

Salesforce Certified Technical Architect

Mock Scenario
Greens and Veg

Created by Andrew Hart. Certified Technical Architect.

Director of Architects, OwnBackup.

This is not to be used without my knowledge and permission.

andrew.hart@btinternet.com

<http://cta202.com>

<https://www.linkedin.com/in/andrewjameshart/>



Own{backup}

Scenario

Instructions

For the hypothetical scenario described below, the candidate will have 180 minutes to read, evaluate, and document a high-level architectural solution. The solution should:

- Address where the Force.com platform will and will not be used.
- Describe how the Force.com platform portion of the solution will interact with the other systems needed to complete the solution
- Identify any potential key risk areas.

The candidate should target the presentation to a technical IT architecture audience. In cases where requirements are not explicitly stated for the scenario, the candidate should use their best judgement and make appropriate assumptions based on the information provided. The candidate should indicate to the review board any assumptions that were made when designing the proposed solution. The candidate will not have an opportunity to ask clarifying questions related to the hypothetical scenario.

The candidate will be evaluated on their ability to assess the scenario requirements, design a solution, communicate the proposed architecture, and justify the design decisions. The candidate will not be evaluated on the tools used for the presentation.

Project Overview

Greens & Veg (G&V) are a wholesaler of salads, vegetables, garnishes and other short-term perishable, farmed items to the restaurant industry.

G&V act as a broker, playing middleman between farms worldwide and restaurants in Europe

They have two distinct revenue types:

- Farmers (called suppliers), who pay a % of all sales to use the G&V services. There are individual farms, as well as conglomerates.
- Restaurants (called customers), who pay a recurring monthly registration fee to be connected to the 'marketplace'. G&V has independent restaurants and chains as customers.

G&V's systems have been a mix of bespoke and COTS, have grown organically and so they are looking to consolidate onto a single system as much as possible, and Salesforce has been selected to meet these needs.

G&V's main office is in Mexico City, where most operations activity is carried out. They also have offices in Dublin, Ireland and Singapore. They operate globally, in over 200 countries and have a number of satellite offices worldwide, mostly working in managed space or remotely.

Current Systems

1. A **custom LDAP** that is used to store identity of all users. G&V would like advice on how to better manage separation of suppliers, customers and internal users.
2. An Access-based system for **Service Enquires** (such as issues with orders, or poor quality goods, payment issues, etc.). G&V would like to retire this and migrate all cases to the new system
3. A **registration portal** designed and managed by an external agency that is used for registration of both suppliers and customers. G&V would like to bring this 'in-house' to increase agility for future changes, and reduce costs. Other than the portal, the website is fairly static and G&V feel it is due a refresh.
4. EverGreen: A **supplier-facing portal** that allows entry of crop forecasts. Suppliers generally update the system monthly, listing items (from a static list that G&V maintains) and quantities that they expect to have available.
5. A Genesys-based **telephony** solution, including soft phones on the terminals. The licensing deal is due for renewal. G&V are happy to consider options as long as there is feature parity with the current solution.
6. A custom-built '**Market Place**' app. This presents all available produce to customers, based on aggregate forecasts from what is entered by suppliers, and also uses geolocation information to ensure that deliveries can be done in a timely manner. This was developed in-house, and is seen as fit for purpose. G&V are expecting to keep this system, but will replace it if there is a good case to do so. There is a REST-based api available.
7. **NetSuite** back office. This handles all invoicing and is expected to remain. NetSuite has a number of integration options available.

Neither EverGreen or MarketPlace have mobile applications available, and work imperfectly in mobile browsers. G&V would like advice on how to improve the mobile experience as this is something customers and suppliers have asked for.

G&V only currently provide support by telephone and email and would like to increase both deflection and self-serve metrics.

G&V have a vision of tracking every piece of produce from 'farm to plate' and would like advice on how best to do this as part of this project's scope

Users

1. Customer Account Managers

Every restaurant (or chain/group of restaurants) has an account manager. This account manager needs to be able to view all information about their accounts, including cases and three years of order history.

