
State of California

Office of the State Chief Information Officer

Data Center Consolidation
Survey and Assessment User Guide and
Frequently Asked Questions

SIMM Section 67A

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Survey Overview

Within Chapter 404, Statutes of 2010 (Assembly Bill 2408), Government Code (GC) Section 11546.3 establishes an initiative to reduce the total Data Center square footage and close existing data centers or server rooms. In addition, Chapter 404 renames the Office of the State Chief Information Officer (OCIO) as the California Technology Agency.

As stated in GC Section 11546.3(b)(1)(A), state agencies within the executive branch under the direct authority of the Governor shall:

- *Comply with the policies of the California Technology Agency to reduce the total amount of office square footage currently utilized for data centers by the agency or entity, as the case may be, in support of the statewide effort to reduce energy consumption by 50 percent below the 2009 baseline by July 2011.*
- *Host all mission critical and public-facing applications and server refreshes in a Tier III or equivalent data center, as designated by the California Technology Agency.*
- *Close any existing data centers or server rooms that house non-network equipment by June 2013. On or before July 2011, transition plans, in accordance with guidance provided by the California Technology Agency, shall be submitted to the California Technology Agency.*

OCIO cannot report progress without input from departments. This survey establishes a simple tool for departments to report progress. To minimize the impact on departments, the Data Center Consolidation Survey and Assessment (S&A) is designed to leverage their work developing and implementing their migration plans (including the ACP that was complete earlier). In other words, OCIO will only request information that should be part of the departments' migration effort and will not require redundant data collection. This will be accomplished by tracking departments' progress through 5 levels required to complete a Data Center consolidation project as defined below:

Table 1: Level Definition and Key Deadlines

Level Name	Description	Key Deadlines for Submittal to the OCIO
Level 1	Preliminary planning activities and assigning resources	Complete by Oct. 30 th , 2010
Level 2	Inventory systems, facilities and infrastructure and perform initial assessment	Complete by Dec. 31 st , 2010
Level 3	Develop migration/consolidation plan to meet OCIO directives	Complete by March 31 st , 2011
Level 4	Migrate/Consolidate systems and close Data Centers	In process by March, 2012
Level 5	All targeted Data Centers have been closed	Close all existing Data Centers or Server Rooms that house non network equipment by June 2013

The reporting will also allow OCIO to report the department's migration plan's conformance to the goals established by the OCIO through simply reviewing the department's progress against its migration schedule.

Instructions/Frequently Asked Questions

The survey is an Excel Workbook located in Section 67B of the [Statewide Information Management Manual](#). The primary survey is on the first tab titled "Survey" – the other three tabs are templates which need to be completed to answer specific question on the "Survey" Tab.

You will notice the questions are grouped. The first five groups align with major steps required to complete a migration. The expectation is that you complete whatever questions you can, based on your progress to date. If you have not completed a Level, OCIO simply requests a date when you plan to complete this Level. This survey is designed to build on itself each quarter. For example, once the Preparation Level is completed, you will not need to answer these questions in future quarters.

Level 1 (Preparation) Questions:

If you cannot answer 1.1 through 1.4, answer 1-5 (enter the date when a team and approach will be finalized), proceed to the Level 2 questions and enter what information you can and skip to the "Virtualization and Compression" questions.

- Projects to migrate systems to different data centers are a complex undertaking and the OCIO assumes a Project Manager will be required. As such, at least one person within your organization should see this as one of their major responsibilities. If it is clear which Project Manager should be responsible for filling out this survey then a Project Manager has been assigned. If not, it is unlikely that a Project Manager has been assigned.

Level 2 (Baseline and Initial Assessment) Questions:

This section is split into 3 sections – 1) Mission Critical and Public Facing Applications, 2) Data Centers and 3) equipment that are not used for Mission Critical or Public Facing Applications and housed at a department managed Data Center/Server Room. For those which you have completed an inventory, add the information requested on the associated tabs. If you have not completed an inventory, enter the dates when you expect to complete the inventory (questions 2-1b, 2-3b and 2-4b) and proceed to the "Virtualization and Compression" questions.

- Deciding which applications are considered "Mission Critical/Public Facing" is left to the departments (based on the OCIO guidelines) – the nature of your business drives the criticality and you understand this best. However, this does include applications that are either Mission Critical or Public Facing not applications that are Mission Critical and Public Facing. ["Mission Critical Applications"](#) is defined on the Office of Information Security Definitions Web page. ["Public Facing Applications"](#) is defined in SAM Section 4819.2.
- The purpose of reporting your inventory is for planning purposes. The survey defines the level of granularity the OCIO requires (i.e. Mission Critical and Public Facing

Applications and a summary of equipment at department managed Data Centers). If this has been completed, answer “Yes” that you have completed an inventory.

