Salesforce Certified Technical Architect

Mock Scenario

Hire Me Services

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This document contains my comments and thinking on how this scenario could be solved. Do not read it if you want to make use of this scenario in a 'real test' situation.

I have not included artefacts, such as Data Model, System Landscape, Environment Strategy, Role Hierarchy, etc. but you would be expected to produce these.

Finally… these are my thoughts only. There are many ways to solve all requirements. The key is that you bring it all together.

Remember, what the judges are looking for are:

- **Did the candidate identify the requirement?**
- **Did they solve the requirement?**
- **Did they justify their solution?**

Identify - Select - Justify

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 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

Hire Me Services (HMS) are an employment company based in the United Kingdom who provide hiring services for specialist industries: drivers, medical staff, event staff. Generally these are industries with different levels of professional capabilities and have stringent requirements and checks in place.

Their current way of working is very manual, and although the processes are fundamentally sound they are aware that a lot of human error can be introduced and would like to reduce this.

The Head Office is in Manchester in the UK and there are regional offices in Marseilles, France and Frankfurt, Germany. HMS operates entirely in Euros.

So the usual points here around multiple languages, even if it is not explicitly stated (it won't always be). Be sure to cover off how you'll address this for every step in your processed.

Only 1 currency though, for a change. No need for multiple orgs so far, so I'l be looking at a single org strategy unless anything else jumps out at me.

HMS do not have a legal entities in Switzerland or Netherlands but instead act via agencies. They would like these agencies to be able to access data relevant to their regions.

OK, make a note of this. For "agencies" you should be seeing "partners" and therefore the need for Partner Community users, or maybe Customer Community Plus… keep watching and work it out.

Current Systems

HMS are aware that their current system landscape is lacking and - with the exception of NetSuite - are open to suggestions right across the enterprise.

Oracle Netsuite

This is the current back office system that is used for invoicing customers. This system will remain, but HMS would like to have the quoting process in Salesforce.

Nearly every scenario I have seen has a back office system. This one is no different.

Candidate Centre

An Access-based simple system that is used to track jobs and candidates. This was built in-house as a 'stop gap' and is expected to be replaced.

An old Access system… of course it's going to be replaced! Make sure that you place it on your system landscape with a big X drawn through it. Systems being decommissioned is something that the judges want to see you recognise.

Received files and images are stored on a shared network drive. HMS would like this replaced and all content from both Candidate Centre and the network share to be migrated.

Data migration. Make a note that you need to cover this.

There are currently approximately 10 millions candidate records, 12,000 customer records and roughly 3 million roles created each year. There are 5 years of data to be migrated.

Do the maths here. Make a note of these numbers on a piece of paper and bear them in mind as other requirements come to light.

Various European Licensing Systems

Every professional's details are stored in a national system. HMS operates right across Europe and so needs the ability to be able to query the right system based upon the application.

This is currently done manually, but HMS would like to automate this as much as possible.

These systems vary in protocol and response times.

Various European central government systems

A check is carried out to ensure that candidates have right to work in the target country of the role.

These systems vary in protocol and response times.

OK… so lots of systems that we don't know much about. We could assume that all use REST and respond very quickly, but that seems unlikely (and the judges will just change those assumptions in Q&A anyway) so take the pragmatic position here. We need an ESB to orchestrate these callouts and we cannot make them request-reply.

Active Directory

HMS use Microsoft products widely, including AD as their identity store for users. They have had issues in the past with 'off-boarding' and would like advice on how to ensure access is limited when internal users leave HMS.

All very common. You should be able to solve identity in all scenarios. Note, however, the off-boarding requirement. SSO handles this effectively, but you will want to deactivate the user in Salesforce even so - to free the license up, if nothing else.

There is no integrated telephony system, though HMS have Ayava telephony in place. They would like telephony to be integrated into any new processes.

Solve the CTI question with whatever platform you know best. Remember that - tying back the scenario - HMS are open to replacing all systems other than NetSuite. Use that to your advantage.