2. Customer Account Director

'Large' Chain restaurants (defined as those having more than 50 locations) have a small team, with a Customer Account Director in overall charge, with Managers responsible for separate markets.

Premier customers, which may be smaller than 50 locations, are also allocated a CAD.

3. VP CAMs

CAMs are arranged regionally. There are 6 AVPs that act as escalation and approval points for each region.

4. Supplier Agents

SAs handle all relations and 'business as usual' contact with the suppliers.

There are also Supplier VPs for each region.

5. Service Agents

From the main offices, G&V provides support to suppliers and customers. There is no routing or assignment in place and the queuing is imperfect. SLAs are hard to monitor and adhere to because of this.

A subset of the team handles all financial queries. These cases should only be visible to this team.

6. Service Agent Partners

In some markets, G&V provides support in local languages via partner organisations. These partners require access to account records in their market only and on an as-needed basis. They need to be able to raise and view open cases for these customers.

7. Product Managers

PMs operate within a product category (root vegetables, for instance) and have global responsibility for sourcing and monitoring quality.

Business Process Requirements

There are variations from country to country, in terms of statuses, pick list values, some processes and ways of working. But the following outlines the core processes

1 - New Suppliers

- A. New suppliers complete the online registration process. Part of the information provided is what produce they will be able to provide, which they select from a list.
- B. They are then assigned an account manager and PM(s) based upon data entered. This is currently manual but G&V would like to automate this.
- C. New suppliers will be visited by the G&V team for an inspection of the setup and the quality of the produce, all of which are graded and held on the account record. Only the Supplier Agents and Supplier VPs should be able to view these grading fields.
- D. In some countries, suppliers must provide permits and other government issued-information to prove they are eligible to make sales. The mechanism of this proof varies: some are emailed or faxed to the G&V offices, some provide an electronic data interchange with government systems. When this is required, onboarding cannot continue until this documentation has been provided.
- E. Invoicing terms will be established as part of the onboarding (and at subsequent annual renewals). G&V use DocuSign for this, but have been manually creating contracts and would like to generate them in a more consistent fashion.
- F. All suppliers operate in their local currencies.

2 - Existing Suppliers

- A. Once signed up, suppliers are visited on a recurring, scheduled basis which is determined by a number of criteria including: Number of cases in the last 12 months, total revenue, grading, customer reviews. G&V would like to automate the scheduling of visits: 1 month for 'high touch' customers, to 6 monthly for those with fewer issues and higher quality grades.
- B. G&V would like both the evaluation and the creation of 'visit' activities to be created automatically.
- C. When visits are missed, the Supplier regional VP should be notified.
- D. Most suppliers have annual contracts, and G&V would like a way to better manage renewals in a structured manner. The contract details the recurring costs (% of each sale, etc.) and does not have a fixed fee. Current process is imperfect and in the past, suppliers have been able to access the marketplace and complete sales when being out of contract.

3 - Customers

- A. New customers will also complete a registration form online. They can select which package of membership they receive. There are three tiers: Gold, Silver and Bronze. This gives them early access to orders and other perks related to service, discounts and access.
- B. Customers can place orders as many times as they need. Typically, most customers place 5 orders a week.

- C. If their monthly fee is not received and the invoice status updated in NetSuite, the customer should lose access to the MarketPlace immediately. This has been a manual process so far, but G&V would like this automated.
- D. If a customer has outstanding invoices that are older than 120 days, their access to MarketPlace is revoked until payment is made. This has also been manual, but should be automated as part of this project.
- E. If a customer leaves (or attrits due to non-payment) they are not allowed to sign up again for a period of 3, 6 or 9 months (depending on their contract tier). This has also been manual, but for certainty of this 'blackout period' G&V would also like a way to automate this process.