- List all current Mission Critical/Public Facing applications on the “**MC-PF Applications**” tab, regardless of their location or whether they are planned for retirement.
- If your department has multiple instances of a Mission Critical/Public Facing application (e.g. Production and Disaster Recovery), please include two records on the “**MC-PF Applications**” tab.
- Include a record on the “**MC-PF Applications**” tab for each planned instance of in-flight projects that will result in a Mission Critical or Public Facing Application that requires server space at a Data Center.
- Include your email servers in the “**MC-PF Applications**” tab. OCIO recognizes these will be consolidated as a separate initiative but without these servers this baseline would be incomplete.
- Column F of “**MC-PF Applications**” refers to the data centers captured on the “Data Centers” tab within this workbook.
- List all Data Center or Server Rooms currently managed by your department that currently house servers on the “**Data Centers**” tab. This should include all Data Centers/Server Rooms that including 3rd party Data Centers and do not include OTech. Network closets that only house network equipment should not be listed; however, if they house servers, these should be included.
- Include the equipment inventory prior to commencing your consolidation/migration effort on the “**Data Centers**” tab (columns K and L). This should include the total number of racks/cabinets and the total number of physical servers currently in each Data Center. OCIO recognizes this number may decrease prior to the migration due to virtualization efforts. This change will be captured in subsequent sections.
- When answering question 2-5a-c, enter an estimate of the # of servers you plan to migrate to each data center. CTA recognizes this estimate is preliminary and will be replaced with a more accurate estimate once you have completed the detailed migration planning (Level 3). This should only be entered once (when your preliminary planning is complete) and does not need to be revised quarterly. This should not include Mission Critical /Public Facing Applications.

Level 3 (Planning) Questions:

The questions in this section are split into questions regarding planning the Mission Critical/Public Facing Application migration and closing your Data Centers/Server Rooms. Answer the questions relating to your progress in developing your plan(s) (questions 3-1 and 3-6). If you have completed either a plan for your Mission Critical/Public Facing Applications or closing your Data Centers, please provide a copy of that plan and append the planning information onto the records provided when you completed Level 2.

- OCIO will need to review each department’s plan so they can understand their capacity needs. Once a draft plan is completed submit to the OCIO and include the planning details included in survey.

- OCIO recognizes significant detailed planning is required prior to moving equipment which is typically performed iteratively. OCIO is requesting a copy of your high level plan that captures the equipment migration sequence (and projected migration dates) and forecasts when your department will complete your migration. The high level plan should be completed during the migration planning process and the detailed plan can be completed as part of the migration.
- Column G of the “**MC-PF Applications**” tab defines the planned target location.
 - If a MC/PF Application is already at OTech enter “At OTech - No Move Required” in column G, enter “0” in columns I and J and leave the Migration Dates blank.
 - If a MC/PF Application will be retired and will not be moved, enter “Retire” in column G, enter “0” in columns I through K and enter the planned retirement date in column M. If additional comments are required, enter them in the Notes field (column N).
 - If your department cannot move the application due to technical constraints, enter “Cannot be Relocated” in column G, enter “0” in columns I through K and the justification in Column N.
 - For in-flight Mission Critical or Public Facing Application projects, enter the estimated go-live requirements in column I through K and the estimated go-live date in column M. If space requirements increase as phases are completed, insert one row for each phase that requires additional space at the target Data Center.
- If additional MC/PF Applications were identified during the planning phase, please append to the list on the “**MC-PF Applications**” tab at the bottom and highlight in red.
- The end date on the “**Data Centers**” tab is the date when all tasks required to decommission the Data Center are completed.
- The projected effort column of the “**Data Centers**” tab is the projected effort to migrate all applications housed at that Data Center and to decommission the Data Center (e.g. the project budget).
- Enter the amount of equipment you plan to migrate to each Data Center on the “**Equip. Migration Plan**” tab. For example, if you plan to install 30 Virtual Servers running on 5 rack mounted servers in one rack/cabinet to the FDC, enter 30 in column G, 5 in column H and 1 in column I.
 - Do not include the Mission Critical and Public Facing Applications in these numbers as this is captured on the other worksheet
 - Enter the name of any OCIO approved Data Center(s) (other than OTech or FDC) to which you plan to move equipment in cell Q3. The values you enter below must include any Disaster Recovery equipment.
- The Projected Effort column should include your organization’s projected effort (contractors and internal staff) and should not include the effort required from CTA staff.

Level 4 (Migration and Consolidation) Questions:

To track your status within Level 4 simply enter your status against your original plan (questions 4-1 and 4-2) on the “**Survey**” tab and enter the effort remaining required to decommission each Data Center on the “**Data Centers**” tab.

- Unlike most section of this survey, the effort remaining column (column Q) on the “**Data Centers**” tab needs to be updated each quarter.

Level 5 (Completion) Questions:

Select “Yes” to question 5-1 once all of Mission Critical and Public Facing applications have been migrated to an OCIO approved Data Center. Select “Yes” once all Data Centers and Server Rooms not approved by the OCIO have been closed and decommissioned.

Virtualization and Compression Questions:

Complete question V-3 once your assessment is completed and update your answers to question V-4 each quarter once you have commenced a virtualization effort.

Contact Information:

Any questions regarding this survey should be addressed to:

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