Users

1. There are approximately 400 Account Executives across Europe handling Tier 1 customers
2. There are teams in each country handling Tier 2 customers. The teams vary in size, but is approximately 10 people per country.
3. There is a central team (though actually spread across the 3 core offices) that handles Tier 3 customers. This is approximately 150 people in total.
4. There is a central Talent Team of Matching Specialists - roughly 50 users.
5. There is a central billing team that handles all financial transactions with customers.

Nothing particularly complicated here. Note that there is no Service users though. There are clear Sales users, but seems like most will likely just need platform licenses.

Each country has a General Manager, and there are four Regional VPs (UK & Ireland, Nordics, South Europe and DACH). There is a Sales President.

All fairly standard. Draw the role hierarchy and use it when solving sharing requirements. I generally draw a hierarchy early and then change it if I need to.

The Ukraine and Russian Teams exist separately and do not form part of the wider reporting lines.

Interesting… keep an eye out here, look for more information in the Sharing & Visibility section later on.

Business Process Requirements

HMS separates its business into two main areas: **Certified** and **Casual**.

Certified covers medical and skilled drivers (such as HGV and other classifications) as well as some minor industries that required certification.

Casual covers all other services that don't require recognised accreditation, such as event staff, warehouse workers, etc.

Certified

HMS have contracts with each of the 25 European countries that provide universal healthcare. In every one of these countries, re-verification of the service is required annually.

This is carried out by the compliance officers, and means various checks need to be completed in a timely fashion.

HMS also provides services for private healthcare as well as a number of EU-wide haulage companies. In total, they have approximately 1,500 customers across Europe.

Casual

This covers hiring for non-certified work. Typical industries include warehouse work, event staff, etc. There are approximately 10,000 customers in this category.

This is mostly colour for the scenario, but it does also show that there are two lines of business. Any solution needs to cover both of these.

New Business

New business comes through three main channels:

1. AEs will be looking for new business opportunities in a proactive manner
2. Adverts in trade press and email campaigns
3. Enquiries from the website. This has been via an email address in the past.

These channels have been managed separately before, but HMS would like to consolidate and ensure that all information is captured correctly.

Right, so we have Leads and Opportunity tracking in play here. We also want to stop emails and introduce Web2Lead instead as that will be structured. Note that whichever users need to access these objects will need more than the Platform license.

It is free to register, and then customers will pay a fee for each hiring position that they open.

Once successfully registered, customers are 'tiered' by revenue.

- **Tier 1** customers are projected to net more than €100k a year. These are assigned a dedicated AE.

- **Tier 2** customers are projected in the €25k-€100k region. These are handled by a small team, based in their region
- **Tier 3** customers are projected less than €25k and are handled by a central team

HMS would like to tier customers automatically, and assign the owner as part of the tiering process.

We need some creativity here. There are plenty of ways to solve this. Batch Apex? Flow? Then Assignment to set the owners, or do that from metadata as part of the automation? Pick an idea, think it through and commit to it.

There have been issues with getting paid in the past, and HMS would like to run credit checks for all new customers, and for Tier 2 and 3 customers every year.

There are no credit check systems mentioned, but even so - solve the requirement. Use your experience and knowledge, and make assumptions to plug any gaps that remain.

Employee Pool

As companies can register, so can candidate employees.

1. Candidates registers their interest on the website and provide key information. This includes PII data, and HMS would like advice on keeping this data protected to meet GDPR.

   Some kind of web-based data capture (structured). Guest Pages? Web2Lead? Something else? There are a few options - bring the solution together. Also consider a mobile app and how that could be included in core process.

2. For C**asual** candidates, proof of citizenship and/or right to work is required. This has been emailed in before, but HMS would like to ensure that supporting documentation is captured at the point of application and stored for future viewing and verification.

   If we're using a mobile app, we can use the device camera to capture any supporting information. If it's webpages, then we can also provide capture points.

3. The data capture for **Certified** candidates is too varied and complex to have been presented on a website so this has previously been completed by callback. HMS would like to allow candidates to enter as much information as possible.

   We need some creativity here. Again, use your experience to plug the gaps in the requirements. If it's someone applying for a doctors role, there are multiple specialties. The same is true for all jobs in healthcare, and haulage too. We could design Screen Flows perhaps? Or we could look to the AppExchange, or build custom pages.

   Be prepared to defend your solution.

