



## Agency Consolidation Planning

Realizing the Full Potential  
of IT Resources  
While Saving Money

# Consolidation Plan Reference Manual

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*Charter, Methodology and Plan*

*Plus Progress Reporting*

Updated **May 11, 2009**



# Overview

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## *Consolidation of California's IT Assets*

California is organizing its information technology for success; the OCIO is setting the organizational structure and strategic direction to produce a full-bodied and modern IT program. With the creation of the OCIO, the Governor and the Legislature established the structure on which to build a durable information technology program. In the year since the OCIO was created, the foundation has been buttressed and expanded with publication of the California IT Strategic Plan, introduction of the California Statewide IT Capital Plan, issuance of the Governor's Reorganization Proposal and the establishment of the Federated Governance Model.

Our strong foundation positions the state to develop an IT portfolio that efficiently serves California's vast and disparate constituencies through a myriad of programs. We are moving California's IT towards the future, but this transformation cannot move forward without the Agencies seeking opportunities to lower their operating costs, improve their service levels to stakeholders, increase productivity, enhance security and respond faster to changes in business priorities.

*The Consolidation Working Group and the OCIO believe that the best way to achieve these results is to simplify, standardize, virtualize and modularize the state's IT infrastructure through consolidation.*

The consolidation effort is operating within the Federated Governance Model proposed by the Governor's Reorganization Proposal. This approach maintains the authority of agencies to manage program-specific technology processes and systems. Technology functions that are common across the entire state are managed at the enterprise level by the CIO. The Federated Governance Model confirms that programmatic needs are the primary drivers for IT decisions and acknowledges the importance of IT as an enabler of agency success. Through the collaborative consolidation exercise, we will produce economies of scale, reduce cost, increase efficiency, share information and much more. In this way, Agency-level consolidation offers significant business benefits beyond simply combining IT assets.

This reference manual presents a roadmap for consolidation. It begins with rationale and purpose and provides methodology and tools for consolidation. Consolidation activities will work in conjunction with the Capital Planning process and are designed to balance the unique needs of the Agencies with the strategic direction of the state.

California is transforming how we organize, govern and use information technology. In order to achieve the state's strategic goals and fulfill the promise of SB 90, we must build our state's IT program around the Agencies and pursue the efficiencies and benefits found in consolidation. IT consolidation is the next step in designing a more rational, efficient and resilient infrastructure.



# Section 1: Charter

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## *Motivation to Consolidate*

### **Rationale**

California is the birthplace and home of the companies that are creating a vibrant future for California. State government should be part of this transformation as well. We have long recognized the significant advantages of using information technology to provide needed services to the public. With demands for service availability around the clock, California is strongly dependent on information technology.

Consistent with California's reputation as the nation's "Silicon" state, the foremost goal is to make California state government the leader among the states in using information technology to enable the delivery of consistent, innovative, reliable, and secure services that satisfy the needs of residents, businesses and public sector agencies. Central to this goal is the intention to make government services widely *available* and *accessible* in a way that is *affordable*, all while protecting the privacy and security of the information that Californians provide to their government.

In order to fulfill this promise of excellence, California must continue to find enterprise-wide opportunities for consolidation, and pursue those opportunities in an operating framework that engages programs, encourages a service-based focus for IT, and enables a paradigm shift from viewing the state as a collection of agency silos to a single enterprise. The sum of these challenges provides California state government with an impetus for change by providing a rationale for reorganizing the state's information technology.

The OCIO is committed to working closely with the Agency Secretaries to ensure that business needs drive the application of technology. Therefore, the consolidation approach has been developed in the context of the business priorities of the Agencies and significant prior investment. This approach represents a partnership between the business functions of government and the technology activities that delivers on those business priorities.

Below are the reasons for consolidating IT. The rationale is presented in the form of a mock executive order; each "Whereas" statement builds upon the previous statement culminating in a consequential "Therefore" resolution.

# Consolidation Mock Executive Order

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**Whereas** California faces an unprecedented fiscal crisis and must realize savings in IT; and

**Whereas** government now runs on a digital platform that proves its value in challenging times; and

**Whereas** growing reliance on IT calls for striking the right balance between enterprise needs and programmatic requirements; and

**Whereas** an accountable IT program necessitates that decision making reside at the appropriate tier of the governance process; and

**Whereas** there are unfulfilled opportunities to strengthen the state's IT infrastructure, security and human resources; and

**Whereas** IT consolidation provides the opportunity to transform business process and program delivery; and

**Whereas** there are many opportunities to collaborate and share in developing IT services; and

**Whereas** the Governor's Reorganization Plan (GRP) creates a framework for bringing these opportunities to fruition

**Therefore**, California state government must leverage opportunities for collaboration, shared benefits and savings in IT in order to maximize value to Californians.

