



AGENDA

Consolidated Technology Services • WA

State Data Center Agency Implementation Coordinator Kickoff

December 11, 2012

10 a.m. – 12 p.m.

Attendees: SDC Project Staff and Agency Implementation Coordinators

Time	Topic	Presenter
10:00 – 10:10	Welcome & Introductions	Steve Lovaas
10:10 – 10:25	SDC Strategic Overview	Dan Mercer
10:25 – 10:40	SDC Projects Overview	Heidi Brownell
10:40 – 11:00	Customer Migration Projects	Steve Lovaas
11:00 – 11:20	Customer Engagement	Steve Lovaas
11:20 -	Q&A	Open Discussion
12:00 p.m. (NLT)	Adjourn	

Additional Instructions:

- **Meeting Location -** 1500 Jefferson Building [[PDF Map](#) or [Mapped with Google](#)]
Conference Room 2208

State Data Center (SDC) *Agency Implementation Coordinator Meeting*

December 11, 2012



Agenda

- Welcome – Steve Lovaas
- State Data Center (SDC) Strategic Overview - Dan Mercer
- Meeting Scope – Heidi Brownell
- SDC Projects Overview – Heidi Brownell
- Customer Migration Projects – Steve Lovaas
 - Storage
 - Firewall
 - CTS Move Phase 1
- Customer Engagement – Steve Lovaas
- Q&A



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SDC Strategic Overview



SDC Strategic Overview

- History
- SDC Overview
- Changing Conditions and Strategies
- New Direction
- Comparing Original and Revised Strategies
- SDC Data Hall 1 Space Plan
- Summary



Ancient History

- OB2 Data Center in service since the 1970s.
- 2007 architectural study concluded renovation was not financially viable.
- Legislature authorized building a new data center in the 2007-2009 Supplemental Capital Budget and reaffirmed the decision in the 2009-2011 budget.



SDC Facility Overview

- SDC was designed to be the most secure and efficient data center in Washington state government.
 - Is Purpose built, N+1 redundant facility with multiple Tier III / Tier IV components.
 - Can cool using 100% outside air with a PUE⁽¹⁾ as low as 1.3. In comparison, OB2 data center is 100% reliant on mechanical cooling and the PUE is as high as 3.5.



⁽¹⁾**Power usage effectiveness (PUE)** is a measure of how efficiently a data center uses its power. PUE 1.0 is ideal.



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SDC Facility Overview

- CTS took possession of SDC in July 2011; Began preparing facility
 - Completing physical security systems, configuring and testing critical environmental and backup systems, installing equipment enclosures and a structured cable plant, developing policies and procedures, hiring and training operations staff.
 - Designing IT infrastructure and building out Data Halls 1 and 2 to facilitate state's plan to consolidate OB2 and other Thurston County data centers.



Changing Conditions & Strategies

- SDC is the cornerstone of the state's IT Consolidation and Transformation strategy with goals to reduce costs and improve security
- ESSB 5931 (2011) directs state agencies to locate all existing and new servers in the new State Data Center
- Economic recession forces strategic change. Consolidation is still the goal, but reality dictates that we ...
 - Slow down spending for consolidation
 - Only build out Data Hall 1



Changing Conditions & Strategies



Direction:

- *Agencies continue to virtualize and take advantage of public cloud computing where appropriate*
- *Move to the SDC only when it makes good business sense to do so, e.g. major equipment refresh*
- *Move to the SDC only when ready to consolidate to shared infrastructure, i.e. network, firewalls, storage, servers (private cloud)*



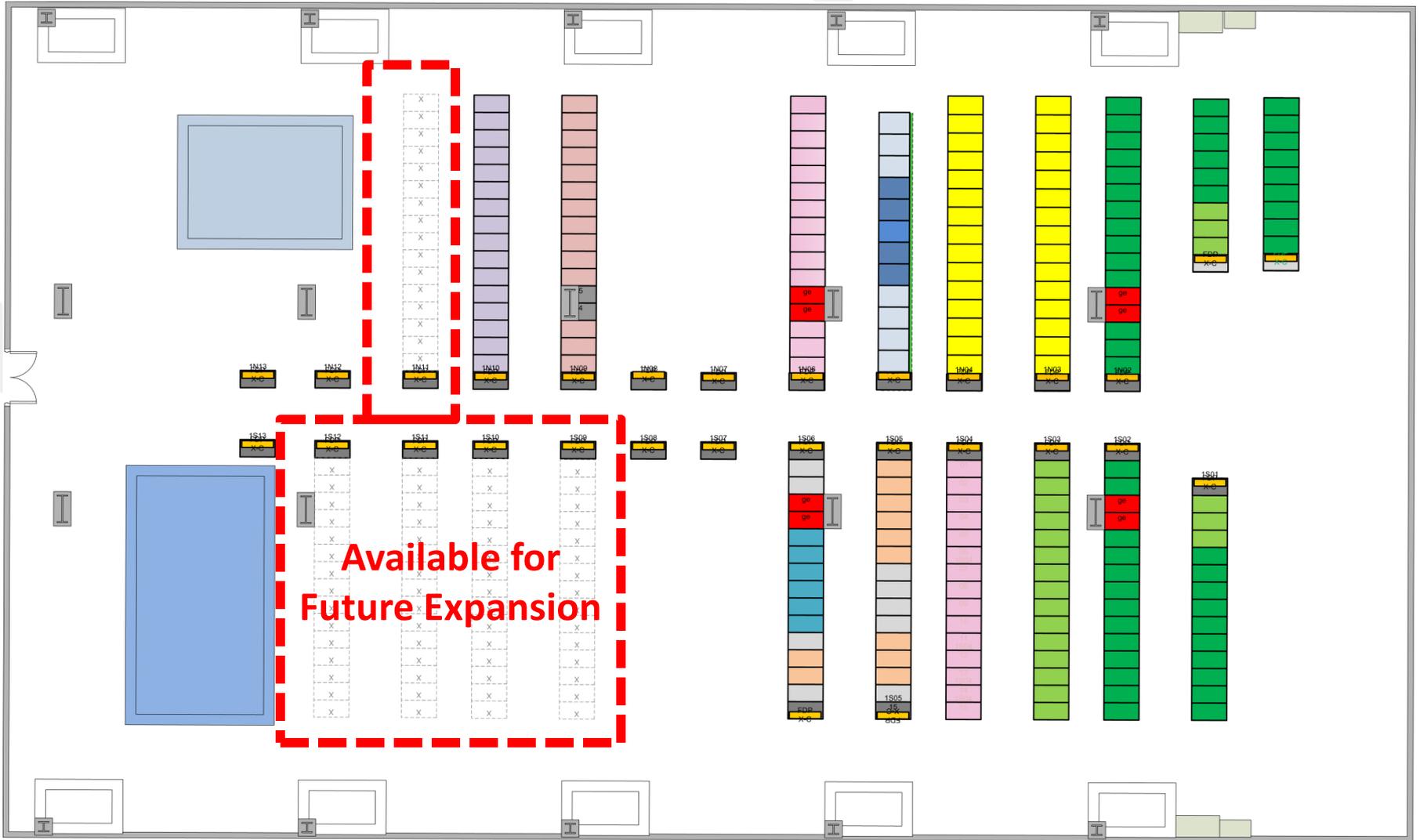
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Revised Strategies

ORIGINAL STRATEGY	REVISED STRATEGY
<p>Consolidate all Thurston County data centers to SDC; scheduled moves of existing equipment (a.k.a. “come as you are”)</p>	<p>Individual agency’s business case; move when ready to consolidate to SDC shared infrastructure</p>
<p>Move OB2 data center to SDC and restore to office space, as quickly as possible</p>	<p>Maintain OB2 data center long term; move what is necessary to relieve cooling problems in OB2 data center</p>
<p>SDC data hall 1 for CTS services and other high-security infrastructure; data hall 2 for ‘A la Carte’ and other co-location</p>	<p>Data hall 1 for CTS services including consolidated infrastructure; ‘A la Carte’ remains in OB2; lease out data hall 2</p>
<p>SDC Cloud Utility to provide “landing pad” for servers and a migration path to infrastructure consolidation</p>	<p>Cloud Utility Service is platform for infrastructure consolidation - maximize space and resources in SDC data hall 1</p>



SDC Data Hall 1 Space Plan (12,500 sq. ft.)



