Security

1. Data residency and Security

Primary storage on dedicated servers with Tagadab.com. Located in the EU. Access to our main servers (Tagadab) is:

- IP protected so that they can only be accessed via the Submit.com office network.
- Password protected (password is changed monthly, and only Submit.com staff that have a verified reason to access are allowed access)
- The Submit.com office is alarmed and has multi-stage physical security, with physical key and touchpad code required for entry. Backup storage on Amazon AWS S3 in an EU bucket

Tagadab Information

Tagadab Building

- Four-floor building

- Approximately 250m2 of hosting space (ground floor)

- Loading/delivery docking area

- Equipment scissor lift (2m x 1.4m)

- BMS monitoring system monitored by Tagadab Support

- 24 x 7 environmental monitoring systems & power monitoring

- A regular and meticulous maintenance schedule on all Data Centre infrastructure Tagadab Room

- Heavy duty raised floor

- Raised floor (height – 0.5m)

- Door width (Minimum width 1.1m - loading bay, all other doors are 1.4m)

- Door height (2.15m)

- Roof height (excluding raised floor) - 2.45m

- Anti-Static tiles with earthing straps attached to every under floor support

Tagadab Climate

- Average supply temperature: 22°C/72°F ± 2°C

- Regulated humidity

- 2N cooling infrastructure

- N+1 computer room air conditioning (CRAC) units with up to 90kW capacity

- N+1 Chillers installed away from all client areas and fed via dedicated risers

- Moisture detection sensors
  Tagadab Power

- 720kVA – Building power feed

- 2N Power distribution to PDU's

- Diesel driven generator with 3 days run time at full load

- 625 kVA Generator

- 200 kVA UPS with static and maintenance bypass

- Voltage and frequency – 415/240v 50Hz

- Each cabinet has 2x IEC309 commando sockets positioned under the raised floor

- Standard power distribution within cabinets (PDU's) is supplied as 12x C13 and 4x C19 sockets

- Up to 7.5kW power supply per rack

- 32A MCCB's within PDU's Tagadab Security

- Only authorised staff and registered customers are allowed on-site

- Security zones using Smart-card access

- Logging of all entries

- Internal and external CCTV monitored in a security reception

- 24 x 7 x 365 Security & monitoring Tagadab Cabling and Connectivity

- Power cabling under raised floor

- Data cabling overhead

- CAT 6 structured cabling

- Scalable architecture including multiple redundant core switches and routers

- Access to distinct fibre providers including: BT and Virgin Tagadab Fire Suppression

- Gas fire extinguishing system

- Very early smoke detection alert (VESDA)

- Fire-retarding walls

- Automatic smoke detection throughout Data Centre

- Argon fire suppression system

- Regular testing and evaluation of all systems

2. Software Architecture

All subdomains are delivered via SSL encrypted sites. Access to data on the platform is password protected for each user view. Permissions to read, edit and delete information on the system can be adjusted for each user.

Submit.com uses a SPA (Single Page Application) architecture. Traditional web applications need a full page refresh/reload after every user interaction, whereas a single page application simply updates the relevant section of the page following a user interaction/ state change.

Technologies.

- Browser Markup/Styles : html5 / css. We use twitter's bootstrap css framwork, and AlSubmit.comeed's Admin LTE framwork as our UI scaffolding.

- Javascript : We use Angular JS 1.* , which is a front end SPA framework created by google. Angular JS is a very efficient framework as it enables developers to develop their own bespoke html components (directives) which can be plugged in as required to the app and re-used in any location, this allows for very DRY development. It also has very efficient http modules which allow for transparent AJAX functionality between the application and our web service.

- Web Service : The PHP framework laravel is what we use to provide our API for the SPA. Laravel takes a lot of inspiration from the well-known ruby on rails framework. Advantages of laravel are that it provides inbuilt authentication and security, routing, password reminders, request and response handling, and a very readable and efficient ORM framework (eloquent) for i/o to the database.

Database : We use mySQL databases for data storage, the laravel 'Eloquent' ORM abstracts the need for complex SQL read/writes, whilst also allowing for bespoke querying if required.

