

WA State Consolidated Technology Services State Data Center Projects

Prepared By:	Consolidated Technology Services
Date: 11/	Period Covered: November 26 - December 7

Project Dashboard

	Scope	Schedule	Budget
Project Name			
SDC Program			
OB2 Heat Reduction			
SDC Facilities			
SDC Network			
SDC Firewall			
SDC Storage Optimization			
SDC Cloud Utility Service			
OB2/CTS Move Phase 1			
Migrate WSP to SDC			
Virtual Tape Library			
OB2/CTS Move Phase 2			
OB2 Data Center Optimization			

		Baseline Budget as of 6/2012	Actuals as of 10/31/2012
Phase #	Phase	Budget	Actuals
0	SDC Program	\$2,729,570	\$1,703,971
1	OB2 Heat Reduction	\$0	
2	Facilities Op Readiness	\$2,673,817	\$3,502,407
3	NW Core Op Readiness	\$8,592,141	\$5,727,071
4	Firewall	\$3,671,579	\$224,454
5	Storage Optimization	\$4,294,613	\$1,032,857
6	Cloud Utility Service	\$1,000,000	
7	OB2 Move Phase 1	\$6,700,814	\$120,790
8	Virtual Tape Library	\$1,950,000	
9	OB2 Move Phase 2	\$4,338,749	
10	OB2 Data Center Optimization	\$1,500,000	
11	Migrate WSP	\$2,000,000	
Total		\$39,451,283	\$12,311,550

Scope Key:

- G = No issues are impacting scope
- Y = Issues are being tightly managed, but may impact scope
- R = Unresolved issues are preventing progress of identified scope

Schedule Key:

- G = On schedule
- Y = Key milestones are more than 2 weeks late
- R = Key milestones are more than 8 weeks late

Budget Key:

- G = Planned spending is within 5% to 10% of agreed upon budget
- Y = Planned spending is within 11% to 20% of agreed upon budget
- R = Planned spending is greater than 20% of agreed upon budget

SDC Projects Status

Project	Planned for this Reporting Period (November 23 – December 7)	Status of Work Performed this Reporting Period (November 23 – December 7)	Planned for Next Reporting Period (December 10 – December 21)
<p>SDC Program</p>	<ul style="list-style-type: none"> • Continue work on Design Decisions: <ul style="list-style-type: none"> ○ Finalize SDC-036 Converged Networking ○ Route SDC-007A Security Connectivity for signature ○ Close SDC-032 9509 End of Life due to inclusion of 9509 Migration project • SDC Lab – Meeting on December 3rd to finalize network and security design. Next will determine equipment purchases/relocations • Working with facilities on procedures • Continue meeting with CTO to review datacenter security procedures 	<ul style="list-style-type: none"> • Continue work on Design Decisions: <ul style="list-style-type: none"> ○ Separated Storage Switch ownership from SDC-036 and added SDC-038 to address that issue separately ○ Approved and signed SDC-007A ○ Closed SDC-032 9509 End of Life due to inclusion of 9509 Migration project. ○ Opened SDC-013 Load Balancing for new CTS applications as current service nears EOS • SDC Technology Lab – <ul style="list-style-type: none"> ○ Finalized Network and Security design ○ Received go ahead to begin purchasing/reallocating gear ○ Activated the card reader and security into the lab ○ SMEs from each area were identified for the lab. Scott Lindekugel is interim Lab Coordinator until the new position is filed • Worked with facilities on procedures • Continued meeting with CTO to review datacenter security procedures 	<ul style="list-style-type: none"> • Continue work on Design Decisions: <ul style="list-style-type: none"> ○ Finalize SDC-036 Converged Networking and SDC0-38 Storage switch ownership ○ SDC-013 Load Balancing for new CTS applications as current service nears EOS • SDC Technology Lab – <ul style="list-style-type: none"> ○ Complete the floor layout design including power and cooling management (Facilities) ○ Plan enclosures including enclosure elevation drawings ○ Order the equipment needed for the Lab (ESS) ○ Review and update BOM (CSD) ○ Finalize the SDC Technology lab guide • Working with facilities on procedures • Continue meeting with CTO to review datacenter security procedures
<p>OB2 Heat Reduction Reduce the amount of heat being generated in the OB2 data center and provide an incident response plan.</p>	<ul style="list-style-type: none"> • Steering committee review 	<ul style="list-style-type: none"> • Further activity pending steering committee review 	<ul style="list-style-type: none"> • Close out project
<p>SDC Facilities Prepare the SDC facility for customers. Includes preparing the critical environment (electrical/mechanical), floor space and physical security for customers.</p>	<p><u>Space Management:</u></p> <ul style="list-style-type: none"> • Will continue work on operating procedures and implementation • New employee begins 12/3/12 • Install structured cabling for storage • Testing and certification completion pushed out. Target completion week of Dec. 26th 	<p><u>Space Management:</u></p> <ul style="list-style-type: none"> • Continued work on operating procedures and implementation • New data center technician began 12/3/12 • Structured cabling for storage was completed ahead of schedule • Fiber intercept project completed 12/8 	<p><u>Space Management:</u></p> <ul style="list-style-type: none"> • Continue work on operating procedures and implementation • Configuring and provisioning enclosures for firewall project. • Begin installing structured cabling for firewall project.