Available for
Future Expansion



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Summary

- SDC is most secure and efficient data center in Washington State Government
- Data Center consolidation is still a state goal – SDC is still a cornerstone of that strategy
- Approach has changed: No longer “come as you are” move strategy. Agencies move when it makes business sense to consolidate to SDC shared infrastructure (Data Hall 1 only)
- OB2 will remain in service for À la Carte. However, customers should work with CTS to identify requirements and discuss future alternatives, including CTS hosted solutions in the SDC.
- CTS Cloud Utility Service is the platform for consolidation



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Q&A



Scope of the Rest of the Meeting

- In Scope
 - Information about the twelve SDC infrastructure build-out and migration projects
- Out of Scope
 - Other data center consolidations/moves
 - Other CTS services

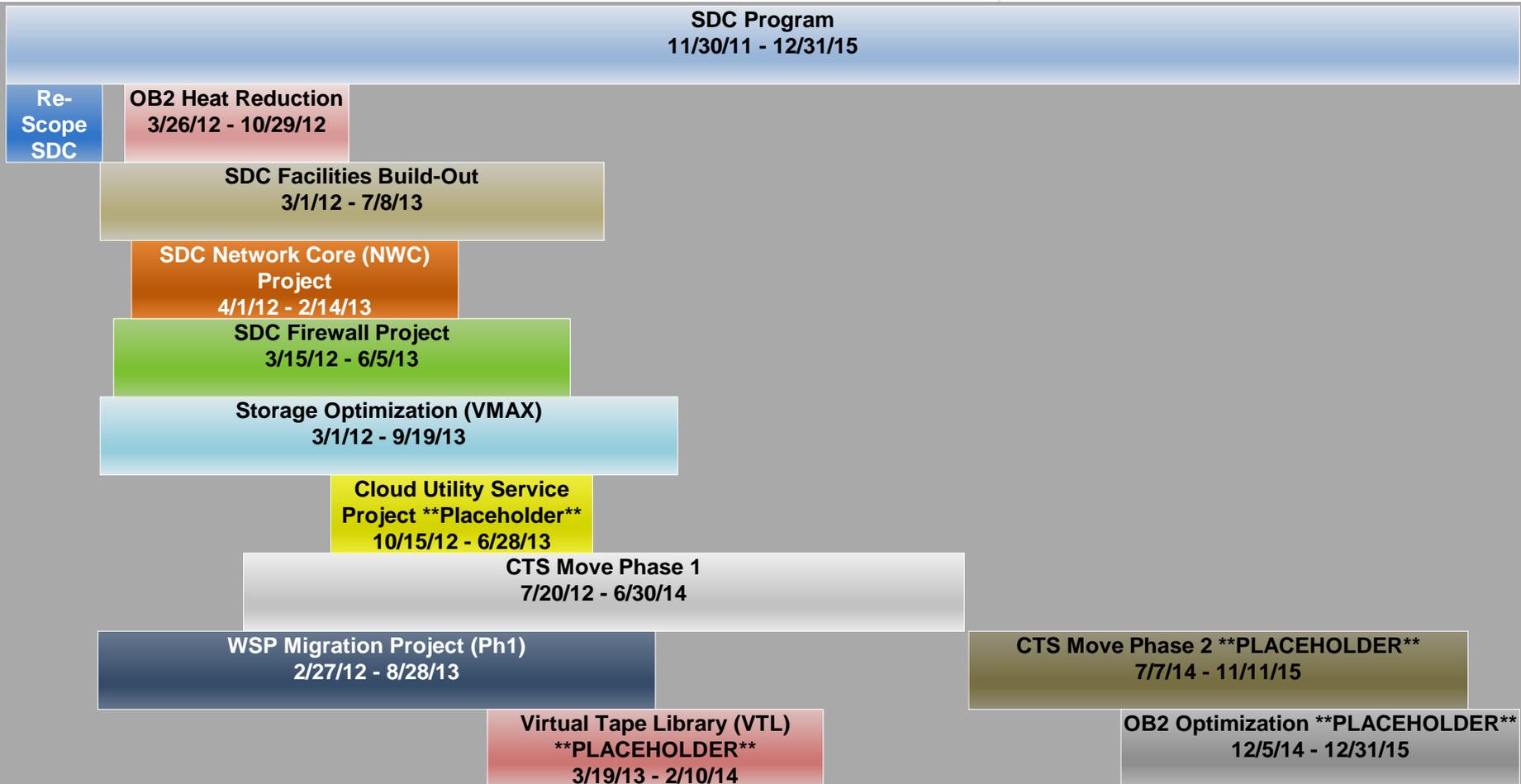


SDC Projects



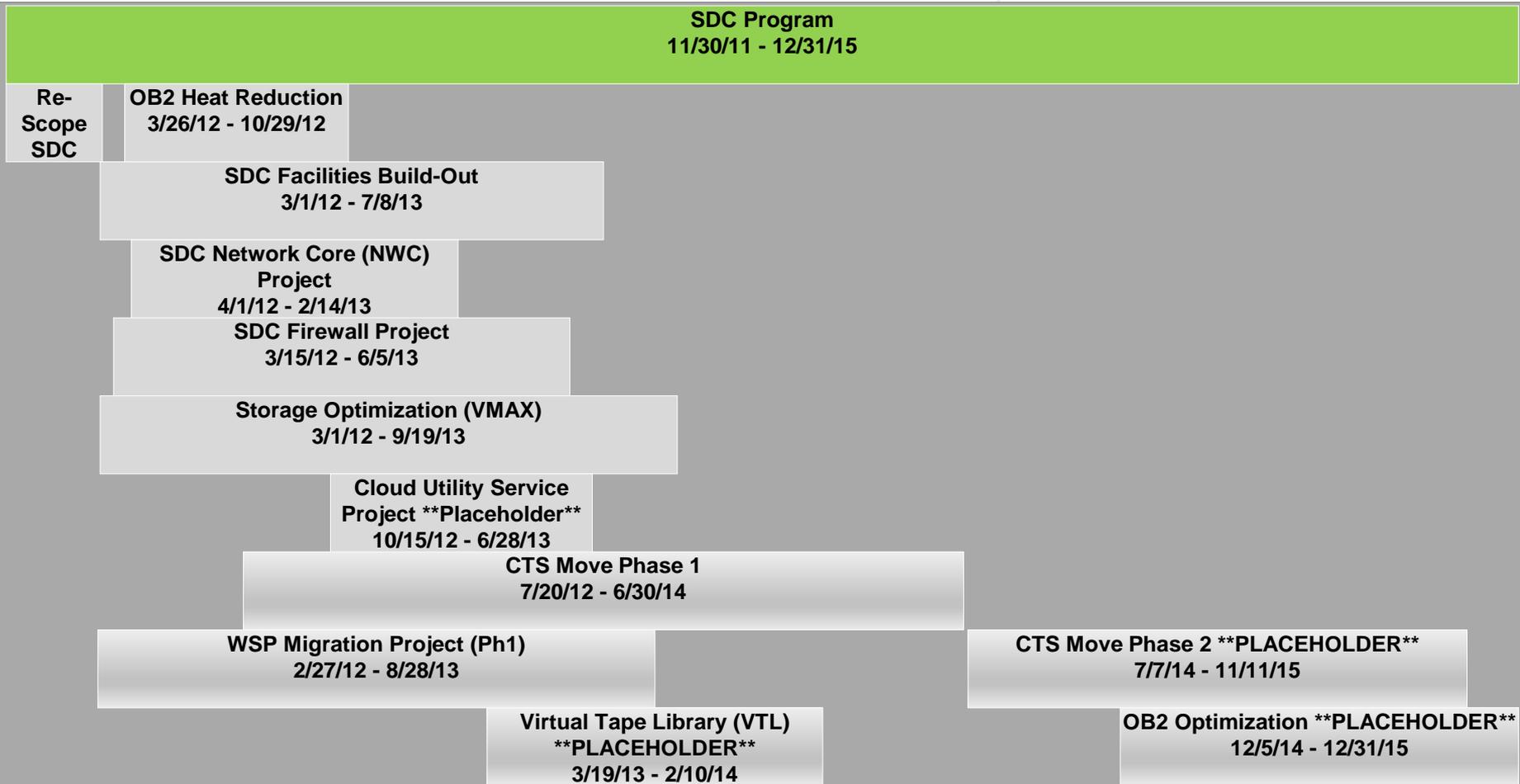
SDC Projects

There are 12 SDC related projects focused on preparing the SDC and migrating systems