## Objectives

Just as identifying the opportunities inherent in the state's challenges led to the "Therefore" statement in the mock consolidation executive order, breaking down the "Therefore" statement provides objectives for the effort. The objectives help crystallize how the consolidation effort will achieve the promise of "maximizing value to Californians."

Additionally, these objectives clarify how the result of the consolidation effort will reshape California's IT landscape by contextualizing consolidation within the state's other IT efforts.

The consolidation objectives are:

- Build State IT program around Agencies
- Save money and institute lower cost model
- Promote a collaborative environment that integrates business and IT planning
- Establish foundation for launching the California IT Strategic Plan
- Create robust and scalable infrastructure that meets current needs and supports future growth
- Support enterprise initiatives; reduce redundancy
- Develop structured approach to consolidation
- Implement Federated Governance Model
- Share IT resources and data

## Principles

Business principles assist decision making, even as they inform the consolidation objectives. The consolidation objectives are the outcomes we are striving for while the business principles provide guidance on how to get there. For the consolidation effort, the business principles are:

- Protect data integrity and information privacy
- Ensure technology investments are consistent with State and Agency strategies, architecture and goals
- Design and enforce common segments of architecture across Agencies and departments
- Leverage existing infrastructure
- Adhere to industry standards and best practices
- Enhance program requirements for service delivery
- Look for opportunities to share resources
- No longer support “one of everything”
- Service Level Agreements will document service delivery agreements among agencies

## Key Success Factors

The state’s consolidation efforts exist in the context of many other IT initiatives. In order to mitigate the risks associated with consolidation and increase an agency’s chance at successful consolidation, organizations must be mindful of the following “Key Success Factors:”

- Enterprise Leadership Council buy-in
- Change Management Plans to prepare culture
- Demonstrate business value
- Staff engagement from “top to bottom”
- Frequent communication of progress to bolster stakeholder awareness
- Practical financial models for start-up and implementation
- Business champions
- Peer sharing of best practices and lessons learned



# Section 2: Methodology

## Scalable Framework for Consolidation

### Approach

The Charter, which was provided in Section 1, establishes the rationale, the objectives and the factors necessary for success of the Consolidation effort. In this section, we turn to the approach for actually accomplishing the consolidation objectives. In general, the approach begins with an inventory of the current status of IT resources, foresees the desired future of those resources and provides the plan for migrating from the current status to the future state. This approach is presented in a set of “templates” that capture information about the consolidation effort and its progress. Before describing the steps to be followed, consider the following set of assumptions for the consolidation effort:

### Assumptions

For the consolidation effort, we assume:

- Consolidation means infrastructure, people/skills, and common applications
- Agencies decide the “unit of measure” (An agency may consolidate at the Agency level, while another Agency may consolidate at the Department level)
- The Agency Information Officer (AIO) / Chief Information Officer (CIO) will lead the consolidation effort
- Plans will support enterprise initiatives

Agencies face the following challenges in accomplishing their consolidation plan:

- Agencies must use existing resources
- Consolidation planning must be finished by mid-year (July, 2009)
- Consolidation Plans need to be integrated with Capital Plans

### Connecting the Dots...

California Agency consolidation planning is linked to a number other statewide IT efforts. Much of the information needed to complete the consolidation workbook has been compiled or is currently being compiled. Below is a list of current statewide efforts and how they interact and support the consolidation planning process.

Initiative	Description	Combining Effort
BDNA	Tool to capture and visualize IT assets including hardware, software and virtual systems.	This will provide the “As Is” baseline for desktops, power consumption, software licenses and networks.
OCIO Statewide Targets	The OCIO will be issue statewide targets in an upcoming policy letter.	The OCIO targets will provide units of measure for many of the “core” consolidation programs
Capital Planning Requirements	The Capital Plan requires project concepts be submitted to the OCIO.	Integrating Capital Plans with Consolidation Plans will provide information for a number of fields in the Plan Template and periodic health checks.
Enterprise Architecture (EA)	The OCIO is establishing a statewide EA, and EA process to be used by Agencies and departments.	The EA templates will provide the “As Is” status of an agency’s business and technology inventory.

## Categories

Consolidation opportunities are designated in one of three categories:

<b>Core</b>	<u>Core</u> categories are required because they have “enterprise” goals to which the entire community will contribute. Whether consolidation activities occur at the Agency or department level, the results will be rolled-up to a statewide level and counted against the enterprise goals.
<b>Desired</b>	<u>Desired</u> categories should be undertaken by all Agencies. Agencies are expected to include these programs in their consolidation effort, unless they opt-out of a particular program for a legal, management or other legitimate reason.
<b>Option</b>	<u>Option</u> categories are unique to the situation of a particular Agency and represent a special opportunity for return on investment or infrastructure improvement. These high priority consolidation programs are included in this portion of each Agency’s plan.

## Templates

In the description of the consolidation methodology, which follows, we refer to three templates.

