



Continuum247 is a leading online workforce management solution that has been catering to some of the prominent security providers like Bridgegate, Level One, Secur-it and many more across UK. It has helped its customers to manage its workforce and deploying them across client sites, through a system that fully automates their processes related to Staff Vetting, Deployment, Managing Roster, Staff Attendance, Timesheets, Invoice / Billing as well other supporting functions like import and export of data and extensive reporting.

Continuum247's vision is to develop a flexible system that caters to security as well as other sectors also.

Continuum247 is very responsive to its clients and always tries to add value for them by incorporating new features alongside running of a stable live version for its existing users. This is the reason that they came with the requirement for developing an android app for recording the attendance for all security personal / employees deployed at various sites and then feeding this attendance data to the timesheets to generate the final invoices as well as wage slips based on the same.

The Challenge – Why did we do it?

So the objective here was to have an android app which could be used to record the attendance of the security personal / any other employee employed through respective security companies who were the end users of the Continuum's SAAS application. The SAAS application which been developed by Technousa is used to configure staff, sites, settings etc. Based on each site's requirements, the roster is planned and created which is sent to each site manager. The android app installed at each site would be used to record the in time and out time of each staff as per the shifts assigned to the same under the planned roster. The main challenge of developing this app was to record the attendance through facial recognition rather than the usual punching of in and out time.

Once recorded, the actual attendance of each site would be fed into the main system to create the actual timesheets for each site on a weekly basis. From there on the other process under the main system would be able to pull data from the timesheet to generate invoices as well as payroll. The main challenge was to apply various business rules so that the attendance recording was in coherence with the main system and did not allow any unauthorized access. The data was to be synced between the android app and the main system because of which the push/pull mechanism for the required data to be synchronized had to be applied.

The app had to work on all android devices mainly 5 to 10 inch tablets and would have a separate interface for site managers and the actual workforce employees / staff.



Our Solution – What did we do?

Continuum247 had most of the requirements ready and required some more analysis from our side with respective to technology and the final screen flow of the app. We asked many question to clarify each detail and chose to develop the app in Java and SQLite. The backend would be accessed via web services and would use push / pull mechanism to synchronize data with the main system. Technousa was involved in all aspects of this project which included project

management, business analysis, UI designing, coding and testing and applied its expertise to create the best possible experience for the user and also worked on client's feedback at each stage to deliver the most efficient solution.

We also created a detailed software specification document for this project based on which this project was developed. The main features which were covered under the mobile app are as follows:

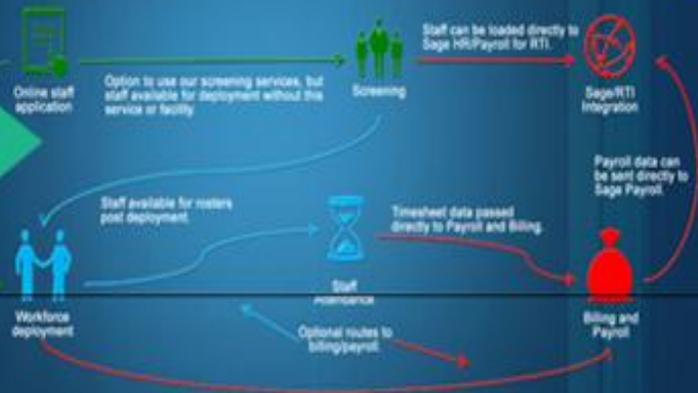
- ✚ Application settings – This allowed to manage application level settings related to the site name and the company under which the site is configured. These were pulled from the main system's database.
- ✚ Face Detection – This is the first screen of the app which is used to authenticate and authorize the staff and presents the next screen which displayed the information retrieved for the restive staff as per the record found under the facial recognition process.
- ✚ If the staff feels that the record found matches with his / her details, then he can sign in to record his in time. If the staff already has an in-time for the respective day, then the app would allow him / her to sign out to record the respective out time. Both sign-in and sign-out require either facial recognition or manual login to pass for a staff.
- ✚ The various business rules applied at the time of sign-in or sign-out for a staff are as follows:
 - If a staff that signs in is the first staff on that site for the respective week, then a new site timesheet record is also created and the respective in time is recorded against the same.
 - If it is the first sign in of the respective staff in a day and he is 60 minutes late than his intended shift start time as per the roster shifts, then do not authorize him to sign in and would allow site manager's authorization to sign in the respective staff.
 - If it is not the first sign-in in the said day for a staff, then also do not authorize him / her to sign in and this would again require site manager's authorization to accomplish the signing in process.
 - If the respective staff does not have a shift as per roster shifts on a day, again warn the user to get manager's authorization.
 - If the above business rules are validated, then allow the staff to sign in and display his / her sign in time on the screen.
 - If there is a single sign in record and the intended shift finish as per roster shifts is less than 60 minutes away, then warn the user if he / she wants to sign off early. If staff confirm sign out then the sign out time is recorded and the same is displayed to the staff.
 - If the signing in staff is an area manager, then also allow them to sign-in for an inspection and consequently when they sign out it would be recorded as inspection sign-out time.
- ✚ Manual Login – If it is first time login for a staff, then he/she can manually login to the system using mobile number, pin number, SIA no, NINO and DOB. If validated the staff is presented with the enroll face screen to store the facial data for the respective staff so that it can be matched the next time the staff accesses the app.
- ✚ The site manager can authorize various operations as per the business rules applied for staff sign in and sign out process. The manager authorization allows site manager to enter their pin to allow the process that requires authorization to proceed further.
- ✚ The manager's panel allows to create new staff onsite as well review the site timesheets as per the in and out times record through the android app. The site manager can edit the shifts which would be flagged properly to indicate that the same have been edited manually. Once the site manager is satisfied with the timesheet, he /s he can approve the timesheet so that the data can be pulled into the actual timesheets in the main system.
- ✚ The app requires to constantly pull the staff, site and roster related data and to push the site timesheets data into the main system.

Cloud hosted online workforce management solutions

Continuum 24/7 is a set of integrated, online facilities for the management of workforces, both for staffing agencies, and any companies deploying their own staff to their own sites.

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FEATURES

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Our Process – How did we do it?



The Results and the Benefits



The attendance mobile app developed for Continuum is a complete mobile app required to record the in and out times and feed them into the billing and payroll systems. The various business rules and the completeness of functionality of this app make it a far superior app when compared to any other app in the same genre. It covers all the security standards and employs best of technology in terms of facial recognition to make it a very powerful attendance app. It overcomes many loopholes in the manual or attendance punching systems where the actual identity of the person marking the in and out times cannot be verified. Based on the success of this app, Continuum247 plans to launch it in other platforms like iPhone and Windows as well so that it covers a wider user base and can be utilized by many.

Contact Us

To know how we can do more for your business, contact us at any of the following:



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