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About the NYS DOH

NYS Department of Health (DOH) oversees the NYS Medicaid Program which supports more than 6.4 million eligible recipients at any one time and pays out over 250,000,000 claims valued at more than \$60 billion per year. For decades, the program has come under scrutiny, as costs have grown without commensurate improvements in patient outcomes. Recognizing that the present program was unsustainable, Governor Andrew Cuomo established the state's Medicaid Redesign Team (MRT) shortly after taking office in 2011. Integral to the MRT's goals, was the capacity to leverage and transform data into actionable insights.

At the foundation of New York State's strategic, data, and analytics architecture is CMA's intellectual property, which has been integrated to support New York State's Medicaid Data Warehouse (MDW) and Medicaid Analytics & Performance Portal (MAPP). The scalability and performance of this secure architecture has responded to the evolving requirements of New York's Office of Health Insurance Programs, Office of the Medicaid Inspector General, the Attorney General's Office, as well as countless contracting organizations and the underlying providers who participate the state's 1115 (DSRIP) Waiver program. In doing so, CMA has facilitated extensive business value, as evidenced by the progress of New York's DSRIP program.

As New York State's Office of Insurance Programs ushers in Value Based Payment arrangements across its Medicaid Program, the power and agility of CMA's technology accelerators, and a mix of best-of-breed tools are once again being exploited to drive meaningful results

NY State
Department
of health
Transition to
Value Based
Payments

Challenge:

The healthcare ecosystem is amid fundamental transformation, as public and commercial payers shift from feefor-service to value-based payment arrangements. Emerging business models are placing an increased emphasis on collaboration and coordination among an extended group of stakeholders, as they contract to support the holistic needs and drive improved outcomes within defined populations. Complex in nature, such initiatives need to be bounded through stakeholder access to trusted data sources, transparent reporting, and advanced analytics that provide a common prism for actionable insight.

Benefits of reliable healthcare data include improving clinical outcomes, assistance with fraud detection and revenue recovery, program management, cost avoidance, enhanced process for policy budget formulation, reduced risk of data loss and data compromise, and positioning as a leader in health system reform.



Solution:

CMA leverages Tableau to generate many of the performance improvement dashboards used by the State of New York and the 25 Performing Providers Systems operating under the Office of Health Insurance Program's - 1115 (DSRIP) Waiver.

Tableau is unique among analytics platforms in that it serves both business users and data scientists. Its simplicity empowers non-programmers to conduct deep analysis without writing code. And its analytical depth augments the workflows of data science groups at cutting-edge analytics companies like Facebook and Amazon.

With a few clicks, users can create box plots, tree maps, and even predictive visuals. With just a few more clicks, users can create forecasts or complex cohort analyses. Users can even connect to R and use Tableau as a powerful front-end to visualize model results. This means nontechnical users can ask previously unapproachable questions, while data scientists can iterate and discover deeper insights faster, yielding better, more valuable findings.

Tableau's flexible front-end allows knowledge workers to ask questions without needing to code or understand databases. Tableau also has the necessary analytical depth to be a powerful weapon in a data scientist's arsenal.

Tableau is currently being used in all 50 States and is specifically used for self-service analytics in Healthcare and Medicaid agencies in NY, MA, NH, ME, MD, MI, TX, CA, VA, FL, and MN.

NY State
Department
of health
Transition to
Value Based
Payments



Impact:

As New York's Medicaid program began transitioning to Value Based Payments, a whole new set of dashboards needed to be created to model, monitor, and measure the variety of value-based arrangements implemented across the state. Additionally, it's critical that the Managed Care Organizations (MCOs) and Accountable Care Organizations (ACOs) participating in a variety of value-based payment arrangements can access and analyze broader sets of data than might exist within their own data stores. Such capabilities are essential to facilitating transparency and trust among the parties looking to improve outcomes, reduce costs, and mitigate contractual risk.

