

SELECT CASE STUDIES

BUSINESS TRANSFORMATION **ACCELERATED**

A Market Leading Broadband Provider Field Sales/Service Agent

Problem

The telecom service industry (hardware technicians & maintenance staff) for ISPs and TelCo's in India is very disorganized. It relies on manual co-ordination between supervisors and field technicians, including ticket tracking in excel sheets, & updates based on phone calls, often struck in the traffic and loosing time for fixing problems, and at risk of loosing location based competencies when a technician leaves the company.

Challenge

Creating a system that automates large parts of the workflow for field technicians, with timely updates & escalations to supervisors. Other features include analytics for visualizing detailed trends, like frequent problem locations, equipment, & even personnel and making the field personal more knowledgeable to fix the issues in less time.

Solution

Mapping all the assets with the detailed list of issues re-solved and enabling the data for proactive and preventive maintenance in the context of the location and customer makes the field personal more knowledgeable and enabling him to reach reported location faster will help field personal to resolve the problem quicker.

While assigning field issues, competency algorithm enables the competency to be distributed across the team members automatically resulting in uniform competency.

Additionally, a geo-fenced system for field technicians that notifies them whenever a service (installation request) or ticket (repair request) is created in their area of operation, with configurable SLAs to ensure important issues receive timely attention from all the stakeholders. The exact location of the problem occurrence is presented to the field agent, using Google Maps, in the issue itself so that they spend no unnecessary time searching for the location. A tree style hierarchical organization can be quickly setup, with each branch in the tree governing different geo-fences.

Results

Field personal are more knowledgeable and are enabled with meaningful data to solve field problems and enabling them to reach the field location quicker resulting in 15%~20% productivity improvement.

Uniform competency across the team members through automatic process de-risks loosing competency and the organization is more innovative.

Routing the field personal in the context of field issues, SLA's and priorities, enables the field personal to travel less distance to solve same problems resulting in efficiency.



NVIDIA

Cloud-based GPU Management Platform

Problem

Client's existing solution at the time consisted only of standalone hardware with a command line interface.

Challenge

Get a proof-of-concept off the ground quickly to evaluate the viability of the product idea. Then, implement the learnings from the PoC to build a portal for managing the deep learning hardware. Although each hardware device has its own CLI interface, there was no way for customers to manage multiple deployments from a single, central console.

The cloud based solution brought into focus a host of other challenges that they hadn't considered initially – like multi-tenancy, reliability, scalability, security, etc.

Solution

Tresbu built a secure, scalable, reliable, multi-tenant, AWS-based portal which is used by customers to manage deep learning hardware. The hardware gets deployed in the customers' own data centers, while the management portal running on the public cloud provided a browser based GUI.

The GUI had a unified multi-tier dashboard – to view the resource (CPU, GPU, RAM, HDD) utilization – both collectively and individually of all the deployed hardware. It allowed customers' users to add/remove docker containers via the GUI. It also had an admin dashboard to add/remove tenants; view basic analytics of the deployed hardware; and perform other housekeeping functions.

Results

The proof of concept was completed in 4 weeks demonstrating all of the functional needs for final project build as required by client.

skyhigh

Big Data Visualization App

Problem

Skyhigh's security intelligence platform has to process and analyse huge amounts of enterprise data to detect anomalous behavior indicative of security breaches or insider threats, thereby protecting corporate data in on-premise applications from exfiltration to the cloud.

Challenge

Creating custom visual reports from enormous data is a huge challenge in terms of producing meaningful insights for quick decision making. Large data visualizations often have layers of multiple drilldowns and paginations which makes the reports lose their intended purpose. Critical metrics are almost always hidden under these layers thereby putting business decision-making agility at risk.

Solution

Tresbu built a customized web-based data visualization module for Skyhigh Networks to simplify data analysis which helps enterprises make critical quickly consumer critical metrics and accelerate business decisions. Data is brought to life by using custom D3.js components emphasizing on web standards without tying to any proprietary framework, combining powerful visualization components and a data-driven approach to DOM manipulation.

Business Benefits

Enterprises had a clear understanding and easy access to various analytics like

- Behavioral Analytics,
 - Sensitive Data Analytics
 - Security Policy Analytics
- etc. to name a few.

This critical data helps enterprises gain visibility into all cloud services in use and their associated risk; analyze cloud usage to identify security breaches, compromised accounts, and insider threats.