### Survey / Inventory

	Program	Measure	Baseline	Description / Comments
	Data Centers	Square Foot	1,200	750 sq. foot room in Bldg. 3 and 450 sq. ft. room in Bldg. 4
	Servers	Number	1,000	900 PCs; 72 small-end servers; 53 mid-sized servers
<b>Core</b>	Network	Circuits		
	Storage	Gigabytes		
	eMail			
	Green IT			
	Procure			
<b>Desired</b>	SLA			
	Web Tools			
	Help Desk			
	Business Intel.			
<b>Option</b>	Contract Mgt.			

The Survey/Inventory template is used to document the current status of IT resources and to provide the measure and baseline for each consolidation program.

## Business to IT Mapping

	Program	Measure	Business Need	Target
	Data Centers	Square Foot	Adequate raised floor to support Agency-centric applications	750
	Servers	Number	Server capacity to support Agency-centric needs	65
<b>Core</b>	Network	Circuits		
	Storage	Gigabytes		
	eMail			
	Green IT			
	Procure			
<b>Desired</b>	SLA			
	Web Tools			
	Help Desk			
	Business Intel.			
<b>Option</b>	Contract Mgt.			

The Business to IT Map template adds a future “target” to the program and measure, which were listed on the inventory

## Consolidation Plan Template

	Program	Measure	Baseline	Target	Approach	Source of Funds	Timeline	ROI
	Data Center	Square Foot	1,200	750			9 months	
	Servers	Number	1,000	65			18 months	
<b>Core</b>	Network	Circuits						
	Storage	Gigabytes						
	eMail							
	Green IT							
	Procure							
<b>Desired</b>	SLA							
	Web Tools							
	Help Desk							
	Business Intel.							
<b>Option</b>	Contract Mgt.							

The Consolidation Plan template lays out the consolidation plan, based on the inventory, baseline and target and includes an approach and source of funds for each consolidation program.

The templates described above are tightly coupled in the following way: (Consolidation templates will be provided as an electronic workbook in which cells from a previous page are populated into cells in a successive page.)

	Program	Measure	Baseline	Target	Approach	Source of Funds	Timeline	ROI
	Data Center	Square Foot	1,200	750			9 months	
	Servers	Number	1,000	65			18 months	
<b>Core</b>	Network	Circuits						
	Storage		<b>Program</b>	<b>Measure</b>	<b>Business Need</b>			<b>Target</b>
	eMail		Data Center	Square Foot	Adequate raised floor to support Agency-centric applications			750
	Green IT		Servers	Number	Server capacity to support Agency-centric needs			65
	Procure	<b>Core</b>	Network	Circuits				
<b>Desired</b>	SLA		Storage		<b>Program</b>	<b>Measure</b>	<b>Baseline</b>	<b>Description / Comments</b>
	Web Tools		eMail		Data Center	Square Foot	1,200	750 sq. foot room in Bldg. 3 and 450 sq. ft. room in Bldg. 4
	Help Desk		Green IT		Servers	Number	1,000	900 PCs; 50 small-end servers; 50 mid-sized servers
	Business Intel.	<b>Desired</b>	Procure		<b>Core</b>	Network	Circuits	
	Contract Mgt.	<b>Option</b>	Web Tools		Storage	Gigabytes		
			Help Desk		eMail			
			Business Intel.		Green IT			
			Contract Mgt.		Procure			
					<b>Desired</b>	SLA		
						Web Tools		
						Help Desk		
						Business Intel.		
					<b>Option</b>	Contract Mgt.		

Plan Template

“To Be” Map

“As Is” Inventory

## Scalable Framework

The following framework is scalable from small to large Agencies.

	Assess "As Is"	Future "To Be"	Readiness Check	Select Areas	Program Plan	Progress Report	Outcome
Purpose							
Scope							
Tool	Survey/ Inventory	Business to IT Map	Checklist	Qualify Program	Template	Scorecard	
Success Factors							
Outcome							

The green shading in the framework matrix indicates cell entries among rows and columns. For example, an Agency ought to determine a purpose for the "As Is" assessment and for the "To Be" future. Similarly, success factors need to be developed in response to the readiness check, select areas and the program plan. The green cells in the "outcome" row are used to reconcile the completed consolidation plan with the original assessment and future analysis.

### Step 1: Assess "As Is"

**Purpose:** The Assess "As Is" step establishes a baseline for the consolidation effort against which progress can be measured. At the same time, it provides a check on one's rationale and expectations for the effort being considered.

**Scope:** The scope of the effort will be defined during the "As Is" assessment. It is critical to consult the organization during the assessment activities in order to build a partnership for the consolidation effort.

