



Commonwealth of Massachusetts

OFFICE OF THE COMPTROLLER

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OFFICE of the COMPTROLLER (CTR)
Business Enterprise Systems Transformation (BEST) Program
Business Intelligence/Data Analytics Lead
Job Posting FY20, 015 - 00035703

About the Office of the Comptroller

The Office of the Comptroller (CTR) is an Independent, Executive Level Agency. Our mission is to promote accountability, integrity, and clarity in Commonwealth business, fiscal, and administrative enterprises. We strive to be a model for good government and to protect public resources by mitigating the risk of fraud, waste, and abuse while promoting transparency. Our core values include: Teamwork, Communication, Excellence, Service and Trust. CTR is responsible for the processing of approximately \$60B in annual transactions, including a bi-weekly payroll of approximately 100,000 individuals. The office is organized into several business teams all of which are located within the Boston office.

About Business Enterprise Systems Transformation (BEST) Project

The Commonwealth of Massachusetts is undertaking a multi-year project known as the **Business Enterprise Systems Transformation (BEST) Program** to implement a comprehensive Enterprise Resource Planning (ERP) software solution that will support a wide range of business functions used by all state agencies. The initial scope of the project is to replace two core applications (MMARS and HR/CMS) that are used by 152+ state agencies to support Financial Management and Workforce and Compensation Management with a new solution. It is envisioned that the new solution will also include additional modules that support a full software suite capable of addressing government business needs that will provide the Commonwealth with the capacity to migrate other applications to a single solution platform over time should it elect to do so.

The Financials and HR/Payroll modules are expected to be implemented over an approximate 2-4 year period beginning in the second quarter of Commonwealth Fiscal Year 2021 (October, 2020). Implementation is expected to be in two phases, one for each major module (Financials and HR/Payroll). Implementation timelines and approaches are not fixed at this time and may be modified.

The BEST Program is jointly sponsored by the Secretary for Administration and Finance, the Comptroller of the Commonwealth and the Secretary of Technical Services and Security.

This job posting is being issued through the Office of the Comptroller, as the successful candidate will be employed by the Comptroller's Office.

Position to Fill - Business Intelligence/Data Analytics Lead

The **BEST Business Intelligence/Data Analytics (BI/DA) Lead** will provide the leadership required to design and implement the data information management and reporting strategies, tools and outputs that will provide a robust reporting and data analytics capacity for users of the new solution. The implementation of a single source ERP for Financials and HR/Payroll will provide users with the ability to query live data in these applications directly rather than waiting for data to be processed in nightly batch files and/or available through warehouse reports. Data will be integrated across ERP modules permitting more robust, real time reporting and greater analytics and analytical capabilities.

Leadership will also be needed to develop options for how the new solution will support data queries to the current Commonwealth Information Warehouse (CIW), a twenty-six year old data repository of historical information. Users must be able to query this historical data and run reports or download data if the CIW will continue to be in use for some period during and after the project. Options for the replacement of the CIW may also be included as part of this project or a related project.

The BI will be a member of the Programs' Project Management Office (PMO) and will oversee the tasks of a team comprised of Commonwealth agency and product vendor/implementation services staff assigned both as full and part time project resources.

There will be three primary areas of responsibility:

1. Visioning – The BI/DA will work with current users and administrators of business intelligence and data analytics functions in Commonwealth agencies to understand the capabilities of these systems and to **identify opportunities for improvement** where users are currently not able to access data in a timely or complete manner to perform or report on daily business functions, historical trends, management key indicators and other data that support good business practices. This will include identifying current reports and new reports or other data analytics that are essential to support business users and managers and options for how historical and current data will be joined or otherwise managed to support analyses including both data sets. The integration of new technologies such as Artificial Intelligence (AI) offered in new software solutions into the BI/Data Analytics framework will be led by the BI/Data Analytics Lead.
2. Support Software and Implementation Services Procurement – Develop sections of the software and implementation services procurement RFP related to requirements, use cases and/or opportunities for improvement in the areas of BI, reporting and data analytics. Participate in review of vendor responses and product demonstrations.
3. Application Configuration and Deployment – Work with project teams, user groups and the selected vendor to implement configurations to address Commonwealth requirements related to BI, reporting and data analytics. If it is determined that **additional software** functionality is needed to meet Federal or State mandated public sector reporting and analytics requirements, the Lead will work with the product vendor, project and user teams to scope out requirements and identify options for solutions.