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	<p><u>Physical Security:</u></p> <ul style="list-style-type: none"> Update procedures with required changes Complete security segregation work by 12/1 <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> Continue to define required procedures and implementation plan. 	<p><u>Physical Security:</u></p> <ul style="list-style-type: none"> Updated procedures with required changes Completed security segregation work Dec 1. Programming additional readers and surveillance. <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> Continued to define required procedures and implementation plan. 	<p><u>Physical Security:</u></p> <ul style="list-style-type: none"> Update procedures with required changes Implement access control changes Provide draft physical security policy to CTS policy team. <p><u>Critical Environment:</u></p> <ul style="list-style-type: none"> Continue to define required procedures and implementation plan.
<p>SDC Network Core Establish the network core in the SDC and connect with the OB2 network.</p>	<ul style="list-style-type: none"> Finalize migration plan for OB2 CRS/M6 equipment moves from OB2 to the SDC Complete work on server installation to support Cisco Network Management Continue Rack & Stack Equipment Cabling work Continue Rack & Stack Base Configuration work Prepare for execution of Cisco Network Implementation Plan (NIP) Schedule Cisco Knowledge Transfer Sessions 	<ul style="list-style-type: none"> Reviewed migration plan for CRS/M6 equipment moves from OB2 to the SDC. Completed prep work for execution of Cisco Network Implementation Plan (NIP). Completed work on server installation to support Cisco Network Management. Completed Rack & Stack Equipment Cabling. Completed installation and testing of Rack & Stack Base configurations. Scheduled Cisco Knowledge Transfer Sessions 	<ul style="list-style-type: none"> Finalize migration plan for OB2 CRS/M6 equipment moves from OB2 to the SDC Begin execution of Cisco Network Implementation Plan (NIP). Prepare for execution of Cisco Network Ready for Use (NRFU) functional tests.
<p>SDC Firewall Project Replace aged and over-capacity firewalls and deliver enhanced data security services to both OB2 and SDC.</p>	<ul style="list-style-type: none"> Accept production equipment delivery Submit cable order for connectivity Submit power cable order Submit Facilities access requirements work plan. 	<ul style="list-style-type: none"> Received Fortinet Production equipment Submitted cable order for connectivity Submitted power cable order Submitted Facilities access requirements work plan 	<ul style="list-style-type: none"> Rack mount production equipment Cable production equipment Power up production equipment Install base configuration for high availability and management access Build configuration to support Cisco NRFU testing
<p>SDC Storage Optimization Replace aged systems and optimize the environment to reduce rates.</p>	<ul style="list-style-type: none"> Install Starline Power Bus Monitors Inventory VMAX Complete seismic brace installation Track progress of OB2 and SDC structured (backbone) cabling projects Complete low level connectivity design doc 	<ul style="list-style-type: none"> Installed Starline Power Bus monitors Completed Inventory VMAX Completed seismic brace installation Completed OB2 and SDC structured cabling (backbone) projects Completed low level connectivity design doc 	

