

## WA State Consolidated Technology Services State Data Center Projects

<b>Prepared By:</b>	Consolidated Technology Services
<b>Date:</b> 3/28/2013	<b>Period Covered:</b> May 13 – May 24

### Project Dashboard

	Scope	Schedule	Budget
<b>Project Name</b>			
<b>SDC Program</b>			
<b>OB2 Heat Reduction</b>	(completed)		
<b>SDC Facilities Build out</b>	(completed)		
<b>SDC Network Core Infrastructure</b>	(completed)		
<b>SDC Firewall Infrastructure</b>	(completed)		
<b>SDC Storage Infrastructure</b>	(completed)		
<b>CTS Cloud POC</b>			
<b>CTS Move Phase 1</b>			
<b>Virtual Tape Library</b>			
<b>CTS Move Phase 2</b>			
<b>OB2 Data Center Optimization</b>			
<b>WSP Migration (Ph 1)</b>			

	Baseline Budget as of 12/2012	Actuals as of 4/30/2013
Phase	Budget	Actuals
SDC Program	\$5,850,823	\$2,295,634
OB2 Heat Reduction	\$0	
SDC Facilities Build out	\$4,908,217	\$3,782,273
SDC Network Core Infrastructure	\$8,592,141	\$6,949,630
SDC Firewall Infrastructure	\$3,671,579	\$1,274,500
SDC Storage Infrastructure	\$4,294,613	\$1,437,094
CTS Cloud POC	\$1,000,000	\$116,752
CTS Move Phase 1	\$6,652,507	\$547,863
Virtual Tape Library	\$1,950,000	
CTS Move Phase 2	\$2,691,811	
OB2 Data Center Optimization	\$1,500,000	
WSP Migration (Ph 1)	\$2,000,000	
<b>Total</b>	<b>\$43,111,691</b>	<b>\$16,403,746</b>

This graphic shows the baseline budget for all SDC projects (includes both implementation costs and 5-yr maintenance commitments).

#### 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

\* Firewall budget/actuals continue beyond implementation to span the first maintenance cycle.

