

Sacramento Regional Transit

SacRT addresses their business, operational, and technology challenges by automating DMS Sign configuration process to enhance efficiency and speed up digital adoption.

About Our Client



The Sacramento Regional Transit District, commonly referred to as SacRT (or simply RT), is the agency responsible for public transportation in the Sacramento, California area.

In addition to operating over 81 bus routes with connecting bus service in the Sacramento area covering 438 square miles (1,134.4 km²), SacRT also operates a large light rail system, which ranks currently as the sixteenth busiest light rail system in the United States. Serving the capital of a state leading on many technology and green infrastructure efforts, SacRT has partnered and embraced these innovations to foster a more dynamic transportation system. SacRT has become an industry leader in innovative mobility solutions, starting with the launch of one of the first and largest on-demand microtransit services in the nation called “SmaRT Ride.”

Business Requirement

SacRT uses the Sign boards to display the information about the real time train timetable, upcoming events in company, warning about dos/don'ts and other useful information to passengers.

Current Sign board installed in the station are Windows base sign board and which need to be upgraded to Linux operating system. Below are the challenges which SacRT team faces while maintaining a Sign board.

1. To configure each sign board, technician need to manually upgrade all the configuration file and its parameters such as folder structure, Sign Id and other mandatory information.
2. Due to manual update process, chances of error are extremely high.
3. To update all configuration and all the new Signs, Linux board will need more times.
4. There is no way to test and check the configurations if they are configured correctly or not.



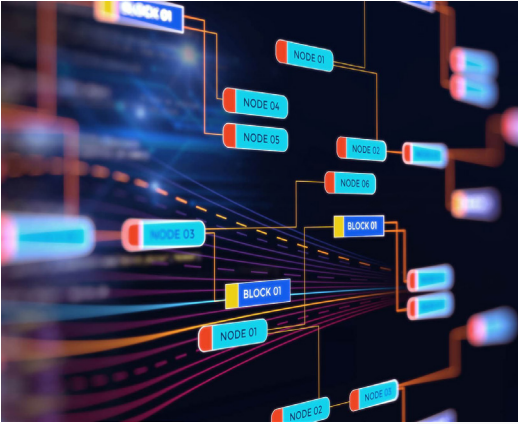
Business Need



SacRT team needed an organization with rich experience and expertise in application development and integration of web APIs for digital Sign boards.

There was a need to develop a window application in .Net, which uses the existing database of SacRT Train management system and consume the web APIs exposed by Sign boards. They wanted a company responsible for developing the Application – DMS Management System, doing the unit testing and supporting UAT testing. Also, to handhold and transfer the knowledge to help SacRT technicians to understand the application.

Business Solution



Mentis Team created the process flow, unit test plan, test cases, test reports, and developed DMS Sign Management application.

1. Analyzed business requirement, developing process flow plans, defining unit test cases.
2. Developed new process to update configuration files and its layout file to display messages in the Sign board using application.
3. Used VB .Net, C# and .net framework 4.72 for development of window applications.
4. Worked with technician and project managers to determine development strategies for DMS Sign Management applications from a technical standpoint, in particular web services exposed by Sign boards.
5. Prepared Test Strategy Document, detailed Test Plans and Test Cases which specify testing overview and testing approach depending on the Business and Technical requirements.
6. Development of new application to speed the adoption of configuration of Sign board organization wide and maximize automation to maintain across all the Sign Boards.

Business Benefits



Stability, performance & easier maintenance of new DMS Sign Management to enhance overall maintainability and upgrade process.



New DMS Sign Management application will increase efficiency by minimizing the error and time take during the Sign upgrade process



Entity, Web services, Data Validation and .Net Frameworks were implemented using latest technologies to make application's architecture modular, configurable, and scalable for future business transformations.