



Achieving Digital Transformations with Low Code Development

How 'low code' development and Platform as a Service infrastructure is helping businesses deliver connected, agile software applications

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Introduction

This paper is intended to set out how organisations can (and are) leveraging Low Code development on Platform as a Service ('PaaS') infrastructure to help expedite their digital transformation by delivering connected, intelligent business applications in a secure environment.

What is Digital Transformation and what purpose does it serve?

'Digital Transformation' is a bit of a buzzword. It's one of those ethereal objectives that people talk about in boardrooms, but what does it mean and why should you want it?

Digital transformation can mean:



Meeting the expectations of customers

Increasingly tech-focused customers expect things to happen instantly and 'right first time'. They want an always-on, 'digital' experience where they can self-serve, use apps and transact without waiting for your team to manually process requests.



Being better at integrating

Clients, supply chain partners, data partners, government authorities; most forward-thinking organisations are digitising the way people can access their services. Digital transformation is about accessing data from third parties and providing instant access to your customers.



Creating efficiencies & enabling the workforce

Digital transformation involves reviewing processes in a business that can be more efficiently carried out by systems than people. It's also about allowing your teams to focus on working on a more complex level; or better serving your customers in a way that your systems will never be able to.



Reacting to a changing market

Digital transformation is partly about having systems that are agile enough to react to change. It's about seeing an opportunity in the market and being able to use agility of system design to take advantage of it, instead of concluding that your systems are holding you back.

In summary, well-executed digital transformations should bring better customer experiences, more efficiency and a more resilient, reactive business.

What is low code?

'Low code' is a method of developing software or applications that keep the writing of specific code to a minimum.

On low code platforms, the majority of applications can be developed 'declaratively' by configuring options on the platform rather, than writing code. The advantage of this is that it takes less time and is less expensive to develop functionality.

Traditional Development



Low Code Agile Development



There is little to no code to develop and test. If user testing determines that changes need to be made, these changes simply involve reconfiguring options on the platform. Building applications using low code can be between 6-20 times faster than traditional coding (according to Forrester™). The freedom to make changes, test and change means that software development becomes considerably less challenging.

Developing on low code platforms lends itself to agile development methodology, where the focus is on delivering useful features throughout the process and iterating, rather than agreeing the exact 'end goal' specification at the outset. Developing in this way is becoming increasingly popular because it allows the process to be more fluid and responsive to challenges. It also begins to deliver tangible value more quickly.

What features are common across low code platform applications?

Given that low code platforms tend to serve the needs of businesses seeking to build their own applications, they tend to have some degree of commonality when it comes to functions.

Typically, low code platforms will provide the following:

- **Relational database** - Low code platforms allow users to develop their own objects (the things they want to track) and the fields of data that relate to those objects. There will usually be a relational element, i.e. the ability to cross-reference and associate records of different types (e.g. matching 'Patients' to 'Appointments' in a medical records scenario);
- **Tracked communications** - a method of recording interactions, including call records, emails (with varying levels of integration) and documents;
- **Diary and task management** - the ability to create future tasks like meetings or calls and drive reminders for these;
- **Profiles/User rights** - the ability to determine different types of user profiles that provide right of access to groups of records within the system and to edit/delete records;
- **Reporting and dashboards** - The creation of reports and, typically, dashboard views that will refresh from live data in the platform;
- **Connectivity** - Low code platforms are almost always configured to be 'open', with modern Application Programming Interfaces ('APIs') that will permit live transfer of data between systems.

Additionally, some platforms will provide features like:

- **Automation** - The automatic creation or updating of records based on changes to other records or time triggers;
- **Portal view** - The option for external users (typically customers or partners) to access their records and, subject to permissions, make edits;
- **Skills-based routing** - Pushing work to team members based on acknowledged skill sets (e.g. technical knowledge or language capability) or based on workload capacity relative to other team members (pushing work to the least busy!);
- **Artificial Intelligence** - AI algorithms that will help predict outcomes or suggest actions, based on historical data experiences;
- **Mobile user experience** - The ability to access applications in an app, to complement a desktop user experience.

Low code platforms are designed to cast a wide net. There might be literally thousands of use cases for low code systems, ranging from finance applications, customer relations, HR, legal, operations and other functions within a business.

As such, the high level functionality of these systems is designed to cope with the diverse needs that an individual customer might present.