To accommodate such use cases, the value of CMA's Intellectual Property has been extended with the deployment of the MAPP Analytics Console for New York State. This secure and dynamic environment enables authorized end-users to self-provision a virtual desktop, curated datasets from the state's Medicaid Data Warehouse, and leverage the power of Tableau to conduct timely queries and analysis on their own. As a result, approved stakeholders can now to generate their own, customized dashboards reflecting any one of the important metrics for their value based payment arrangement. These dashboards can include visualizations of Potentially Avoidable Complications; Comparison of Cost of Services between their organization, and others treating the same episodic bundle; as well as High-Risk/High-Cost patient information, to better manage their care and identify "outlier" providers based upon cost or outcomes.

The powerful combination of CMA and Tableau is highly extensible to organizations outside of State Medicaid Operations. Whether it's a commercial insurer moving to value-based benefit programs, or a research organization advancing new products and services, there are instances where individuals require access to unified data from a variety of sources, to visualize, analyze and advance their organizational missions.

In response to these marketplace challenges, CMA once again leveraged its Intellectual Property to develop Mosaic Insights, a general purpose, commercialized product that facilitates an Amazon-like experience for knowledge workers. These workers can view and provision data for analysis and visualization on either their desktops or in a highly-secure virtual desktop interface. Mosaic Insights enables disparate sources of data to be transported at scale from systems of record to a unifying publication layer that serves much like a catalog. A subscription to a personalized desktop interface, which features Tableau, enables authorized users to quickly provision data from the publication layer and to conduct analyses on a self-service basis.

NY State
Department
of health
Transition to
Value Based
Payments

Private and Confidential



About NYS Medicaid

In New York, the Office of Medicaid Inspector General (OMIG) is an independent office responsible for enhancing the integrity of the NYS Medicaid program. They aim to prevent and detect fraudulent, abusive, and wasteful practices with Medicaid and to recover improperly expended Medicaid funds, all while promoting high-quality patient care.

The NYS Office of Attorney General's Medicaid Fraud Control Unit (OAG-MFCU) is the largest unit within the Attorney General's Criminal Division and the centerpiece of New York's effort to investigate, penalize, and prosecute individuals and companies responsible for improper or fraudulent Medicaid billing schemes.

MFCU is a revenue-generating agency that recovers taxpayer money through successful identification, investigation, and prosecution of frauds committed by hospitals, nursing homes, pharmacies, doctors, dentists, nurses, and other health care entities that bill the Medicaid program.

NY State
Medicaid Fraud
reduction and
Recovery (top
performing
nationally)

Challenge:

New York State needed a partner to help create a comprehensive and secure health care information system environment. This environment had to position NYS to meet the emerging needs of the next decade. They needed to better manage their annual \$50 Billion Medicaid Program to improve fiscal oversight, program integrity and control fraud and waste through improved big data management and enhanced analytics



Solution:

CMA was selected to develop and implement a replacement Medicaid Data Warehouse (MDW) solution and assume responsibility for the operational support of the current Office of Health Insurance Programs (OHIP) Data Mart.

The MDW, and the Secure Healthcare Analytics & Resource Platform (SHARP) it runs, each play a central role in New York State's Medicaid program. NYSDOH views the MDW as a resource serving State and local government, as well as Federal government, with plans for future expansion to use by non-government healthcare professionals.

For example, In 2012, CMA implemented an enterprise solution (The NYS Clinical Research Database) to provide fast and flexible access over 25 years of claims data and provide actionable information to achieve significant program improvements and cost savings.

The MDW meets all Health Insurance Portability and Accountability (HIPAA), including 5010, and Health Information Technology for Economic and Clinical Health Act (HITECH) requirements.

OMIG uses SHARP, within CMA's NYS Medicaid Data Warehouse, as its key information and data analytics resource for their activities. More than 275 OMIG staff and supporting consultants execute more than 1,700 queries and reports a week.

The MFCU has more than 100 users of the SHARP solution who execute more than 350 queries and reports a week.

NY State
Medicaid Fraud
reduction and
Recovery (top
performing
nationally)



Impact:

And once again, the results earned after using CMA's platform were astounding. NYS ranked #1 in the nation for fraud detection and recovery at a little over 1% of total. Additionally, over the next five years, New York State alone accounted for more than 54 percent of the national total of fraud, waste, and abuse recoveries.