Submit.com

Document Conversion/Generation : We use the headless libreoffice version to convert word docs into pdfs, we use wkhmltopdf to convert html into pdf for download, and we use phpexcel to generate spreadsheets for download.

3. Business Continuity Planning / Disaster Recovery

Backups of all media and databases are taken every morning at 4.00am. These backups are sent to a dedicated AWS S3 bucket, where they are stored with redundancy.

The AWS bucket is in the EU West Region (Ireland)

If we need to restore to a point, then we would need approx. 5 mins downtime while we de-compress the backup archive from amazon and rollback the database.

4. Capacity and Scalability

Submit.com has capacity to process, display and retrieve huge numbers of applicants on each domain.

We have demonstrated this capability repeatedly when managing applications and auditions for well-known TV shows with up to ten thousand applications per show. We have provided a service on this scale for the past three years to TV shows such as: Married at first Sight (USA), The Voice, The Great Irish Bake-Off, Ireland's fittest Family, First Dates etc.

We also manage large amounts of interview applications for HR departments within some large companies that have numbers of applicants substantially greater than the numbers outlined for this project.

5. Support Staff

Support staff are located in our offices in Cork. In addition to the dedicated account manager, there will be at least three dedicated support staff available during agreed support hours. Standard support is via phone and email. Standard hours are 10am to 6pm, Monday to Friday.

Weekend and evening support can be arranged as required (for example when call deadline is approaching)

In addition to an online user guide, and step-by-step instructions on the system, we have a team of 6 available for support.

Our support team are available via email and phone. Each call will be logged, and if the issue raised is not resolved immediately, a support ticket will be generated outlining the planned action and timeframe associated with resolving the issue. Tickets can be closed by the client once a satisfactory resolution has been achieved.

Any operational issues encountered can be addressed with the client's account manager (Neil O'Driscoll) for whom a direct email and phone line will be provided

6. Software Patches and Fixes

Bug patches are released as the need arises without any need for downtime. Major upgrades are released approximately every 3 months. Upgrades and patches are included as a matter of course in the normal service provided by Submit.com and are not considered as an extra item to be paid for.
Major upgrades can be scheduled with an individual client, so that they do not affect the client's use of the system.

7. Software Development Practices

Submit.com Software Development Practices (In Line with ISO/IEC 12207:2008)

1. Define functional requirements - during this activity the following tasks are completed
- Gather the functional requirements for the product that is to be created or updated. This is done via customer feedback, and a Submit.com Team Meeting.

- Submit.com management sign-off on agreed requirements before proceeding to step 2 2. Create high level design to achieve the following:

- Create a basic layout - define the setup of different modules and how they communicate with each other. This design does not contain very much detail about the modules.

- High level design is signed off by Submit.com management before proceeding to step 3 3. Create Module design

- The different modules present in the high level design are designed separately. The modules are designed in as much detail as possible.

- Module design is signed off by Submit.com management before proceeding to step 4.

4. Coding

• The code is created according to the high level design and the module design.

5. Execute module test

- The different modules are tested for correct functioning. If this is the case the project can move to the next activity, else the project returns to the module design phase to correct any errors.

6. Execute integration test

- The communication between modules is tested for correct functioning. If this is the case the project can move to the next activity, else the project falls back to the high level design to correct any errors.

7. Execute system test

- This test checks whether all functional requirements are present in the product. If this is the case the product is completed and the product is ready to be transferred to the customer. Else the project falls back to the software requirements activity and the functional requirements have to be adjusted.

8. Sign off of update by Submit.com management.

9. Push update to required live domains.

8. User Training

The Submit.com system is very intuitive and most individual users need little or no training. It is recommended; however, when a new team starts using the system that the following training is undertaken to ensure that all team members are using the system in a consistent way:

- A demo of the system by Submit.com Staff, including a Q&A

- A discussion on best practice from the perspective of the team, and agreement on implementation.

- Additional shared screen training/conferencing can be organised as required.