

Centers for Medicare & Medicaid Services (CMS)

Northrop Grumman Overview

Northrop Grumman has a long history of successful performance at the Centers for Medicare & Medicaid Services (CMS). Our experience offers significant depth and breadth across CMS functional and technical areas. We have been instrumental in the design, development, and ongoing maintenance of critical CMS programs since 1998.

We bring direct related experience to each project, both in terms of expertise in CMS systems, data, and processes and also in terms of technical expertise in the technologies, standards, and procedures of CMS. Our integrated project teams provide meaningful insight into alternatives and impacts from a business perspective. We have helped CMS to quickly implement and deliver system functionality and performance enhancements. By providing this ideal blend of functional and technical expertise, Northrop Grumman has become a trusted CMS partner, helping to lead key projects to practical, efficient solutions that met CMS' business needs.

Our proven past performance and experience includes:

- A successful track record in developing and maintaining innovative, cost-effective system solutions using a proven systems development methodology that has been certified at CMM Level 3
- Hands-on experience developing and maintaining CMS data management systems and delivering solutions to the CMS user community
- Experienced project management skills that address the need for significant communication and coordination among various departments in CMS, including business users, technical staff, and other project teams
- Strong quality assurance processes and procedures that incorporate quality checkpoints at each phase to ensure success and program validity
- Mature configuration and change management processes and procedures, including strict monitoring and version control of ongoing system development, future system modifications, and enhancements
- Detailed knowledge of CMS data, processes, and standards including the MMA legislation.

Northrop Grumman provides proven technical and functional knowledge of the Medicare program, particularly relative to beneficiary, payment, and claims data. We have sound knowledge of a wide range of CMS systems including:

- Medicare Beneficiary Database Suite of Systems (MBDSS)
- Enrollment, Entitlement, and Eligibility Database (EDB)
- Common Working File (CWF)
- Health Plan Management Systems (HPMS)
- Group Health Plan System (GHP)
- Medicaid Statistical Information System (MSIS)
- Coordination of Benefits (COB) Contractor
- MARx
- Retiree Drug Subsidy System (RDS)
- Drug Data Processing System (DDPS)
- Payment Reconciliation System (PRS)
- Payment Withholding System (PWS)
- True Out of Pocket Costs (TrOOP)
- Medicare Appeals System (MAS)
- Next Generation Desktop (NGD)
- Medicare Secondary Payor (MSP) Recovery Management and Accounting System (ReMAS)
- Risk Adjustment Processing System (RAPS) and Risk Adjustment System (RAS)

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- Medicare Claims and Utilization National Claims History (NCH)
- National Medicare Utilization Database (NMUD)
- HCFA Integrated General Ledger Accounting System (HIGLAS)

Northrop Grumman also provides proven expertise in high volume data management, complex data modeling and in developing, implementing and maintaining large-scale, multi-terabyte databases using DB2 and Oracle. We have demonstrated strong technical background in key CMS technologies and tools including object oriented analysis and design, data warehouse/data mart development, database management systems, data migration, JAVA, J2EE, Spring Framework, EDI, Informatica, MicroStrategy, DB2, COBOL 390, Microfocus COBOL, Merant Net Express, Flexus COBOL/SP2, APCSS, DOORS, ERwin, COGNOS Impromptu, QMF, Abend-Aid, File-Aid, JCL, JCLPREP, SORT, SPUFI, QMF, Crystal Reports, ENDEVOR, PVCS, Risk Radar, Sun Identity Management Software, and mainframe and client/server application development and Web-enabling expertise.

Medicare Beneficiary Database Suite of Systems (MBDSS)

Northrop Grumman is the prime contractor for the integrated project team that successfully supported all phases of the CMS MBDSS development effort. MBDSS supports CMS' movement toward an information-centered approach for recordkeeping, with an initial focus on beneficiary data. One of the objectives was to establish a common enterprise-wide information solution that provided improved data integration throughout the Medicare program.

MBDSS, formally also known as Medicare Beneficiary Database (MBD), is a collection of individual applications and services that access a single, enterprise-wide authoritative source for Medicare beneficiary demographic data to support the collection and maintenance of Medicare beneficiary information (e.g., enrollment, insurance, premium payments). This demographic data includes the integration and standardization of heterogeneous beneficiary data that were previously fragmented and often redundant within isolated CMS legacy systems. Our Team's unparalleled experience and understanding of MBDSS provides CMS a low-risk, high-quality solution. The Northrop Grumman Team's experience on MBDSS is extremely relevant to all CMS initiatives and tasks.

CMS developed the MBD Data Warehouse, an IBM DB2 database, to provide a centralized, single database to enable communications with other systems while being able to view, manage, and update beneficiary information. The MBD Data Warehouse is primarily a component of the Medicare Beneficiary Enrollment System and Managed Care Systems structure. The MBD Data Warehouse also supports ongoing Medicare program administration and customer service goals, including Medicare claims payment and entitlement; Medicaid coverage, Medicare+Choice elections, and payments; coordination of benefits for the purpose of conducting Medicare business; payment demonstrations; and demographic research.