Core programs for consolidation are:

- Data Center (See Appendix A for Data Center tier definitions)
- Physical Servers
- Network (WANs/LANs/Wireless Networks)
- Storage
- eMail and other office automation tools, including, but not limited to: *archiving and eDiscovery; encryption; mail hygiene; backup and disaster recovery; collaboration tools; directory and identity management; file, print, and software distribution tools; and security and management tools*
- Green IT
  - Volume of paper
  - Power consumption management

In addition, a number of process management areas should be included in the inventory for informational purposes. These are:

Portfolio Management	Does your agency have a formal portfolio management process?	Describe process and portfolio management tools	Plans to unify process and tools
Project Management	Does your agency have one or more formal project management organizations?	Describe these organizations and the total number of staff (state and contractors.)	Plans to unify process and tools

Desired programs for consolidation are:

- Procurement
- Contract Management
- Service Level Agreements (SLAs)
- Web tools
- Desktop Support
- Help Desk

Option programs may include:

- Case Management
- Document Management
- Content Management
- Production printing
- Business Intelligence
- Geographic/Geospatial Information Systems (GIS)
- Transaction Processing
- Customer Relationship Management

## Step 2: Future “To Be”

**Purpose:** The Future “To Be” step establishes a vision and goal(s) for the consolidation effort.

**Scope:** The scope of the future vision will be reconciled with statewide goals and initiatives as it is defined by the Agency.

## Step 3: Readiness Check

**Tool:** The Readiness Check provides a checkpoint before moving from the assessment steps to the category selection and consolidation execution steps. Not being “ready” will more than likely lead to an unsuccessful effort. Thus, the aim is to ensure readiness in the following areas:

- Clear motive
- Clear scope
- Leadership engagement
- Consolidation governance process
- Communication strategy
- Project Management competence
- Draft a Service Delivery model and organizational chart
- Change Management plan
- Financial tools

- Chargeback model
- Post-consolidation governance
- Consolidation process and modernization funding
- Service-level management

The following exhibit shows the Readiness Checklist versus the framework:

<b>READINESS CHECKLIST</b>	
STEPS	Readiness
Assessment (as is)	
Future Identity (want to be)	<input type="checkbox"/> <b>Clear Motive:</b> A clear explanation from the leadership as to why consolidation is being undertaken. <input type="checkbox"/> <b>Clear Scope:</b> A statement as to what is being consolidated.
Select Category/Candidate	<input type="checkbox"/> <b>Leadership Engagement:</b> Ongoing progress reports to and real-time decision making by business leaders. <input type="checkbox"/> <b>Consolidation Governance Process:</b> The "governance" of this project is the group of people given authority to make decisions, the scope of their authority, and the process by which decisions are escalated to them and then made. <input type="checkbox"/> <b>Communication Strategy:</b> A plan and means to communicate to all affected departments and personnel about the consolidation path and its progress.
Category Planning	<input type="checkbox"/> <b>Project Management Competence:</b> Competent project management that takes into account all of the facets of a project that will make it successful. <input type="checkbox"/> <b>Draft a Service Delivery Model and Organizational Chart:</b> Estimate the capacity of the systems to be consolidated and the organizational structure necessary to support the consolidated environment. <input type="checkbox"/> <b>Change Management Plan:</b> Prepare the culture for changes associated with consolidation activities.
Progress Report	<input type="checkbox"/> <b>Financial Tools:</b> Provide a financial management system that is able to track resources and spending at a granular level across multiple departments. <input type="checkbox"/> <b>Chargeback Model:</b> A model to bill customers for services that is accurate, fair and as simple as possible to administer.
Outcome	<input type="checkbox"/> <b>Post-Consolidation Governance:</b> Identifying decision makers who will guide the centralized IT organization in resource allocation issues. <input type="checkbox"/> <b>Consolidation Process and Modernization Funding:</b> Funding for the new IT organization to invest in the necessary facilities, equipment and software to support its customers. <input type="checkbox"/> <b>Service-Level Management:</b> Agreement between the service provider and each customer.

#### Step 4: Select Areas

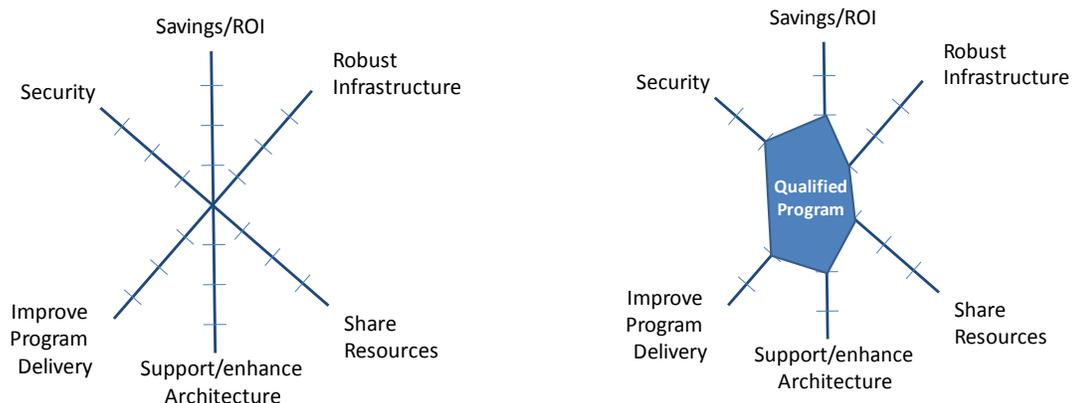
**Qualify Program:** Select Areas provides a means to qualify a consolidation program for implementation. If the consolidation program does not meet certain minimum requirements, then it probably should not be undertaken. If it meets or exceeds required results – or if it exceeds required results significantly in a number of areas evaluated – then the program qualifies for inclusion in the plan.