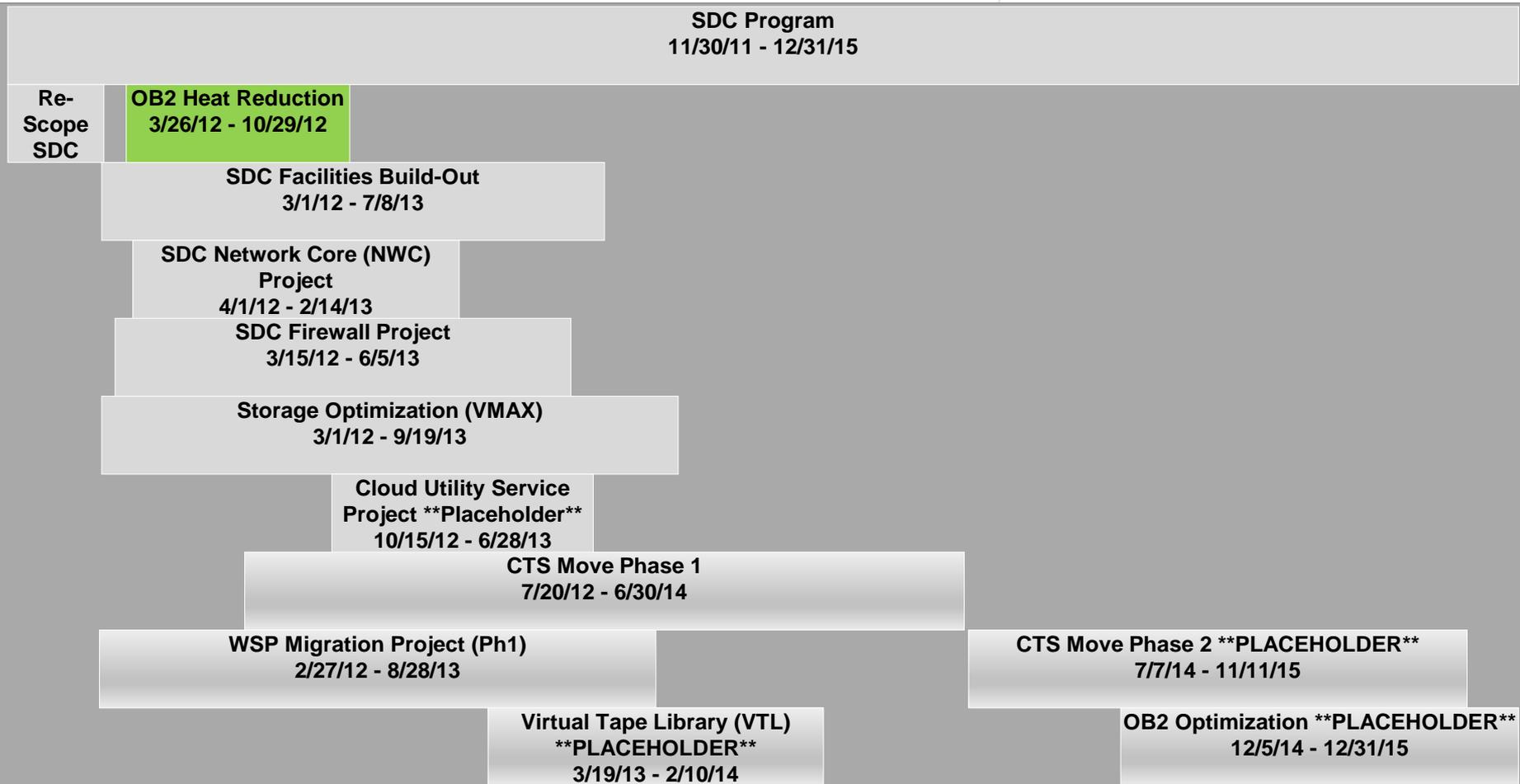
SDC Program

Provides sponsorship for and oversight of all SDC Projects. Includes ongoing enterprise architecture and facilities support.



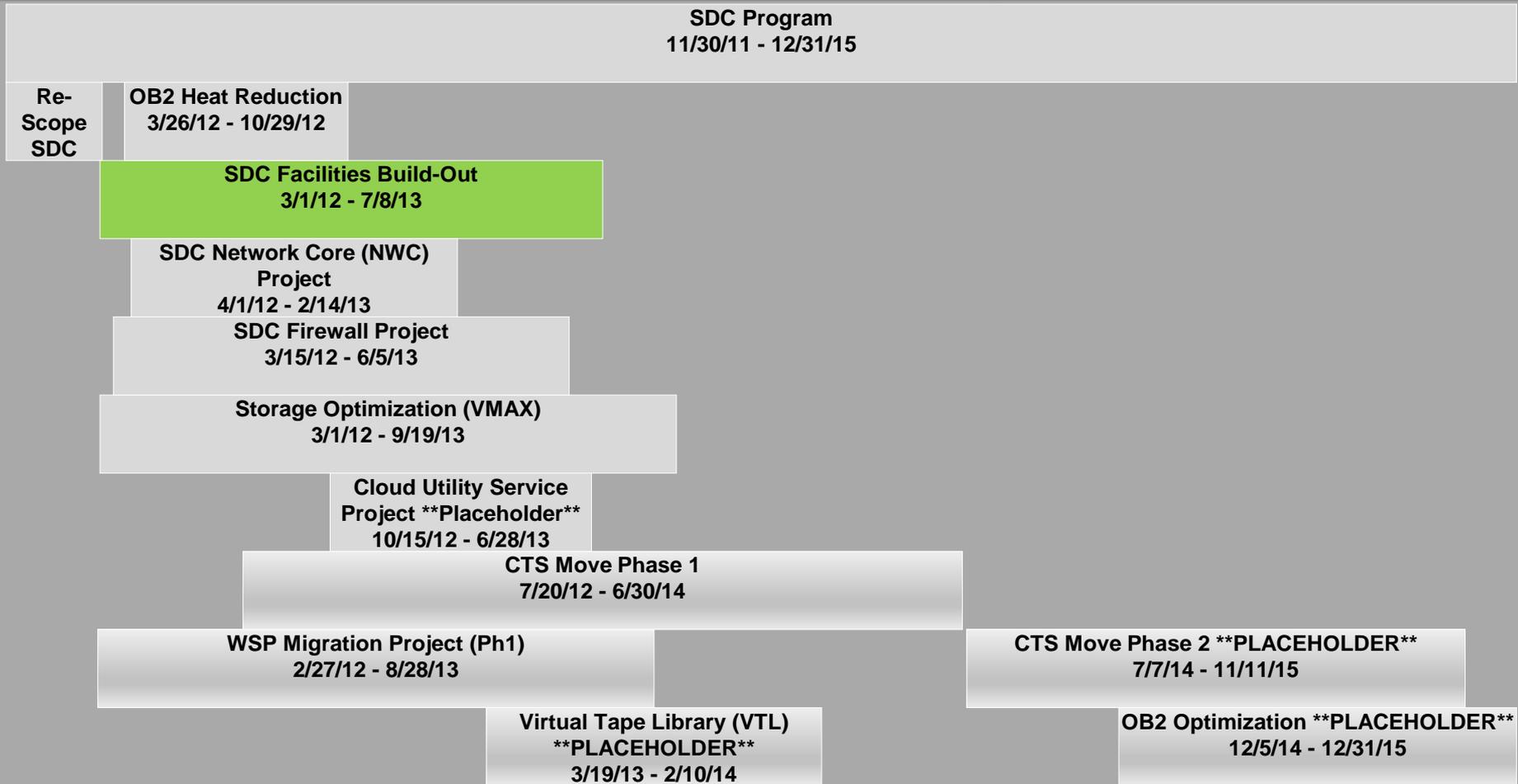
OB2 Heat Reduction

This project will identify possible steps to reduce the amount of heat being generated in the OB2 data center and provide an incident response plan.



