



Low code and the rapid transformation of your business and it's processes

Low code is the natural technology to implement business process management systems to drive innovation and growth.

Low code is an evolution, rather than revolution of software development. It would be unfeasible for a business to build an operating system from scratch, so why are so many of our critical business applications relying on manual design and development? In this paper we outline in detail what low code is and what it could mean for your organisation in relation to digital transformation. Specifically;

What are the challenges?	pg 3
Definition and roots	pg 5
Practical applications and examples	pg 6
Expected outcomes when using low code	pg 9
Integration – a key concern	pg 10
Vendors and defining the offering	pg 11
The rise of the citizen developer and the future	pg 12

“Business Process Management (BPM) is a discipline involving any combination of modeling, automation, execution, control, measurement and optimization of business activity flows, in support of enterprise goals, spanning systems, employees, customers and partners within and beyond the enterprise boundaries.”

- bpm.com

What are the challenges?

Ever contracting and expanding budgets means businesses need a reliable and fixed solution to combat risk. When it comes to core processes this often rests on the shoulders of IT. However, the fixed tech budget is dying. According to computingweekly, only 21% of IT departments have a fixed budget in place. Research shows that purchases should align to OpEx not CapEx which is quickly becoming a redundant model for finance, bringing the business and IT department together. Rapid adoption of cloud technology is also applying further pressure as results are expected in a leaner, more agile way.

Further to this, businesses are noting that migration to cloud services is accelerating decision making and pushing aside blockers in business to clear the path for more rapid solutions. It's expected that systems should be able to talk to each other and work in harmony, quickly and with little fuss and this is bleeding into professional behaviours. As a result, there is increasing pressure on IT and those in the business responsible for system deployment to design and deliver quickly, at a reasonable cost.

Looking ahead, IT and business budgets are becoming one and the same, so the solutions they purchase must offer best in class for both sets of needs. When finding a solution, BPM and its management are often key concerns (with a focus on legacy systems) as existing models often emphasise weak practices and limit optimisation.

Before pressing ahead it's key to understand where low code can be useful, so:

What systems are currently in place?

Human intensive examples:

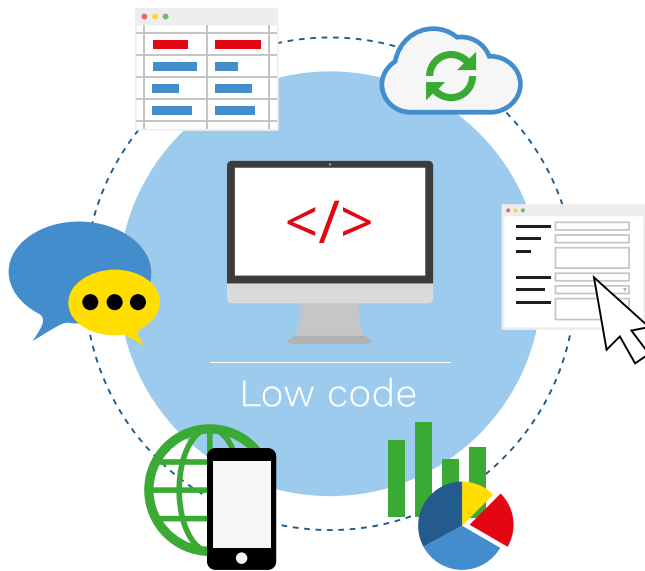
- Claims processing
- Loan approvals
- Travel and vacation requests

System-centric examples:

- New customer and supplier accounts
- Invoice processing
- Industry specific processes, e.g. claims handling, policy binding

Which of the following should the optimal solution be able to do?

- Bring new products/services online quickly and easily?
- Update your existing processes without involving IT?
- See how your business is performing, anytime anywhere?
- Monitor your processes in real time, on desktop or mobile?
- Respond to customers quickly with the information they want?
- Eliminate your reliance on spreadsheets and their inputters?



A low code solution can combine and streamline a number of these needs, and their relative actions. By configuring the appropriate blocks you can retain full control, amend areas your way in which you need to improve efficiency or create a new, optimised version of what you have. Plus, it can be actioned by a team that don't have deep programming skills quickly and efficiently.

EXAMPLE: New data legislation due in May 2018 means that many organisations will need to inspect all systems that handle personal data and make adjustments in line with guidelines. A low code system already in place will allow you the capacity to make corrections quickly to meet new legislation. Separately, you could look to build a new low code system which can automate the actual process of data requests and gives full transparency, giving you complete control over timelines and communications driven by data requests.

Enhancing or replacing brittle and template workflows will:

- Enable changes to be made to these processes without extensive IT intervention
- Increase your overall agility and adaptability in a competitive market

Q How can my existing workforce support this? Will I need to upskill staff?