MFCU

According to their 2013 Annual Report (which reported the first full year using the platform), MFCU reported the identification of over \$343 million in Medicaid overpayments.

OMIG

When SHARP went into production in June 2012, OMIG's program integrity efforts immediately increased. There was a 34 percent increase of recoveries during 2011 –2013 (\$1.73 billion) as compared to 2008 – 2010 (when OMIG used the legacy data warehouse).

In their 2013 Annual Report, OMIG reported more than \$2 billion in cost savings. This first full year of using SHARP also included:

The recovery of a record \$879 million, which was more than the two previous calendar years combined.

A record-breaking year identifying recoveries through fee-for-service and managed care audits (\$104 million and \$47 million, respectively)

\$6.7 million of recoveries through OMIG investigations, which was the highest in five years

The benefits continued in 2014, where OMIG reported \$1.8 billion in cost savings, including 1,117 finalized audits identifying more than \$126 million in overpayments.

In 2015, OMIG reported over \$339 million in recoveries, and cost savings that topped \$1.8 billion.

OMIG reported \$418 million in Medicaid recoveries in 2016. Pro-active cost-avoidance initiatives delivered cost savings of more than \$1.9 billion in 2016.

Presently, the recovery work is still going strong, with the most recent numbers touting \$2.6 billion in Medicaid cost savings and recoveries in 2017.

NY State
Medicaid Fraud
reduction and
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nationally)



About NYS Medicaid

The New York State Department of Health is responsible for overseeing the NYS Medicaid Program which supports more than 6.6 million monthly eligible, pays out over 250,000,000 new day claims a year, and totals over 60 billion dollars a year in payouts.

The State of New York selected CMA, over OptumInsight and Truven Health Analytics, to replace their legacy Data Warehouse which was unable to keep pace with the increasing number of user demands or support rapidly emerging state government health and management initiatives. Some of the areas of increased demand that were specifically documented by the State of New York were:

- Access to a growing number of increasingly complex data sources such as Medicare Part D, Welfare Management System and Manufacture Drug Rebate Data;
- Claims history data back to May 1990 for statistical analysis, litigation support, liens, recoveries and long-term data analysis;
- Ability to produce increasingly complex and varied queries;
- Ability to quickly provide answers to business problems;
- · Improved ability to incorporate new information resources; and
- · Access to a more meaningful set of descriptive data.

CMA provided NYS DOH with a centralized, scalable healthcare information system but has allowed NYS to become national leaders in program integrity and healthcare reform

NY State Rapid Data Transport for Medicaid data warehouse SLA

Challenge:

The NYS MDW requires compliance with several very stringent SLAs, including having the system available for 24 x 7 access.

The NYS MDW contains over 1 petabyte of data including: Over 600 tables; Over 185 tables containing over 1 million rows; Over 5 billion rows of claims data; and over 6 million active members.

The NYS MDW also accepts and processes over 250 inbound files on a weekly basis and generates over 450 weekly outbound files to 28 different agencies.

CMA had to accept and load several terabytes of new data into the NYS MDW on both a daily and weekly basis. This new data had to be successfully integrated in with existing data, replicated into several different environments, and backed up. This required migrating extremely large amounts of data extremely quickly to meet the stringent SLA's that were put in place for the NYS MDW by DOH.

The existing COTS data movement technologies that were available and being used were not able to perform the required data migration within the required timeframes.



Solution:

CMA's technical architects designed and created <u>Mosaic Data at Rapid Transport (DART)</u> to rapidly migrate the large amounts of healthcare data that CMA had to move and integrate in accelerated time periods.

Mosaic DART is a high-speed transport framework with end-point intelligence. It is designed to provide a flexible mechanism to orchestrate the publication of transformed data from source platforms to target databases in a manner that shrinks conversion and refresh cycles, and ensures the maximum availability of the target databases. Mosaic DART can be installed and configured to run on multiple source and target platforms allowing users to define Load Groups that operate against multiple data sources and/or target databases, which may take the form of individual schemas within a single database instance. Its metadata-driven design provides highly granular configuration options, avoiding the need for code changes that could result in project delays.