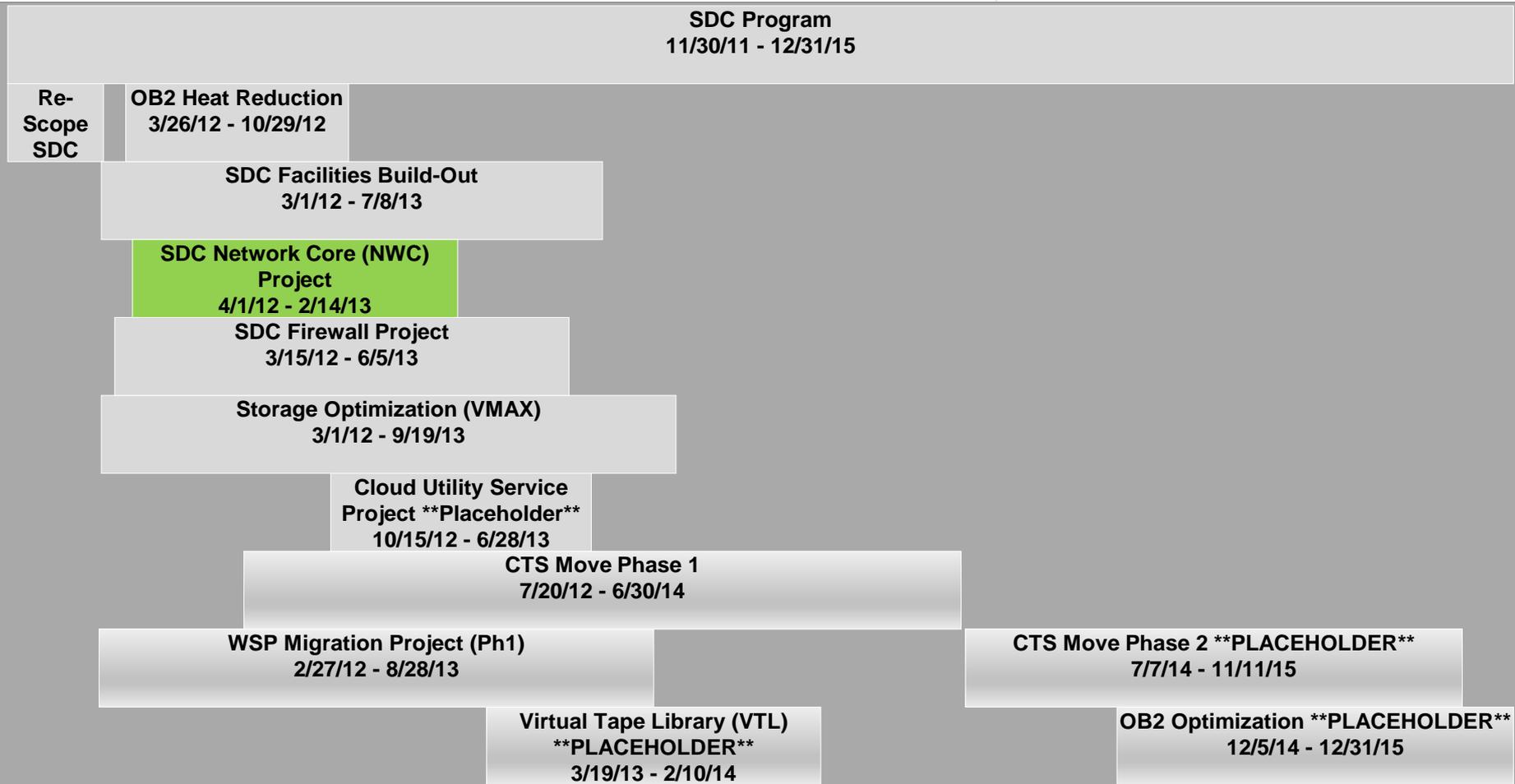
SDC Facilities

This project will prepare the SDC facility for customers. Includes critical environment (electrical/mechanical), physical security, and space management.



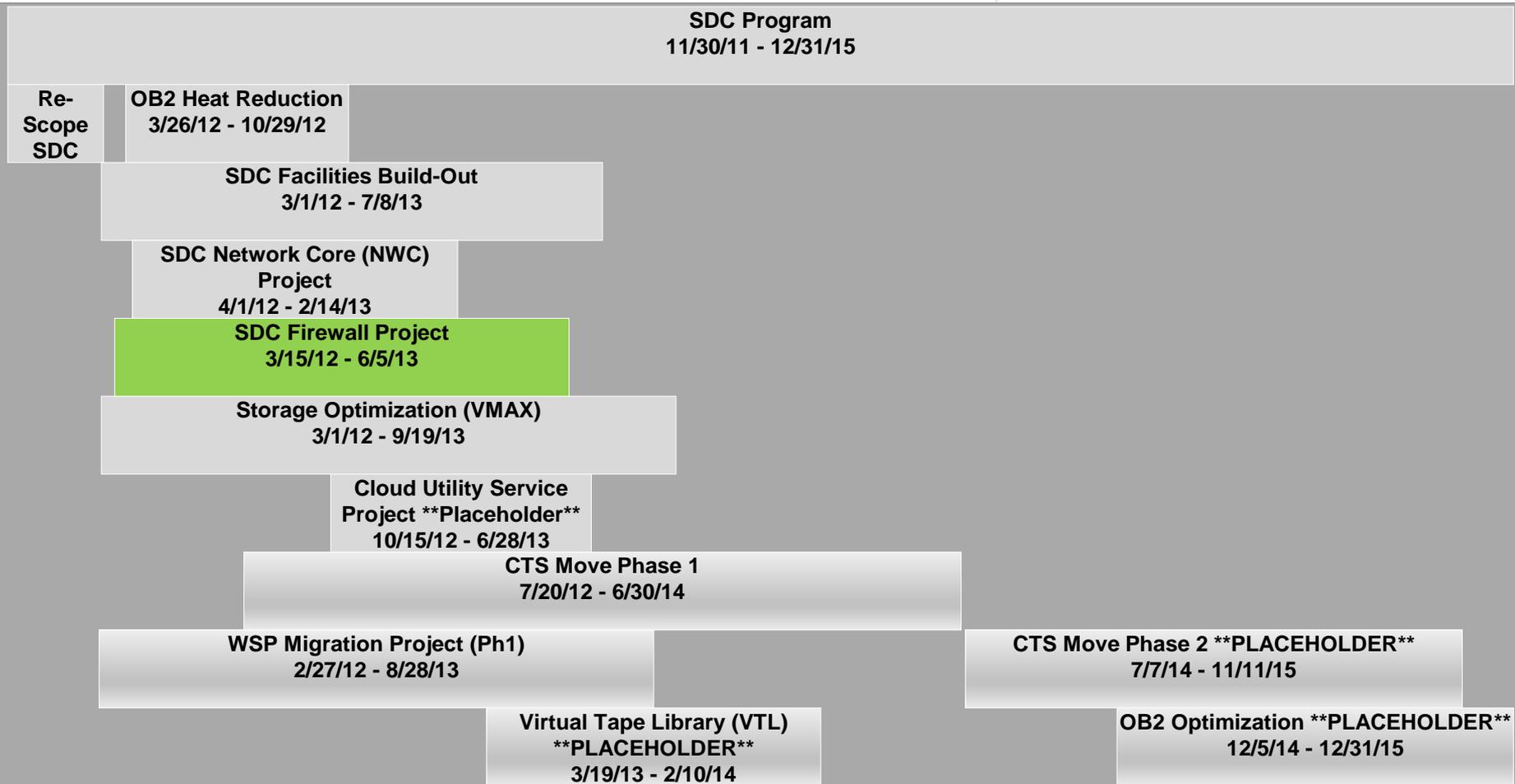
SDC Network Core

This project will establish the network core in the SDC and connect with the OB2 network.



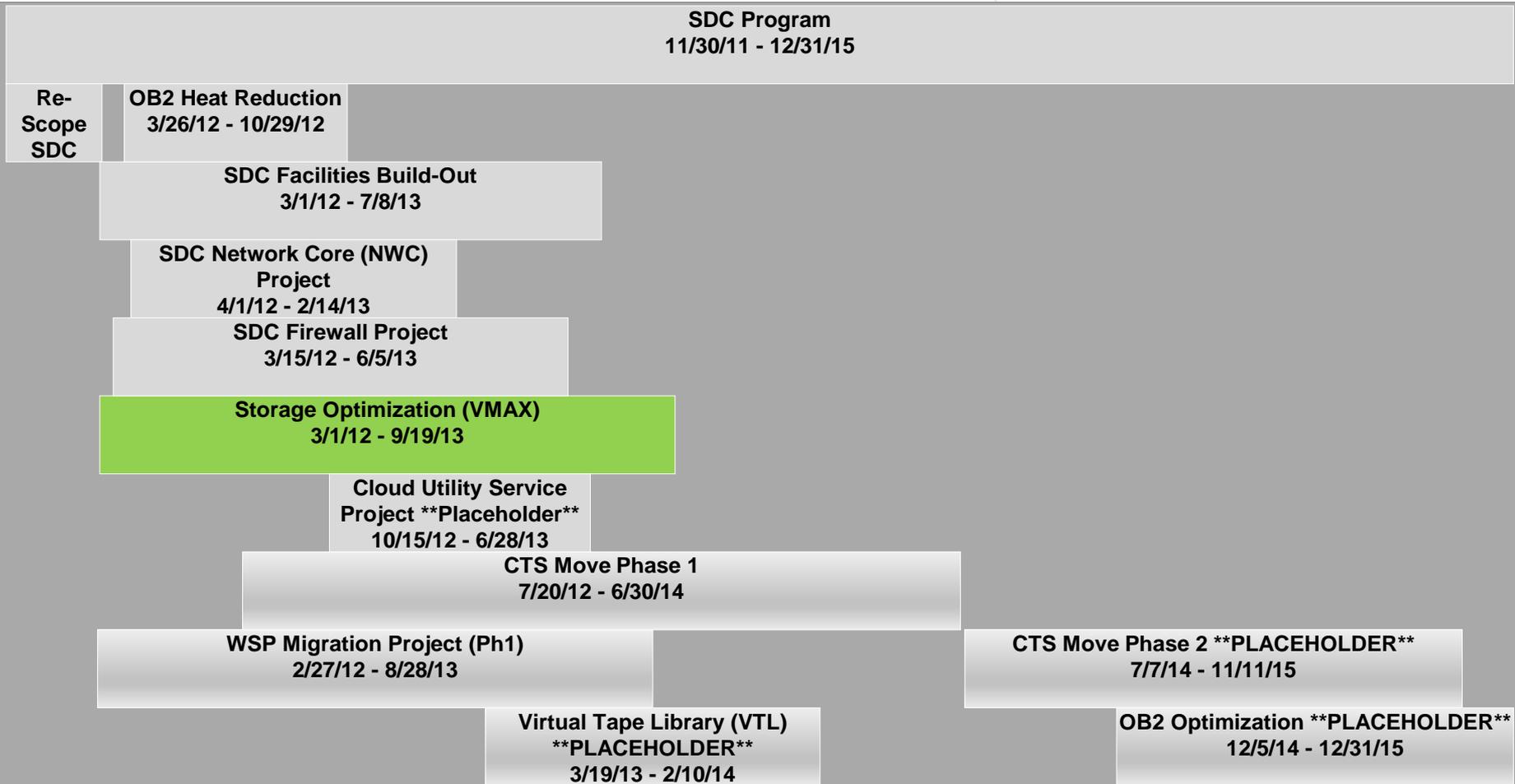
SDC Firewall

This project will replace aged and over-capacity firewalls and deliver enhanced data security services to both OB2 and the SDC.