### SDC Projects Status

Project	Planned for Next Reporting Period (May 13 – May 24)	Status of Work Performed this Reporting Period (May 13 – May 24)	Planned for Next Reporting Period (May 27 – June 7)
<b>SDC Program</b>	<ul style="list-style-type: none"> <li>• Continue to work on Design Decisions                             <ul style="list-style-type: none"> <li>○ SDC-041 Storage Protocol Use for VMware- receive signatures</li> <li>○ SDC-042 iSCSI Strategy in the SDC- in progress</li> <li>○ SDC-001a Enclosure Security- in progress</li> </ul> </li> <li>• Prepare lab equipment for Cloud POC</li> <li>• Continue work on facilities procedures</li> <li>• Continue assisting storage with Watch4Net design</li> </ul>	<ul style="list-style-type: none"> <li>• Continued to work on Design Decisions                             <ul style="list-style-type: none"> <li>○ SDC-041 Storage Protocol Use for VMware- received signatures, completed</li> <li>○ SDC-042 iSCSI Strategy in the SDC- still in progress</li> <li>○ SDC-001a Enclosure Security- out for signatures</li> </ul> </li> <li>• Lab readied for Cloud POC</li> <li>• Continued work on facilities procedures</li> <li>• Continued assisting storage with Watch4Net design</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to work on Design Decisions                             <ul style="list-style-type: none"> <li>○ SDC-042 iSCSI Strategy in the SDC- in progress</li> <li>○ SDC-001a Enclosure Security- receive signatures</li> <li>○ SDC-043 NFS use in the SDC- in progress</li> </ul> </li> <li>• Cable equipment for Lab Rip and Tear environment</li> <li>• Continue work on facilities procedures</li> <li>• Work with Exchange team on assessment</li> </ul>
<b>SDC Facilities</b> Prepare the SDC facility for customers. Includes preparing the critical environment (electrical/mechanical), floor space and physical security for customers.	<ul style="list-style-type: none"> <li>• Review CTS Policies 3.2.2 &amp; 3.2.3 (Building and Location Security &amp; 1500 Jefferson Office Building Access and Security) to see how our new policy impacts them.</li> <li>• Confirm the enclosure physical security solution hardware and implementation dates are on track.</li> <li>• Continue work sessions to review/improve Physical Security and Space Management SOP, MOP, and EOP processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Continued work to review the existing CTS Policies 3.2.2 &amp; 3.2.3 (Building and Location Security &amp; 1500 Jefferson Office Building Access and Security) to see how our new policy impacts them.</li> <li>• Received confirmation the enclosure physical security solution hardware and implementation dates are behind schedule.</li> <li>• Continued work sessions to review/improve Physical Security and Space Management SOP, MOP, and EOP processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet with CTS Policy Team to assess next steps to resolve conflicts related to CTS Policies 3.2.2 &amp; 3.2.3 (Building and Location Security &amp; 1500 Jefferson Office Building Access and Security)</li> <li>• Work with HSW to review what option are available for expediting delivery of physical security solution hardware to ensure the implementation dates are on track.</li> <li>• Continue work sessions to review/improve Physical Security and Space Management SOP, MOP, and EOP processes.</li> </ul>
<b>SDC Network Core Infrastructure</b> Establish the network core in the SDC and connect with the OB2 network.	<ul style="list-style-type: none"> <li>• Review/Approval of Change Order document for Rack &amp; Stack SOW.</li> <li>• Process Invoice for Rack &amp; Stack effort.</li> </ul>	<ul style="list-style-type: none"> <li>• Completed review of Rack &amp; Stack SOW (#2) for additional work performed.</li> <li>• Processed Invoice for initial Rack &amp; Stack effort.</li> </ul>	<ul style="list-style-type: none"> <li>• Obtain CTS Approval for 2<sup>nd</sup> Rack &amp; Stack SOW.</li> <li>• Process Invoice for 2<sup>nd</sup> Rack &amp; Stack effort.</li> </ul>
<b>SDC Storage Infrastructure</b> Replace aged systems and optimize the environment to reduce rates.	<ul style="list-style-type: none"> <li>• Hold Watch4Net Workgroup design session</li> <li>• Continue review of Statement of Work for Watch4Net implementation</li> <li>• Storage Service Owner develops Terms and Conditions and Service Level Objectives</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1st Watch4Net Workgroup design session</li> <li>• Continued review of Statement of Work for Watch4Net implementation</li> <li>• Storage Service Owner developed Terms and Conditions and Service Level Objectives</li> </ul>	<ul style="list-style-type: none"> <li>• Schedule 2<sup>nd</sup> Watch4Net Workgroup design session</li> <li>• Complete review of Statement of Work for Watch4Net implementation</li> <li>• Storage Service Owner continues to develop Terms and Conditions and Service Level Objectives</li> </ul>