Mosaic DART's design approach addresses the vital aspects of a successful solution that publishes big data to target systems: scalability, availability, flexibility, and interoperability..

NY State
Rapid Data
Transport for
Medicaid data
warehouse
SLA

Impact:

By using DART, CMA was able to stay within compliance of all SLA's related to data acquisition and data access and the MDW users were able to gain quick access to the most current healthcare data.

Satisfying the NYS MDW requirements and SLAs and providing MDW users with immediate access to critical healthcare data has led to several contract amendments for additional work to be performed by CMA within the NYS MDW.



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Case Study – Medicaid Analytics

Client Overview

Texas Health and Human Services – Agency responsible for public reporting and accountability of services and care provided under Texas Medicaid system with a goal to improve quality of care and

Engagement Details

- Comprehensive Solution for Medicaid Analytics including Data management, ETL and Dashboards
- Blueprinting, Design and Implementation of Data Infrastructure, Reporting Services, Portal Architecture and Dashboards
- Users: HHS staff, Health plans (MCOs), Providers, legislative body and public

Services Offered

- Multiple Modules encompassing a wide range of Medicaid Analytics per CMS and state requirements
- Data Warehouse, Data Marts, ETL,
 Visualization, Analytics for public and private consumption
- Healthcare and Dental Quality of Care
- CMS Core and Survey Measures
- Consolidate claims data over 10 years for 25 plans, 15 service areas and 100s of providers

Business Benefits

- Insights into Medicaid and CHIP system utilization, Quality of Care and Provider benchmarking.
- Benchmark MCO performance across quality measures to create performance improvement plans
- CMS and State legislative compliance for transparency and reporting
- Identify interventions to reduce costs incurred by High utilizers

Engagement Journey Software upgrade and refined UI Data Lake Creation Public Portals Project Kickoff & Release to MCOs · Child Health Quality Discovery phase Measure Analytics Performance Programs DB Dashboards Jun 2016 May-Jul Oct 2016-Mar-Apr 2018 Sep 2016 2019 2020 2017 Feb 2017 2017 Analytics Dashboards Release to HHS Users · Requirements Signoff CMS Measures Pay for Quality Quality of Care, Potentially High Utilizers · Fit-gap and future state Survey Measures Preventable Events, Hospital Support & design Support & Performance & Resources Maintenance Maintenance

https://thlcportal.com/



About the DC DHCF

<u>The District of Columbia (DC) Department of Health Care and Finance (DHCF)</u> decided to implement a new Medicaid Data Warehouse (MDW). The DC Medicaid Program currently supports more than 260,000 active members, more than 11,000 Providers eligible, and more than 300 reports.

The DC MDW initially scheduled data warehouse implementation in September of 2016, but missed that deadline. They recognized that external expertise was needed to meet the new September 2017 deadline. DHCF Leadership reached out to CMA to leverage our Medicaid knowledge, project management expertise, and NYS MDW documents and materials.

.Challenge:

In addition to needing to meet an aggressive deadline, the DHCF had reasons for wanting a new Medicaid data warehouse in the first place. The existing Medicaid data warehouse did not provide users with efficient access to the data that they needed.

The new DHCF MDW had to meet the following requirements: Implement a solution using Microsoft Technologies, including Power BI for reporting, provide secure and efficient ad-hoc access to key Medicaid data via a single sign-on web portal, and comply with all Federal and Local requirements and security standards.

Solution:

To get things off the ground quickly, CMA provided DHCF with key MDW materials and documents from our implementation of NYS MDW, including security policies, a change management plan, a business continuity plan, a quality assurance plan, and a risk and issue management plan. CMA also provided key PMO recommendations, which included phasing implementation for select pilot users.

With these previously-written materials in hand, CMA created key deliverables for the project, including a risk and issue management plan, a quality assurance plan, and a data governance plan.

