

Running head: DATACENTER CM DATABASE – PROJECT PLAN

Database Project – Project Plan

Datacenter Configuration Management Database

Timeline

The combined design, development, provisioning, implementation, testing, and release milestones of this configuration management (CM) database are forecasted to take roughly one year. Below is the working list of milestones with anticipated durations for the initial phase of this CM system:

- Project Initiation – 0 Business Days (BD)
- Functional Baseline (Project scope is finalized) – 20 BD
- Application/Database Design – 20 BD
- Cost Estimates Developed – 10 BD
- Senior Leader Approval and Funding – 10 BD
- Hardware/Software Provisioning – 30 BD
- Hardware/Infrastructure Installation and Implementation – 60 BD
- Application/Database Development and Build – 60 BD
- Testing/User Acceptance Testing (UAT) – 15 BD
- Training Program Developed/Integration Plan Developed – 20 BD
- “Go Live” – 0 BD

This tentative schedule equates to 235 business days or roughly 320 calendar days. While the system stabilizes over the first three to six months, the CM program management office (PMO) will work to resolve any bugs that arise and make any required system updates. Planning for phase 2 will begin approximately 12 months following “go live”.

Resources

Resources for this CM database project primarily consist of personnel, funding, and equipment. The core group responsible for the design, implementation, and management of the system is the

CM PMO. This CM PMO consists of one overall program manager, a project manager, a systems engineer, a network engineer, a software engineer, and an account manager; all of whom are currently on staff today. These team members all believe strongly in this effort and have volunteered to take on this additional role. Beyond the CM PMO, there are two additional key groups of stakeholders involved in this effort: internal stakeholders and external stakeholders. Internal stakeholders are those will use or are affected by this CM system. This group includes database administrators (DBAs), system administrators (SAs), the Facilities Team, the Datacenter Installations Team, the Software Logistics Team, account Mmmnagers, Information Technology Service Management (ITSM)/Service Desk Teams, and the various engineering teams. As this system could potentially have hundreds of internal stakeholders, a sub-group of 10-15 volunteers will be established to represent the interests of the internal stakeholders throughout the project lifecycle. External stakeholders for this project primarily consist of the customer application owners and PMOs.

Initial “seed” funding proposed by senior leadership for this effort is very limited, totaling approximately \$200,000. Should this CM system prove to be effective in improving reporting and throughput times, decreasing management costs, and supporting the budgeting and decision making processes, sustainment and growth funding may be secured. Given this tight budget, as much as possible, existing material and personnel resources will be leveraged to minimize costs. To this end, the Software Logistics team has notified the CM PMO that there are existing licenses for Oracle 12c DBMS and other key software products that are available at no additional cost to the PMO. Therefore, the majority of the “seed” budget will go toward the provisioning of hardware and network infrastructure equipment needed to implement and host the system.

Analysis

The scope and requirements of the CM database will be defined during the initiation phase of the project. The CM PMO will conduct several requirements analysis meetings with the internal and external stakeholders to identify all of the attributes/data points, data sources, data owners, reports, metrics, and deliverables that are required. These inputs will be analyzed and refined until all stakeholders agree on a comprehensive, final project scope definition. This milestone is known as functional baseline. Additionally during this phase, the CM PMO and the stakeholders will define user acceptance criteria, training requirements, and project closeout criteria.

Design

Once functional baseline has been reached and the project requirements have been agreed upon and finalized, the CM PMO engineers will begin to design the CM database and the overarching web-based CM system. Entity-relationship (ER) diagrams will be constructed, defining the multitude of database tables, fields, data types, and primary and foreign keys that form the core of the database. This database design will be incorporated into the overall CM system design consisting of server processor, memory, storage, networking, and information assurance (IA) requirements for the web, application, and database environments. Once the design has been developed, reviewed and approved within the CM PMO, it will then be routed to the agency engineering and design review board for final review and approval.

Prototype/End User Feedback

Prototypes and “mock-ups” of the proposed system will be presented to the stakeholder sub-group during the design phase (prior to provisioning) to ensure that the proposed system meets the requirements and expectations of both the internal and external stakeholders. Engaging the

stakeholders during the design process ensures that the proposed system is going to meet their needs, manages stakeholder expectations, and facilitates stakeholder “buy-in”.

Coding

The CM database will be built leveraging existing Oracle 12c DBMS licenses. This product is likely more robust than is needed for what will be achieved in phase 1 of this effort. However, it will be beneficial to have built the database on Oracle when we look in later phases to integrate additional systems and execute complex analytics and reporting. The internal stakeholder DBAs will work with the CM PMO engineers to develop the database and ensure that it can integrate into the overarching CM system.

Testing

A thorough test plan will be developed by the CM PMO with input from the stakeholders. The plan will identify the test phases, entry and exit criteria for each test phase, the assigned testers, and the testing schedule. Testing will be iterative and executed throughout the implementation and development phases. Alpha testing will be conducted by the CM PMO team to address any issues and bugs before bringing on external testers. Beta testing will be performed by the internal and external stakeholders and will ensure the system is performing as it should, includes all of the required data, and allows the stakeholders to run the queries and generate the reports that they need to. The beta test group will consist of 15-20 stakeholder volunteers from key functional areas (ie DBAs, account managers, SAs, configuration managers, etc).

User Acceptance

During the requirements analysis phase, the CM PMO and stakeholders will identify the key DB functions, interfaces, datasets/attributes, and reports that are required of this DB. These requirements form the basis of the user acceptance criteria. However, user acceptance testing

(UAT) typically goes beyond just satisfying these high-level requirements and looks at how well these requirements are met, evaluating system accessibility, availability, usability, response and throughput metrics, and overall performance. It is critical that user acceptance (as well as project close out) criteria are discussed, agreed upon, and documented early in the process to ensure that all parties and stakeholders are in agreement regarding the expectations of the project.

An integration plan will be developed and coordinated with the user-base, management teams, and the CM boards, and once testing has been successfully completed, the integration plan will be executed. The intent of the integration plan is to ensure that all stakeholders are aware of the system and support its use. The integration plan will include cutover timelines, user training, and the “sunsetting” of redundant, legacy systems.

Training

As part of the integration plan, the CM PMO will partner with the Workforce Management Division (WMD) to develop user and manager training programs based upon WMD’s common training framework. Training manuals will be developed and published by the WMD based on the CM PMO team’s inputs, and web-based training modules will be made available on the agencies intranet. Completion of these training modules will be required before any user will be granted access to the system. Additionally, managers of users will also be required to take the training prior to approving their employee’s system access request form. Annual refresher training will be required for all users. Access to the web-based training modules will be granted to external users upon request.

Project Close Out

Once all project requirements have been satisfied, the project close out process will be executed. Similar to the testing criteria, project close out criteria are discussed, agreed upon, and

documented during the requirements analysis phase. Standard project close out criteria include the archiving of stakeholder validation documents that confirm all project requirements were satisfied, archiving of all key project documents and deliverables (ie project charter, solution design, signed cost estimates, meeting minutes, funding documents, hardware provisioning records, testing results, training materials, etc), and written formal acceptance from the stakeholders concurring that the project can be closed. Additional criteria can be negotiated between the CM PMO and the stakeholders as needed during the requirements analysis phase.