Abstract

Low-Code No-Code (LCNC) solutions are gaining momentum as they democratize software development for end-users with limited to no development expertise. By challenging the conventional belief about software development being complex, labor-intensive, and time-consuming, LCNC platforms allow non-professional 'citizen' developers – domain experts, analysts, or business users – to create applications five times faster than custom development.

However, as the citizen developers generally operate out of the purview and jurisdiction of IT, they create several issues related to unsupported software and data security threats. A robust governance framework along with control protocols must be in place to tackle these disruptive IT initiatives successfully.

This white paper talks about the challenges and opportunities of LCNC Platform Governance.
Introduction

Gartner predicts that the worldwide low-code development technologies market is projected to total $13.8 billion in 2021 and by 2024, 65% of all app development will be low code. The demand for digital business acceleration, automation, and custom applications has led to the growth of citizen developers. As a large talent pool is involved in creating LCNC applications, most organizations must look at governance as a first step towards getting LCNC deployment right. No governance means no accountability for a variety of unmonitored applications used across the organization.

Depending on their organizational structure and business needs, every enterprise must adopt unique governance models. However, the primary drivers of any governance model remain the same: ensuring the enablement of citizen developers, environment provisioning, and continuous monitoring.

The lack of a governance framework leads to solutions without version controls, creating interrelated solutions, data security breaches, data duplication, and inconsistencies.
An ideal governance model must take the following considerations into account:

**Choosing the Right Use Case**

The first challenge in achieving success with an LCNC platform is choosing the right use cases that can dramatically improve delivery speed and business agility. Identifying the best-suited use cases and understanding the impact on licensing requirements is difficult without a proper structure and an automated guidance mechanism. Poorly organized CDS security metrics result in tables being accessed by any citizen developer in the organization rather than the intended users. The creation of multiple interdependent solutions and non-relational databases can be avoided by determining whether the use case is a citizen development use case or a professional development one. Organizations should be able to manage a reusable digital repository, and at the same time, have an enterprise approval process for onboarding use cases and metric tracking.

**Managing Environments for LCNC**

Typically, innovation happens in pockets of business, and every business unit prefers to build its applications in a dedicated environment. LCNC environments function like proof-of-concept platforms for testing new ideas before conventional development and deployment at scale. However, there are multiple risks associated with LCNC environments leading to data breaches, vulnerable software, non-optimized license usage, regulatory non-compliance, and loss of effort. Organizations can manage LCNC environments better by defining an environment strategy that includes a mechanism to automate management, monitor activities, and approve business users for app development.

**Lack of Data Loss Prevention Policies**

Safeguarding the organization’s data is prime for the success of LCNC platforms as they are usually connected to multiple data sources and external, third-party services. The risk of data leakage and exposing software ecosystem vulnerabilities is high without data loss prevention (DLP) policies that act as guardrails to prevent users from exposing organizational data. Without an effective DLP policy in place, central IT lacks visibility into data movement and has to tackle data breaches and non-compliance frequently.

**Building a Digitally Capable workforce**

Typically, business users refer to online training materials to build applications and automate use cases that may not be scalable. This results in performance issues and poor adoption of the LCNC platform. For LCNC to be done right, it is essential to consider the LCNC governance maturity model that enables business users to train and build apps and automate use cases.

**Managing Run-Time Compliance**

Typically, monitoring run-time compliance on LCNC is a big task. LCNC users and vendors do not provide the required documentation, process, and architecture during the development process. An LCNC platform’s success depends on the governance model and its ability to enable capabilities that can help track run-time governance for the enterprise. The compliance rating scale for the applications being built must also be considered, ensuring all the sign-offs are completed before deployment.

**Reusability**

In most enterprises, the LCNC build repeatability is minimal, owing to the lack of a central repository for reuse, a citizen-developer maturity model for enhancing repeatable build consistency, and a support mechanism or a community development framework for platform support.

**Scaling Governance Across the Enterprise**
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