CMA also developed and maintained Work Breakdown Structure (WBS) project plan, reviewed and validated ETL data and reports and dashboards, and developed and unit tested key reports and dashboards.

Impact:

CMA has deep experience in Medicaid <u>data warehousing</u>. We possessed the Medicaid knowledge, Microsoft experience, project management expertise, and key MDW documents and materials that DCHF needed to successfully meet their expedited implementation deadlines. DHCF implemented Phase I of their new MDW on schedule in September 2017. CMA's contract with DHCF has extended beyond this phase and we look forward to continuing our work in DC

Medicaid Data
Warehouse
Planning for
Washington
D.C.



About the DC DHCF

Ohio Department of Medicaid (ODM) administers a \$28.2 billion program that represents 23 percent of the State's general fund budget. As is the case in most states, Ohio's Medicaid Prescription Drug Programs represent both an opportunity and risk when it comes to lowering costs, enhancing patient outcomes and improving the health of the population. Recent challenges—including the rate at which opioid-based drugs are prescribed to Ohioans, a lack of transparency into the excessive profits of Pharmacy Benefit Managers, and the need to preserve beneficiary access to community pharmacies—serve as markers that are prompting state leadership to introduce strategic reform measures.

Analytics plays a key role in Ohio's Medicaid Reform initiatives. The State's Health and Human Services—Enterprise Data Warehouse (EDW) serves as a strategic asset for a host of standard reports and advanced analytics that will be leveraged to improve the health of Medicaid recipients, while insulating taxpayers from excessive costs. Before the State can leverage its EDW in support of reforms, it needed to assess and develop a set of comprehensive requirements. These requirements will ultimately facilitate the extraction, transformation, and loading of data from a variety of sources into the EDW, as well as the subsequent cleansing, linking, and enrichment of data sets, making them analytically ready to support the State's current and future requirements.

CMA is proud to have been selected for this important role. During Phase 1 we were charged with developing the State's adopted set of requirements, as well as the Implementation Plan for the subsequent design, development, testing, and implementation of an enhanced set of strategic capabilities that will enable ODM to optimize outcomes associated with its Medicaid Prescription Drug Program..

Pharmacy Benefit Manager Reforms

Among ODM's most pressing concerns, are the historical practices of the State's contracted Pharmacy Benefit Managers (PBM). Following intense scrutiny, it was reported that the PBMs had been skimming hundreds of millions of dollars off the Medicaid Prescription Drug Program through previously-hidden "spread pricing" tactics. In addition to the wasteful costs imposed on taxpayers, these practices frequently diverted available Medicaid funding from community pharmacies which were beginning to close at an alarming rate.

In response, Ohio introduced sweeping changes to the way the Medicaid Managed Care Program administers pharmacy benefits. Among these changes were the introduction of new pricing models that eliminated the black box that PBMs operated in. These models facilitated a level of transparency that will enable ODM, citizens, and other stakeholders to see exactly what is paid out for all pharmacy transactions in the future.

This initiative is among many opportunities that necessitate integrated, enhanced, and centrally-managed data in support of essential analytic measures that make it possible for the State to plan, implement, manage, and sustain successful reforms.

Ohio Medicaid Pharmacy Analytics Roadmap



Challenge:

Ohio's Department of Medicaid elected to enhance and exploit the State's HHS–EDW investment to drive improved outcomes for Medicaid beneficiaries, and the state's taxpayers. Among the immediate and potential benefits derived, are an ability to:

- Conduct actuarial analyses necessary to achieve budget neutrality during PBM reforms.
- Capture data associated with drug rebate processing, pharmacy prior authorization, and prospective drug utilization review from the state's new PBM.
- Facilitate ODM's reporting needs, including its annual survey of pharmacy dispensing costs.
- Monitor patient medication adherence, disparities, dosages, durations, and associated diagnoses to identify best practices and inform where intervention may be needed to improve outcomes.
- Identify patterns and anomalies in the prescription and dispensation of controlled substances, to mitigate the risks of addiction and diversion that contribute to the state's opioid crisis.
- Enhance surveillance-related processes that insulate taxpayers from the consequences of fraud, waste, and abuse.