4. For **Certified** candidates, more documentation is required. This varies from industry to industry and role to role. HMS would like a systematic way to ensure that all required information is captured, along with supporting references (such as HGV license number, for example).

   As with above, ensure that all data points are able to be captured on the initial application. There will always be some exceptions - some manual steps - but cover the 'happy path' in your solution.

5. All documentation is required to be verified against external sources. This doesn't need to be completed at point of application, but candidates cannot be placed into roles until this has happened. HMS would like a clear visual indicator for each record to see the status.

    The integrations points are covered already - varied and unknown. The requirement here is more around a status on the candidate record and a very visual representation of that status.

    The status can be used in the matching logic, making sure only verified candidates can be placed (for example)

When a candidate needs to update their information, this has previously been by phone but HMS would like to provide the ability for candidates to self-serve these updates. HMS would like to make as much of the process as possible available via a mobile phone.

A Community and a mobile app explicitly called out. Think about what sort of mobile app and how users will authenticate (it's not covered in this scenario).

HMS has had issues with candidates being unavailable, but not notifying HMS of this. They would like to improve this process, giving candidates an easy way to update their availability as well as their personal details.

In the community and the app, some kind of Quick Action to enable candidates to block time.

Job Postings

1. A customer contacts HMS, currently by phone, to outline the roles that they need to hire for. This will includes all details, such as start date, duration, salary or rate, number of slots, working location (starting with country), required certifications, etc.

    Given they are a registered customer, we could provide them a community to be able to do this. Think about what objects (custom, or is there anything standard we could us?) and how that affects community licensing.

2. As part of this process, the customer will outline the process - detailing what the interview process (if any) will be.
3. The pricing model for each role varies based on industry, country and immediacy of the role. There are approximately 5,000 variations of skills and industries.

    There is no reason we can't use price books and products for this. That then suggests we'd be using Opportunities. Factor that into the licensing, if you chose to go that way.

4. HMS would like to include a surcharge if the role needs to be placed within 4 weeks.

    This could be a product (though then it needs to be added and would be a fixed price), or could be some automation on the Opportunity that looks at the dates and adds a % uplift.

5. A contract will be raised at this time. This has been done in the post or over email before. HMS would like to include this as part of the systematic process.

    Some kind of document generation as part of the process. Electronic signature too. Those are common components in most scenarios.

6. Once all the details are confirmed, an invoice will be raised in Netsuite. HMS want to automate this.

    Integration out to NetSuite. This can be fire-and-forget, as according to this scenario, the process doesn't stop here and wait for payment. We do, however, need certainty of delivery (or HMS won't get paid!) so be sure to think about that in your solution.

7. Once the invoice is raised, and confirmed as dispatched, HMS are happy to start the matching process. They do not wait for payment.

Candidate Matching

1. The HMS Talent team then examines the requirements and searches for suitable candidates. The number of candidates required for each role is determined by the job listing.

    There are a few ways to do this:

    - **Manually, with reports and queries. That is sub-optimal**
    - **Use an AppExchange product**
    - **Einstein maybe? I'm not sure if the Einstein set of products has anything suitable. You might know more here**
    - **Custom code and an LWC for a rich visual experience. This is probably the way to go**

    As ever, select and justify.

2. Once the list is ready, the Talent Team and then emails a list to the HR teams at the customer.

    This could be a report, or some kind of generated list (if the customer has access to Salesforce).

3. Customers need CVs/Resumes presented in a consistent manner. HMS have struggled in this space before and would like a way to easily complete this activity.

    What we need to do here is generate the CVs/Resumes. If we are generating them, we can ensure consistency. If Conga (or similar) is in your landscape, then consider using it. Document generation should - in 99% of cases - be a 'buy' activity rather than a 'build'.

4. There is usually then a back-and-forth discussion while the candidate pool is reduced to those suitable.

    Are we using Chatter? If not and it's emails, then at least track them. Just be sure we have an audit trail of why candidates are chosen or rejected, as we need to report on that.

5. When there is an interview process, the Talent Team facilitates this. It is necessary to track the stage of each candidate for each role.

Presumably there is a junction object between the Role and the Candidates, and we are tracking with a status field on that junction.

