Salesforce Certified Technical Architect

Mock Scenario
Musicians Incorporated

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Scenario

Instructions

For the hypothetical scenario described below, the candidate will have 120 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 user his or her 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

Musicians Incorporated (MusInc for short) provide equipment insurance and public liability insurance (PLI) for musicians of all levels: From amateurs playing in pubs and small clubs, to professionals at venues of all sizes right across the world.

Their main office is in New Jersey, USA. And they have legal entities in regional offices in Paris, France; Melbourne, Australia; Buenos Aries, Argentina; Bengaluru, India; and Cape Town, South Africa.

Given the regional nature of the system, they want users to be able to use it in their local languages. This includes English, French, Spanish & Kannada. They also want to support ALL currencies but run overall P&L on USD.

Most of the trade volume comes from amateur musicians, or those provided cover as a perk of Musician's Union Membership. However, MusInc also provides insurance services for professionals both at residence and on tour as a 'high touch' service.

Current Systems

1. There is currently no global CRM system, with each of the offices entering data locally into an Access database. MusInc would like this data consolidated into Salesforce.

2. MusInc use a 3rd party service called ActuaryCalc to calculate insurance premiums. This is a global service and is used by all offices, for sales made in all countries. Currently data entry is manual into a screen however ActuaryCalc have informed MusInc that they do support REST based integrations.

3. Each office has separate telephony in place. This is complicated by the fact that two of the offices (Melbourne and Cape Town) use managed office space in WeWork locations. MusInc would like advice on a comprehensive telephony solution.

4. Active Directory. MusInc uses AD for all users, which currently requires a VPN for access

5. MusInc uses the World Bank Service (WBS) to underwrite its policies. For a policy to be active, it must have been successfully registered with the WBS. World Bank expose a SOAP API.

Future Landscape

1. MusInc would like to introduce an app for their customers to make the application process, evidence capture and claims processing easier. They would like advice on how best to meet this requirement. Note that there is currently no authentication service for customers as there are no services are in place that would require this. MusInc would like to allow customers to use Facebook and Twitter to accelerate registration and login as well as a simple 'register' page for those who do not use these services.

2. The Equipment Partner Managers have explained that serial number checking is possible via an integration to the majority of the big manufacturers. These use a variety of technologies. Note that not all hardware manufacturers provide this (some are very small) however it is expected that >90% of insured equipment would be possible to check. MusInc would like advice on how to take serial numbers and auto-validate equipment details.

Users

1. There are roughly 20 users per office that cover **general admin** and servicing of customer accounts. Updates to records, processing of paperwork, validation of provided photos, serial numbers, etc.

2. **Equipment Claims Specialists**. Roughly 200 globally, including 50 who are dedicated to high value items and claims.

3. **PLI Claims Specialists.** A small, global, team of 10 that handles all PLI claims.

4. Each Region has a **Claims VP** who needs to be able to see all claims and accounts within their region.

5. A small number of **Musician Union Partner Managers** who need to be able to see all memberships provided as Musician Union perks only.

6. There are also **Equipment Partner Managers** for key hardware producers (Fender, Marshall, Gibson, Hartke, etc.) - each manager here needs to be able to see policies that include equipment manufactured by the hardware partner they represent.

7. 50 **Account Managers**, who provide high-touch service to professional musicians.

Business Process Requirements

New customers come to MusInc via three separate channels.

1 - New Customers - Amateur Individual and Band

A. This is for individual users and small bands that come directly to the website. Adverts are run in trade press and on targeted sites to direct this traffic.

B. For an individual user, they provide details of their equipment total value and specifically list any item that is worth more than $1,000. The standard policy provides equipment cover to the value of $10,000 and Public Liability Insurance (PLI) to a value of $1M.

C. For a band, the process is similar except that the total covered is $10,000 per band member. PLI remains at $1M

D. Additional policy add-ons to the policy can makes these values higher. These are handled on a case-by-case basis.

E. MusInc will ask for photographic evidence of equipment over the high value threshold (which varies per country). This is typically a photo of the equipment in its entirety and a second close-up of the serial number. Currently these files are emailed across by the customer and then stored on a network share, but MusInc would like a more robust way to both capture and store the images.

F. The serial number will be cross-referenced across the manufacturers databases (so a Fender Stratocaster s/n will be checked against the Fender DB to get both a) certainty of the product and b) its replacement value). This is currently manual, but MusInc would like this to be automated where possible.

G. There is currently no way for this information to be captured over the internet, but MusInc would like to include this.

H. Payment is taken either as a single upfront payment or by an initial payment followed by a scheduled payment being created. The policy is not active until the first payment is made. If paying on a scheduled basis, the cover will stop if a payment is missed.

I. Agents need to be aware of the status of a policy at any time.

J. Currently payment is taken manually and card details entered into a payment machine at each of the offices. MusInc would like to revisit this and incorporate payment as part of the entire process.

K. Once payment is complete, the policy information is sent to WBS. A response is required immediately to know if cover is valid.

2 - Musician Unions 'Perk' membership

A. The second channel is for musicians who are members of country-specific Musicians' Unions and have insurance provided as part of their membership. In these cases, there are no specific items listed but a standard cover of up to £5,000 for equipment and £500k PLI.