Ohio Medicaid Pharmacy Analytics Roadmap



Solution & Impact:

Ohio recognized that the value of insights generated by its analytics platform in support of strategic initiatives is heavily dependent upon the ability to extract, transform, and load new and complementary datasets into the EDW, and enrich the data for use in analyses, beginning with those required for Pharmacy Benefit Management Program.

To ensure the success of the Pharmacy Benefit Manager/Business Intelligence & Enterprise Data Warehouse Integration project, the State awarded Phase 1 responsibilities to CMA. This engagement required CMA to conduct a comprehensive analysis of the source PBM data environment; develop a comprehensive plan to ensure the safe and secure transport and staging of highly sensitive prescription data from the PBM platform to the EDW; establish linkages between the merged data sets to enable more comprehensive and longitudinal analyses; integrate Pharmacy, Drug Rebate, Prior Authorization, and Prospective Drug Utilization (Pro-DUR) data unique to the PBM into the EDW; design, develop, and implement predefined reports and analytical structures to support the ad hoc reporting requirements of analysts using a variety of tools (Cognos, SAS, and Tableau); and establish service levels and operational processes that promote the availability and performance of these strategic enhancements to the EDW and dependent workflows.

CMA leveraged its proven and repeatable methods to promote the success of the project. As the State's partner, we collaborated with key stakeholders including ODM, the Department of Administrative Services – Business Intelligence Team, and Change Healthcare to assess how best to integrate new data sources without disrupting PBM or EDW operations. CMA facilitated this collaboration through numerous JAD sessions to produce a ratified set of requirements and an adopted plan for the design, development, testing, and implementation of the project. This work included:

- JAD sessions with Change Healthcare, over 100 pieces of PBM documentation were collected and analyzed.
- JAD sessions with the Department of Administrative Services EDW technical leadership to address system design, security, and protection of PHI, PII, FTI, and drug rebate data.
- JAD sessions with ODM business users to review standard reporting requirements, collaborate on best-practices with our client in the State of New York, and plan for a subsequent, Phase 2 implementation.

From these collaborated JAD Sessions, CMA produced a comprehensive set of artifacts which will anchor and ensure the success of this complex, multi-phased initiative. These artifacts included documentation pertaining to a myriad set of functional requirements; business, standard and integration rules; assumptions; baseline documents of PBM source data tables; and standard reporting requirements to be developed in a subsequent implementation phase. CMA also updated and transitioned the overall Implementation Plan to a more contemporary, Agile methodology, to facilitate increased project control, higher customer satisfaction, reduced risks, and more nimble development and testing for improved quality.

Based upon the outcomes of this project, the State of Ohio subsequently awarded Phase 2 of the initiative (extract, transformation, and loading of source data into the EDW) to CMA

Ohio Medicaid Pharmacy Analytics Roadmap

OUR MEDICAID PRODUCT & ACCELERATOR

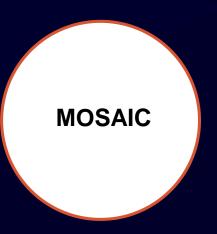


About MOSAIC

Mosaic is the art of data management. Create your bigger picture with our Mosaic line of data products. Mosaic offers trusted tools that optimize the way you discover, evaluate, and visualize quality insights.

- · Work at the most efficient speed possible
- · Enable both business and data workers
- Bring together disparate users
- Orchestrate across solutions
- · Make your data work across an enterprise

Explore each Mosaic product to discover all the way the pieces can come, beautifully, together.



Mosaic Insights

Organizations across every industry seek to unify and transform mountains of data (from a variety of sources) into timely and actionable insights. While the premise sounds simple, the path is fraught with technical, financial, policy, and security-related obstacles.

Both business and technical analytics workers can easily harness Mosaic Insights to overcome these challenges and deliver sustainable business value on an accelerated basis.

