# Using Rule Technology to Ensure a Single Source of Truth

Enterprise architects and IT teams continue to be faced with delivering technologies and applications that keep pace with the increasing paceof business. As business moves faster, so must technology and the deployment of solutions. This has given way to Bimodal IT and Shadow IT, adding new layers of complexity to teams responsible for mission-critical systems.

Bimodal IT, termed by Gartner, shows the contrast between predictable, stable IT processes (Mode 1) against quick, agile, innovative IT processes (Mode 2).

**Bimodal IT** highlights the contrast between predictable, stable IT processes **(Mode 1)** and fast-paced, agile, innovative IT processes **(Mode 2).**

Mode 2 is all about innovating, exploring and moving fast. For example, an IT team may quickly deploy a web portal in response to business demand for enhanced customer experience and self-service. However, in the interest of time, the application isn't wired through the main application – the focus is on fast delivery to keep up with the market and customer demands. While this speedy deployment often placates the business, it creates another repository of logic. When the logic changes, unless the revisions are made everywhere with 100 percent accuracy, mistruths take root.

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Shadow IT refers to the consumerization of IT and comes into play when the business takes technology-related action without involving IT, often as a result of a perception that the team isn't moving quickly enough. The business seeks out applications or products that meet their objectives and deploys the technology themselves. In many cases, IT doesn't know about the deployment so there's no governance, which presents a problem because it's inconsistent and there are no corporate standards applied to its use.

Bimodal IT and Shadow IT present enterprise architects and IT teams with a variety of challenges, including diluting an organization's system of record or "single source of truth."

With data and decision logic, when more versions exist, more mistruths run through an organization. These mistruths can affect both the business and their own internal standards, as well as industry regulatory compliance.

As IT teams and enterprise architects strive to reduce organizational mistruths, they must contend with business logic and data that are smeared across, and often hard-coded within, numerous applications.

## MOVING TO A SINGLE SOURCE OF TRUTH

The way to overcome the multiple mistruths that can result from Shadow IT and Mode 2 is to centralize business logic through the deployment of rule technology.

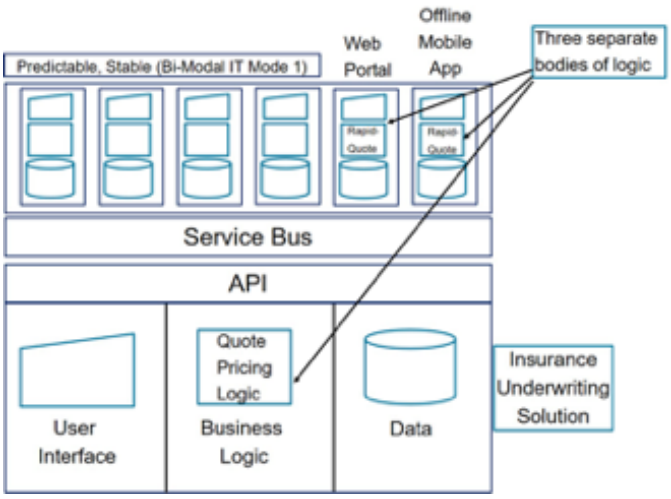
Rule technology promotes consistency and a single source of truth for an organization's business logic and calculations. Rule technology also optimizes the deployment of business logic additions and modifications by allowing the changes to be done with ease by both developers and business people, and without the need to push out application updates for every change.

Gain a single source of truth by implementing rule technology that can deploy the logic anywhere – client-side, server-side, connected or disconnected.

However, not just any rule technology will mitigate the issues brought on by having multiple mistruths. It is important to select rule technology that can deploy the logic anywhere – client-side or server-side, and in connected or disconnected environments. This ensures that users, regardless of their location or degree of connectivity, can all access the same centralized business rules and calculations.

### EVOLUTION OF A MISTRUTH: A HYPOTHETICAL EXAMPLE

he N-Tier application example, shown at right, demonstrates how over time and with the demands of the business, logic can easily become duplicated, and in some instances, end up watered down and incorrect. This example is built around an insurance underwriting solution.




At the base of the graphic, the core underwriting application is comprised of a user interface, business logic for quote pricing, and data. However, in this instance, the business decides that they need a web presence to allow agents to get quotes off the web and allow customers to generate quotes at their convenience.