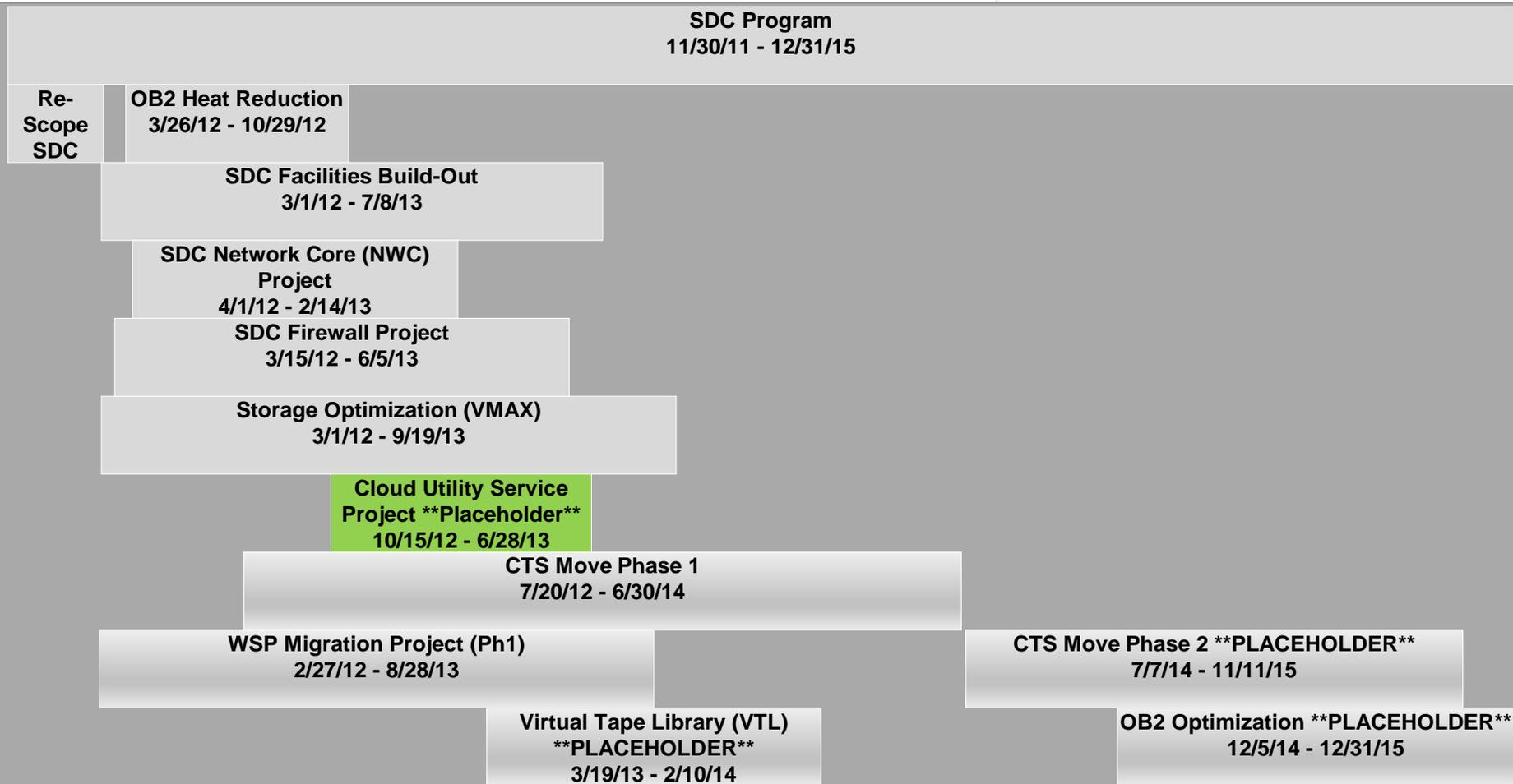
Storage Optimization

This project expands the enterprise shared storage environment to support growth and consolidation initiatives, simplify storage services, and reduce customer rates.



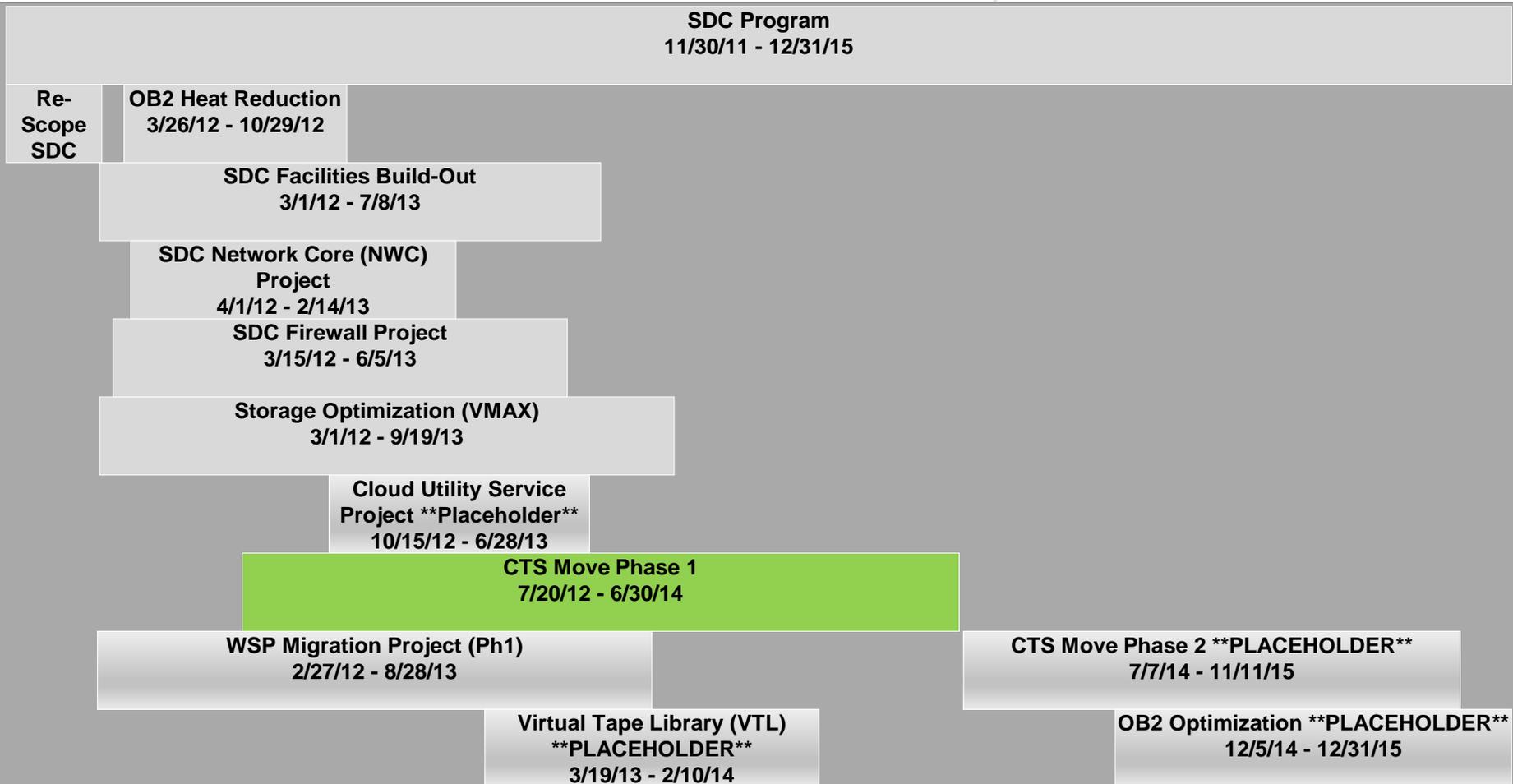
Cloud Utility Service

This project will provide a private cloud utility platform for CTS customers.



