



Client Type: Large Enterprises | Bisig Team Lead: Todd Tucker | ttucker@bisig.com  
Service Category: Bisig Integrated Technologies

## SERVICE OVERVIEW

New demands on modern enterprises require business to streamline procedures, develop analytics and, when appropriate, invest in automation. Bisig Impact Group has significant expertise in these areas.

### BUSINESS PROCESS AUTOMATION

Defining and automating processes results in repeatable, verifiable business operations. It alleviates the problem of having this business knowledge stored only in the minds of key people, reduces training time/cost of new employees, and has resulted in order-of-magnitude reductions in time-to-completion of essential business processes.

Our teams have performed process automation for companies as diverse as West Telecom, GDT (A Systems Integrator), and Tailored Brands (the owner of Jos A Bank and Men's Wearhouse). We have created automations using Ansible and Jenkins for businesses as diverse as Citibank and oil drilling companies in TX.

**OUTCOME:** Process automation results in order-of-magnitude reduction in process time-to-completion, assures consistent results each time, and increases confidence in customers and employees alike.

### DATA MOBILIZATION

Your operations people want to use ServiceNow. Sales likes Salesforce. The finance/HR groups want to use SAP or Peoplesoft and swear that nothing else will do. The boss just wants to empower all of these groups and still gain insight into the entire business. Data mobilization allows you to share data between these various services, automating data flows, and removing silos while allowing the single-source-of-truth for different parts of the business to remain with those who produce the data. Pub/sub and messaging systems in Apache Kafka or RabbitMQ can be difficult and hard to understand, but can be tamed with the right knowledge.

Our teams have connected Salesforce and Sharepoint for GDT (A Systems Integrator), commercial phone switches and major telecom databases and services for West Telecom, and ServiceNow to automated provisioning systems and IPAM for Baylor, Tailored Brands, and many others.

**OUTCOME:** Data mobilization brings your data out of their silos, allowing that data to be leveraged from department to department, reducing man-hours across your organization spent producing spreadsheets and reports or sending emails to gather information.



## **BUSINESS INTELLIGENCE/DATA VISUALIZATION**

Today's society produces gigs and gigs of data every day. Crime statistics for municipalities organized by location and time. Cost and time analysis by a business across diverse geographical regions. Logistics information as you love goods and services throughout a global economy. All of this data can be hard to visualize to gain true insight into your operation. Tools such as PowerBI and Tableau can utilize your data lakes and puoemines to or relate and map your various data sources and present them in a way for decision makers to gain true insight.

Our teams have created business intelligence pipelines and visualizations for the city of Midlothian as well as other municipalities in TX, E911 services for North TX, and various web applications and business using MS PowerBI, MS SQL Server, Tableau, and MariaDB and NoSQL services.

**OUTCOME:** Data visualization and Business Intelligence gives your leaders a holistic view of the business so that they can glean insight previously unseen and make the important strategy decisions your business needs to navigate an uncertain future.

## **CLOUD/MICROSERVICES**

Have you moved your application into the cloud and saw your cost and complexity rise instead of fall? That's because applications that aren't designed to be cloud-native are not setup to take advantage of the efficiencies that can be gained in online cloud services. Redesigning applications into small microservices can segment functionality to take advantage of tiny, scalable containers, serverless instant-on listeners and processors, and reduce processor time, thus reducing cost on expensive cloud services.

Our teams have refactored or helped to refactor applications for banks and the federal government. We have created scalable microservices in kubernetes for the military and various banks, serverless on-demand processes in AWS and Azure for major telecom companies, Cisco, and E911 services in TX.

**OUTCOME:** Microservices and Cloud Native application design will finally deliver the promise of the cloud. Reduced cost of operation with near-infinite horizontal scalability to grow your applications automatically to meet the demands of your business.



## **DATABASE NORMALIZATION - NOSQL AND RELATIONAL**

Was your database created organically and then added onto over time for many years? Are you attempting to move into the new world of data analytics, big data, and the internet of things? Relational databases that have grown and grown without being normalized can drop in efficiency and start to hamper normal operations. NoSQL and non-relational databases require a new way of thinking and a particular set of skills to operate properly and glean information. Properly designing a relational database and efficiently writing queries in MariaDB or MS SQL Server can result in query execution 1/10 of current execution times. Proper system design for NoSQL databases such as MongoDB or MariaDB Columnstore can make all the difference in query execution and data gathering.

Our teams have created relational for West Telecom resulting in query execution reducing from hours to seconds and order-of-magnitude reductions in storage. NoSQL MongoDB databases have been created to store telecom call-data records for instantaneous data consolidation and business intelligence. Multi-company technology agnostic databases were created in MariaDB for Cisco and GDT to consolidate asset information and tracking. Data pipelines in MS SQL Server and resultant NoSQL/Relational hybrid databases have been created to consolidate and report on e911 records.

**OUTCOME:** A truly efficient data model leveraging the proper data type, whether relational or non-relational, will result in order-of-magnitude reduction in query times for your applications, increasing responsiveness and end-user satisfaction. Having a proper data model that reflects the real world, without the intervention of code will allow the business to more easily use said data to gain insight into the business.