

Review Article

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Enhancing OmniStudio Components Deployment for Salesforce ISV Partners

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ABSTRACT

OmniStudio is changing how Independent Software Vendors (ISVs) develop and share experiences and user interfaces across various Salesforce industry cloud solutions following Salesforce's acquisition of Vlocity. This article offers an in-depth look at OmniStudio's features and key elements, as well as a workaround for ISVs to easily distribute these elements until Salesforce makes them packable. The article also discusses the obstacles ISVs face when using OmniStudio and the creative workaround solutions to overcome these obstacles.

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Received: September 06, 2023; **Accepted:** September 13, 2023, **Published:** September 20, 2023

Introduction

OmniStudio became the Salesforce 1 platform functionality for industries cloud as part of Salesforce's Velocity acquisition in early 2020. OmniStudio is a no-code tool initially designed and developed by Velocity to build industry-specific applications within the Salesforce platform. It allows customers to build guided interactions and dynamic user interfaces to implement complex business processes without extensive custom coding.

Independent Software Vendors (ISVs) faced difficulties utilizing these features for their application development and distribution due to OmniStudio's metadata limitation on packability. This article delves into OmniStudio's progression and sheds light on the creative workaround ISVs can adopt for developing and distributing their applications using OmniStudio components until Salesforce resolves the packability issues for OmniStudio.

Overview of OmniStudio

OmniStudio no-code tool to build guided interaction with rich and dynamic user interfaces and deploy them in many channels, including Salesforce platform for internal users, experience cloud for external users, mobile experience, etc. Whenever we create and publish an OmniStudio component, it internally creates a Lightning Web Component, so we can deploy an OmniStudio component wherever a Lightning Web Component can be deployed.

OmniStudio is now part of Flow for Industries in Salesforce, formally known as Digital Process Automation (DPA). Data Processing Engine and Business Rule Engine are some of the other features of Flow for Industries. As the name says, Flow for Industries is only available for Salesforce Industry Cloud customers like Manufacturing Cloud customers and Financial Services Cloud customers. It is not available for Salesforce Sales or Service Cloud customers. So, if you are an ISV partner serving industry cloud customers, OmniStudio will be one of the core tools for you to design and build complex business processes.

There are four main functionalities within Omnistudio.

1. OmniScripts

OmniScripts is one of the core components of Omnistudio's digital experience layer. OmniScripts allows users to create dynamic customer interactions without code and deploy to multiple channels and devices. OmniScripts has a visual interface designer that helps users to design screens that guide them through tasks like filling out forms, processing orders, or troubleshooting issues. Omniscrypt provides reusable components, conditional logic, and integration capabilities that make Omniscrypt versatile and allow it to build dynamic and responsive user interfaces.

2. FlexCards

FlexCards is another user-interface component of Omnistudio's digital experience layer. FlexCards allows users to design and create components that display contextual data in a visually appealing way. FlexCards can pull data from multiple sources and present the data in a format that is easy to understand and digest at a glance. FlexCards are highly configurable and reusable. FlexCards also has a visual interface designer. The primary difference between FlexCards and OmniScripts is that FlexCards are read-only, and OmniScripts allow users to perform actions.

3. Integration Procedures

Integration Procedures are one of the core components of Omnistudio's service management layer. OmniScripts and FlexCards are UI components for Omnistudio, but Integration Procedures and DataRaptors are server-side processors. Integration Procedures can execute multiple actions in a single server call and enable efficient data retrieval, transformation, and manipulation. They can work with Salesforce data and external systems using REST API callout and can also invoke an Apex class method. Integration Procedures can be invoked from OmniScript or as a data source for FlexCards.

4. DataRaptors

DataRaptors is also part of Omnistudio's service management layer, like the Integration procedure, but DataRaptors is more of a mapping tool for reading, writing, and transforming only Salesforce data. Data Raptors offer flexibility and reliability as they can be easily customized and reused to handle data workflows effectively within Omnistudio while boosting efficiency and maintaining uniformity across different applications and processes.