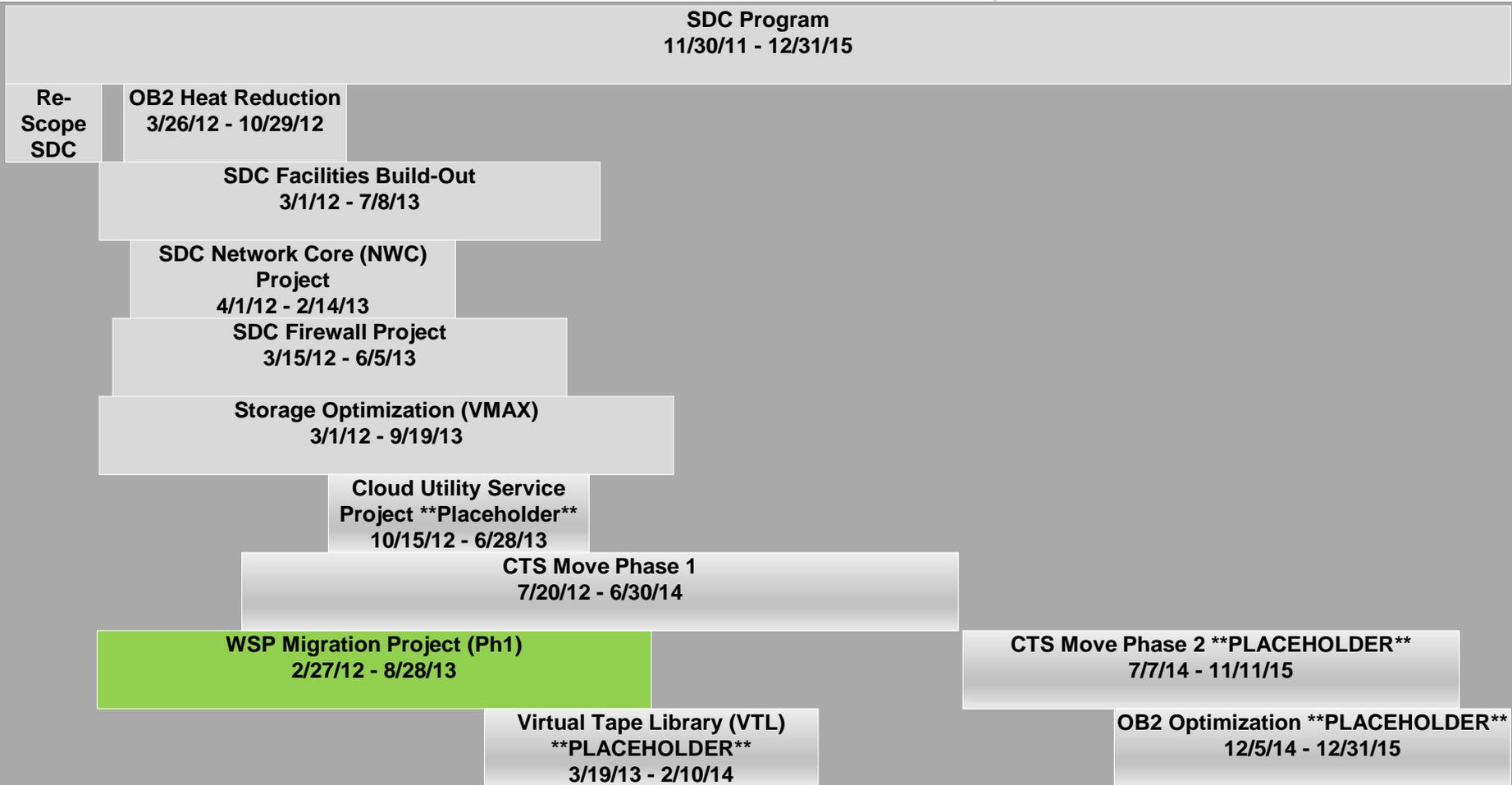
CTS Move Ph1

This project will move selected CTS equipment that best alleviates the heat issue in OB2.



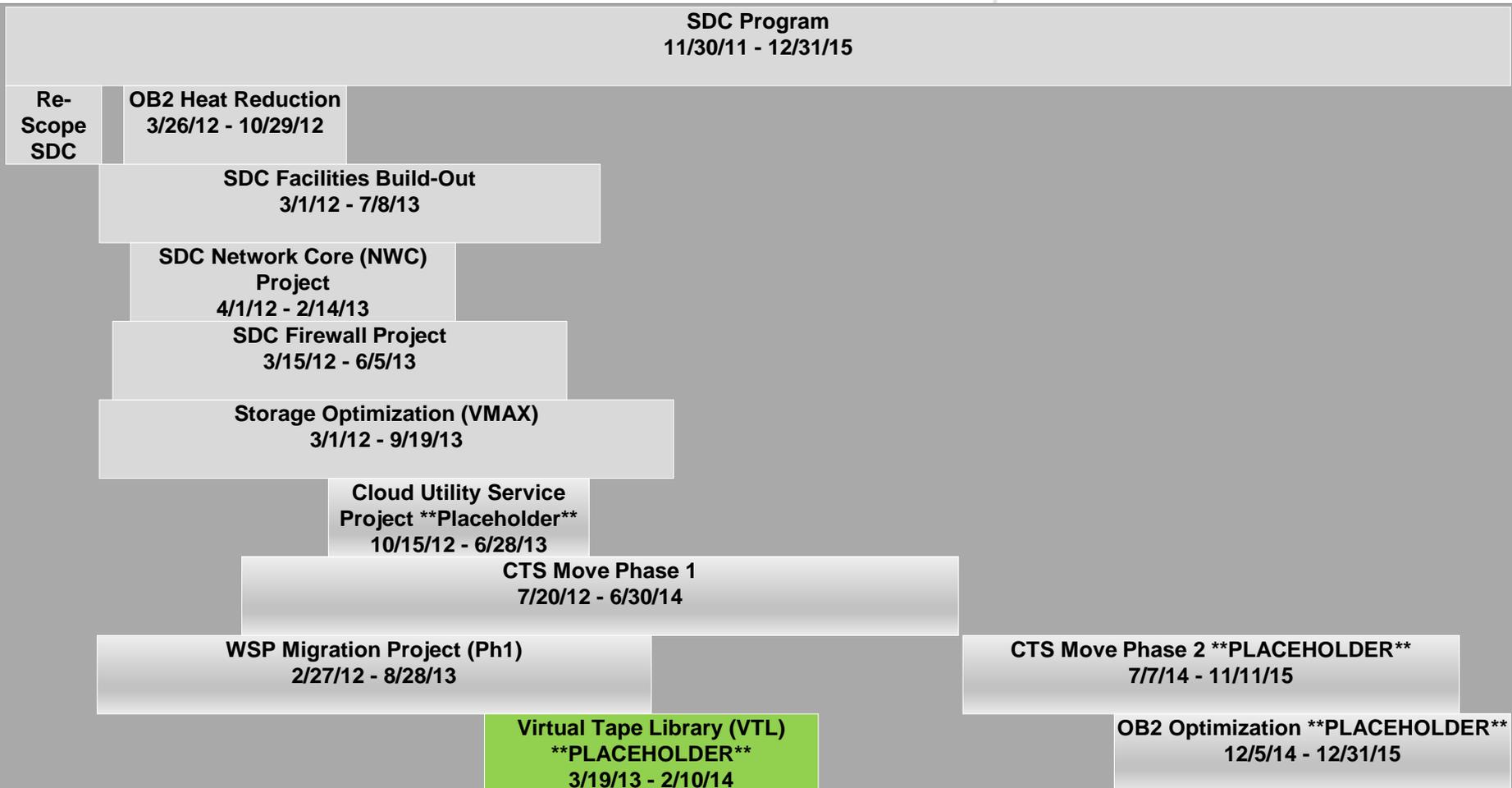
Migrate WSP to SDC

The project team is working with WSP to move their data center to the SDC.