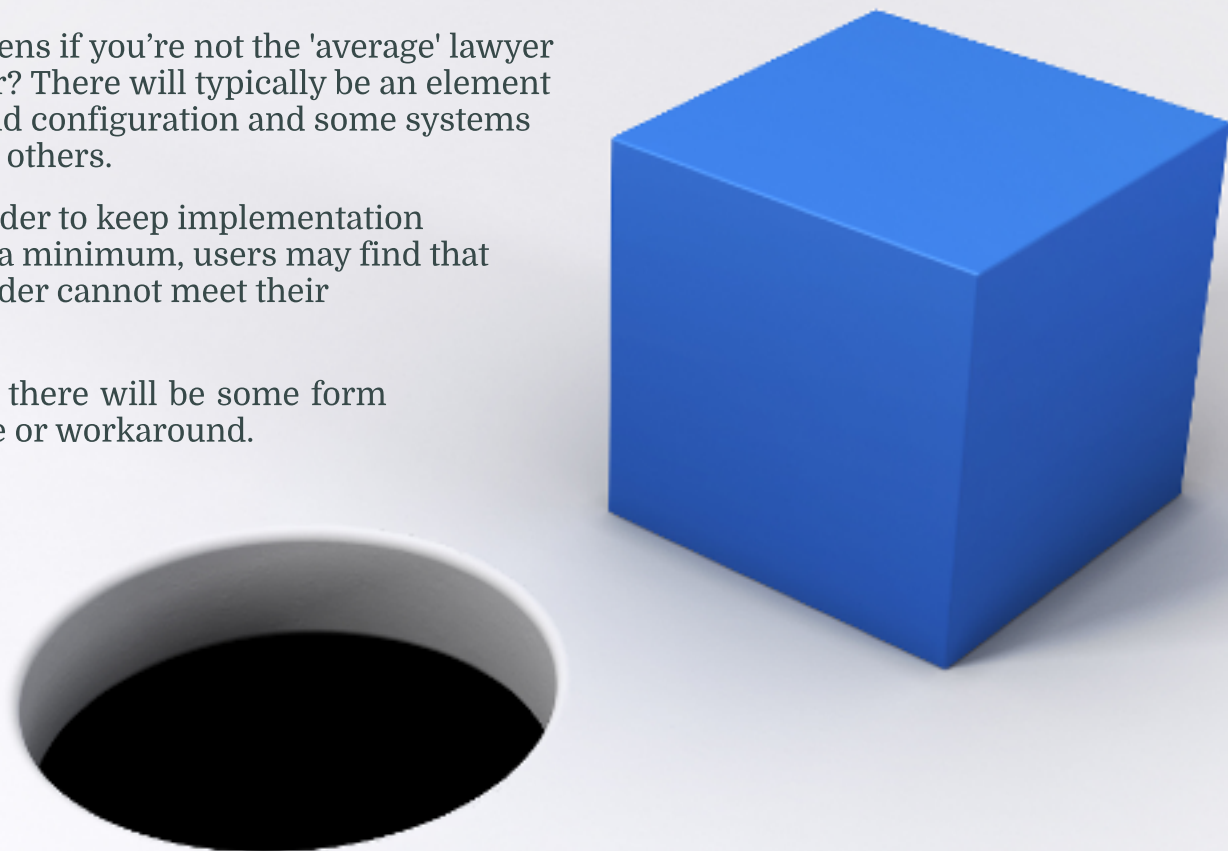
Low Code Development vs 'Off shelf' Software

Software tends to be designed for a specific use case, with a hypothetical customer in mind. Whether it's a case management platform for a firm of lawyers or an employee online community; the software provider will have a list of features designed to meet the common needs of the lawyer or HR manager.

But what happens if you're not the 'average' lawyer or HR manager? There will typically be an element of flexibility and configuration and some systems are better than others.

However, in order to keep implementation timeframes to a minimum, users may find that software provider cannot meet their requirements.

In most cases, there will be some form of compromise or workaround.



Some software developers have recognised this limitation and more and more providers are hosting their services on low code platforms to permit more flexibility.

What is Platform as a Service?

PaaS allows businesses to run applications without having to maintain hardware infrastructure on their site.

The platform takes the strain of things like updates and network security monitoring. Business continuity with PaaS is also much easier because applications can be accessed from anywhere in the event of a datacentre outage.

PaaS provides all the infrastructure needed to develop and run applications over the Internet. Users can build their own software applications on PaaS and access them in the cloud.

Key advantages of PaaS include:

Improved Performance and Reliability

When user demands of running software increase, on-premise hardware can start to struggle. If systems are on a go-slow it can be really frustrating for teams and it means your business is less productive. If your staff are watching the timer on the screen, they're not getting things done! With PaaS that burden is on high-performance remote servers, so users don't experience delays when usage spikes.



Increased Data Security

With PaaS, servers are located in enterprise datacentres with restricted access. They have failover capability across different sites so that if a datacentre is compromised, one of many others can take the strain. Security for cloud infrastructure is as good as it can get. PaaS providers host critically confidential financial, medical and even government records in environments that meet ISO 27001 standards.



Increased Flexibility

When servers are hosted on site, the business will often be required to buy and install more hardware as needs increase. With PaaS, there is effectively unlimited room for expansion to meet future needs and, again, updating that infrastructure is no longer the user's responsibility.



Conclusions

Digital transformation is something that every business needs to prioritise.

The pace of change in the past decade has been extraordinary as businesses battle with the need to meet customer expectations whilst preserving margin. There are plenty of industry news stories relating to businesses that have failed to adapt to changing models. In many cases, these failures are for the want of new technology.

The businesses that will survive are undoubtedly those that improve efficiency through automation of tasks and those that can learn from and data and deliver better customer experiences using that data insight.

Low code development on PaaS infrastructure is becoming a real front-runner for businesses that need to meet these challenges.

Moving to PaaS platform development makes it easy to build applications for even small groups of users, without going out to market for an 'off the shelf' solution. It facilitates **constant innovation** and allows prioritisation of functionality and design, over writing code.

It means that users don't need to 'settle' for software and they don't need to wait for developers to build from scratch. Development and updating systems can become an ongoing process, supporting continuous improvement.

At Appdraft, we're PaaS converts already, having seen the power of the Salesforce platform and what it can do for businesses. If you're thinking about making the transition to PaaS, let us show you how Salesforce can help.

For more information, contact info@appdraft.com or visit www.appdraft.com