Specific Duties

- Provide a future-facing understanding of how BI and data analytics are evolving and how new technologies such as Artificial Intelligence (AI) can be integrated into a cohesive, comprehensive approach to data management and used in a public sector enterprise.
- Understand the data architecture and data model(s) supported by the new solution.
- Understand the product vendor's approach, tools, protocols and delivered materials with regard to reporting and analytics.
- In conjunction with the BEST Solution Technical Architect, determine overall data modeling standards, guidelines, best practices and approved modeling techniques for the BI and reporting functions.
- Develop a data reporting and data access plan that describes the data that will be housed in the solution and that will be available to users through data base queries, reports, dashboards and other modalities.
- Gather information from business users and technical staff regarding the types of data, frequency of reports/dashboards, distribution of reports/dashboards and other information needed to understand the current reporting requirements of users including an inventory of scheduled queries or data extracts used to access Commonwealth Information Warehouse data.
- Identify standard (delivered) reports and dashboards available through the new solution and partner with solution users to identify existing reports and dashboards that can be mapped to these standard reports and dashboards through configuration.
- Work with the product vendor to configure standard reports and dashboards for use by the Commonwealth and support User Acceptance Testing of these products.
- If it is determined that additional reports or dashboards not currently offered in the solution are necessary to meet public sector needs, identify the specifications for such items and oversee development by either the product vendor or BEST Team resources.
- Ensure that the product vendor provides training to the BI/DA, BEST Team Leadership and selected Commonwealth staff in how to build reports and dashboards and provides hands on guidance in order to permit these staff to build experience in query, report and dashboard development over the course of the project.
- Identify the level of reports that users will be able to build in the solution and provide instructions for how to do this to the BEST Training Team to share with users. Assist in the creation of job aids and other training materials to support report writing by users if these functions are to be decentralized.
- Identify requirements and specifications for a potential new historical data repository such that users of the new solution will be able to combine historical data with current data for querying and reporting purposes. This potential new data repository would be housed in the cloud and integrated with reporting tools and data analytics capabilities available to end users of the ERP solution.
- Develop guidelines for users of the current information warehouse and work with these users to ensure a smooth transition to the potential new repository including instructions for building new queries or data extracts. Guidance for accessing and linking historical and current data during an interim transition period would also be developed and shared with users.

- Recommend standards that will govern user access to data in the new solution and potential new data repository and identify tools that will support the capacity for real-time monitoring and compliance tracking of user activity with regard to accessing this data with alerts and escalation mechanisms in the event of unauthorized actions.
- Work with the product vendor to explore opportunities to make data available to the public through web sites that are sourced directly from the new ERP solution.
- And other such tasks and responsibilities, as may be assigned and expected to be handled by a member of the project leadership team.

Required Qualifications:

- Bachelor's Degree in computer science, system analysis or a related study, or equivalent experience.
- Minimum of 5 years of full-time or equivalent part-time, managerial experience working with data sources, creating data extracts, reporting on data trends and/or utilizing data to determine answers and future actions.
- Experience with diverse technical configurations, technologies and processing environments in one or more projects.
- Knowledge of future-facing trends in data analytics and management and experience in applying this knowledge in a practical setting.
- Strong background and knowledge of Extra Transform Load (ETL) solutions.
- Thorough knowledge of relational database systems, Structured Query Language (SQL), referential integrity triggers and stored procedures.
- Understanding of dimensional modeling, snowflakes, slowly changing dimensions, irregular dimensions, and surrogate, compound and intelligent keys.
- Experience with conceptual, logical and physical modeling, especially for rationalizing data objects.
- Demonstrated interest with and deep understanding of data quality concepts, best practices and modern technical tools.
- Proven track record in building complex queries, reports and dashboards using a range of web based tools.
- High level of organization and follow-up
- Well-developed system analysis skills

- Understanding and knowledge of IT standards and controls.
- Excellent written and verbal communication and interpersonal skills.
- Ability to provide solid and informed advice and counsel