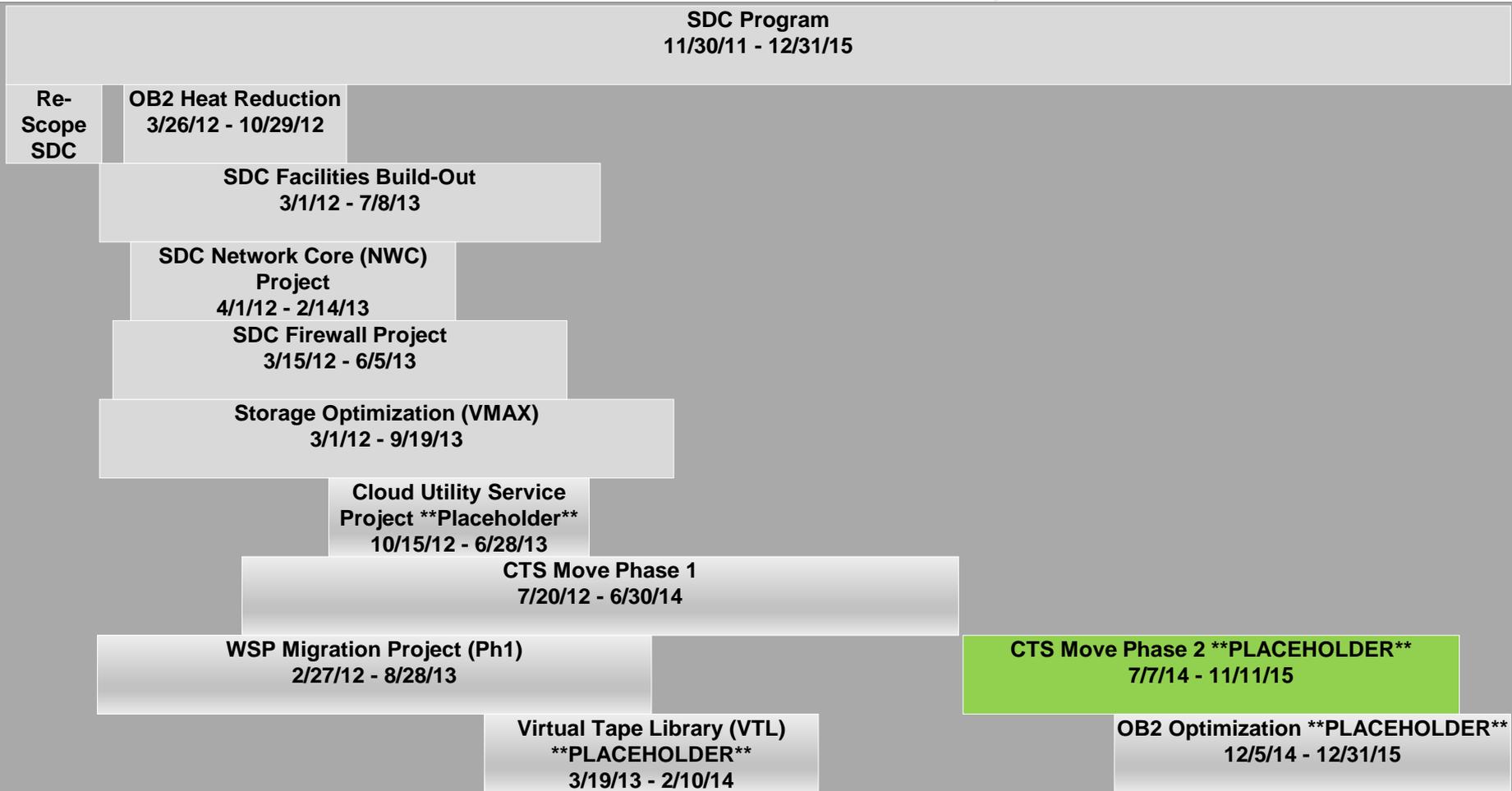
Virtual Tape Library

This project will procure additional VTL equipment to eliminate the tape backup system and support mainframe disaster recovery.



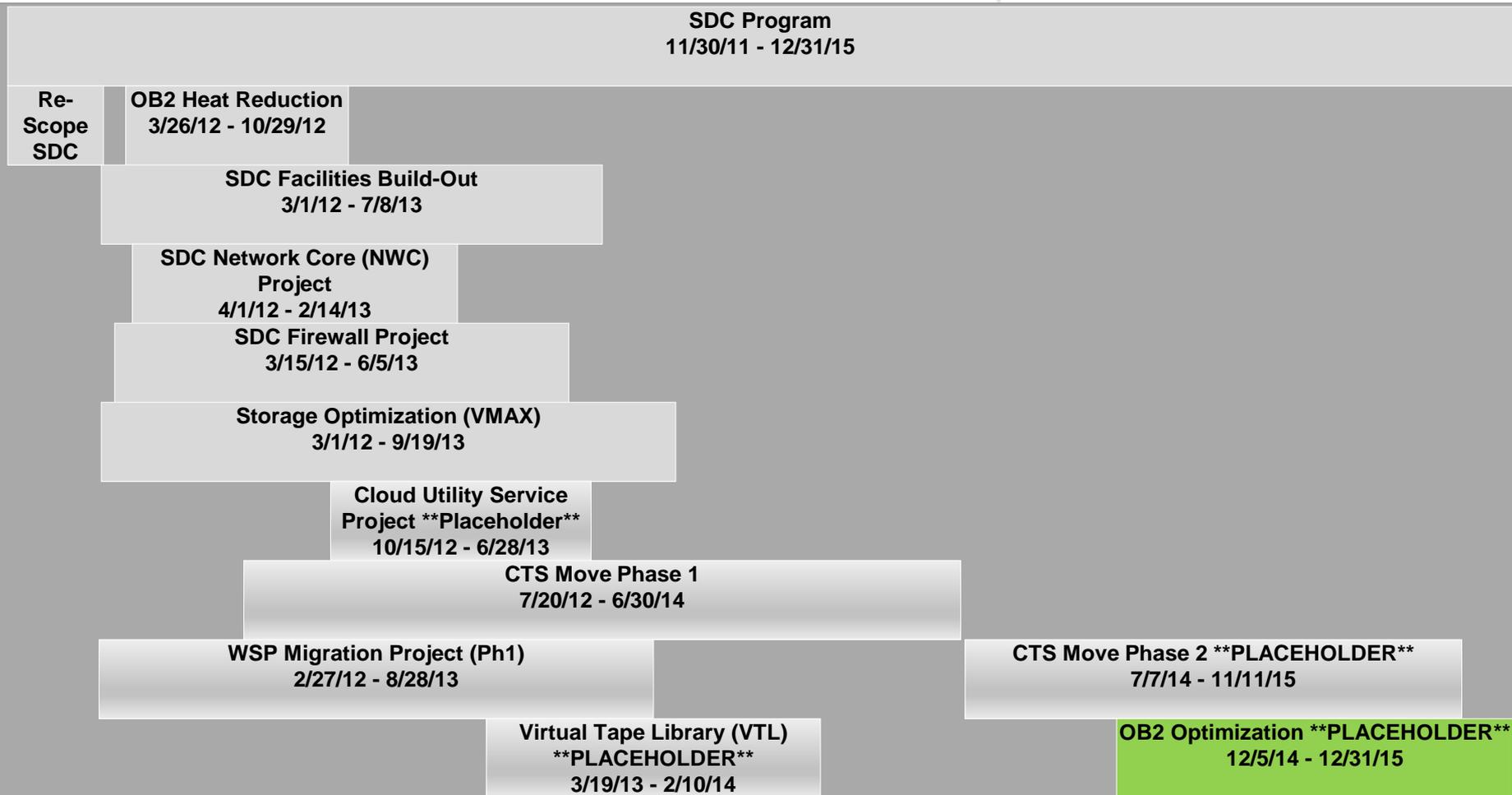
CTS Move Ph2

This project will continue the heat reduction progress of CTS Move Phase 1 by moving additional CTS equipment to the SDC.



OB2 Data Center Optimization

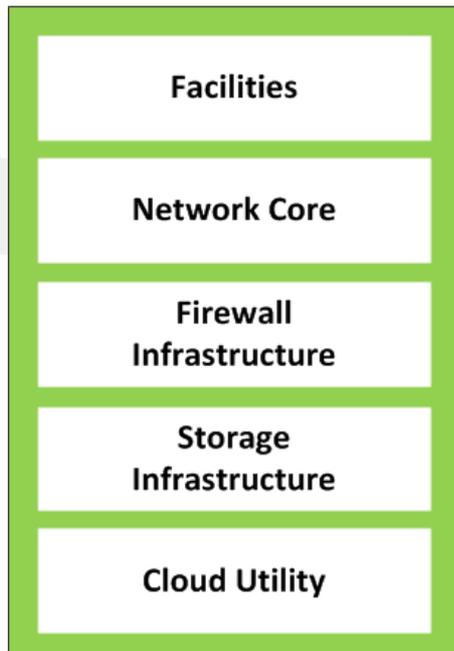
This project will reconfigure remaining equipment in OB2 to optimize airflow and cooling.



SDC Projects Underway

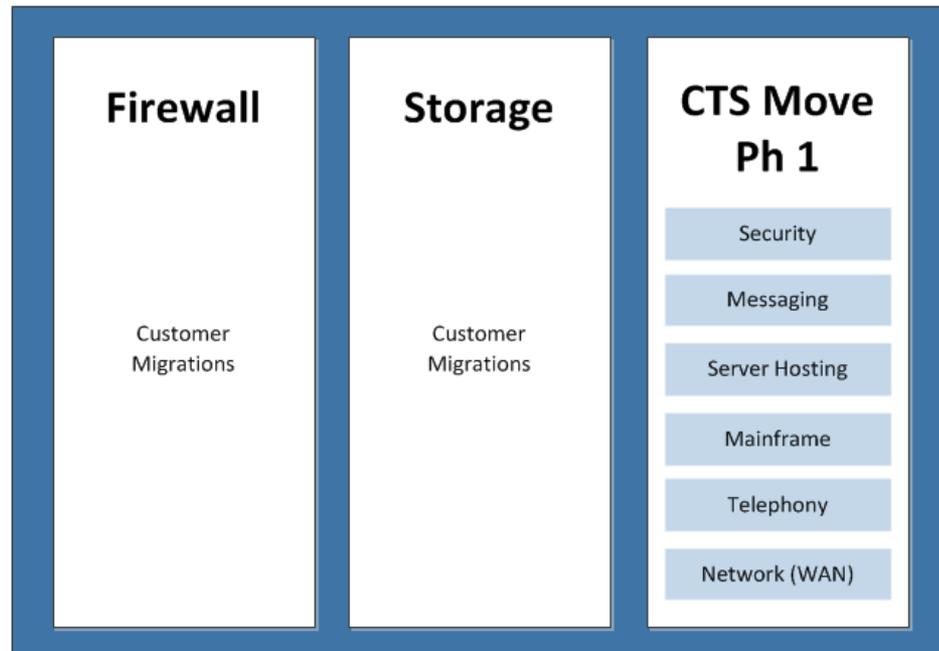
SDC Readiness

(No Customer Impacts)



Customer Migrations

(Customer Impacts)



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SDC Firewall Project



Firewall - Scope

This project replaces current firewall technology with next generation security appliances.