OUR MEDICAID PRODUCT & ACCELERATOR



Mosaic DART

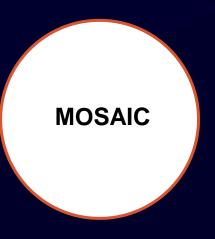
Effortless Movement of Data

Mosaic DART is data transport optimization, designed to save time, save money, and efficiently accelerate your work with Big Data.

Many customers struggle with how to achieve business objectives from constantly expanding Big Data. Legacy systems often don't deliver the speed and scale necessary to achieve a good ROI.

We believe the movement of data is key. Movement holds many untapped areas for improvement. Increase productivity, keep precise control, and always move at optimal speed.

DART is the fastest software on the market today to achieve effortless movement of data and data structures.



Optimize the Cloud

- · Gain productivity in complex environments
- · Move structure, as well as data
- · Understand endpoint to endpoint

Optimize Migration

- Upgrade to the cloud in FeCOID TIME.
- · Solve peak workload problems
- · Move at a fraction of the cost

Optimize Knowledge

- Empower all data workers
- · Easily orchestrate movement
- No programming necessary

Optimize Productivity

- · Abstract away complexity
- · Keep precise control
- Always move at optimal SDEEC

OUR MEDICAID PRODUCT & ACCELERATOR



How Mosaic DART Works? Think of Mosaic DART as excellent GPS for

Think of Mosaic DART as excellent GPS for your data. Slow data is a logistics problem, and Mosaic DART provides the smartest way to get data from one place to another, as quickly as possible, every time.

How is it possible to increase productivity, keep precise control, and always move at optimal speed?

CMA uses heuristics to abstract the complexity involved, which we pair with deep endpoint intelligence to achieve high-speed data transport and orchestration. And as you progress, Mosaic DART will learn and improve its process.

Our simple UI creates an easy-to-use workflow that still allows granule control at the object level, allowing either a technical DBA or someone with no programming knowledge to move data on their terms, when they need it.

For example, instead of taking five hours to program scripts to move data, and then wait for a five-hour move to finish, Mosaic DART allows users to set-up the move in five minutes and accomplishes the move in one



How Can Mosaic Work For You?

<u>Business End-Users:</u> Business end users, from analysts to executives, need to maintain the self-service aspect of modern data tools, that is, not go through IT or know how to code themselves. Business users also require robust sets of data that pull from diverse data sources, both internal and external to the enterprise.

The Mosaic line of products covers all this and more. Mosaic Insights provides the enterprise framework and governance, while Mosaic DART ensures the speed you need for fast insights.

<u>Data Stewards:</u> Without good processes, data analysis can easily create governance issues and enable multiple versions of the truth, or even insights that are flat-out wrong.

Mosaic Insights provides the security and governance data stewards, and the enterprise, need. And Mosaic NVMe Database enables the scaling needed to respond to changing data environments.

<u>Data Analysts & Engineers:</u> If you are technical and work to optimize data work every day, the Mosaic line provides a productivity boost unlike any other.

Mosaic DART allows the seamless movement of data and datasets from end-point to end-point, more quickly than anything else on the market.

ADDIONAL PUBLIC/HEALTH CARE



Related Projects Experiences

Critical Relief for Healthcare Providers in New York State

Critical Relief for Healthcare Providers in New York State – Project to ensure the integrity just administration of Medicaid benefits related to the Federal Personal Responsibility and Work Opportunity Act (PROWRA)



Enterprise Data Warehouse Development for NYC HRA

Enterprise Data Warehouse Development for NYC HRA – Related to same PROWRA effort of NYS Human Resources Administration and Department of Social Services included Development of an Enterprise Data Warehouse and interfaces to all key state systems and departments related to health and welfare of NY citizens.



