"Manual documentation of changes; lengthy change-approval delays; large, biweekly face-to-face CABs; and reviewing all changes, regardless of risk, are no longer essential or suitable to a **modern change practice**."
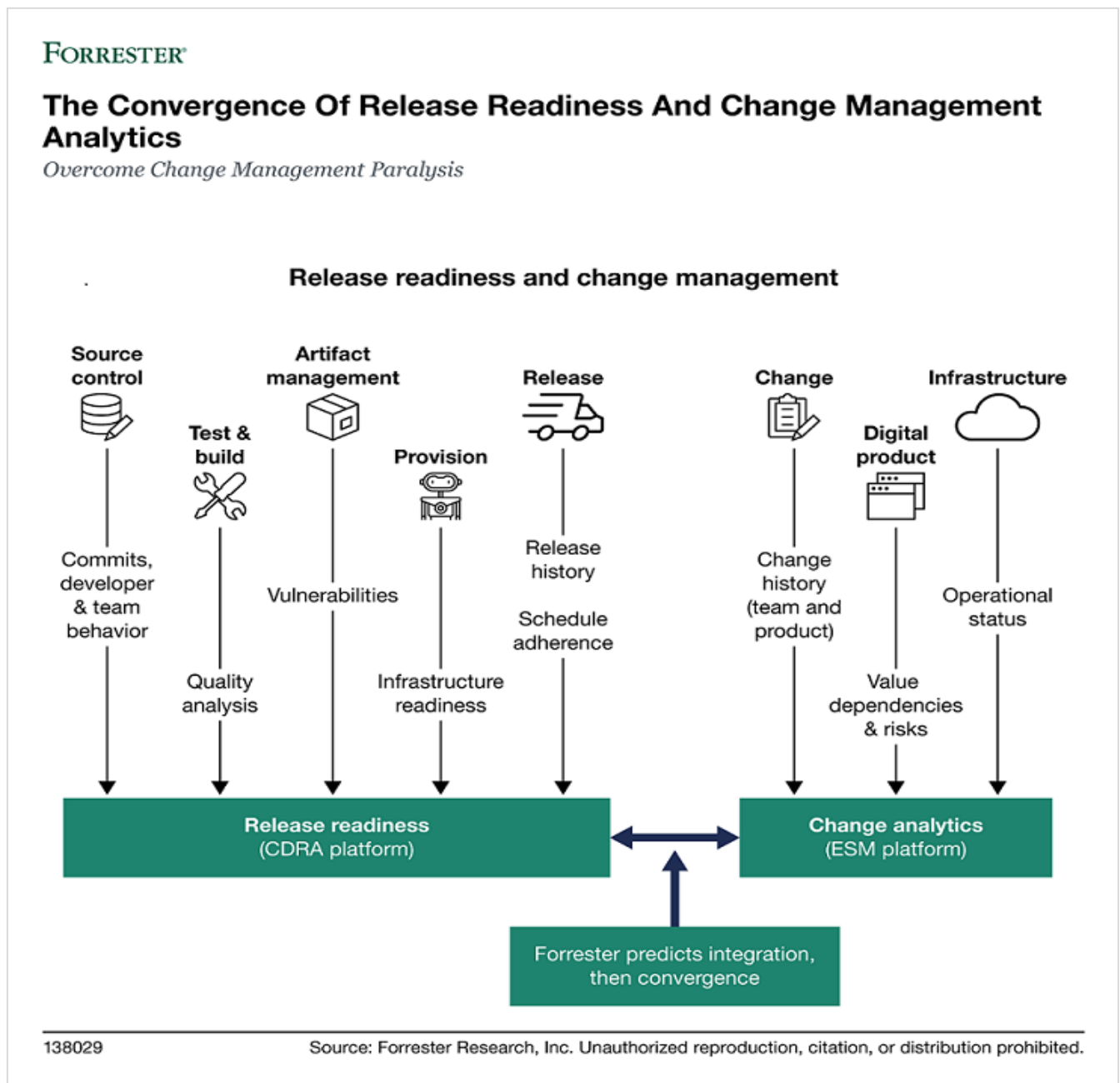
- **Forrester** [1]

A slow and inefficient Change Management process

- Hampers revenue.
- Risks critical Business IT Infrastructure.

This has sparked a need for synergizing Agile/DevOps Practices within ITIL framework to "**Overcome Change Management Paralysis**"

-**Forrester**[2]

FORRESTER®

The Convergence Of Release Readiness And Change Management Analytics

Overcome Change Management Paralysis

Release readiness and change management

Source control — Commits, developer & team behavior

Test & build — Quality analysis

Artifact management — Vulnerabilities

Provision — Infrastructure readiness

Release — Release history / Schedule adherence

Change — Change history (team and product)

Digital product — Value dependencies & risks

Infrastructure — Operational status

Release readiness (CDRA platform) ←→ **Change analytics** (ESM platform)

Forrester predicts integration, then convergence

138029   Source: Forrester Research, Inc. Unauthorized reproduction, citation, or distribution prohibited.

Change Management Overview

ITIL based Change Management Process Flow typically comprises of the following 3-steps after a change has been identified:

Change Planning & Assessment	Change Implementation	Change Verification and Closure
Data Gathering from ITSM. Pre-Implementation Verification. Documentation. Approval.	Technical Execution within the stipulated time. Back-out execution within the stipulated time.	Post-Implementation Verification. Documentation. Ticket Closure.