This scoring mechanism for qualification *does not* apply to consolidation opportunities in the Core category. Where Agencies are considering opting-out of programs in the Desired category, this scoring mechanism may be a useful tool in the evaluation decision. For consolidation opportunities in the Option category, the scoring mechanism may be used to confirm the desirability of the program.

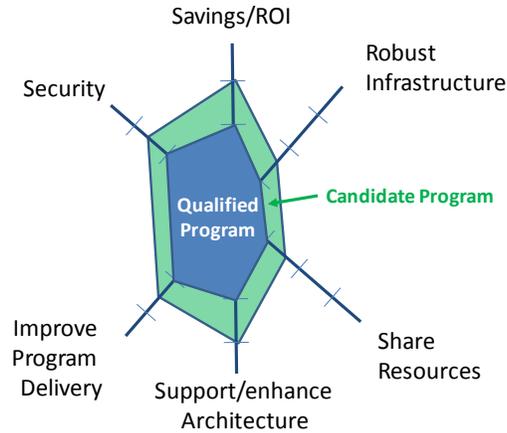
Consolidation program ideas are evaluated using scales for each of the following six criteria:

	Security	Savings/ROI	Robust Infrastructure	Share Resources	Enhance Architecture	Improve Service
3	Significant Improvement	Significant Return	Significant Improvement	Significant Sharing	Significant Enhancement	Significant Improvement
2	Improvement	Positive Return	Improvement	Sharing	Enhancement	Improvement
1	Slight Improvement	Modest Return	Slight Improvement	Slight Sharing	Slight Enhancement	Slight Improvement
0	No change	Break-even	No change	No change	No change	No change

The scale value of “zero” is at the center of the axes and the scale value increases as the axis moves away from the center. The following graphic tool is offered to Agencies as a means of quickly, visually evaluating opportunities. The figure below is an example of a minimally acceptable consolidation program, plotted on the six scales:



For evaluating a consolidation opportunity, if the graph of an Agency's potential program does not overlay the area shown in the example above, then the program may not be a worthwhile pursuit. On the other hand, a candidate program whose graphic overlays the example above is clearly qualified. See the following below:



Agencies are free to define minimally acceptable criteria that represent their particular circumstances. Moreover, Agencies are free to make exceptions for programs that achieve exceptional results in one or two areas, while falling short in others.

### Step 5: Program Plan

**Template:** The Consolidation Program Template provides basic information about the consolidation plan. A discussion of completing the Consolidation Program Plan is presented Section 3.

There are a number of “gray areas” in determining a program ready for consolidation. Most involve people performing IT related functions. In general, the advice is to include for consolidation those people involved with enterprise application development or general IT operations. Exclude from consolidation those people who are analysts using technology tools or supplying content to an IT function. For example, GIS staff providing program specific support like GIS analysis, data development, modeling, and similar activities should remain firmly embedded in the programs where they can acquire and maintain a detailed knowledge of the programs in order to optimize their effectiveness.

Agencies may need to seek advice from the OCIO regarding consolidation opportunities in:

- Geographic Information Systems (GIS)
- Telecommunications
  - Radio/Microwave
  - Videoconferencing
- Business Intelligence
- Web Masters
- Criminal Intelligence

For policies regarding FSR submissions, determination will be made by the OCIO. For policies regarding all IT classifications, the general rule will be to “grandfather” existing roles and responsibilities that have been designated as IT, but in the future all IT classifications will be approved by and report to the appropriate AIO/CIO.

## Support

The consolidation of California’s IT assets is a team effort. There will be opportunities for support and advice from peer Agencies and from the OCIO. Agencies, departments and other state organizations are in this effort together. We are a community of interest. It will take all of us to transform how we organize, govern and use information technology to achieve the state’s strategic goals and fulfill the promise of SB 90.