Project	Planned for Next Reporting Period (May 13 – May 24)	Status of Work Performed this Reporting Period (May 13 – May 24)	Planned for Next Reporting Period (May 27 – June 7)
<p><b>Cloud Utility Servers Project</b> Refresh Server Provisioning infrastructure and provide a cloud utility platform for CTS customers.</p>	<ul style="list-style-type: none"> <li>• Receive draft deliverables from VMware</li> <li>• Continue work on MLA</li> <li>• Finalize SOW for POC</li> </ul>	<ul style="list-style-type: none"> <li>• Received draft deliverables from VMware</li> <li>• Waiting for VMware information re: MLA</li> <li>• Continued work on SOW for POC</li> </ul>	<ul style="list-style-type: none"> <li>• Review draft deliverables from VMware</li> <li>• Receive VMware information re: MLA</li> <li>• Complete SOW for POC</li> </ul>
<p><b>CTS Move Phase 1</b> Move selected CTS equipment that best alleviates the heat issue in OB2.</p>	<ul style="list-style-type: none"> <li>• Physical Moves                             <ul style="list-style-type: none"> <li>○ Continue preparation for the next three physical move groups.</li> </ul> </li> <li>• Virtual Moves                             <ul style="list-style-type: none"> <li>○ Complete testing and implement the virtual server hosting platform.</li> <li>○ Move virtual servers for groups 1 and 2.</li> <li>○ Prepare for virtual server move groups 3 and 4.</li> </ul> </li> <li>• The VLAN extension supporting these groups is targeted for completion on May 18.</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Moves                             <ul style="list-style-type: none"> <li>○ Continued preparation for the next four physical move groups. Schedules have been set and most VLANs have been extended.</li> </ul> </li> <li>• Virtual Moves                             <ul style="list-style-type: none"> <li>○ Completed testing and implemented the virtual server hosting platform.</li> <li>○ Moved virtual servers in group 1. Group 2 was rescheduled to May 29.</li> <li>○ Expanded and continued preparation for virtual server move groups 2 through 8.</li> </ul> </li> <li>• Extended several VLANs in support of future move groups.</li> <li>• The Security team successfully migrated HUM, LNI and DNR Citrix customers on May 16.</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Moves                             <ul style="list-style-type: none"> <li>○ Continue preparation for physical move groups 4, 7, 8 and 9 (groups 5 &amp; 6 were merged with other groups).</li> </ul> </li> <li>• Virtual Moves                             <ul style="list-style-type: none"> <li>○ Continue preparation for virtual move groups 2 through 10.</li> <li>○ Move servers in virtual move groups 2, 3, 4 and 5.</li> </ul> </li> <li>• Complete Citrix migration for DFI.</li> <li>• Migrate DFI on 5/29, DES/ATG on 6/5</li> <li>• Activate WAN Carrier Build-out point-of-presence (POP) for Integra.</li> </ul>
<p><b>WSP Migration (Ph 1)</b> Plan and execute the first phase of migrating the WSP data center to the SDC.</p>	<ul style="list-style-type: none"> <li>• Conduct and complete the SDC facilities consult to design the enclosure space and cabling needed to support WSP's equipment in the SDC.</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted the SDC facilities consult to design the enclosure space and cabling needed to support WSP's equipment in the SDC. Identified requirements and completed the enclosure design.</li> <li>• Updated the physical network design based on requirements identified in the facilities consult.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementation activities (fiber construction, circuit design, parts and cable orders, etc.)</li> </ul>
<p><b>Virtual Tape Library Disaster Recovery (VTL)</b> Procure additional VTL equipment to eliminate the tape backup system and support mainframe disaster recovery.</p>	<ul style="list-style-type: none"> <li>• No activity planned for next reporting period</li> </ul>	<ul style="list-style-type: none"> <li>• Worked on high level design document.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue working high level design document.</li> <li>• Review project goals, objectives, and timeline with service owner and storage architect</li> </ul>

Project	Planned for Next Reporting Period (May 13 – May 24)	Status of Work Performed this Reporting Period (May 13 – May 24)	Planned for Next Reporting Period (May 27 – June 7)
<b>CTS Move Phase 2</b> Continue the progress of Phase 1 by moving additional CTS equipment to the SDC.	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>
<b>OB2 Data Center Optimization</b> Reconfigure remaining equipment in OB2 to optimize airflow and cooling.	<ul style="list-style-type: none"> <li>No activity planned for next reporting period.</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period.</li> </ul>	<ul style="list-style-type: none"> <li>No activity planned for next reporting period</li> </ul>