A You may have heard the term, citizen developer. This applies to any individual you chose to manage your BPM solution who does not necessarily have deep programming skill or knowledge. They should have a basic understanding of how to build processes, but should not need to invest a huge of proportion of their time to evolving the software. Compared with traditional programming costs and timings this is likely the most instant and noticeable change you will feel following deployment of a low code system.

Definition and roots

The concept of low code is not a new one, but the term is. Low code is a natural evolution of technology to support business, fuelled by the explosion of mobile use that has revolutionised consumer and in turn, business expectations.

There is some confusion around it's meaning, and the word 'low' itself can be the main contributor to this. Today's version of low code in fact means zero or no code, as good software ensures teams don't need to write a single line of code. All the elements needed are already built into the application.

Traditionally, for BPM a drag and drop visual method would be used, and this hasn't changed, except there is no need to script behind the visuals – it's ready to go. Now a user can simply pick and tie together the pre-configured blocks relative to the process needs, rebuilding as and when needed.

Low code is already used in a multitude of ways, to move ideas quickly to an audience or market and bridge the gap between complexities of skills needed and reduced talent pool. It means organisations can empower and upskill existing individuals (see Q&A on page 4) already within a business to deliver fast and effective BPM platforms without long delays for training, testing and deployment.

There is also a high variation in degree of technical ability and deliverability. On one end there is off the shelf option, which requires adherence to a strict, basic process and also lay in some code. At the other, you have a full configurable system with all possible modules built in, from which an optimal system can be designed, trialed and deployed.

low-code

noun

- also known as “zero code” or “no code”
- previously known as RAD (rapid application development) and 4GL (fourth-generation language)

synonyms: Zero code; no code; script free; infrastructure as code; Fully customisable; intelligent automation; digitised process management; aPaas

applications: Open up budget to invest in business development; Free up your staff to concentrate on growth, not BAU; Measure the impact straight away with a tailored reporting system; Implement a system that can change the day you need it to.

“Application development platforms that enable rapid application delivery with minimal hand-coding, and quick setup and deployment.”

- Forrester Research 2016

Practical applications

When low code is adopted specifically to process management, the result is:

- a streamlined upskilled workforce
- reduced costs
- faster turnaround times
- confident data management
- targeted goal keeping and analysis
- future proofing
- real competitive advantage.

The speed and ease of a true low code solution empowers businesses to quickly build systems, or make changes and test these before they go live. Removing reliance on a separate department with varying priorities or an external service with additional configuration fees means system users can respond to business needs instantly and deliver on your commercial objectives. **The risk of trial is eliminated.**

A low code platform will:

- Create the system needed.
- Reduce cost and risk of change.
- Automate laborious and manual processes.
- Free up IT time.
- Generate purpose built reporting.
- Safeguard data and enforce transparency.
- Utilise legacy systems more effectively via critical integration.
- Plug operational gaps quickly.
- Make the system accessible – this is critical if a system must respond to a legal or legislative issue, especially with a team on the move.

True low code solutions allow for scale so as a business grows so can it's processes **in real time and without compromise**. This eliminates the risk of further need for investment later down the line and keeps processes under tight control.

It allows companies to bring many or all elements under a single system. What used to require a manually generated email can now be triggered via a workflow meaning those responsible can be fully confident it's working as it should. This also helps eliminate the risk of human error and reduces resource requirements freeing up precious manpower.

Good practice, best practice – what's the difference?

Strong foundations on which you can confidently lean on for growth - start with what is best for your customers.

An authentic low code solution allows the construction of a best practice model. The difference being that an internal team who understands what is needed can make the changes when they're needed.

Example: Updated policy information may only take days to deploy, not weeks or months. Good practice is the demonstration of intent which is often diluted by internal challenges. Best practice is action and keeps users and customers at the heart of the business.

Tip

Build bridges between your processes and critical legacy systems by onboarding the help of knowledgeable integration specialists during the specification assessment stage so that you can really understand your challenges now, and later down the line.

“Business leaders demand more solutions to win, serve and retain customers; adopting a Low-code application platform is often the response.”

– Forrester Research, Vendor Landscape: The Fractured, Fertile Terrain of Low-Code Application Platforms, January 2016

Industry examples - how low code can work in practice

1. Compliance, call handling, policy and claims management

The scenario: The regulator is announcing some changes. Take the recent FCA updates to complaints handling for example. What constitutes a complaint is different to what it was in the past.

- How will you ensure that Operations knows how to deal with these complaints?
- How can you prevent compliance officers being bombarded with internal queries?

How low code software helps: You can embed a ‘triage’ into the system complete with all the rules to ensure the complaints are handled in the correct manner. The key point here is: the operations guys don’t have to know all the rules: the system knows which route they should flow down based on pre-selected criteria.

2. Marketing, events management, costing

The scenario: Your CMO wants her team to demonstrate ROI on a recent networking event.