B. Proof of membership of an MU is required to access this perk.

C. The MUs around the world vary in technology, response times, and message format but almost all can be integrated. A separate process will be required for those countries where integration isn't possible.

D. As with individual membership, add-ons to the policy can be purchased as line items. This will incur additional payment.

E. Where payment is required, the process follows steps 1H-K (above).

F. Where an additional policy is not active (due to non-payment) the standard level of 'free' cover provided with this policy remains active.

G. The policy information is sent to WBS. A response is required immediately to know if cover is valid.

3 - Professional Performers and Venues

A. The third channel is professional performers and venues. These are very complex, as they involve large venues, huge amounts of equipment, travel and logistics as well as increased PLI in line with specific venues.

B. This is a much heavier-touch channel and is therefore managed entirely by Account Execs, who generally only work on one or two accounts at a time.

C. If a tour is being undertaken, full details will be required. This includes locations, full logistics, shipping information for equipment, travel information (for performers), country information.

D. ActuaryCalc is still used to calculate premium payments.

E. Payment for these services is usually paid via account, but depends on the risk profile. In some cases, upfront payment will be required.

F. In these cases, a total bill of materials isn't required, but total values are.

G. As with the other policy types, the information is sent to the WBS.

All Channels

1. Regardless of the channel, the end result of a successful application is that a signed certificate of insurance and associated schedule is issued.

2. Currently these are written manually in the office and then emailed out as PDFs to policy holders. MusInc would like a better solution for this.

3. There have, in the past, been issues with validating certificates and MusInc would like to ensure that certificates are a) immutable and b) can be verified easily.

4. Finally, MusInc would like the ability to record ALL calls and be able to access these recordings from within Salesforce.

Venues

1. Nearly all venues will require proof of PLI before allowing a musician to play at their venue and need to prove that the policy is active.

2. Given the range of venues used, this needs to be possible both manually by telephone or email, and also automated via service call (some venues have booking systems capable of making integration calls).

3. As such, MusInc would like to expose a service to allow validation of policies in a systematic way, and also an email and voice channel to allow for manual queries.

Claims

As with applications, claims are made entirely on the phone right now and this needs to be optimised. As with policies, there are two types of claims.

Equipment Claims

1. MusInc requires photos of the damage, and as much supporting information supplied as possible.

2. Claims under £10,000 are handled by the regular team; Claims of higher than this amount are handled by a 'high value' team. Claims should be automatically routed accordingly.

3. As part of the claims process, there is a check that payments are up to date to ensure that the policy is active.

4. Details of damage, including photographic evidence, needs to be provided.

5. Claims agents will process claims from a queue. There are no specific lead times applied to claims.

6. Equipment will sometimes be repaired, with the cost of the repair being covered. In these cases, only registered repair companies can be used. MusInc has these in an external directory but wants to include them in the new system and the ability to identify local registered companies to the policy holder

7. When new equipment is required, the equivalent purchase amount will be covered unless the damaged item is a specifically listed item.

8. Payment is made from WBS to the policy holder's bank account details.

PLI Claims

This is a complex process.

1. Each claim will be assigned a dedicated PLI Claim Handler.

2. The Claims (General) team can view the top-level details of the claim only (Reference, Date, Venue, Performer). PLI Handlers can view records assigned to them only.

3. Each claim with have three parties:

    1. The venue

    2. The performer

    3. The claimant

    Full personal and contact information must be captured for each party.

4. Claim Handlers have discretion for settlement amounts that are directly related to the overall policy value. This is typically 50% of the total PLI cover amount

5. Settlements of greater than 50% of the PLI cover require VP approval.

6. Discussions / Negotiations with claimants are held either in person of via phone.

    1. Phone calls must be recorded.

    2. In person meetings will be documented and require a write-up and signature before the meeting closes. This has been done manually so far, and MusInc would like to systemise this if possible.

Data Migration Requirements

There is a clear need for data migration, consolidation and optimisation and MusInc would like advice on the best way to handle this.

Visibility and Security

1. Users in an office should only be able to see customers and associated records for countries that their hubs handle.

2. Only the Claim Handler and VP of Claims should be able to see a claim details for PLI claims

3. VPs require access to all issued policies.

4. The Claims team require access to equipment claims for their region.

5. Equipment Partner Managers should be able to see any customer and associated equipment where the total value for their manufacturer is greater than $15,000.

6. Professional Performers are handled only by Account Execs and shouldn't be visible to any other user.

7. A full audit of access to Professional records and attachments is required for compliance purposes.

8. Customer records are essentially handled by country, via the 5 offices hubs:

- New Jersey covers North America and most of Central Europe

- Buenos Aries covers the South American countries

- Paris covers all of Europe and the Middle East

- Melbourne handles all APAC countries

- Cape Town handles Africa

Reporting

Regional VPs require a list of all policies that have had claims in the last 3 months within their region.

Account Execs need to be able to quickly print a full list of policy details for their customers.

MU Partners need to be able to see all members who have Perk cover provided.