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On the Radar: Amdocs expands Low-Code Experience Platform with enhanced end-to-end capabilities for universal digital innovation

Summary

Catalyst

The market for enterprise no-code, low-code (NCLC) application-development solutions has entered the mainstream. Given the complexity of modern applications and the high cost of their development, NCLC offers a way for enterprises to produce applications rapidly to meet market demand and at a lower cost. Amdocs has been using an internally developed NCLC solution it built and integrated into its Customer Engagement Platform, part of Amdocs Customer Experience Suite (CES), which it has now made generally available to customers as Amdocs Low-Code Experience Platform.

Omdia view

The market appetite for NCLC solutions is strong and growing, which means there are many solutions in the long tail but most of these are niche and do not address complex enterprise needs. At the top end of the market for enterprise application development there are certain needs that must be met: enterprise-grade

security, scalability (both in the development of applications and for generated applications), and compliance are all minimum offerings. In addition, if an organization is to invest in an NCLC solution to build mission-critical applications it needs to know that there is an active user community, well supported by the vendor; that the skills acquired working the solution will be in demand; and that the vendor has market presence and will be around for the long term. Amdocs fulfills all these requirements, giving it an excellent market opportunity as a player in enterprise NCLC solutions.

Why put Amdocs Low-Code Experience Platform on your radar?

- Amdocs Low-Code Experience Platform, integrated with Amdocs CES, enables citizen developers to rapidly build a wide range of applications. Its versatile and open design makes it an ideal tool for developing applications across various industries.
- This NCLC solution is built to be fully open and independent from the ground up with non-proprietary and standard cloud native code and will deploy to containers and Kubernetes environments. It can also be installed locally as a desktop Studio client on both Mac and Windows computers.
- The platform is experience driven, allowing the creation of pixel-perfect user experiences, a distinguishing feature in the NCLC solutions market. The generated applications feature human-readable code and are not tied to the platform, allowing them to run on any web server. This is a significant advantage over several enterprise NCLC solutions on the market that need to run on the vendor's cloud platform.
- Amdocs Low Code Experience Platform is utilizing the recently launched Amdocs amAIz, an AI platform for generative AI applications, facilitating the application development.

Market context

The market for NCLC tools has grown considerably over the last five years, from being a niche activity to mainstream adoption. One major factor has been digital transformation and the move to the cloud. The challenge for businesses is to modernize their applications with the latest cloud native technologies—such as microservices and containerization—while also dealing with the skills gap in a developer workforce raised on building traditional applications. Modern NCLC tools are the perfect solution because they deal with both these challenges: they are designed for building cloud applications with web interfaces, and their easy-to-use visual interfaces mean developers have an easy ramp up to new skills. Omdia has seen the NCLC solution market rise with the adoption of cloud computing.

Amdocs Low-Code Experience Platform overview

Amdocs has built its CES from the ground up using non-proprietary, standard cloud native technology. The foundational layers are Amdocs Microservices Management Platform and Amdocs AI & Data Platform, and on top of this are Amdocs Intelligent Networking Suite and Amdocs Monetization Suite. Next in the stack is the Customer Engagement Platform, built in collaboration with Microsoft, and situated in this layer is the Amdocs Low-Code Experience Platform.

The low-code solution is typically run as part of the Amdocs Customer Engagement Platform, creating great user experiences for both the businesses using the platform and their end users. Although it is aimed at building end-to-end applications, it can also be run standalone, and some customers are using it to create complete applications that do not leverage the Amdocs stack. Amdocs also uses the solution for its internal application-development requirements: for example, building retail, customer engagement, self-service portal, and call center application products. The solution has no-code capabilities, where the user with no coding skills can use its visual interface to build an application.