- How will you capture information currently held in an Excel spreadsheet?
- How will you accurately report and analyse that information?

With low code software, you can: Set up electronic forms to capture all the information needed. Marketing team members for example can pull information from the finance system in order to create projects and budgets. They can then interact with the BPMS when it comes to costing events, capturing delegate information, and the number and types of leads generated. Follow-ups and next appointments can be scheduled within the software, ensuring no opportunities slip through the net. The marketing manager can view how the team are doing at any time through pre-defined online dashboards configured around KPIs such as cost per lead.

3. Insurance, underwriting, brokerage

The scenario: Brokers are progressing a quote which includes an important message to their underwriters. Right now, your system knows to send the quote to all underwriters who are destined to review the quote. However, the workflow only sends the message containing critical information to Underwriter 1 – all the other records generated from the ‘request quote’ fail to receive it.

- Can you change the system in-house – or do you need to call in the consultants?
- How will you accurately track and capture the information while you wait for the fix?

Using low code software, a business owner can: Step in and alter the process to fix the problem. As there is no code to worry about, they can make the required change without calling IT. When it comes to extending the system – adding functionality to handle a new risk product for example – a components-based system will make this a simple and cost-effective process.

4. Recruitment, employee onboarding

The scenario: The HR department is struggling to deal with the number of CVs coming into the business. Using spreadsheets and manual methods is slowing down the recruitment process for several reasons:

- Information is provided in multiple formats, making it difficult to pre-screen candidates
- Successful candidate data has to be re-keyed into the back-office, increasing errors

Using low code software, the HR team can: Review all potential candidates’ information centrally – whether submitted by your own website or via that of an agency. Alerts tell agencies when a position comes online, reducing wasted time. In-built scoring criteria make light work of pre-screening candidates for the right combination of skills and experience. Automation enables successful candidate information to be updated into the back office system without rekeying, paving the way for a smooth and accurate on boarding process.

“Low code systems are allowing critical transactions to drive and enforce internal governance, increasing efficiency and confidence in those processes.”

- Sean Brownell, FLOvate Solutions

Expected outcomes when using low code for your BPM system

Most systems are not split and fractured by design, but by a need to deliver a specific outcome at that time. Most companies would admit to some of their BPMS as being a collective group of different outcomes driven by varying needs and parameters. Streamlining via low code will enable companies to bring all human and automated processes together, allowing full confidence in its BPM and optimising the value to the business.

By adopting a best practice BPM suite, a great deal can be achieved in a short space of time. Primarily:

- Improved productivity and efficiency
- Increased visibility and control
- Increased competitiveness
- Improved bottom line

By employing a true low code solution, then it is also possible to future proof and bring products to market more quickly by:

- Meeting upcoming regulations quickly and with ease
- Improving information gathering and visibility
- Speeding up approval loops
- Digitising products and services.

This can be achieved firstly by clearly defining the ways in which organisations can achieve commercial goals and understanding the outcomes by which it can measure success.

Example action and outcomes

• Remove human interaction from routine tasks (automation)	• Shorter process cycles
• Increase digital activity - reduce manual admin work	• Reduced time spent on manual activity
• Boost communication - central access to documents and records	• Increased visibility / accountability
• Improve business / IT relationships - fast & cost effective deployment	• Better collaboration
• Best practice dissemination	• More positive process outcomes

“Hand-coding is too slow to develop and deliver many of the applications that companies use to win, serve, and retain customers. Faster delivery is the primary benefit of these application platforms; they also help firms respond more quickly to customer feedback after initial software releases and provision mobile and multi-channel apps.”
- Forrester Research 2016

For a step by step guide to process mapping, visit www.flovate.com/bpm/process-mapping-guide/

Integration – a key concern

It's likely that any process created will need to plug into other departments systems and tracking processes. If you are unable to absorb these into your own BPM system you must be confident that the software you use is able to cleanly communicate with these legacy systems. Whilst the mechanism may differ from system to system, the concepts behind integration best practice remain consistent. A good, low code system will provide the ability to map and transform data within a framework that is flexible enough to cater for your business roles, workflow triggers and validation routines.

The cloud is also critical for speed and scale; computingweekly.com research statement illustrates this perfectly:

“For us, it's an arms race to the cloud and people can't get there quickly enough. Now performance in the cloud can outperform on premise and the tipping point is performance.”

You should look to ensure that the middleware is capable of transmitting data via a range of standard protocols. For example:

- Email
- FTP/SFTP
- HTTP
- Web service
- File based

More bespoke requirements may be created by a vendor to suit your specific needs.

Middleware should store pre and post data status to provide a fully transparent audit trail plus allowing administrators visibility of the data through the server.