The state IT community stands ready to provide support to Agency consolidation activities, including:

- Presentations
- Consulting
- Tools (technical)
- Education / coaching
- Peer presentations and case studies
- Political
- Team building
- Artifacts / library

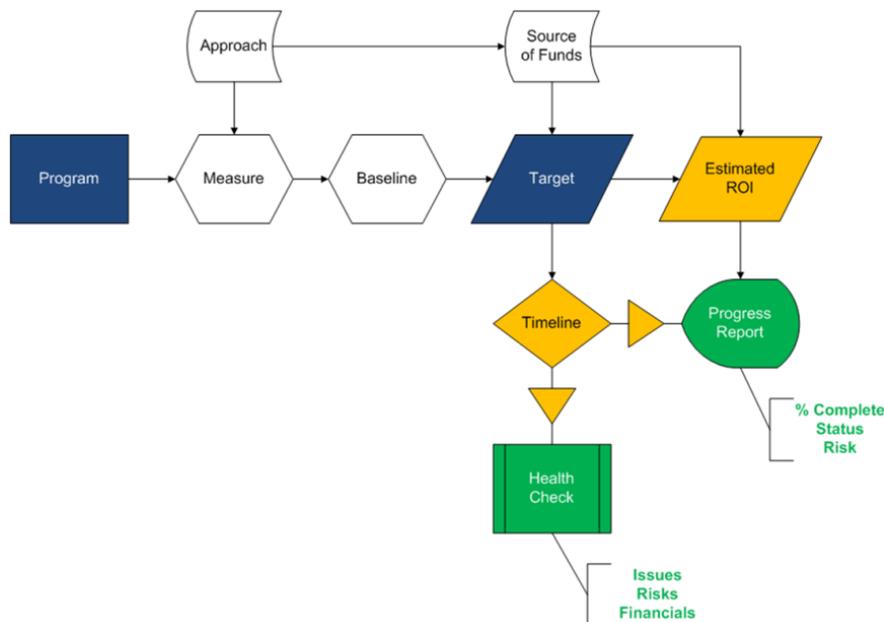
# Section 3: Plan

## Consolidation Plan and Progress Reports

This section presumes that you have completed the *assessment*, satisfied your governance process that your agency is *ready* to undertake consolidation and that you have selected the areas for consolidation by establishing separate programs to consolidate Core (enterprise) IT functions, Desirable IT community functions and priority Option functions. Now you are ready to complete the Consolidation Plan Template.

### Consolidation Plan Flow

The Consolidation Plan Template is based on the process flow depicted below:



Each program is associated with a measure and that measure is used to calculate the baseline, which represents the “as is” condition. From the baseline, you will create a target for consolidation of the program.

The measure will depend upon the approach you intend to take with the program. For example, your approach to the program may be to realize

consolidation on the refresh schedule of the technology in question. Or, you may give up doing a program function in favor of a receiving support through a shared service supplied by another organization. Similarly, the source of funds will determine the pace of your consolidation. You may be funding the program consolidation, for instance, by redirecting existing budget money or as part of the development of an approved project for which funding has been appropriated. Choices for both “approach” and “source of funds” will be presented on drop-down menus on the Consolidation Plan Template.

Drop-down choices for “Approach” are:

- Refresh
- New Project
- Shared Service

- Center of Excellence
- Other

Drop-down choices for “Source of Funds” are:

- Redirection of appropriated funds
- Stimulus funding
- Grant funding
- Approved project w/appropriation
- Federal Funding (non-Stimulus, non-grant)
- P3 Partnerships
- Inter Agency Agreement (IAA)
- No additional funding needed
- Other

Drop-down choices to Opt-out of a Desired program will include:

- Management decision
- Legal/Statutory restriction
- Lack of technical feasibility
- No ROI
- No Funding
- Alternative not available / not mature enough
- Not otherwise qualified
- Other

A timeline for completing the program consolidation must be established. The timeline will determine the frequency of conducting health checks and submitting progress reports. We touch on both health checks and progress reports below.

Finally, a major objective of the consolidation programs is to save resources, particularly in this time of deep budget distress. For every program, you need to estimate a return on investment (ROI) as a function of the target, the timeline and the source of funding. We will be scoring savings across Agency consolidation programs.

## Health Checks

Health checks compare project performance against established good practices. The health check would compare project performance against good practices in the areas 1) Project Processes, 2) Project Approaches and 3) Project Management. The results of a health check are captured on a checklist. (Such a checklist is included as Appendix B to this reference manual.) Issues and risks are determined and mitigated. The results of the health check are reported on the progress report as status and risk, both depicted by the metaphor of the traffic light – green, yellow or red. We show the risk profile and the overall program status on the example progress report to follow.

## Consolidation Plan

### Step 5: Program Plan (Continued)

**Template:** The Consolidation Plan Template follows the consolidation process flow. It is pre-populated with Core programs in which the entire community will participate because they are “enterprise” consolidations; Desired programs that every Agency is expected to include in their consolidation, unless they opt-out of that program for good reason; and Option priority programs, which will differ among the Agencies. The facsimile of the Plan Template is shown below.

### Consolidation Plan Template

	Program	Measure	Baseline	Target	Approach	Source of Funds	Timeline	ROI
Core	Data Center	Square Foot	1,200	750			9 months	
	Servers	Number	1,000	65			18 months	
	Network	Circuits						
	Storage	Gigabytes						
	eMail							
	Green IT							
Desired	Procure							
	SLA							
	Web Tools							
Option	Help Desk							
	Business Intel.							
	Contract Mgt.							