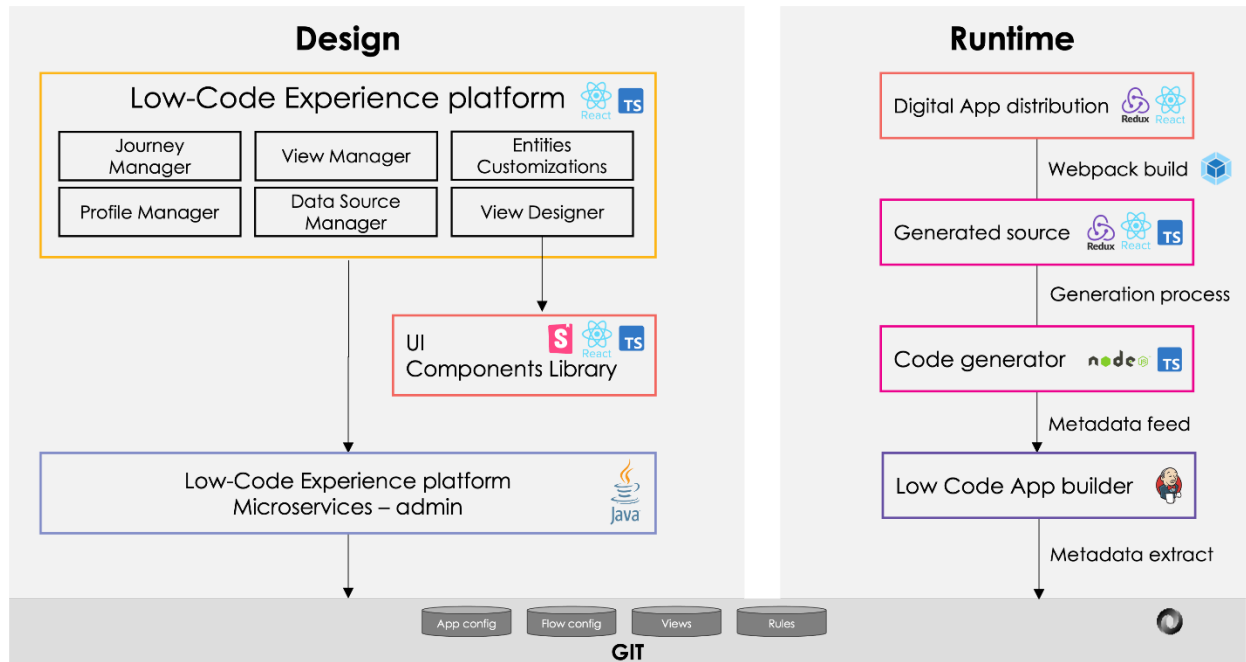
Amdocs Low-Code Experience Platform has its own UI components library, or users can import external UI component libraries built with Angular, React typescript and more. Seamless integration with Figma allows for direct import, reducing design time and preserving design integrity. The deployed application covers enterprise systems such as Salesforce, Adobe Experience Manager, Clarify, Microsoft Dynamics 365, and more, as well as any web server as a standalone application. An architecture view of the solution is shown in **Figure 1**.

The extensive feature set offers a lot of functionality; for non-developers there are tools to help navigate and assist with using these features, such as UI wizards and schema builder for structured data. Amdocs also offers training courses in how to use the solution.

The Experience API Builder provides full end-to-end API authoring capabilities, including testing, debugging, and deployment.

A requirement to create an application that needs to connect to a backend API would normally need to go to an experienced developer but the Amdocs solution has made it easy for a citizen user by giving NCLC for building the APIs.

Figure 1: Amdocs Low-Code Experience Platform architecture view



Source: Amdocs

The Amdocs Low-Code Experience Platform features Workspaces that allows rapid switching between projects and branches, a View Manager to create widgets, templates, data models, themes, actions and pages, a Journey Manager for defining the workflow; a View Designer to create the forms, interactivity and

the user experience; entities customizations for extending the server-side model; data sources to consume data. The View Designer is a WYSWYG, drag-and-drop UI builder. The solution created using these tools is saved as metadata in the form of JSON files and this is persisted in a GIT repository. The UI Components Library can also import external components. Typically, Tier 1 telcos already have their own UI designs so they can leverage these in the Amdocs solution. The default output of the generated source code is TypeScript/React but because the metadata is technology agnostic the user can choose an alternative technology.

In the deployment stage it is possible to add a post-process to the code generation. By default, Amdocs creates a standard module: the generated application is packaged as a NodeJS NPM file and can be deployed anywhere with no ties to the Amdocs solution. However, there are also bridges to standard software platforms, such as Salesforce, Adobe Experience Manager, or Microsoft Power Apps component framework, and others will be added over time.

The Amdocs solution architecture is based on microservices. The generated application can be repackaged as a microservice—for example, internally Amdocs works with OpenShift, where every application is a microservice.

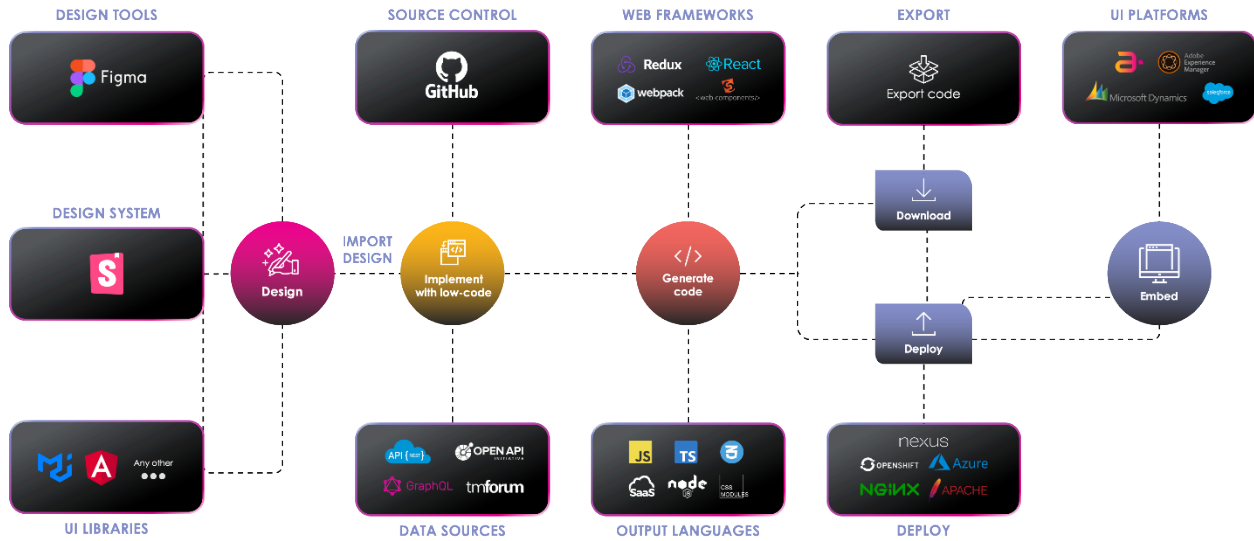
Exception handling and error trapping are areas that are built in. Amdocs has an Inspector that checks code while the user is typing, and output quality reports on global, app or entity levels. In the pipeline are testing tools and quick-deployment features. For 2024 Amdocs intends to add an advanced mock data builder that is context aware, extensive team collaboration tools and integrating generative AI as a way of interfacing with the end user.