“IDC predicts that by 2018, over 60 percent of new apps will use cloud-enabled continuous delivery and cloud-native application architectures to enable faster innovation and business agility.”

The Importance of APIs

Vendors should have an API that makes it easier to integrate with their software and this should be well documented. A key challenge for some low code systems is providing an API that is flexible enough to deal with a system that can change quickly and often.

Q How can I best avoid integration challenges?

A The software you decide upon will be reliant on your data and existing database management system. It's likely you will need a bespoke system that takes into consideration your specific trigger points and data transformation requirements. Essentially, you must pick a vendor with strong best practice integration experience.

Vendors and defining the offering

Low code software offers the ability to create and amend a business' own bespoke software solution without having to write any code at all.

Organisations claim to offer specialist services but often these are sometimes a branch of a non-specialist firm. The power of the solution is critical but it is equally important that you have access to real process excellence expertise. Key to understanding how to deliver the one needed may require the support of an **experienced business analyst** that can help identify and understand where the opportunity is to improve a process.

“Clay Richardson, an analyst at Forrester Research, defines a low code platform as one that enables fast application development and delivery with a minimum of hand coding. The platform should be easy.”
10 November 2014

Traditionally the process would begin with the collation of requirements via a mixed but specialist team, complete the architecture and design then build the code internally. This can take a very long time and often the requirements will shift, resulting in another inflexible process that does not fully deliver what is needed. Getting to the core of what a process needs to achieve can be a challenge, but once a plan is in place, strong foundations would have been laid for agility and operational growth. A team experienced in best practice and effective deployment will be critical in achieving this optimal solution, and be able to support an organisation through this process.

“Draw from a solid foundation of actions. If you need to write even one line of code then you may need to compromise further down the line.”

The rise of the citizen developer and the future

As more companies drive effort into building bespoke systems from which they can build solid practices and gain access to big data, we can expect to see a rise in workforce that will need to be capable of actioning and managing the software in house. Roles between IT and management will continue to merge as business objectives require these traditionally separate divisions collaborate more closely.

We can also anticipate an impact on employee productivity and the more rapid deployment of products or services to market. Companies that continue to rely on legacy systems and manual handling will find they struggle to compete as end users and customers become more familiar with improved service. Developers overall will remain critical, but their focus will shift from BAU support, allowing for room within business for true innovation.

By 2020 we will see a huge deficit in workforce capable of programming - this means we can expect to experience an increase in pressure on the bottleneck on an already stretched IT department. Businesses that evolve a citizen workforce will allow room for role migration and free up more skilled individuals. They can then to focus on growth and change initiatives rather than BAU and primary systems maintenance.

As more companies engage in digital transformation, there will be an increasing demand for solutions able to meet the needs of business looking to harmonise all their digital activity (front and back of house) and low code providers are set to play a critical role.

Working with budgets

Low code is becoming increasingly mainstream but some vendors are still relying on traditional billing methods which no longer line up to flexing IT budgets. Forward thinking suppliers should be able to offer a pricing solution as bespoke as the software. Companies will look for flexible and innovative contracts which will allow them to grow as they need to, without compromise.

Centralisation

Finally, we will see a continued trend towards the centralisation of all departments with specific process needs, managed and controlled by IT without the need of labour heavy support. Continued workforce flexibility will also be key in driving the need for systems and processes that are accessible and usable whilst on the move. Mobile apps will surge in business use and increased responsiveness as a result will fuel more rapid growth in areas that adopt technology capable of meeting it's challenges.

58% of companies claim to be in the middle of digital transformation

computingweekly IT Digital Transformation Research 2016



FLOvate can offer a true low code, fully configurable solution without compromise.

FAST • POWERFUL • AFFORDABLE

Build, don't buy – LEAP™ has a multitude of actions based within the below core tasks.

Features to consider to define your process in low code, and perhaps consider some valuable additions.

- Easy to define process forms for use in a workflow
- Integrated document templates, scanning and indexing
- Intelligent process automation, event based triggers
- User tasks and workflow queues
- Drag and drop dashboard designer
- Collaboration tools, e.g. chat and SMS messaging
- Cloud based deployment for 24/7 user access
- Cost effective & low risk subscription fee
- Component based 'toolkit' approach
- Geared towards business/IT collaboration

Please contact a member of our Solutions Team at solutions.team@flovate.com or call 0330 111 0570 if you would like any advice or support regarding low or business process management systems.

LEAP™ from FLOvate is a zero-code BPMS that allows business users to innovate fast, without the restrictions of traditional software development methods. To learn more or to book your 30-minute demo, simply get in touch.

flovate.com/contact-us



powered by
FLOvate
SOLUTIONS

T. 0330 111 0570
E. solutions.team@flovate.com
www.flovate.com

FLOvate Solutions
IP-City Centre
1 Bath Street, Ipswich
Suffolk, IP2 8SD