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	<ul style="list-style-type: none"> • Install OB2 EDC 48 pair SM structured cable • Submit BIN file request to EMC • Schedule initial VMAX install • Schedule SDC install • Order SCA VM server • Install SDC SAN Cable infrastructure • Schedule SMC/SCA/SPA install 	<ul style="list-style-type: none"> • Completed Install OB2 EDC 48 pair SM structured cable • Submitted BIN file request to EMC • Scheduled Initial VMAX install for week of 12/10 • Scheduled SCA install for week of 12/17 • Ordered SCA VM server • Working on install of SDC SAN cable infrastructure • Sceduling SMC/SCA/SPA install 	<ul style="list-style-type: none"> • Perform initial installation of VMAX • SCA install for week of 12/17 • Build & Configure SCA VM server • Install SDC SAN cabling (VMAX to MDS9513) • Configure SDC SAN switches • Configure VMAX ESRS • Connect & configure OB2-SDC ISL's • Schedule VMAX configuration training
<p>Cloud Utility Servers Project Refresh Server Provisioning infrastructure and provide a cloud utility platform for CTS customers.</p>	<ul style="list-style-type: none"> • Submit investment plan to OCIO for approval 	<ul style="list-style-type: none"> • Re-scoped project to a targeted technology pilot and service definition prior to broad implementation 	<ul style="list-style-type: none"> • Purchase license upgrades for existing licenses • Identify next steps for procurement of expertise regarding service definition
<p>OB2 Risk Mitigation (CTS Move Phase 1) Move selected CTS equipment that best alleviates the heat issue in OB2.</p>	<ul style="list-style-type: none"> • Continue to refine move groups for both physical and virtual servers • Refine the project plan for Messaging related systems • Continue work on establishing performance measures • Begin discussions on procuring a server move vendor 	<ul style="list-style-type: none"> • Continued to refine move groups for both physical and virtual servers • Updated the server inventory and adjusted move groups for Messaging related systems • Drafted a charter to establish performance measures to compare OB2 system performance to SDC. An initial work session is scheduled for Dec. 12 • Kicked off an effort to obtain a vendor(s) to move server hardware from OB2 to the SDC 	<ul style="list-style-type: none"> • Continue to refine move groups for both physical and virtual servers • Refine the server portion of the task plan and schedule to hone in on the next 90 days as this is when the moves will start • Continue work on establishing performance measures
<p>Migrate WSP to SDC Plan and execute the first phase of migrating the WSP data center to the SDC.</p>	<ul style="list-style-type: none"> • Continue work on the IAA (pending WSP feedback) • Continue efforts to establish SDC rates (pending from OFM) 	<ul style="list-style-type: none"> • The IAA remains under review by WSP • CTS executive management are in discussions with WSP and OFM regarding rates and budget 	<ul style="list-style-type: none"> • Continue work on the IAA (pending WSP feedback) • Continue efforts to establish SDC rates (pending from OFM)
<p>Virtual Tape Library Disaster Recovery (VTL) Procure additional VTL</p>	<ul style="list-style-type: none"> • Storage SEA will research options for moving forward with the VTL environment 	<ul style="list-style-type: none"> • Storage SEA researched options for moving forward with the VTL environment 	<ul style="list-style-type: none"> • Storage SEA will research options for moving forward with the VTL environment

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equipment to eliminate the tape backup system and support mainframe disaster recovery.			
OB2 Risk Mitigation (CTS Move Phase 2) Continue the progress of Phase 1 by moving additional CTS equipment to the SDC.	<ul style="list-style-type: none"> No activity planned for next reporting period 	<ul style="list-style-type: none"> No activity planned for next reporting period 	<ul style="list-style-type: none"> No activity planned for next reporting period
OB2 Data Center Optimization Reconfigure remaining equipment in OB2 to optimize airflow and cooling.	<ul style="list-style-type: none"> No activity planned for next reporting period. 	<ul style="list-style-type: none"> No activity planned for next reporting period. 	<ul style="list-style-type: none"> No activity planned for next reporting period

External Project Collaboration

External Project	Planned for this Reporting Period (November 23 – December 7)	Status of Work Performed this Reporting Period (November 23 – December 7)	Planned for Next Reporting Period (December 10 – December 21)
Replace Cisco MDS 9509 SAN Fabric Switches Replace SAN fabric switches in OB2 that are at end of vendor support.	<ul style="list-style-type: none"> Work with team to complete revisions on project charter Update high level design as necessary 	<ul style="list-style-type: none"> Worked with team to make revisions on project charter Updated high level design 	<ul style="list-style-type: none"> Work with team to complete revisions on project charter Update high level design as necessary Review proposed schedule with internal teams
VLAN Renumbering Optimize VLAN numbering	<ul style="list-style-type: none"> Gain approval of the Project Charter Continue work on WBS and Project Schedule Continue work on migration plan and timelines 	<ul style="list-style-type: none"> Signed Project Charter 	<ul style="list-style-type: none"> Continue work on WBS and project schedule Continue work on migration plan and timelines
PBX Implement new PBX system	<ul style="list-style-type: none"> Work with vendor on the PBX processor equipment configuration Move OB2 control network over to new Ethernet switches that connect to the SDC 	<ul style="list-style-type: none"> The PBX processor equipment has been 50% configured. Vendor is continuing to work on the configuration The OB2 control network was moved over to the new Ethernet switches that connect to the SDC on 11/29 	<ul style="list-style-type: none"> Work with vendor on finishing up the PBX processor configuration Cut over to the upgrade OLY2 PBX processor software and hardware on the night of Friday December 14th

Top Issues *

Issue Key: *Green* = Issue does not require action within 30 days, *Yellow* = Issue requires action within 30 days, *Red* = Issue requires action within 10 days or less

