
State of California

California Technology Agency

**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 (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.*

The Technology Agency 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. In other words, the Technology Agency 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 Technology Agency |
|-------------------|---|---|
| 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 Technology Agency 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 the Technology Agency to report the department's migration plan's conformance to the goals established by the Technology Agency 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. The survey tracks department's progress for migrating Mission Critical and Public Facing applications and closing existing data centers. By taking this approach the Technology Agency will collect all of the information required to meet the reporting requirements outlined in Government Code 11546.3.

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, the Technology Agency 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 Technology Agency 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) Non-Technology Agency approved Data Centers and 3) Non-Mission Critical or Public Facing Application equipment that is housed at a non-Technology Agency approved Data Center/Server Room. If 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 2-1a-c, 2-3 a-c and 2-4 a-c) 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 Technology Agency 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 current inventory and identifying a target location is to provide the Technology Agency with rough estimates of the amount of equipment they should expect to be migrated as early as possible. The Technology Agency has requested the minimum granularity required to meet the reporting requirements, perform high level planning and to minimize the reporting burden on the agencies/departments. The Technology Agency recognizes these are estimates. This should include the total number of cabinets and the total number of physical servers currently for each Mission Critical/Public Facing Application and at each Data Center. The Technology Agency recognizes this number may decrease prior to the migration due to virtualization effort. This change will be captured in subsequent sections.
- 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. The Technology Agency recognizes these will be consolidated as a separate initiative but without these servers this baseline would be incomplete.
- Column I of **“MC-PF Applications”** tab defines the planned target location.
 - If a MC/PF application is already at OTech, select “At OTech – No Move Required” from the column I drop-down list, enter “0” in columns L and M and leave the Migration Dates blank in columns O and P.
 - If a MC/PF Application will be retired and will not be moved, select “Retire” from the column I drop-down list, enter :0” in columns L through M and enter the planned retirement date in column P. If additional comments are required, enter them in the Notes field (column Q).
 - If your department cannot move the application due to technical constraints, select “Cannot be Relocated” in the column I drop-down list, select the justification from the column K drop-down list, enter “0” in columns L through M

and leave columns O and P blank. If further justification is required, please add a comment in Column Q.

- For in-flight Mission Critical or Public Facing Application projects, enter the estimated go-live requirements in column L through M and the estimated go-live date in column P. If space requirements increase as phases are completed, insert one row for each phase that requires additional space at the target Data Center.
- List all non-Technology Agency approved Data Centers 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 including 3rd party Data Centers and not OTech. Network closets that only house network equipment should not be listed; however, if they house servers, these should be included.
- Do not include the Mission Critical/Public Facing applications inventory in the volumes reported on the “**Data Centers**” tab. If it is included, equipment will be double-counted.

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 36). 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 you provided when you completed Level 2.

- The Technology Agency will need to review each department’s plan so they can understand their capacity needs. Once a draft plan is completed submit to the Technology Agency including the planning details included in survey.
- The Technology Agency recognizes significant detailed planning is required prior to moving equipment which is typically performed iteratively. The Technology Agency 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.
- 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 non-Mission Critical/Public Facing 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 Technology Agency 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 a Technology Agency approved Data Center. Select “Yes” once all Data Centers and Server Rooms not approved by the Technology Agency 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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