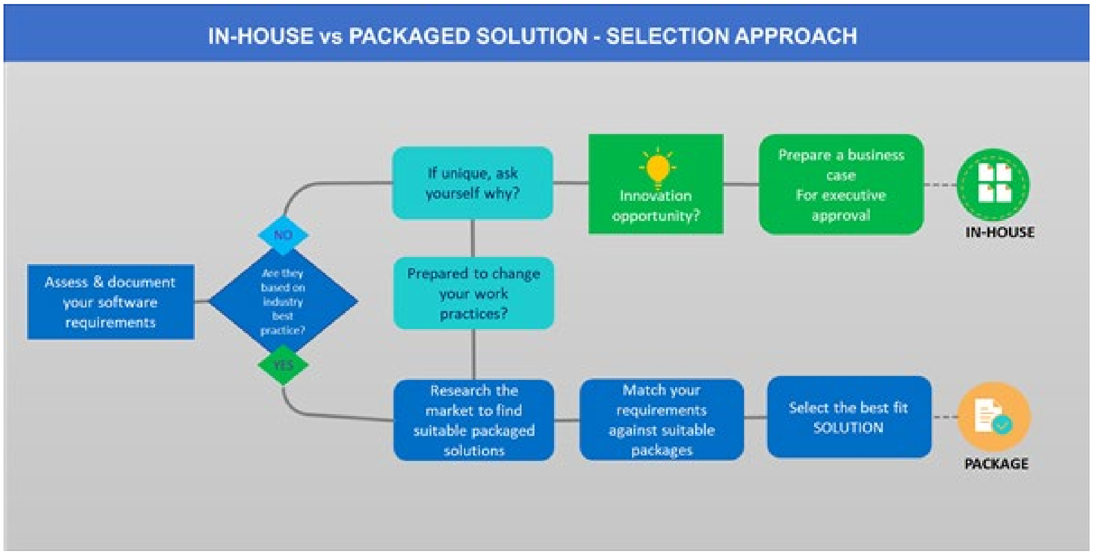
→ Over 80% of in-house projects are known to exceed budgets and timelines.

If, after all these warning signs, you believe that in-house development is an option, consider this question before you proceed:

Is this solution the most cost-effective (in terms of the total cost of ownership), and will it address our business opportunity in the shortest possible time?

If you are proceeding to in-house development, ensure that you are creating something new, and innovative that is not available in the marketplace and that you can make a business case for senior management approval and commitment. As a benchmark, get a quote from a software vendor for developing the exact solution for you. This will give you a better indicative actual cost.

To help in this evaluation, we have put together a logical workflow as shown below:


IN-HOUSE vs PACKAGED SOLUTION - SELECTION APPROACH
Assess & document your software requirements
Are they based on industry best practice?
NO
YES
If unique, ask yourself why?
Prepared to change your work practices?
Innovation opportunity?
Prepare a business case For executive approval
IN-HOUSE
Research the market to find suitable packaged solutions
Match your requirements against suitable packages
Select the best fit SOLUTION
PACKAGE

The Integrify Automation Platform Advantage

- → Costs are reduced and employee productivity is increased by reducing approval cycles, minimizing processing errors and streamlining business processes.
- → Business processes can be created and modified without programming in a matter of hours, and there is no client software installation required.
- → An intuitive Web-based interface reduces the learning curve and extends the administrative capabilities to any area within a company.
- → Minimal training is required for using the system so employees can begin using the processes immediately, and business analysts can quickly deploy and modify business processes without understanding programming or database systems.
- → Integrify leverages existing systems, extending their reach to provide error-free data collection, tracking, reporting and visibility.
- → Integrify can handle many types of workflow processes at either the department or enterprise level, and will manage requests and approvals in HR, IT, Finance or any other area within a company.

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