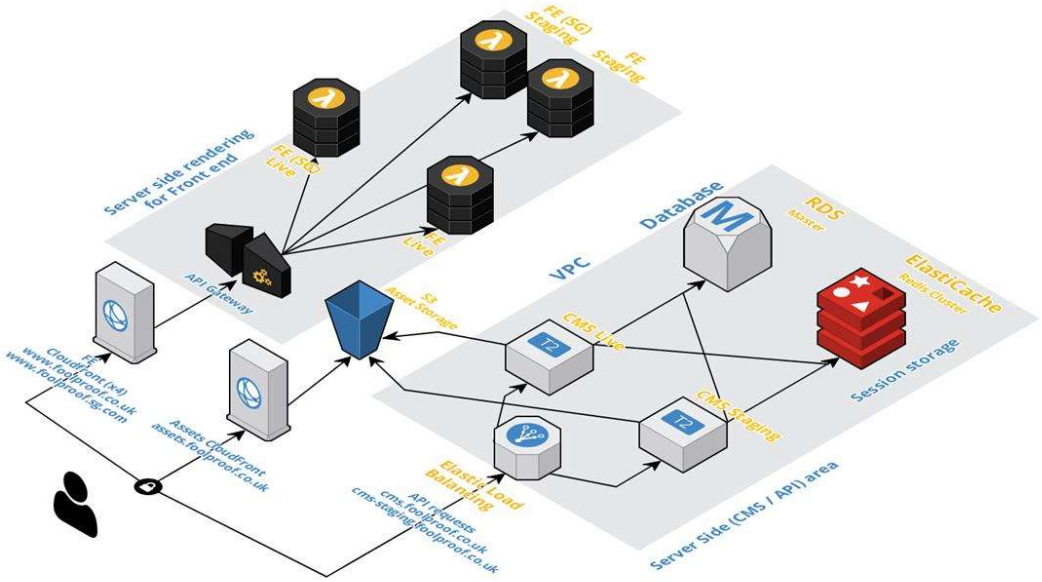

Please find responses to below questions.

1. Need Foolproof aws architecture diagram showing all the aws services.
   - See below diagram
2. Flow Diagram how each aws service/component talks with other?
   - See below diagram
3. Hardware configuration details required, if possible.
   - For the CMS servers, the following configuration:
     a. Amazon EC2 T2.Micro = 1GB Ram, 1vCPU, 15Gb block storage
     b. OS: Ubuntu 16.04 LTS
4. Any hybrid integration involved?
5. How many webservers, application servers?
   - There are 2 CMS servers. The frontend is delivered via API Gateway and Lambda, so no individual servers used, per se. - See diagram.
6. Assumes AWS S3 is used for storing images and other web content.
   - S3 *is* used for all images and uploaded content (e.g. PDFs etc.). Any static assets will be bundled with the frontend and loaded via API Gateway & Lambda.
7. Assumes Amazon ElastiCache used as a database.
   - Elasticache is used for session storage - a Redis cluster is implemented but currently only consists of one node. RDS Aurora is used for the system database. This currently utilises a DB T2 Small instance.
8. Assumes SilverStripe4 is used to modify/add/change the site content, what else it's used for? since there is a proposal for auto scaling.

- SilverStripe 4 is used as the headless content management system and for delivering dynamic content via a bespoke API. When auto scaling is required and implemented, it is assumed additional CMS instances would be deployed. As assets are managed via S3, session managed via Elasticache and database via RDS Aurora, CMS instances should be able to be replicated and deployed, connecting to these centrally managed services. Traffic would then be directed using the configured load balancer. Due to an issue with the Rich text editor, it would be assumed that admin access would be directed to a single instance (as the resources would normally be placed in S3, but that caused issues with the editor loading therefore the resources are stored and loaded from the actual instance). This can easily be managed via the load balancer path based rules.

9. Is AWS in single or high availability or Disaster Recovery?
   - Several availability zones are in use, however, everything is within the same region. That said, CloudFront SSLs are generated within the US East (N. Virginia) region, due to the limitation of Cloudfront only accessing SSL certificates in that region.
10. Database on AWS premises or any other cloud/on premise?
    - Database is within a VPC within the AWS infrastructure - currently based in EU-West-1 region (Ireland).
11. FP website serves static or dynamic content?
    - Mixture of both. Anything pulled from the CMS API, I would assume, would be considered dynamic. Any fixed site resources (not considered content), would be served via API Gateway and Lambda.
12. Is there any payment gateway for the site?
    - No. There was no requirement for taking payment for anything.
13. How many hits per day on normal or peak time? 400 - 500
14. Total AWS APIs and what each does?
    - Not sure about this. Are these AWS specific APIs? In which case the CMS servers are using the S3 API to store assets (uploaded images and files). During frontend build and deployment, the deployment process (Bitbucket build pipelines), the Cloudfront API is used to trigger a cache invalidation when new code is uploaded to Lambda.
15. How the throttle for API gateway configured?
    - Currently default configuration.
16. What are all the functions in AWS Lambda and their functionality?
    - There are 4 lambda functions. These directly correspond to main live, Singapore live, main staging and Singapore staging. They are responsible for initial server side rendering of content and delivery of the front end application (created in NuxtJS/VueJS). These are accessed via API Gateway, each one behind a CloudFront distribution.
17. what's the programming language used for AWS Lambda?
    - Node/Javascript
18. What are the monitoring tools used?
    - Currently default cloud watch logs. No specific monitoring created yet.
19. how the cloud watch alarms are configured?
    - None yet configured. Requirements not actually discussed.
20. what are the AWS security services that are used?
    - Standard security groups, IAM user roles.
21. Any content delivery network (CDN) like cloudfront, cloudfare used?
    - CloudFront is used for the API Gateway & Lambda, as well as S3 assets.

22. AWS SKDs written in which language to access the database?
    - Standard MySQL libraries via PHP used to access the database. Standard PHP Redis libraries used to access Elasticache for session management.
23. Can you please provide us the AWS account read only environment of the FP AWS site?
    - We can set this up for you, once we have an agreement in place please send us an email detailing the access level that you require and our IT team will st this up for you.
24. Zensar can help into cost optimization and performance tuning for the current environment.

Hi Rajesh,

Thank you so much for your time on the call earlier. It was great to 'meet you.'

As discussed please find below some initial detail regarding the technology stack of the Foolproof site:

- Site hosted: AWS (eu-west-1 - Ireland region)
- Front end tech: VueJS (using Nuxt framework), delivered via AWS API Gateway and AWS Lambda
- Back end tech:
    - SilverStripe 4 - Hosted on (currently) 1 EC2 instance, but load balanced in prep for scaling out.
    - Assets hosted on AWS S3
    - Admin sessions handled by Redis via AWS Elasticache
- Environments: 2 - live and staging, although technically that is made up from the following environments
    - Live - CMS
    - Staging - CMS
    - Live - Main front end
    - Staging - Main front end
    - Live - Singapore front end
    - Staging - Singapore front end
- The backend only integrates with AWS via SDKs etc.