In the electronic version of the template, the columns of “Approach” and “Source of Funds” will have drop-down menus to select the cell answer for each program.

In addition, the “Approach” column will be used to opt-out of a desired consolidation program by indicating the

reason, again through selection from the drop-down menu

## Completing Progress Reports

### Step 6: Progress Report

**Scorecard:** The Progress Report tracks progress against each of the consolidation programs. Mirroring the Consolidation Template, the Progress Report lists consolidation programs in the categories of Core, Desired and Agency by similar color. A sample Progress Report is shown below.

On the Progress Report, the Core programs are listed first, then the Desired programs and finally the Option programs. The Progress Report indicates percent complete for each program and provides a “traffic light” indicator for both risk profile and overall status.

The traffic light indicator – green, yellow and red – has the following meaning:

-  Green – program is within 5% of plan
-  Yellow – program deviates from plan between 5% and 10%, corrective actions are in place
-  Red – program more than 10% out of plan, requires corrective action

In the lower right corner, the progress report maintains a running total of return on investment, which is calculated by multiplying Plan ROI by percent complete.

## Progress Report

Program Name	Milestone Date	% Complete	Risk Profile	Overall Status	ROI
Servers	Q1 – '09	26%			
	Q2 – '09	33%			
	Q3 – '09	57%			
Storage	Q3 – '09	15%			
Procure	Q4 – '09				
Web Tools	Q1 – '10				
Business Intel.	Q2 – '09	20%			
	Q3 – '09	80%			
<b>ROI</b>					\$83 M

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### Step 7: Outcome

As the Consolidation Plan nears completion, the outcome step is used to relate the results of the overall effort to the original inventory and projected “to be” status. Think of outcome as the last progress report in which a final tally is made for percent complete, risk profile and overall status, but this time in terms of the original targets (which may have changed over time) for each of the “to be” consolidation programs.

# Appendix A

This Chart Illustrates Tier Similarities and Differences. Image Courtesy of [The Uptime Institute](#)

This chart illustrates Tier similarities and differences

	<b>TIER I</b>	<b>TIER II</b>	<b>TIER III</b>	<b>TIER IV</b>
<b>Number of delivery paths</b>	<b>Only 1</b>	<b>Only 1</b>	<b>1 active 1 passive</b>	<b>2 active</b>
<b>Redundant components</b>	<b>N</b>	<b>N+1</b>	<b>N+1</b>	<b>2 (N+1) or S+S</b>
<b>Support space to raised floor ratio</b>	<b>20%</b>	<b>30%</b>	<b>80-90%</b>	<b>100%</b>
<b>Initial watts/ft<sup>2</sup></b>	<b>20-30</b>	<b>40-50</b>	<b>40-60</b>	<b>50-80</b>
<b>Ultimate watts/ft<sup>2</sup></b>	<b>20-30</b>	<b>40-50</b>	<b>100-150</b>	<b>150+</b>
<b>Raised floor height</b>	<b>12"</b>	<b>18"</b>	<b>30-36"</b>	<b>30-36"</b>
<b>Floor loading pounds/ft<sup>2</sup></b>	<b>85</b>	<b>100</b>	<b>150</b>	<b>150+</b>
<b>Utility voltage</b>	<b>208, 480</b>	<b>208, 480</b>	<b>12-15kV</b>	<b>12-15kV</b>
<b>Months to implement</b>	<b>3</b>	<b>3 to 6</b>	<b>15 to 20</b>	<b>15 to 20</b>
<b>Year first deployed</b>	<b>1965</b>	<b>1970</b>	<b>1985</b>	<b>1995</b>
<b>Construction \$/ft<sup>2</sup> raised floor*</b>	<b>\$450</b>	<b>\$600</b>	<b>\$900</b>	<b>\$1,100+</b>
<b>Annual IT downtime due to site</b>	<b>28.8 hrs</b>	<b>22.0 hrs</b>	<b>1.6 hrs</b>	<b>0.4 hrs</b>
<b>Site availability</b>	<b>99.671%</b>	<b>99.749%</b>	<b>99.982%</b>	<b>99.995%</b>

\*Excludes land and abnormal civil costs. Assumes minimum of 15,000 R<sup>2</sup> of raised floor, architecturally plain one story building fitted out for the initial capacity, but with the backbone designed to reach the ultimate capacity with the installation of additional components. Make adjustments for NYC, Chicago, and other high cost areas.

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The Uptime Institute's tiered classification system is an industry standard approach to site infrastructure functionality addresses common [benchmarking](#) standard needs. The four tiers, as classified by The Uptime Institute include the following:

- **Tier I:** composed of a single path for power and cooling distribution, without redundant components, providing 99.671% availability.
- **Tier II:** composed of a single path for power and cooling distribution, with redundant components, providing 99.749% availability
- **Tier III:** composed of multiple active power and cooling distribution paths, but only one path active, has redundant components, and is concurrently maintainable, providing 99.982% availability
- **Tier IV:** composed of multiple active power and cooling distribution paths, has redundant components, and is fault tolerant, providing 99.995% availability.

