



Salesforce Communications Industry Framework

Data Integration Strategy, May 2016

CONTENTS

- Summary 1
- Background 1
- High-Level Design 2
- Current State 2

Summary

The Salesforce Communications Industry Framework is a key enabler for communications service providers to incorporate modern, cloud-based capabilities in support of integrated customer engagement and customer relationship management across disparate front-end channels and back-end business support systems. A key component of the framework is the TM Forum-based Communications Industry Data Model and a supporting data integration mechanism that will allow CSPs to fully leverage the data model across Salesforce's rich ecosystem of independent software vendors (ISVs) on the AppExchange. The data model is a Salesforce defined, communications industry-specific data model that describes the objects (e.g. accounts, contacts, orders, assets, billing) and fields, including relationships between objects, that are core to customer experience / front-office use cases and back-office support system integrations. The supporting data integration mechanism will enable ISVs to map their private data models to the Communications Industry Data Model without requiring any additional customization by a system integrator or customer. This will reduce barriers to integration between a customer's back-end business support systems and an ISV, including reducing barriers to integration between two or more ISVs operating within a customer's environment.

Background

When a communications service provider becomes a Salesforce customer and is provisioned with a Salesforce org, they gain immediate access to all of Salesforce's standard objects and related, out of the box functionality in support of integrated customer engagement and customer relationship management across key marketing, sales and service functions. Customers that need to deploy capabilities that go beyond out of the box features can elect to extend the Salesforce standard data model or create custom data models and configure or code additional capabilities within their org. However, since Salesforce is an open platform with a built-in framework to incorporate applications from a rich ecosystem of ISVs on our AppExchange, we recommend buying capabilities instead of building them. To the extent that ISVs typically need additional data to drive their applications, they may elect to add additional custom fields to Salesforce standard objects and/or deploy new custom objects within their namespace or maintain data (and logic) on an ISV-managed platform and deploy a connector to the customer's Salesforce org to facilitate access to their application. Regardless of the deployment model, the incorporation of ISV applications can result in distributed data, whether distributed across the standard and ISV namespaces within a Salesforce org or across the Salesforce org and ISV-managed platforms. A customer that needs to, for example, read an order from a particular ISV application, or share an order between ISV applications, must grapple with custom code to map data to/from ISVs. In addition to this up-front cost of customization, the customer would also have to grapple with the on-going costs of evolving the custom data mappings as ISV data models evolve, up to and including the associated costs of failing to update mappings in lock-step with ISVs and incurring data quality issues. The data integration mechanism within the Communications Industry Framework is meant to address these challenges by providing a layer of abstraction on top of ISV-specific data models, with out-of-the-box support by participating ISVs.

High-Level Design

The data integration design leverages the Salesforce [Lightning Connect](#) framework to expose the objects within the Communications Industry Data Model as [external objects](#), which are similar to custom objects, with the exception that their associated data is stored outside of the Salesforce org or within a different, underlying custom object within the Salesforce org. In the case where data is stored outside of the Salesforce org, an ISV would main an OData REST API that the Salesforce platform would call whenever associated external objects are queried or manipulated (e.g. insert). In the case where data is stored within a different, underlying custom object, the ISV would implement the [Apex Connector](#) framework to read/write data to/from a custom object whenever the associated external object is queried or manipulated. Either way, a customer would interact with external objects that conform to the Communications Industry Data Model specification and would be buffered from ISV-specific data models, and, therefore, relieved of the task of creating custom data mappings. As the Communications Industry-specific and ISV-specific data models evolve, Salesforce will leverage a formal governance model to work with ISVs to maintain alignment, and ISVs will refactor their OData REST APIs and Apex Connector framework implementations to ensure continued alignment, which will also unburden customers from the task of on-going maintenance, with the exception of incorporating new objects and attributes that may be added to the Salesforce specification over time.

Current State

The data integration design has been successfully prototyped within Salesforce and is undergoing more elaborate prototyping and design within our ecosystem. We have not yet determined the release timeline for the data integration mechanism, because we are in the early stages of design. As we gain visibility on the end-state design and timeframe, we will publish this through our industry channels.

© Copyright 2000–2016 salesforce.com, inc. All rights reserved.

This document may contain forward-looking statements that involve risks, uncertainties, and assumptions. If any such uncertainties materialize or if any of the assumptions proves incorrect, the results of salesforce.com, inc. could differ materially from the results expressed or implied by the forward-looking statements we make. All statements other than statements of historical fact could be deemed forward-looking, including any projections of product or service availability, subscriber growth, earnings, revenues, or other financial items and any statements regarding strategies or plans of management for future operations, statements of belief, any statements concerning new, planned, or upgraded services or technology developments and customer contracts or use of our services. The risks and uncertainties referred to above include – but are not limited to – risks associated with developing and delivering new functionality for our service, new products and services, our new business model, our past operating losses, possible fluctuations in our operating results and rate of growth, interruptions or delays in our Web hosting, breach of our security measures, the outcome of any litigation, risks associated with completed and any possible mergers and acquisitions, the immature market in which we operate, our relatively limited operating history, our ability to expand, retain, and motivate our employees and manage our growth, new releases of our service and successful customer deployment, our limited history reselling non-salesforce.com products, and utilization and selling to larger enterprise customers. Further information on potential factors that could affect the financial results of salesforce.com, inc. is included in our annual report on Form 10-K for the most recent fiscal year and in our quarterly report on Form 10-Q for the most recent fiscal quarter. These documents and others containing important disclosures are available on the SEC Filings section of the Investor Information section of our Web site. Any unreleased services or features referenced in this or other presentations, press releases or public statements are not currently available and may not be delivered on time or at all. Customers who purchase our services should make the purchase decisions based upon features that are currently available. Salesforce.com, inc. assumes no obligation and does not intend to update these forward-looking statements.