During the MBDSS implementation phase into the CMS Data Center, the Northrop Grumman Team organized an integrated team of CMS personnel and other contractors to coordinate, identify, and address all MBDSS implementation issues. The result of this team-representation proved highly successful and has been used as a model for implementing other systems within the CMS Data Center. The Northrop Grumman Team applied a variety of structured, iterative, modular analysis, and design techniques while developing the prototype and the production MBDSS. Using this approach achieved an optimal design quality and control with high reusability of all code that minimized maintenance activities. The Northrop Grumman Team has been instrumental in the design, development, and ongoing maintenance of the MBDSS program since its inception. Our Team successfully demonstrated to CMS that beneficiary data could be stored, tracked, accessed, and maintained effectively in the current CMS environment. We accomplished this critical CMS objective by using updated, modernized tools that increased performance and security of the Privacy Act and HIPAA data while ensuring consistent data integrity.

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Our ability to continue analyzing, developing, testing, and implementing additional interfaces with other CMS systems has been demonstrated through the successful interface implementations currently being used today. The Northrop Grumman Team conducted multiple Validation Readiness Reviews for key milestones during the MBDSS development phase. In support of MBDSS installations, the Northrop Grumman Team developed installation instructions to guide and direct users step by step on how to install the MBDSS and associated Internet software. We continue to efficiently and effectively maintain the MBDSS and develop additional interfaces with other CMS systems. Throughout the MBDSS maintenance life cycle, the Northrop Grumman Team has successfully identified improvements in data and system processing while increasing data integrity and system performance. Prior to the production release, the Northrop Grumman Team assisted CMS in a risk assessment to identify potential security risks in protecting the MBDSS Privacy Act and HIPAA data. As a result of the risk assessment, the Northrop Grumman Team developed the MBDSS System Security Plan that adheres to CMS security standards and describes the MBDSS technical design and its approach for addressing potential security risks.

Today, the MBDSS provides CMS with an authoritative centralized database containing beneficiary demographic and entitlement information. The MBDSS communicates with other internal CMS systems to provide current, standard, valid, and timely data for processing beneficiary selections of capitated delivery options. It also provides a comprehensive “national view” of beneficiary information that is consistent throughout the Medicare program; which primarily supports CMS’ operational and customer service business goals.

Individuals Authorized Access to the CMS Computer Services (IACS)

CMS is undertaking the development of a large-scale IT modernization initiative to improve the quality and delivery of health care services to beneficiaries, providers, and business partners encompassed in multiple Enterprise Data Centers (EDCs) using a Common Enterprise Infrastructure (CEI). A core element of the CEI is an enterprise-level security architecture that employs common security services. The Enterprise Identity and Access Management (EI&AM) framework was created to meet this goal. The new CMS EI&AM framework provides a single identity and associated authentication for each user. This single account, coupled with an enterprise Role Based Access Control (RBAC) capability, eliminates the need for multiple user accounts and reduces costs for user licenses and the maintenance of multiple accounts. Other enterprise security services, such as encryption, security, and performance monitoring, also reduce the application costs for each business owner. The EI&AM framework controls both the issuance of electronic identities and the access to CMS applications. This service supports multiple levels of authorization and multiple factors of authentication.

In September 2005, Northrop Grumman was awarded the Enterprise Identity Management & Authentication Integration Services task. This included providing the Government with best practices documentation; performing gap analysis of the inherited implementation; performing a complete redesign of the existing system; collecting application integration requirements; performing system analysis and proposing the integration design; performing coding, unit and systems testing; and developing various user documentation including User Guides and Help Desk Scripts. In April 2006, Northrop Grumman was awarded IACS Operations and Maintenance task. During the past year, Northrop Grumman has successfully integrated IACS with the following systems/applications: COB, PDE/RAPS, 270/271 UI, and CMS Applications Portal. The following new functionalities have been introduced to the IACS framework: password self-service, IACS-MARx provisioning, e-mail notifications, integration with the HPMS feed, provisioning to the Access Manager LDAP, password lockout, duplicate ID resolution, PRA language, and expiration of pending approvals.

As a part of the complete redesign of the inherited solution, Northrop Grumman has performed the following activities: upgrading Sun JAVA Identity Manager to version 6.0, redesigning and modularizing old workflows while removing hard-coded values from the XPRESS code, redesigning old user interface while addressing many Section 508 compliance issues, applying new CMS Web

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branding, and resolving MITRE Audit findings, while producing all the necessary documentation in accordance with CMMi Level 3.

Other CMS Projects

In addition to completing tasks under the EI&AM framework, Northrop Grumman has successfully developed and deployed a number of applications to the satisfaction of the Chief Technology Officer of CMS and its business partners. Those applications were all built using latest technologies and that were integrated with the IACS on time and with no defects. The following applications were installed on the CMS modernization project's three-zone multitiered environment residing within the CMS Data Center secured environment: Community-Based Organizations and Customer Service Representatives (CBO/CSR), Medicare Beneficiary Database User Interface (MBD UI), Eligibility Inquiry and Response Systems (270/271 UI), and CMS Applications Portal.