A recent addition is integration with Figma, the popular interface design tool. One-click seamless integration imports designs and implements them in Amdocs. Other, recent additions include:

- *System quality dashboard*: Quality reports add component grading scores and error details and can be searched and filtered.
- *Inspector*: A real-time inspector alerts issues by displaying errors and warnings and offers recommendations to guide development.
- *Theme manager*: Look and feel themes with previews can be created and easily applied.
- *Localization*: Simple toggle setting enables language localization.
- *Workspaces*: Facilitates implementers to work individually as well as collaborating seamlessly within multi-skilled teams.
- *Integrated application lifecycle management*: Streamline design, testing, code generation and deployment journeys across various team structures – see Figure 2.
- *Customization layer*: Built-in solution to facilitate core components upgrades with conflict resolution capabilities.

An upcoming innovation is leveraging Amdocs amAlz, the recently launched generative AI platform. This platform creates Copilot assistants in various domains, and these will be embeddable into applications created by Amdocs Low-Code Experience Platform, as well as assist developers in rapidly designing web pages. The AI tooling will be able to create mock data to test designs.

Figure 2: Amdocs Low-Code Open Platform: End-to-End Lifecycle Management



Source: Amdocs

Company information

Background

Amdocs was founded in 1982 and today has over 31,000 employees in over 90 offices globally. The key verticals addressed are telecommunications and financial services. Amdocs is a leading provider of software and services for approximately 400 communications, pay TV, entertainment and media industry, and other service providers in developed countries and emerging markets.

Current position

Amdocs' customers include some of the largest telecommunications companies in the world, such as América Móvil, AT&T, Bell Canada, Singtel, Telefónica, Telstra, T-Mobile, Verizon, and Vodafone, as well as cable and satellite providers such as Altice USA, Charter, Comcast, DISH, J:COM, Rogers Communications, and Sky, plus small to mid-sized communications businesses, mobile virtual network enablers, mobile virtual network operators, directory publishers, and providers of media and other services. Amdocs also holds relationships with hundreds of content owners and distributors around the globe, including MGM and Warner Bros. Discovery.

Future plans

The major additions on the roadmap include extensive team collaboration tools, enhanced generative AI integration, and additional testing tools.

Key facts

Table 1: Data sheet: Amdocs

Product/service name	Amdocs Low-Code Experience Platform	Product classification	NCLC application development
Version number	23.06.01.00	Release date	August 2023
Industries covered	All	Geographies covered	All
Relevant company sizes	Enterprise	Licensing options	Contact vendor
URL	https://www.amdocs.com/	Routes to market	Direct
Company headquarters	Israel	Number of employees	31,000

Source: Omdia

Analyst comment

Amdocs sees how the low-code development market has matured to the point of offering enterprise-grade capabilities and addressing the needs of businesses: fast time to market, business agility and efficient resource allocation. Its solution offers accelerated UI development (for example, by using Amdocs’ starter packs); it can integrate with any backend; it is based on open standards; and it produces open code that entails no vendor lock-in—the code can run independently of the platform because there is no Amdocs runtime component.

While Amdocs’ natural customer target is the telco domain—including commerce, customer care, and billing—and it is integrated into the Amdocs CES, it is designed for any horizontal applications and offers a unified UI platform for assisted and unassisted application development, making it suitable for all kinds of applications: enterprise, portal, and self-service. For example, by using configuration assistance over 90% of application building involves no code. There are essentially three user types of the solution: Amdocs internal developers, Amdocs services that implement customer solutions, and end users.

The solution has a comprehensive feature set to which the roadmap will add AI (important in the current embracing of generative AI), and in Omdia’s opinion this will see Amdocs Low-Code Experience Platform enter the top tier of enterprise NCLC solutions in the market.

Appendix

On the Radar

On the Radar is a series of research notes about vendors bringing innovative ideas, products, or business models to their markets. On the Radar vendors bear watching for their potential impact on markets as their approach, recent developments, or strategy could prove disruptive and of interest to tech buyers and users.

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