Challenges for Salesforce ISV Partners

Omnistudio became part of Salesforce through the Vlocity acquisition. The Vlocity team never had access to the Salesforce Metadata layer as an ISV partner, so they architected Omnistudio in such a way that it stores the Omnistudio metadata as records in custom objects' records. Even though Salesforce migrated Omnistudio into the core Salesforce platform after acquisition, the platform also stores these definitions in Salesforce standard objects, not as part of the Salesforce 1 platform metadata layer.

Traditional Salesforce managed packages both 1GP and 2GP never supports packaging standard or custom object records. Hence, ISV partners can't package Omnistudio components such as OmniScript, FlexCards, Integration Procedures, and Dataraptors. This limits Salesforce ISV partners from distributing Omnistudio components to their customers.

There are two approaches usually available for distributing Omnistudio components. One is a manual export of Omnistudio components from the development org and a manual import into the customer org. The second approach is using IDX Workbench and running CLI commands for migrating Omnistudio components from one org to another. Both of these distribution approach for Omnistudio components involves manual steps and they are not scalable for ISV partners.

ISV Friendly Solution

In order to address these challenges Salesforce ISV Technical Advisory team came up with an ISV-friendly workaround. Please note that the final approach is to get Omnistudio components packageable. This is only a workaround until Salesforce makes Omnistudio components packageable.

Now let's get in to the details of the workaround. This ISV-friendly workaround uses components that are available for packaging such as Salesforce Flows, Static Resources and executing the flow through a Post-Install Script.

The ISV partner will develop their Omnistudio components like FlexCard Dataraptors ect. In a normal developer org or their partner developer org. Once they complete the development and unit testing, the ISV can use the flow to export the Omnistudio records into a CSV file.

As I mentioned before, Omnistudio components metadata has been stored in Salesforce standard objects. So, we can migrate the records between Salesforce org and they can be Omnistudio components can be recreated. So, the first step is to download the objects records into a CSV.

Once we download the Omnistudio components into CSV, the ISV partner can include the CSV files into their package. We recommend the ISV partners build this as an extension package. So, it will not create any dependencies for their core package. The

partner can include a Post-Install script apex class to run after the package installation or upgrade and insert these CSV file records into respective Omnistudio objects. This will allow Omnistudio components to be available in the customer org.

This approach will get the Omnistudio components created in the customer org, but the customer administrator user will need to activate those components manually.

Benefits for ISVs

This innovative method offers a range of advantages for ISVs by boosting scalability and enabling them to distribute Omnistudio components to customers more easily and effectively. The automated deployment system enhances efficiency by streamlining the process of deploying these components within customer org while reducing time and effort. Moreover this approach makes adoption easier, for ISVs by leveraging Salesforce tools and procedures making the transition smoother and more user friendly.

Conclusion

Salesforce's new approach to packaging and distributing Omnistudio components represents a significant advancement for ISVs. By addressing the challenges associated with the previous distribution methods, Salesforce has empowered ISVs to leverage Omnistudio's powerful capabilities in their solutions. This approach not only enhances the scalability and efficiency of ISVs' offerings but also opens new opportunities for innovation and customer engagement [1-5].

In the future, as Salesforce continues to invest in Omnistudio and its associated technologies, ISVs can expect even greater enhancements to the tools and processes available to them. This will further solidify Omnistudio's role as a critical component of Salesforce's industry-specific solutions and a valuable asset for ISVs worldwide.

References

1. Salesforce Developers, "OmniStudio Developer Guide," Salesforce Help. https://developer.salesforce.com/docs/atlas.en-us.omnistudio_dev.meta/omnistudio_dev/
2. Salesforce, "OmniStudio Overview," Salesforce Industries. <https://www.salesforce.com/products/industries/omni-studio/overview/>.
3. Salesforce Blog, "Unlocking the Power of OmniStudio for Industry Solutions," Salesforce Blog. <https://www.salesforce.com/blog/>.
4. TechCrunch, (2020) "Salesforce Completes Acquisition of Vlocity," TechCrunch. <https://techcrunch.com/2020/06/01/salesforce-completes-1-33b-vlocity-acquisition-as-it-looks-to-dominate-the-verticals/>.
5. Salesforce Industries, "Healthcare Cloud: Transforming Patient Care with OmniStudio," Salesforce Industries. <https://www.salesforce.com/solutions/industries/health/overview/>.

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