Preferred Qualifications:

- Master's degree in relevant discipline.
- Experience with a project of the size, scope and complexity of BEST.
- Experience with Software as a Service or other cloud implementations particularly those in which legacy on premise applications have been migrated to cloud delivery options.
- Experience in transactional and operational, analytical, and Master Data Management modeling techniques.
- Experience with Commonwealth agency data gathering and reporting practices and with the current Commonwealth Information Warehouse or similar reporting/data analytics environments in other private or public entities of similar size and complexity.
- Proven experience collaborating with business owners, information architects, content architects and other stakeholders to support common goals and approaches.
- An excellent understanding of how data sets are used within business processes and the downstream impact of input to output.

Hours

Hours of work are Monday through Friday, except for state holidays, on a full time basis, with a compensated work day of 7.5 hours per day (37.5 hours per week). The work is to be completed at CTR's work location, though, the position may be subject to any Comptroller telecommuting policy that it may authorize in the future.

The selected candidate's exact schedule may be set with the direct supervisor within the guidelines for CTR schedules.

This is an exempt position, and may require work beyond traditional business hours, night and weekend work schedules, while rare, will be set with the position's direct supervisor, and are tied to project deadlines.

The candidate will be required to utilize the Commonwealth's electronic time reporting system.

Salary: \$115,000 - \$122,000 (M8)

Benefits Package:

CTR is pleased to offer a comprehensive benefits package to its employees. The specific components and eligibility may vary based upon position classification, hours worked per week and other variables. Therefore, specific benefits for this position may be discussed as part of the interview and offer process.

The overall benefits available include paid vacation, sick and personal leave time, health, dental and vision insurance through the Commonwealth's Group Insurance, and optional pre-tax health savings account plans. In addition, CTR provides employees the opportunity to elect life insurance, long term disability insurance, deferred compensation savings, tuition remission, pre-tax commuter account plans, along with other programs.

CTR employees also participate in the Commonwealth's State Retirement Plan, which can become a defined benefit plan for those that both vest and subsequently retire from state service. Please follow this link for additional retirement information: <http://www.mass.gov/treasury/retirement/state-board-of-retire/>.

CTR also offers Identify Force Credit Monitoring for all members of its office.

Commitment to Diversity:

CTR is committed to building a diverse team of managers and staff.

THE OFFICE OF THE COMPTROLLER IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

Application Process:

CTR encourages interested candidates that meet the minimum entrance requirements and qualifications to apply for this position. **Submissions will be reviewed on a rolling basis until filled.**

Interested candidates must submit:

- A cover letter,
- Resume,
- Three professional references, and
- Three business writing samples that demonstrate an ability to effectively communicate in a business environment.

The application package should be submitted by e-mail, no later than **5:00 pm on February 12, 2020**, to:

CTR-HR@Mass.gov

Please include the position title and posting number in the subject line:

BEST Business Intelligence/Data Analytics (BI/DA) Lead, FY20, 015-00035703

Required Background and Qualifications Check – Including Tax Compliance:

CTR requires a background check on all prospective employees as a condition of employment.

Candidates should be aware of this requirement but should also know that such background check is not initiated until:

- 1) A candidate is invited to a second or subsequent interview; and

2) The candidate has signed the Background Check Authorization Form and related releases.

The background check includes:

- 1) A Criminal Offender Record Information (CORI) check,
- 2) A federal IRS compliance verification, up to 7 years, and
- 3) A Department of Revenue state tax compliance verification.

Candidates with advanced degrees and professional licenses may have these credentials verified. Individuals other than the references provided by a candidate may be contacted in the course of completing a full background and qualification check.

Application Deadline:

The closing date for this position is **5:00 pm on February 12, 2020.**

Applications will be considered on a rolling basis, so candidates are encouraged to apply as early as possible. Late submissions may be considered solely at the discretion of CTR.

Further Information:

To learn more about CTR please visit our website, <http://www.macomptroller.org> and follow us on Twitter! https://twitter.com/MA_Comptroller.

Those candidates invited to interview will be contacted by a human resources representative for this position. Unfortunately, due to the anticipated high volume of applicants for this vacancy, we are unable to provide status updates to specific individuals.

No phone calls please