Tier I sites will have computer power distribution and cooling but may not have raised floors, UPSes, or engine generators. The critical load on these systems is up to 100 percent of N. Even with a UPS or generator, they likely are single-module systems and have many single points of failure. The infrastructure should be completely shut down on an annual basis to perform preventive maintenance and repair work. Urgent situations may require more frequent shutdowns. Tier IV data centers have all the bells and whistles; everything needed to keep them running without ever shutting down for maintenance, no matter what happens.

# Appendix B

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## Health Check Checklist

For each question assign a score ranging from +4 to – 4.

-4 = Strongly disagree or 'don't know'

-2 = Disagree

0 = Neutral

+2 = Agree

+4 = Strongly agree

### Project Plan

1. There is a detailed plan for the project and an outline plan to the end \_\_\_\_\_
  2. There is a detailed cost plan for the project and a summary cost plan to the end \_\_\_\_\_
  3. Key personal accountabilities (who, when) are specified in the project plan \_\_\_\_\_
  4. We know which activities and resources contain float for time and can be used in other areas for emergencies \_\_\_\_\_
  5. There are contingency plans in case the project is off schedule or off budget \_\_\_\_\_
- Total 'Project' score** \_\_\_\_\_

### Resources

1. There is sufficient manpower to complete the project \_\_\_\_\_
  2. The appropriate technology is available throughout the project life cycle \_\_\_\_\_
  3. The technology to be used to support the project works and is fully supported \_\_\_\_\_
  4. Specific project tasks are well managed \_\_\_\_\_
  5. Project team personnel understand their roles \_\_\_\_\_
- Total 'Resources' score** \_\_\_\_\_

### Ownership

1. The stakeholders were given the opportunity to make an input early in the project \_\_\_\_\_
2. The stakeholders accept ownership of the project actions \_\_\_\_\_
3. Measures of success have been agreed with the stakeholders \_\_\_\_\_

- 4. Stakeholders understand the limitations and objectives of the project \_\_\_\_\_
- 5. Stakeholders understand which of their requirements are included in the project \_\_\_\_\_

**Total 'Ownership' score** \_\_\_\_\_

**Justifiable Case**

- 1. The project has been fully costed and the budgets agreed with the sponsor \_\_\_\_\_
- 2. Estimates of the financial and commercial benefits of the project have been made \_\_\_\_\_
- 3. The project should benefit the company and deliver a clear return on investment \_\_\_\_\_
- 4. Conditions of satisfaction are defined and measurement processes put in place \_\_\_\_\_
- 5. Adequate funding is available for the duration of the project \_\_\_\_\_

**Total 'Justifiable' score** \_\_\_\_\_

**Expertise**

- 1. All members of the project team possess the appropriate levels of expertise \_\_\_\_\_
- 2. End users understand the project and are capable of using its deliverables \_\_\_\_\_
- 3. Personnel on the project team understand how their performance will be evaluated \_\_\_\_\_
- 4. Project role descriptions for team members have been written and understood \_\_\_\_\_
- 5. Adequate training (and time for training) has been built into the project schedule \_\_\_\_\_

**Total 'Expertise' score** \_\_\_\_\_

**Clear & Specific**

- 1. The objectives of the project are clear to all stakeholders \_\_\_\_\_
- 2. The goals of the project are in line with corporate goals and corporate standards \_\_\_\_\_
- 3. I am enthusiastic about the chances of success of the project \_\_\_\_\_
- 4. There is documentation of the requirements and the measures of success \_\_\_\_\_
- 5. A presentation of the project aims / objectives have been given to the stakeholders \_\_\_\_\_

**Total 'Clear & Specific' score** \_\_\_\_\_

**Top Level Support**

- 1. Responsibility for success is shared by the project team and top management \_\_\_\_\_
- 2. Management are responsive to requests for additional resources, if required \_\_\_\_\_
- 3. Terms of reference, authority levels, and accountabilities have been agreed \_\_\_\_\_
- 4. There is confidence that management can be called upon to help when necessary \_\_\_\_\_
- 5. The projects sponsor is fully committed to the project's success \_\_\_\_\_

**Total 'Top Level Support' score** \_\_\_\_\_

**Total Score for Project** \_\_\_\_\_

**Evaluate Your Score**

- +140 to +71 Agency has well developed process and effective project management capabilities
- +70 to 0 Agency takes project management seriously but may need to review areas of weakness.
- 0 to -70 Agency does not have well developed processes and effective project management capabilities
- 71 to -140 Agency is seriously deficient in managing projects and successes are likely due to chance

Adapted from the 'Project Implementation Profile' - J. Pinto & D. Slavin