Traditional Approach in Automation of Change Management

In general, the focus of ITPA (IT Process Automation) has been the automation of the technical implementation on the target systems. However, in a robust ITIL process driven environment's this hardly comprises of 80% of the total efforts required in execution of a change.
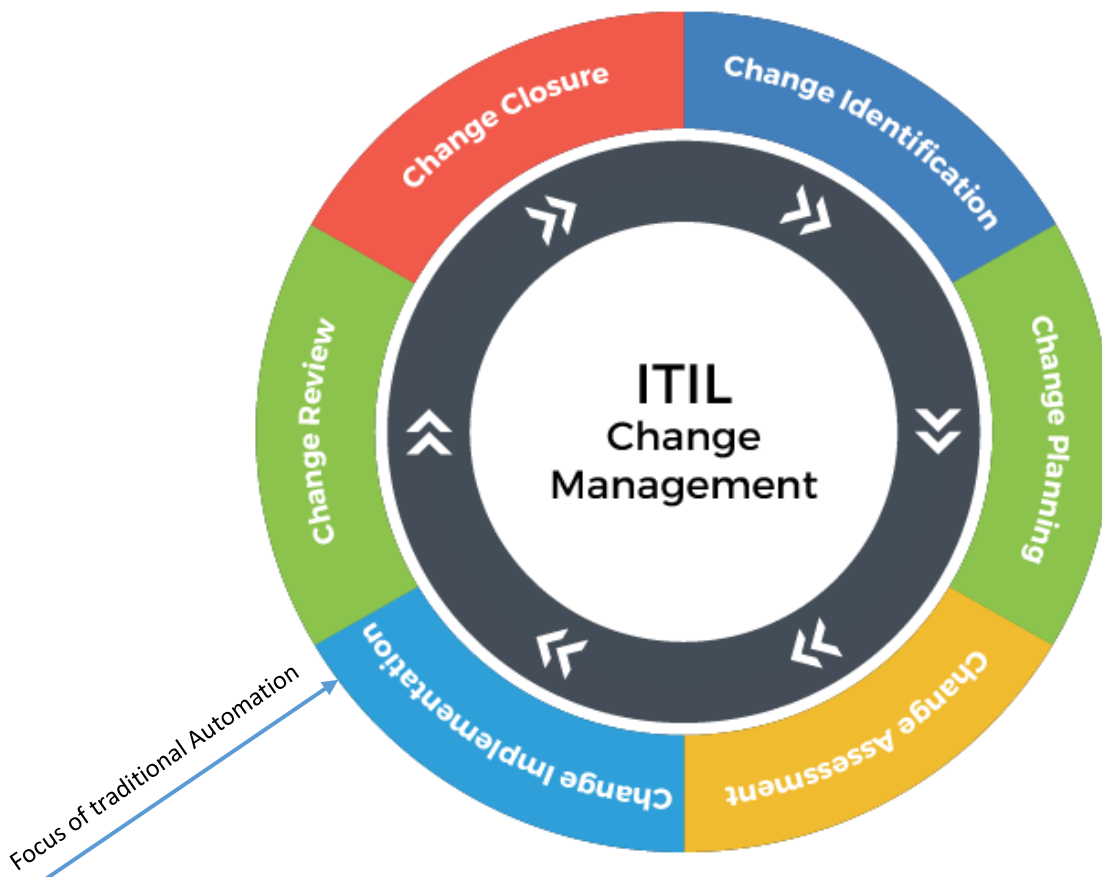
This is a sound approach when the number of changes in the system are low, highly complex and non-repeating. However, the same approach is crippling in a highly dynamic and agile environments governed by CI/CD pipelines. The number of daily changes in such environments are mostly repeatable and in high volume. The amount of time spent in the 80% of these high change volumetric environments is off-the-roof. Tasks Data gathering from ITSM tools, Documentation, Following the approval process and diligently updating the ITSM tool, currently are human dependant and need a radical approach to be automated.

Enter Hyperautomation

Gartner Forecasts Worldwide Hyperautomation–Enabling Software Market to Reach Nearly $600 Billion by 2022.[3][4]

As per Gartner Hyperautomation[5] is a business-driven, disciplined approach that organizations use to rapidly identify, vet and automate as many business and IT processes as possible. Hyperautomation involves the orchestrated use of multiple technologies, tools or platforms, including:

- Artificial intelligence (AI)/Machine learning
- Event-driven software architecture
- Robotic process automation (RPA)
- Business process management (BPM) and intelligent business process management suites (iBPMS)
- Integration platform as a service (iPaaS)
- Low-code/no-code tools
- Packaged software
- Other types of decision, process and task automation tools

Conclusion

It turns out that traditional DevOps practices that tried to break the silo between the IT Admin and the Developer only took care of the automation of the technical execution of the process and didn't take the overall business process, quality, governance & business outcomes in its stride.

Hyperautomation seems to be the key piece to this jigsaw. However, it needs a multi-disciplinary approach and contribution across the board from various layers:

- Business
- IT
- Quality
- Governance

The Path to Hyperautomation

Task Automation
(Rules, RPA)

Process Automation
(Workflow and iBPMS)

Business Operations
(DigitalOps)

Simple Automation ······························► **Hyperautomation**

Event Processing
APIs and Feeds
Adaptive Architectures

Conversational UX
Chatbots, Smart Speakers
Virtual Assistants

Intelligence
AI and Machine Learning
Advanced Algorithms

Gartner.