LENDINGKART Loan Provisioning Cloud App

Problem

Massive growth in E-commerce provide enormous opportunities for individuals, small, and medium sized vendors to sell products online globally.

Challenge

But with the growth, the vendors faced inventory financing issues to meet the high pace of demand, putting their reputation and business at risk.

At the same time, the process for seeking growth capital through traditional banking institutions,

was too slow to meet the challenging pace, and thus microfinancing was born and privatized. Our client had a unique, entrepreneurial concept in mind but didn't have the know-how or team to build it.

Solution

Tresbu built a web/mobile compatible application on the salesforce platform, which can integrated to E-commerce and other third party applications from where e-commerce sellers can obtain instant loans. The solution offered complete loan requesting processing through an API and also through a customer community portal and integrated with credit bureau's and leading e-commerce providers.

Results

Our Cloud adaptation gave the client complete control on the operational costs and zero application downtime. The robust integration of API's enabled loan requesting and validation with no human intervention. Target customer satisfactions goals, target lead generation goals, and minimum tech support goals were all achieved.



Employee Engagement Platform

Problem

For the success of an organization, it is very important for the employees to have an increased engagement across the organization. This is often overlooked as organizations are divided into departments and employees seldom have a platform to voice their ideas and opinions.

Challenge

The people doing the hands-on work are the ones who usually know the truth of what will succeed or fail, but it's often career-limiting for them to express their views to the executives and safe means of providing that information are unavailable.

One of the main reason employees feel disengaged and frustrated is because they don't know how to connect their skills, talents, and thoughts to solving their organization's challenges.

Solution

Tresbu built a mobile/web application where POPin provides executives and leaders with a way to make it safe for employees to say why something will or will not work, and to provide constructive input to solving corporate challenges. The result of using POPin is employee buy-in and organizational alignment.

Business Benefits

POPin helps eliminate assumptions and interpretation, seek ideas and opinions, and improves the overall effectiveness of teams, departments and the organization as a whole. Listening to employees and helping them connect their skills with the problems in an organization ultimately recaptures lost productivity and provides greater employee buy-in and engagement, while reducing turnover.

3-Tier GPU Video Transcoding Platform



Problem

Client offers an array of hosting and transcoding services, but CPU-based processing was too slow to scale or keep pace with evolving technologies (UHD, 4K, etc).

Challenge

Build a REST API based load-balancing client-proxy-server system. Client had previously hired another vendor, but after long delays and disappointing results, sought to look elsewhere for the quality they needed.

Solution

Tresbu built a simple REST API-based server that performed video transcoding on the GPU, giving an orders of magnitude performance improvement over traditional CPU-based transcoding. The server deals with both Video on Demand, and MPEG-TS live streams.

The system consists of 8 GPUs for transcoding, controlled by a load balancing proxy, ensuring the most efficient utilization of all the hardware. If all the GPUs are busy, the proxy queues the jobs, and assigns them to a GPU as soon as one becomes free.

Results

Client is now able to not only improve transcoding performance and thus handle more demand, but also has a new offering to differentiate them from competition and increase revenue streams.



Enhanced Video Optimization Solution for Mobile Carrier

Problem

Without optimized video, client was facing slow network, expensive costs to provide service and an undesirable customer experience.

Challenge

In a fast moving mobile technology environment where consumer expectations are high, client was risking brand value and declining business, but didn't have the team in house to build the solution.

Solution

Tresbu built a an upgrade video processing agent and delivery mechanism such as Range Requests and MPEG-DASH.

The system consists of 8 GPUs for transcoding, controlled by a load balancing proxy, ensuring the most efficient utilization of all the hardware. If all the GPUs are busy, the proxy queues the jobs, and assigns them to a GPU as soon as one becomes free.

Results

The enhancements led to major performance improvements, which resulted in significant increases in customer interest in the product. The changes we made never made it to the field, hence my reluctance to make false claims.

Mobile BI Application for Healthcare Company

CentraMed[®]

Challenge

A leading healthcare analytics company that has several products and applications within its portfolio which run on various technologies.

These products provide analytical information of various parameters which would be useful for senior management to make business decisions on the go.

Each product had been built using varying types of technologies (java, php, .asp, .net, etc.).

Such a diverse collection of technologies presented a challenge to compile all relevant system and user information due to the multi-layered authentication & security architectures, and siloed databases, all of which forced application users to access individual applications for respective project specific data.