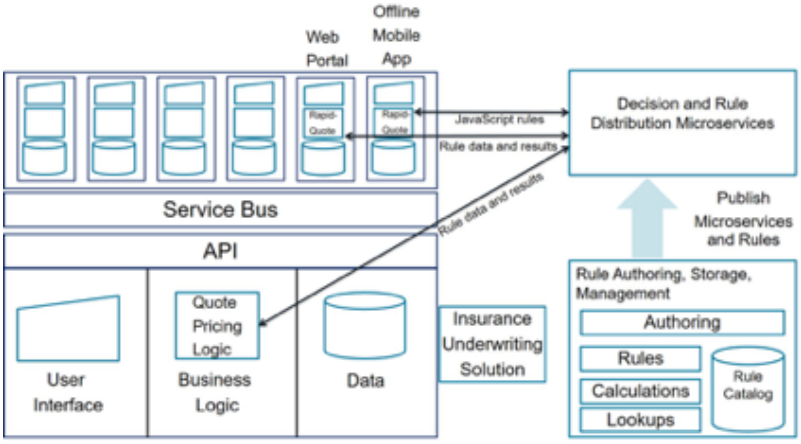
To meet this need, the IT team adds a web portal called "Rapid-Quote" that runs and is responsive on the client side, in the browser so that quoting can be as efficient as possible. The only issue with Rapid-Quote is that the team didn't tie it into the main underwriting application because they needed to be deployed as quickly as possible and they already knew what the logic

should be. Additionally, as a proof point to the concept of Shadow IT, the team from the business side also added an offline mobile app for tablets to give to insurance agents in the field. In the interest of time, they engaged an outside provider to build the app, and therefore it has its own logic and that mirrors the logic within web portal and the main underwriting application.

The result is three separate bodies of logic, across three applications, all trying to achieve the same thing for the business – flexible, efficient quoting for agents and customers. Unfortunately, there is no consistency with how the logic is defined and the bodies of logic are likely written in three different programming languages. This creates challenges when rules must be added or if existing rules need to be modified.

## CENTRALIZING LOGIC WITH RULE TECHNOLOGY

The diagram below shows an alternate way of leveraging business logic across applications. Deploying rule technology allows the organization to centralize business logic, separating it from application code and ensuring its consistency across the main insurance underwriting solution, the web portal and the offline mobile app.




Rule technology provides the ability to author, deploy and execute rules. The rules are stored in the rule catalog and can then be published for consumption by a web service to make the decisions (decision service) that are separate from application services or they can be published out as rules that can be distributed to places where they need to be run.

With the main application, rule data is sent to the decision service and it passes back the desired results. The web portal in this scenario requires another web service call but it is calling the same rule service as with the main application so it sends back the same results. Lastly, in the offline mobile app, rules can be distributed via JavaScript and the rules can run offline and the decision logic matches the logic used in the main application and the web portal.

The resulting agility and transparency help overcome the issues brought on by Mode 2 and Shadow IT.

## USE CASE: DENTAL INSURANCE PROVIDER

A dental insurance provider in the Midwestern United States offers benefit services, claims processing, plan administration and services to employers. This insurer serves more than 1.8 million subscribers and their family members and strives to offer products and services to help it maintain its competitive edge.

To help drive business for its sales team, the insurer offers a web-based quoting tool. The original version had several limitations, including that the decision logic was housed in a 4,000 line PHP file that called 10-15 tables throughout processing. A single change to the organization's quoting logic required at least a two-week turnaround, allowing IT time to sift through the large and cumbersome PHP file. In addition, most changes also had to be updated in the organization's main system.

Deploying rule technology **reduced the time for logic changes by an average of 95 percent**, saving valuable time and ensuring the organization had a single source of truth for its business logic.

When the organization deployed rule technology to manage their quoting logic, they saved valuable time as the logic is centralized and not buried in code.

Since the deployment of rule technology, the time required to create a new rating plan within the system has been reduced by 95 percent.

To learn more about how business rule technology can mitigate Shadow IT and Mode 2 issues , please click here. You can also request a free trial of InRule and try out rule technology for yourself.

| | ORIGINAL QUOTING PLATFORM WITH HARD-CODED LOGIC | QUOTING PLATFORM ENHANCED WITH RULE TECHNOLOGY |
|---|---|---|
| FACTOR CHANGES | 16 – 20 hours | 15 – 30 minutes |
| ALGORITHM CHANGES | 16 – 20 hours | 1 – 2 hours |
| RATING NEW PLANS | 38 – 45 hours | 1 – 3 hours |