Challenge:

The client, Beaumont Health, is Michigan's largest health care provider with 9 hospitals, 3,300 beds, and annual revenues of \$5.5 billion. The client sought assistance with merging 3 entities, Beaumont, Botsford, and Oakwood into Beaumont Health. Entities had disparate ERP's and manual treasury processes (the exception was 1 entity which used the Sunguard system for treasury management). The Botsford entity used cash basis accounting whereas the other entities used accrual basis accounting. The client also wanted to re-engineer the Finance and Accounting processes, and implement PeopleSoft 9.2, Financial Supply

- Enable the consolidation of the 3 entities (Beaumont, Oakwood and Botsford hospital) into Beaumont Health
- Consolidate operating, controlled disbursement accounts (CDA), and demand deposit accounts (DDA) accounts
- Facilitate revenue recognition at the patient and non-patient level

Chain Management, and Treasury solutions. Doing so, would:

· Enable cash application at the source so that current manual reclassifications during month end close could be avoided



Solution:

- Bank administration and cash management which included the consolidation of 58 bank accounts into 3 new bank accounts (Operating, CDA, DDA)
- Centralization of disbursement from AP to other legal entities
- Bank BAI2 integration for inter/intra daily balance and activities to reconcile, forecast, balance reconcile at month end
- Revenue activity by location coded to identify source of cash from bank, categorization by patient, non-patient and other in order to reconcile, forecast and automatically apply receivables in the GL with EPIC and non-EPIC billing interfaces
- Consolidated solution for GL-Cash integration, bank integration and dispatch of cash and AP settlements by a financial gateway
- Cash forecast using several scenarios with drill down approach
- Identification of excess or short of cash to make decision on funding or investment

Impact:

- · Created a simplified process flow for different entities for cash entries
- Reduced number of bank accounts and bank charges as a result of consolidating entities
- · Replaced existing Sunguard, EBS and home-grown systems
- · Structured operating, CDA, DDA accounts to enable visibility by entity and overall consolidated view
- Automated bank reconciliation solution and saved costs related to 20 FTEs
- Reduced the cash closing cycle time from 9 days to 3 days
- Supported timely planning of funding and investment needs via the use of a dashboard approach for cash flow forecasting

Public sector



Challenge:

- The client, the Commonwealth of Pennsylvania State, Department of Treasury sought assistance with a 4 year modernization project which included several phases related to a vendor and software selection, implementation and stabilization of Peoplesoft 9.1:
 - Engaged with Oracle to sell PeopleSoft and develop a proposal for an additional governance, risk and compliance (GRC) solution from Oracle
 - Implemented PeopleSoft 9.1, replacing and integrating with various legacy systems and manual processes
 - · Streamlined and automated the legacy financial management system
 - Deployed banking, cash, deal management, AR, AP, PO, GL, commitment control, budget and forecasting solutions
 - · Interfaced (inbound and outbound interfaces), including compliance data for over 70 statewide agencies data



Solution:

- Vendor selection, solutioning, and partnering with the appropriate company to deliver the selected solution and provide on going support
- Creation of single GL business unit and decentralized business units for other transactions
- Vendor consolidation, AP mass check printing, and ACH NACHA file interface from agency and other reporting interfaces back to agencies
- Pool/participant solution integrated with GL based on real-time income and expenditure data for various funds
- Income distribution and market value strike from BNV/Mellon custody based on investment, redemption, MV, NAS
- Debt schedule for all the open series and new and refunding series
- · Dispatch file with acknowledgement integrated with FG solution
- Custom fund balance budget check in addition to regular budget controls
- · Cash reconciliation consolidation at the fund level from cash accounting and bank account reconciliation

Impact:

- · Decommissioned several legacy and manual systems and excel based calculations
- · Put in place a smart interface for inbound and outbound agency payments, accounting and voucher data
- Streamlined the Procure to Pay and Cash to Invest processes and integrated with commitment controls in GL
- · Provided automatic bank reconciliation, fund account consolidation, and budget check at the fund level
- Streamlined mass printing of checks with a custom solution in AP
- Automated agency revenue and expense from the GL to invest or redeem funds by using the pool/participant feature thus
 reducing manual effort via the maintenance of excel sheets and calculations
- Saved costs by replacing third party services for market rate and income distribution
- · Automated the manual debt schedule maintenance