6. Candidates can be presented for multiple roles, and also find work themselves.

   Two things here - firstly, make sure that the relationship of Role to Candidates is many-to-many. Secondly, be aware that candidates could just suddenly be unavailable for reasons that HMS are not aware of.

7. Once a candidate has been successfully matched and accepted by a customer, they are required to sign a letter of offer. HMS generates these and needs to store it within the new system.

   Document generation again, with the file being stored in Salesforce in Files. Just work it into the process.

8. Once all roles have been successfully filled, the job is marked as complete.

   Manually? Or can we do something clever here and automate this step? Do we *want* to automate? If not, why not?

Visibility and Security

- Ukrainian records can only be viewed by users based in that region.

  This is here just to show that a regular role hierarchy cannot be used. We need special rules for two regions, so need the OWD, the role hierarchy and any sharing to respect that.

- Russian records can only be viewed by users in that region. HMS would like to record the IP address of any users accessing records related to Russia.

  This one is also interesting. Do we want Event Monitoring? Probably, but that is expensive and has limited application for this customer. Consider it carefully.

  That said, you don't really want to build this. But could you do something with login controls? Maybe a VPN and a login flow working together? Use your experience and creativity.

- AEs should only be able to see customers in their country

  This is a more regular sharing requirement. Criteria-Based Sharing and a good role hierarchy is all you need to solve this.

- Country teams should be able to see all Tier 2 customers within their country

  CBS again.

- For reporting and queries the Country team also need to be able to see any Tier 1 customers who had been classed as Tier 2 within the last 12 months. Once a customer has been Tier 1 for a year, they do not need to be visible to the country team.

This one a bit more interesting. Generally, any temporal requirement for sharing needs to be met by Apex Sharing and I think this one would be the same. If you can think of something declarative, then by all means go with it.

- The central team should be able to see all Tier 3 customers

CBS.

- Agency users in Netherlands and Switzerland should be able to see all records relevant for their countries only.

We are probably thinking about a partner community for these countries. Consider: The impact on the role hierarchy and the licensing.

- The Billing Team users should be able to access NetSuite directly from the Account page in Salesforce; access to NetSuite is available only to this team and only via Salesforce

This type of requirement is quite common: That Salesforce acts as an iDP for another system. Talk through the setup steps, how the login process looks when a user wants to access NetSuite (including how they actually launch the app)

- Candidate matches must be available for 2 years on the Salesforce platform, but 5 years in total. HMS would like advice on how to meet this requirement.

For this scenario the numbers will probably mean that everything can be kept on the platform anyway (check the maths, work out the possibility of data- or ownership-skew and any performance impacts).

Most scenarios requiring archiving or off-platform data elements. If there is a Data Warehouse in the landscape, then make use of that. Consider Heroic or some kind of external service. Or consider the AppExchange - OwnBackup's Archiver product, for instance.

Reporting

- HMS would like to be able to track how many times candidates are placed into roles, and how often (and at what stage) they are not successful.

This is a simple report, but needs the data points. As such, it's more of a data modelling requirement - make sure you can report on role matching - use Flows or a batch job to write the data to the Candidate record so that even after archiving the data exists within Salesforce.

- Country Managers need to be able to report on their AEs effectiveness.

Standard Opportunity Report

- The regional VPs need to be able to see all customers who are likely to change Tier in the next 12 months

You could probably work this out on platform with some formula fields on the Account record taking data from child opportunities. Or you could use something smarter.

- The regional VPs need to be able to see all customers who have changed tier in the last 12 months

They should be able to see them anyway, so we just need to build a report. This would mean an audit field (Date Tier Last Changed, for instance) so that we can time-box to the 12 months) or series of snapshots.

- HMS would like to start measuring customer satisfaction for Tier 1 customers. They would like advice on how to capture and track this information

  We could use Salesforce Surveys to measure NPS / Customer Satisfaction. You need to lean on some experience here - what works, what doesn't, how can you bring it all together.

- The Billing Team would like to be able to report on all outstanding invoices

  We will need updates from NetSuite back to Salesforce if we're going to run reports

I wouldn't call reporting (on Salesforce) one of my strengths. There could be better options for all of these.