Issue #	Summary Description	Assigned	Priority (R,Y,G)	Opened Date/by	Next Review Date	Target Resolution Date	Comments/Resolution	Status
132	Roles & Responsibilities for the Storage Switches and converged network need to be defined. This includes who manages the SDC fiber channel switches and the roles and responsibilities for troubleshooting fiber channel over Ethernet (FCoE) across the converged network.	Jeff Matheney	Y	11/3/11	11/7/12	12/31/12	The design decision document was split into two design decisions (FCoE vs Storage Switches) and will be distributed for review in Dec.	Open
145	Potential customers (including internal CTS services) will need to know any SDC related billing impacts before CTS service rates are set for network, storage, firewall, hosting, messaging, etc services in the SDC. Also, timing of new rates needs to be worked.	Dan Mercer	Y	3/16/12	11/7/12	12/31/12	Updated issue language. Dan will present a rate structure proposal to Exec Management and OFM.	Open
199	Need to determine the scope and inter-dependencies for VTL	Storage	Y	7/22/12	12/19/12	12/31/12	Valerie researching open questions.	Open
209	Space for storage of technology assets.	SDC	Y	11/16/12	01/02/13	01/16/13	Doug is working with teams to identify requirements and plan for resolution.	Open

Issues Closed this Period

Issue #	Summary Description	Assigned	Priority (R,Y,G)	Opened Date/by	Next Review Date	Target Resolution Date	Resolution	Status

Change Requests *

No.	Description	Requestor	Request Date	Assigned	Cost Impact	Schedule Impact	Status
	None for this reporting period						

Status (Submitted, Proposal, Approved, Opened, Resolved, Verified, Closed)

Top 5 Risks *

ID	Risk Description	Risk Category	Level of Impact	Likelihood	Schedule	Ability to Meet Deadline	Risk Mitigation Comment	Due Date & Action	Assigned To
1	Customers that were expecting to come into the SDC right away must now wait longer, which has end of life/investment implications	Man	3	R	G	G	Communicate with customers the new plan and schedule.	Ongoing	Program Manager
2	Timing may force a need to place hardware in OB2, which has an adverse impact on the heat reduction effort.	Cap	2	Y	G	G	<ul style="list-style-type: none"> o Work with customers to identify solutions that minimize additional heat in OB2. o Institute OB2 heat reduction initiatives to turn off unused servers o Delay implementation of new hardware in OB2 as late as possible 	Ongoing	Facilities
3	Because the project is large and includes substantial logistical challenges involving multiple projects/agencies, interdependencies will be complex and could be overlooked.	Man	1	R	G	G	<ul style="list-style-type: none"> o Apply project management practices to manage the effort. o Break the work down into small and logical units. o Use tools to track tasks, dependencies, issues, risks, etc. and automate the planning and communications as much as possible. o Implement migration approaches that minimize impacts of system dependencies, such as spanning the network between the OB2 and SDC data centers. o Use development and test platforms to verify system dependencies. 	Ongoing	Sr. Project Manager
4	Even though the scope has been reduced to better match the budget, it may be insufficient. Several items remain unfunded.	Res	1	R	G	G	<ul style="list-style-type: none"> o Request funding for unfunded projects o Identify other funding sources (if possible) o Reduce project scope o Back-log unfunded projects 	Ongoing	Program Manager
5	Resource Conflict – Program relies on functional staff with competing priorities.	Res	1	R	G	Y	<ul style="list-style-type: none"> o Provide clear management guidance on priorities and carefully manage functional staff to minimize conflicts in priorities and work tasks. o Expand resource management and track task assignments to the resource level. Identify areas in the plan where resource loading indicates a problem and take appropriate action. 	Ongoing	Sr. Project Manager

Risk Category = (Res)ources; (Man)agement; (Tec)hnology; (Fun)ctional; (Dev)elopment; (Int)erfaces; (Sec)urity; (Usa)bility; (Ava)ilability; (Per)formance; (Cap)acity; (Sca)lability; (Ext)ernal.

Level of Impact Key:

1=major impact
 2=significant impact
 3=minor impact
 0=no impact

Likelihood Key:

G = Low.
Y = Moderate
R = High

Schedule Key:

G = on schedule
Y = Less than 30 days behind schedule (caution)
R = More than 30 days behind schedule (warning)

Ability to Meet Deadline Key:

G = based on current information, it appears manageable
Y = there are significant obstacles or areas of uncertainty or concerns
R = there are clearly identifiable threats or deterioration of ability to manage and control

Steering Committee Action Items

Item #	Item Description	Assigned	Date Assigned	Date Due
1	Review the OB2 Heat Reduction Final Report	All Steering Committee Members	12/5/12	12/14/12