### External Project Collaboration

External Project	Planned for Next Reporting Period (May 13 – May 24)	Status of Work Performed this Reporting Period (May 13 – May 24)	Planned for Next Reporting Period (May 27 – June 7)
<b>Optimize Cisco MDS 9509 SAN Fabric Switches</b> Optimize the SAN fabric switches in OB2 to support migrations.	<ul style="list-style-type: none"> <li>Determine schedule for cable moves</li> </ul>	<ul style="list-style-type: none"> <li>Still determining schedule for cable moves</li> <li>Awaiting quote approval for cables order</li> </ul>	<ul style="list-style-type: none"> <li>Determine schedule for cable moves</li> <li>Receive quote approval for cables order</li> </ul>
<b>NAS</b> Design and implement a new NAS gateway to replace the legacy EMC Cellerra NAS.	<ul style="list-style-type: none"> <li>Continue to develop high level design</li> <li>Sign SOW</li> <li>Determine hardware installation schedule</li> </ul>	<ul style="list-style-type: none"> <li>Continued to develop high level design</li> <li>Signed SOW</li> <li>Worked to determine hardware installation schedule</li> </ul>	<ul style="list-style-type: none"> <li>Continue to develop high level design</li> <li>Determine hardware installation schedule</li> <li>Submit PO NetApp Services</li> </ul>
<b>Firewall Migration</b> Migrate 95+ firewalls to the SDC	<ul style="list-style-type: none"> <li>Schedule a follow-up meeting to discuss next steps for the rest of the firewalls</li> <li>Work on rescheduling Group 5</li> <li>Start scheduling next round of FW (complex security) migrations</li> </ul>	<ul style="list-style-type: none"> <li>Scheduled a follow-up meeting to discuss next steps for the rest of the firewalls</li> <li>Worked on rescheduling Group 5</li> <li>Agreed to delay next FW (complex security) migrations until late July</li> </ul>	<ul style="list-style-type: none"> <li>Complete reschedule of Group 5</li> <li>Schedule design discussions with agencies who have complex security FW</li> <li>Begin Border FW design discussions</li> </ul>

### 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
199	Need to determine the scope and inter-dependencies for VTL	Gordon	<b>G</b>	7/22/12	6/5/13	TBD	Design activity is underway.	Open
226	Need VMAX performance test/monitoring plans	Gordon	<b>Y</b>	3/27/13	6/5/13	6/19/13	Updating testing/monitoring plan with narrative.	Open
243	VMware Statement of Work for the technical proof of concept (POC) has taken longer than expected and has delayed the launch of the POC and eventual Pilot.	Dan	<b>Y</b>	6/3/13	6/19/13	6/19/13	The issue has been escalated with VMware. CTS is evaluating next steps.	Open

### Issues Closed this Period

Issue #	Summary Description	Assigned	Priority (R,Y,G)	Opened Date/by	Next Review Date	Target Resolution Date	Resolution	Status
145	CTS Service Owners need to know the SDC-related costs so they can determine and publish rates for services.	Dan	<b>G</b>	3/16/12	5/1/13	5/24/13	The charge per enclosure in SDC has been determined. Closing.	Closed
229	We do not yet have a plan for implementing freezes to help reduce the demands on staff and also reduce work that has a short value proposition.	Heidi	<b>G</b>	4/22/13	5/1/13	5/10/13	This was discussed at steering committee. There is no need for an immediate freeze, but need will be monitored. Closing.	Closed
242	Firewall/Network migrations temporarily delayed.	Agnes	<b>R</b>	5/07/13	5/13/13	5/13/13	A configuration issue was located, resolved, and migrations resumed. Closing.	Closed

### Change Requests \*

No.	Description	Requestor	Request Date	Assigned	Cost Impact	Schedule Impact	Status
	N/A						

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"> <li>o Work with customers to identify solutions that minimize additional heat in OB2.</li> <li>o Institute OB2 heat reduction initiatives to turn off unused servers</li> <li>o Delay implementation of new hardware in OB2 as late as possible</li> </ul>	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"> <li>o Apply project management practices to manage the effort.</li> <li>o Break the work down into small and logical units.</li> <li>o Use tools to track tasks, dependencies, issues, risks, etc. and automate the planning and communications as much as possible.</li> <li>o Implement migration approaches that minimize impacts of system dependencies, such as spanning the network between the OB2 and SDC data centers.</li> <li>o Use development and test platforms to verify system dependencies.</li> </ul>	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"> <li>o Request funding for unfunded projects</li> <li>o Identify other funding sources (if possible)</li> <li>o Reduce project scope</li> <li>o Back-log unfunded projects</li> </ul>	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"> <li>o Provide clear management guidance on priorities and carefully manage functional staff to minimize conflicts in priorities and work tasks.</li> <li>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.</li> </ul>	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
N/A				