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# On the Radar: Amdocs reaches out to a broader market with its Low-Code Experience Platform

## 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 internally an NCLC solution it built on top of 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 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 is available to users of Amdocs CES, enabling telco citizen developers to build applications rapidly. But the solution is not limited to the telecommunications vertical; it is a fully capable application-development tool that can also be used for non-telco-specific applications.
- This NCLC solution is built from the ground up in cloud native technology and will deploy to containers and Kubernetes environments.
- The generated applications are not tied to the platform and can be run anywhere, which is a significant difference over several enterprise NCLC solutions on the market that need to run on the vendor's cloud platform.
- Amdocs has a roadmap of development for the solution that includes AI-assisted development, the use of generative AI (Amdocs has AI-related patents pending), and deployment to any mobile device.

# 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, containerization, and managing Kubernetes environments—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 on 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. Running across the stack is the Amdocs Catalog, which leverages low-code development capabilities too. The Catalog allows products and services, both from within an organization and from external partners, to be pulled together to create new products and services, leveraging existing assets. A business user can apply the low-code solution to Catalog items and shorten time to market by not needing a professional development team.

The low-code solution is typically run as part of the suite that an Amdocs customer has deployed, creating UIs for both the enterprise and end users, on top of complex backends—the kind found in a telecommunications organization. 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 React UI components or users can import external UI component libraries built with Angular, React typescript library, ServiceNow UXF widgets, and more. The deployed application targets cover 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**.

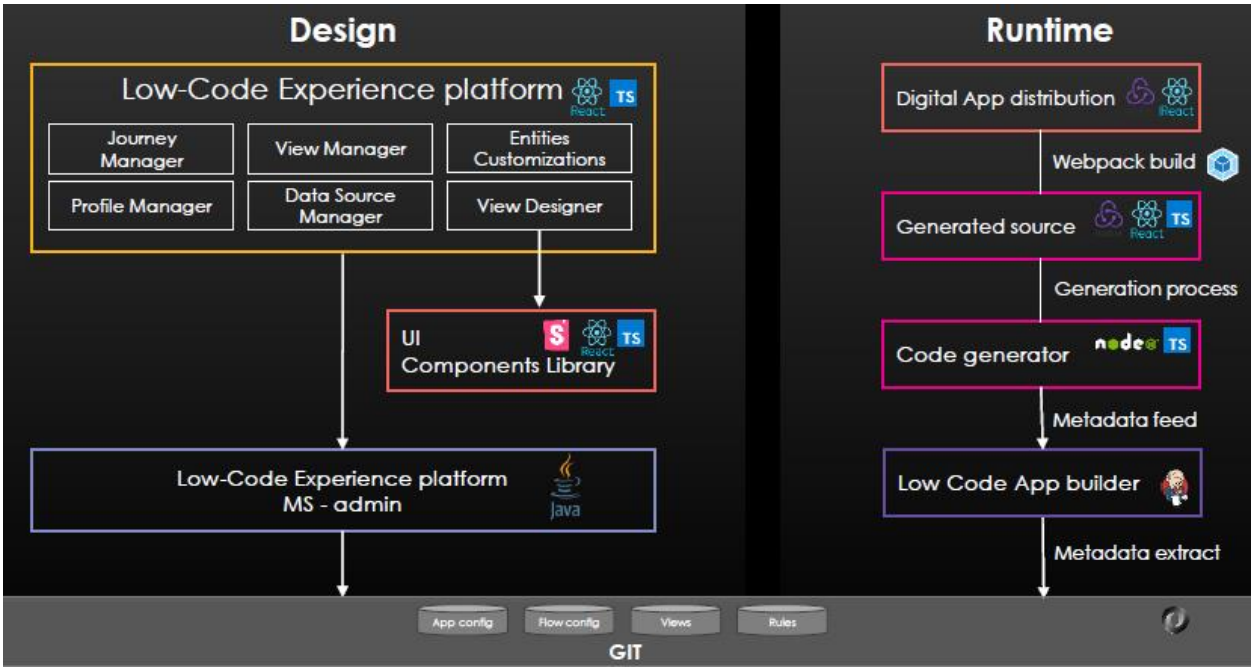
The extensive feature set offers a lot of functionality; for non-developers there are tools to help navigate and assist with using these features, such as UI Card Wizard and Schema Builder for structured data, and Amdocs is building more wizards to assist users. Amdocs also offers training courses in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

The Experience API Manager provides full end-to-end API authoring capabilities, including testing, debugging, and deployment. Generated human-readable code is organized into microservices.

Amdocs is researching the use of AI as part of its solution and although some patent applications are in progress it has not yet released any of this technology.

A requirement to create an application that needs to connect to a backend API would normally need to go to an experienced developer but Amdocs solution has made it easy for a citizen user by simplifying the building of the connector. Amdocs is working with standard open source technologies; the most important three are TypeScript, JSON, and OpenAPI (an extension of the JSON schema), but other tools are used inside the platform such as React, GraphQL, NodeJS, and more.

**1. Figure 1: Amdocs Low-Code Experience Platform architecture view**




Source: Amdocs

The Amdocs Low-Code Experience Platform features a Journey Manager for creating the workflow; a View Manager for the forms and pages; entities customizations for extending the server side model; data sources to consume data, where OpenAPI is used extensively and GraphQL is the data source; and a View Designer, which is the WYSWYG, drag-and-drop UI builder. The solution created using these tools is saved as metadata in the form of a JSON file and this is persisted in a GIT repository. The UI Components Library, which can also import external components, comes ready equipped with two UI libraries: one to address assisted channels, like retail and back-office applications, and the other for unassisted channels, like self-service portals and public websites (needing rapid responsiveness). 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 being enhanced. Amdocs has an inspector (currently in the final stages of completion) that checks code while the user is typing, and work is planned on trapping runtime errors. In the pipeline are testing tools and quick-deployment features. For 2024 Amdocs intends to add mobile/hybrid support, generating mock data, and looking at generative AI as a way of interfacing with the end user and generating metadata.

## 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 midsized 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 mobile deployment, enhanced generative AI integration, and 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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