4 - Orders

- A. Customers can browse the market place, which uses supplier-entered forecasts to aggregate predicted stock available for the near future; the marketplace uses a standard 'basket and checkout' pattern.
- B. Customers can setup recurring orders, that happen on a scheduled basis. Daily, Weekly and Monthly are supported by Marketplace and once setup, these complete with no further action from the customer.
- C. When an order is confirmed, the MarketPlace app uses internal logic to select appropriate suppliers and send email notifications to them. Some suppliers have asked for an electronic data exchange and G&V would like to make this possible as part of this project.
- D. When an order cannot be met, the CAMs and CADs are notified and they contact the customer manually to suggest alternatives.
- E. The matching logic was defined by G&V and can be made available should MarketPlace be replaced.
- F. At this point two invoices are generated by NetSuite and are emailed to the relevant parties.
 - i. One for the customer, that takes the agreed contractual percentage of the sold goods and generates the amount
 - ii. One for the supplier, a simple sum of line items.

5 - Service

- A. Customers can currently only raise cases by telephone and email. G&V would like to expand on this to include live chat in the first release.
- B. There is no automated routing of cases. They are currently all delivered to a single queue (per market). Average Handling Times, and corresponding NPS, isn't great and G&V would like to improve all elements of the case handling process
- C. SLAs are governed by the contract level
- D. Suppliers don't have an explicit contract level.

- E. Upon case closure, G&V would like to issue surveys to determine satisfaction.
- F. All financial queries are handled by a specific team and these cases should be routed automatically and not visible to any other service agents
- G. Identification and Verification is a core part of the initial process and G&V want to keep this, and ensure that there is documented proof that this process has been followed. Each customer specifies a 'Service PIN' as part of their sign up.
- H. When Service Agent Partners are used, G&V would like an ID&V process to take place before any information is visible to the Partner. Once ID&V has been confirmed, the account record should then be visible to the Partner, but only until the case has been closed.

Data Requirements

1. G&V has approximately 1.5 million suppliers and approximately 100,000 customers.
2. Each customer places an average of 10 orders a week.
3. G&V requires order details to be available for detailed review for 3 years, and a summary of the past 5 years for trend reporting.
4. Each customer raises an average of 4 cases a month; Each supplier raises an average of 2 cases a month.
5. G&V would like to see a 5 years history of case information.
6. There are approximately 1.6 million case records in the Access system that need to be migrated. G&V have doubts over the data quality of these cases and would like to have them cleaned and standardised as part of the a migration process.

Visibility and Security

1. CAMs should be able to view all information about their accounts.
2. CADs should be able to view all account records that make up their overall account. (The Gordon Ramsay CAD should be able to view all 35 GR restaurants, for instance, but each manager on this team should only be able to view the GR restaurants within their market). This also applies to order and case visibility
3. Service Agents should only be able to see cases for markets to which they are assigned. This assignment varies on agent skill, experience and languages spoken. Some agents are assigned to as many as 10 markets.
4. Service Agent Partners should only be able to see customers who have passed ID&V, and then only whilst they have open cases. SAPs should only be able to see the most recent 5 orders and 12 months of cases.
5. Cases related to payment queries should only be visible to the Finance Service Agents.
6. The VP of Service should be able to see all cases.

7. Order information should be visible in Salesforce without navigation away to a different system.
8. This includes details of scheduled, recurring, orders.
9. Product Managers need to see all accounts who provide produce within their categories, and all corresponding cases as well as an order summary (but not order details).
10. SAs need to be able to view all supplier records in their region and associated product listings and forecasts.
11. Customers need to be able to view their own cases and orders (past and future)
12. Suppliers need to be able to view cases that are about products that they supplied

Reporting

1. Product Managers need to run reports for all cases for products within their portfolio
2. VP CAMs would like to see all customers who have not paid or are in some other way 'locked out' of MarketPlace
3. CAMs need to be able to report on customers who have not been able to have more than three orders fully completed in the past 3 months.
4. Supplier VPs need to be able to report on suppliers who consistently provide inaccurate forecasts, as these lead to unmet orders or surplus stock

Project & Development Requirements

1. G&V prefer REST-based integrations where possible.
2. G&V have a small development team in Manila who have proven themselves very effective, but who do not know Salesforce at all. G&V would like advice on how to establish best practice.
3. In terms of continuous innovation, the CIO would like to commit to frequent releases and would like advice on how to achieve this with minimal issues, bugs and downtime to minimise operational impact.