Solution

With a deep understanding of the problem statement, Tresbu evaluated multiple technical options that could seamlessly communicate across all product platforms. We built a custom mobile-enabled application layer with robust integration and built in flexibility to scale. Analytics and dashboards were created by rendering all graphics natively.

Results

In addition to the decision-enabling analytics available to management on the go, users also found great ease and efficiency with an integrated access to data and analytics across all products.

Real-time collaboration for Healthcare Company



Challenge

CallHealth is a technology-powered healthcare company that brings healthcare services to the doorstep of the customer. Doctor Consultations, Medicines Delivery, Diagnostic Tests, Nursing Care and Physiotherapy can now all be done at home with Call Health's dedicated team of specialists and trained medical health officers. In addition to this, Call Health's Health Assistance services prevent customers from waiting in long queues at Health Clinics and Imaging Centers, while Medical Facilitation makes hospitalization formalities less complicated

CallHealth required video / audio based e-Health solution to address the needs of all stakeholders of the system. CallHealth dispatches paramedic to patient location based on patient request. Paramedic should be able to log into system and interact with CallHealth center in seamless was via audio / video call where designated doctors should be able to advise the paramedic. Doctor and paramedic will communication using Video / Audio conversation. Doctor or paramedic should have ability to add other medical persons as per need into the call. (3 participants for video and 3 participants for audio). System should have capabilities such as presence, chat and file sharing System should have APIs to integrate with CallHealth core HIS applications.

Solution

Tresbu had deployed its Trespond accelerator which has provided seamless real time collaboration between paramedics, patients and doctors.

Results

In addition to the real time communication, Trespond could provide contextual communication along with integration capabilities

AskBUNTU

Industry & Student Exchange

Problem

Many students who have just graduated find it extremely difficult to secure jobs due to lack of industry knowledge and work experience.

Challenge

Traditionally, companies prefer to employ graduates who have prior knowledge of their field of work. Unfortunately, education institutions and students are more concentrated on curriculum-based learning thus leaving a significant gap between industry expectations and their capability. This gap is requiring organizations to invest heavily in training which is time consuming, costly, and comes with its own risks. This cycle continues every year and thus there is

a persistent gap between what the industry wants and what the students have.

Solution

Tresbu built a custom web application where a variety of industries can list small and medium scale tasks which are matched against the students academic and extra curricular achievements. Some tasks come with monetary benefits while the others are useful for work experience. This application acts as an exchange between the industry and student skill.

Business Benefits

Industries or individuals seeking help in certain areas with limited or low budgets make use of the platform to hire students to complete the task. Students also gain insights into where the industry is heading and thereby be ready with upgraded skill set for easy absorption. This platform creates an opportunity for both the players to benefit from each other.

Supply Chain Spend Data Management Solution Large Metro Hospital



Problem

One of only 3 major hospitals in a large metro area had known and unknown supply chain inefficiencies and inaccuracies.

Challenge

They knew their costs were above industry benchmarks, but didn't know how to precisely pinpoint the sources of errors.

Solution

Tresbu brought in a team of spend data management, supply chain, and analytics experts to conduct a comprehensive supply chain study and analysis, identifying key choke points, manual processes that needed updating, aging contracts that were up for renegotiation, competitive unit level pricing and other key factors that would optimize the supply chain.

Results

Armed with that specific, detailed assessment and recommendations for remediation, hospital administrators were able to optimize their supply chain spend and systems and save nearly 25% in spend while increasing capacity, system intelligence, and reporting capabilities.

Cross Platform Mobile App for Leading ALM Software Company



Challenge

The world's largest independent ALM vendor sought to create a mobile application that combines both native and HTML5 to deliver access to the clients Request Center catalogs, and services for user requests and approvals. The client also required a certifiable application that would provide access to the client's customers' and their users in a unified manner that could reduce the number of updates from a user perspective.

The application was to be deployed on iPad, iPhone/iTouch and Android devices and feature global usage, daily/nightly updates, multiple platforms, and an intuitive – responsive – elegantly designed UI that met the standards of the brand.

Solution

Tresbu design and architected a native wrapper for native device access and a common form access (HTML5) using Sencha 5. We then created a working UI (demonstrated to Field Sales) and implemented JSON consumers on server and client, as well as, a reactive client based on server configurations but using both native storage and Local Storage for increased interactivity.

Results

IT users now can react to changing new service requests, investigation needs and approvals in a more timely manner, thus increasing IT/Ops agility as well as bringing Business and IT closer.