



A brief overview on the progressive transformation of software development from Code to Low-Code/No-Code and now to the disruptive Zero-Code.

Shankar Devarajan

Preamble

Enterprises have large complex legacy software ecosystems that were developed over many years. These systems typically contain several million to sometimes hundreds of million of lines of code. This creates complexity and major maintenance challenges for the IT department which severely impacts their ability to deliver timely future releases within budget. It is estimated that for every \$1 spent on writing a line of code, over \$3 will be spent on maintaining that 'single' line of code.

This maintenance bottleneck combined with compatibility issues among software programs and applications means any small development or enhancement to the system becomes complicated and has to be approached and tackled as a full-blown project with a budget allocation. As things stand today, any new request from a business team now takes the IT department, on average, 18 months to deliver. In today's market environment this is a lifetime. By the time the product is ready for deployment, it is either obsolete or a new nimble Startup has already captured and eroded market share, which further exacerbates the original challenge for the enterprise.

Low-Code & No-Code

Over the past 10 years, many new and novel solutions have been launched to address the coding challenge and its complexities. Entrenched and established players rolled out solutions termed "Low-Code" development. It was essentially "old wine with new wrapping"; they simply created an overlay that enabled mapping of business requirements into a process using a drag-and-drop tool. Nothing really changed as underneath the overlay they were still coding using the traditional methods. This "Low-Code" solution neither addressed the coding complexity, nor did it make it any cheaper or faster. This was just a self-preservation move to address the threat posed by an emerging solution called No-Code.

In parallel to the Low-Code excitement, there emerged an evolved solution called "No-Code" that was addressing some of the coding challenges to speed-up the development process. However, the No-Code platforms were not clean sheet initiatives and thus had many of the same shortcomings, which can only be addressed by coding. So, in that sense, No-Code really means some code. No-Code is relatively new, still evolving, and will have a role to play for the foreseeable future in software development.

Today there are many great companies around the world in this No-Code space and their platforms are suited for boxed solutions and for developing small tactical applications, where the requirement and usage is well-defined, and no major enhancements or changes are expected in the future. It must be acknowledged that No-Code has reduced maintenance cost and in limited form empowered business units to create and launch tactical applications in a relatively short time.

Zero-Code

As the software industry continues to morph, transform, innovate, and evolve rapidly. A new breed of startups has emerged with a new, clean sheet Operating System and Platform that has been dubbed "Zero-Code" by the industry. This Zero-Code platform is a true disruptor that is upending the software industry and its business model, and along the way relegating the IT departments to a support role within enterprises. It is empowering business units and shifting power base and influence from the CIO office to the CTO office.

To build an enterprise grade application at scale you require a full-stack that is made up of 5-layers. (1) Integration Hub (2) Cognitive Workflow (3) Omni Channel UX Designer (4) ML Insights Studio (5) Multi-cloud Capability.

Each of these layers requires coding in the Low-Code and No-Code environment. Zero-Code has disrupted this by completely removing coding from every layer. This is the reason why Zero-Code can deliver enterprise grade applications that are better, faster, and cheaper. Additionally, since its inception, Zero-Code vendors have always kept scale, performance, stability, security, and multicloud capabilities as a forethought and thus all DevOps components are in-built and made a part of the full-stack environment.



Zero-Code has brought about a seismic shift to the software industry. This new revolutionary and disruptive way of developing applications is causing ripples within the established software industry and its ecosystem. Traditional methods of software development, maintenance, and support are all being challenged, and the supporting ecosystem is crumbling. The landscape and role of professional services and system integrators is rapidly changing, and they are scrambling to find a place, purpose, and relevance for themselves in this new morphing and evolving landscape.

Zero-Code platforms have collapsed the development timeline from years and months to weeks. They are intuitive, flexible, infinitely scalable, easy to connect to, and most importantly have no place to write code. This eliminates complexity, bring clarity, and security. Zero-Code platforms allow for the building of frameworks, applications, and functions in blocks that can then be easily assembled and disassembled without interrupting business operations. One can imagine these building blocks as being very similar to Lego blocks and thus they can be easily assembled, disassembled, broken down, and rebuilt without disrupting existing operations. Furthermore, these blocks are reusable and can be shared with other business units within the company, which further reduces development cost and shrinks product launch time.

Finally, the most important element of the Zero-Code platform is that it exists as an overlay that sits above legacy Systems and IT Ops Infrastructure. The Zero-Code Operating System and Studios can seamlessly interact, pass, and exchange data, without disrupting your operations. This unique functionality enables large established enterprises to transform themselves into a nimble player that can now offer unique cutting-edge solutions to their customers in a relatively short time, which now enables them to take on and compete with new emerging startups. This is the value proposition that is most attractive to enterprises, as it offers the transformational pathway and solutions that enables them to rapidly roll out their digital transformation initiatives.

There are only a handful of true Zero-Code companies around the world and VIZRU is one of them.