

B2B DIGITAL MARKETPLACE FOR CLINICAL TRIALS

We built a web platform that helps stakeholders from the pharmaceutical, biotechnology, and clinical research sectors engage with suitable partners to conduct clinical trials.

#web_app

#development





CLIENT AND CHALLENGE

Our client is a U.S.-based company that creates research and development (R&D) publications and organizes relevant courses, seminars, and conferences. Due to the difficulty of conducting conventional clinical research, the company recognized the need to accelerate hybrid and decentralized clinical trials. To accomplish this, it decided to **build a digital ecosystem**. The client wanted the system to connect various stakeholders within the pharmaceutical, biotechnology, and clinical research domains, enabling them to identify and select the right partners for clinical trials. To implement the idea, the organization approached EffectiveSoft based on our strong technical expertise and diverse experience.

SOLUTION

We developed a web platform that functions as a **B2B social network and marketplace** for contract research organizations (CROs), sponsors, technology and service providers, and non-profit organizations. The platform allows members to explore, engage, and exchange capabilities with the selected partners.

The system consists of **administrator front-end, company front-end, and back-end** components and includes multiple **software modules**—from document exchange and signing to analytics and advertising. It also supports **system administrator, guest, company administrator, and company member roles** and integrates with various third-party services, such as Stripe, HubSpot, and Google Analytics.



ADMINISTRATOR FRONT-END COMPONENT

Through the administrator front end we built, the system administrator can access all functionalities to manage the platform's content and user behavior. This component encompasses multiple modules, including:

- ✓ **General:** managing user authentication, including login, logout, and password reset.
- ✓ **Companies and users:** viewing, adding, editing, and deleting company and user profiles.
- ✓ **Concierge requests:** viewing and managing concierge requests, which involves gathering specific information about the member's particular needs.
- ✓ **CMS:** managing content used on the company front end.
- ✓ **Subscriptions:** handling sponsor and non-sponsor subscriptions.
- ✓ **Lists:** editing default values for various lists.
- ✓ **Document templates:** viewing, adding, editing, and deleting document templates.

COMPANY FRONT-END COMPONENT

The company front end allows company administrators and members to access relevant functionalities, browse content, manage their profile information, and interact with other registered users. Guests can navigate with restricted visibility and only conduct basic searches. Below are some of the modules we incorporated into the company front end:

- ✓ **General:** providing the required functionalities for user authentication.
- ✓ **Registration:** handling registration and account creation processes.
- ✓ **Profile:** managing company profiles as well as viewing and updating relevant information.
- ✓ **Company members:** managing company members, assigning roles and statuses, deleting profiles, and inviting new users to the ecosystem.
- ✓ **Comparison list:** adding and removing companies from the comparison list.
- ✓ **Watchlist:** managing companies' watchlists of potential partners.
- ✓ **Contracted partners:** adding and removing companies from the contracted partner list, viewing contacted partner details, handling internal notes, and submitting ratings for contracted partners.
- ✓ **Documents:** browsing and downloading document templates.
- ✓ **Company and personal message boards:** viewing and responding to messages sent to companies and users.

BACK-END COMPONENT

The back end manages the entire business logic of the system. It provides **APIs** for administrator and company front-end components, processes client-side requests, and handles various system tasks like data processing. Additionally, it **delivers the requested functionality to users**, including authentication, document exchange, integrations with external systems like Stripe, and more.

FEATURES



Advanced search helps users analyze company profiles and find suitable clinical trial partners and services by filtering organizations based on company roles (sponsor, site, investor, etc.), therapeutic areas (nephrology, oncology, cardiology, etc.), headquarters locations, and other criteria.



Commons as a central hub grants access to recent news, resources, tools, and regulatory updates, fostering collaboration among community members and providing clinical research insights.



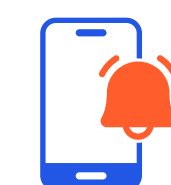
Dashboards allow company administrators and members to create request and capability alerts, follow the latest news, and manage notifications, analytics, inbox messages, contracted partners, documents, and subscriptions.



Capability alerts enable member organizations to communicate with prospective partners, propose competitive offerings, and share product launches with the community.



Gamification elements like badges, points, achievements, leadership boards, and engagement challenges enhance the web platform's services and activities, incentivizing users to engage more deeply with the system.




Request alerts allow the platform's members to seek new partners, services, products, or sites and fulfill their clinical research needs.


RESULT

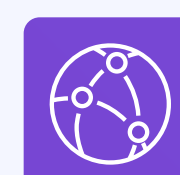
The EffectiveSoft team **created a complex, full-fledged web platform with uninterrupted performance and comprehensive security** by meticulously adhering to the client's requirements. The system is far more than just a web platform and marketplace for shortlisting clinical trial partners—it serves as a **dedicated B2B marketplace and community with over 865 members** thus far, fostering global collaboration and making clinical research accessible.


TECH STACK

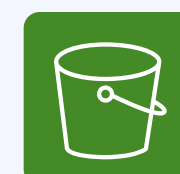
FRONT END


 AWS Lambda@Edge

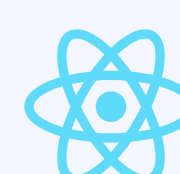
 Next.js

 AWS CloudFront


 AWS Amplify

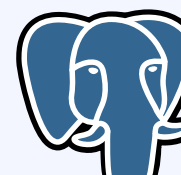
 AWS S3


 JavaScript

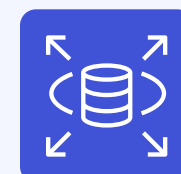
 React


BACK END

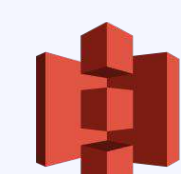
 Spring Boot 2.6.1


 PostgreSQL 13.4


 OpenSearch 1.1

 Amazon RDS

 Java 17

 S3

 OpenSearch

 Cognito

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