- CTS has been delegated the responsibility of protecting the state's **perimeter** networks including the SGN, IGN, PGN, etc.
- The current firewall technology was purchased six years ago, is nearing end-of-life, is at capacity and the dependent switching infrastructure will soon be at end of support.
- The current firewall technology resides in the OB2 core switching infrastructure.
- CTS is moving to a new network switching platform in the SDC that will not support the current firewall technology.



Firewall - Goals

The new firewalls will improve the overall security posture of state data processing services.

- Refresh equipment and implement next generation firewall functionality.
- Implement delegated administration for agencies.
- Support additional security features beyond firewalling.
- Support requirements for 10 gig throughput.



Firewall – Additional Value

The new firewalls will improve the business value of the state data processing services.

- Reduction in the mean-time to discovery of security incidents.
- Reduction in the mean-time to incident recovery.
- Restructured rate model in development with the goal of reducing reoccurring charges.



Firewall – Customer Impacts

Underway: planning, design and implementation of the technology solution in the SDC.

Upcoming activities: migration of the 90+ firewalls to the new technology.

- Next steps:
 - Complete firewall and data flow mapping.
 - Complete migration planning working with the CTS network team to ensure we're not reducing network availability.
 - Receive Migration Plan deliverable from vendor. Establish the migration order and schedule.
 - Customer Planning & Testing – We will work with each impacted customer to ensure that we thoroughly prepare and test.



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SDC Storage Optimization



Storage Optimization

This project expands the enterprise shared storage environment and implements state of the art technology.

- CTS currently has several storage arrays installed in OB2 - some are nearing end-of-life and all are at or near their capacity for expansion.
- CTS has installed new storage technology in the SDC.
- The new technology will support growth and consolidation initiatives and reduce customer rates. (Restructured rate model is in development and will be published soon.)



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Storage Optimization

The new storage solution will improve state data storage services with:

- Simplified service catalog.
- Elastic capacity and performance - automated adjustment of storage configuration to match required real-time application performance.
- Introduction of a Customer Portal for storage customers.
- Highly reliable and available storage infrastructure.
- Ability to combine disk types to create powerful performance at lower prices.

In a nutshell.....

New storage solution allows customers to focus on how much storage is needed and how fast it needs to be.



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Storage Optimization Customer Impacts

Underway: Equipment has been installed and is being configured and tested.

Upcoming activities: Customer migrations.

- Next steps:
 - ❑ Complete an information gathering effort with customers
 - A data collection template will be emailed to AIC's in early January 2013.
 - Data will be used to establish the migration order and schedule.
 - ❑ Receive Migration Plan deliverable from vendor. Establish the migration order and schedule.
 - ❑ Customer planning & testing – We will work with each impacted customer to ensure thorough preparation and testing.



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CTS Move Phase 1



CTS Move Phase 1 - Scope

- In Scope:
 - Includes moving CTS owned and managed equipment from OB2 to the SDC
 - 100+ physical servers
 - 450+ virtual servers
 - IBM and Unisys mainframes
 - Other telecommunications and security gear
- Out of Scope:
 - Customer owned equipment (e.g. A la Carte 1, 2 & 3)



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CTS Move Phase 1 - Server Move Approach

The approach to moving servers includes grouping servers into applications groups. Then grouping application groups into move groups. Each move group will go through a move cycle using repeatable processes.

Move Groups								
Server Group 1	Customer Notice	Plan	Prepare	Move				
Server Group 2		Customer Notice	Plan	Prepare	Move			
Server Group 3			Customer Notice	Plan	Prepare	Move		
Server Group 4				Customer Notice	Plan	Prepare	Move	
Server Group 5					Customer Notice	Plan	Prepare	Move



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Customer Engagement



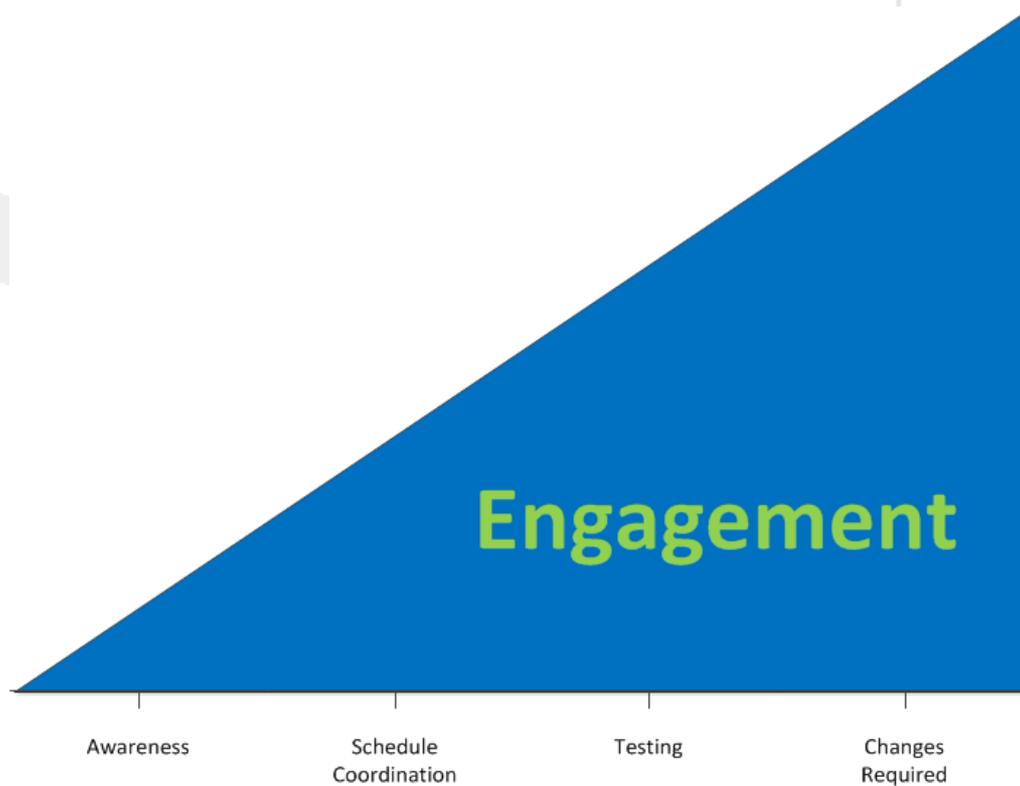
Customer Engagement

- We have a Plan for working with you!
- Roles and responsibilities
- Communications



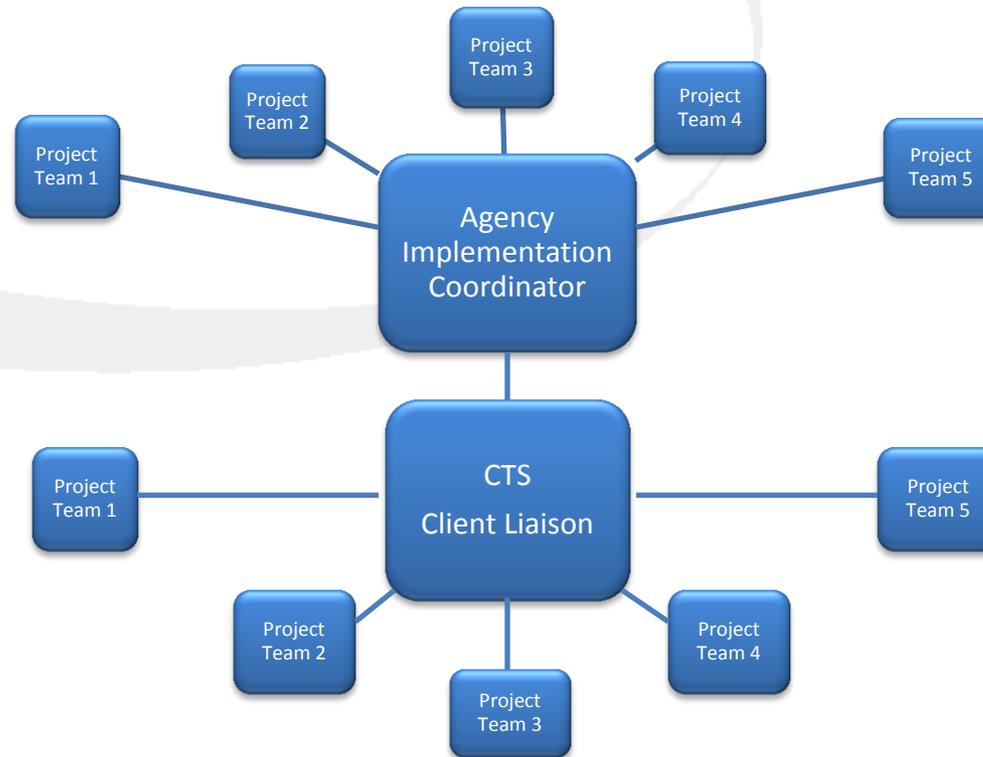
Levels of Engagement

Impact to customers will vary based on each system or service that is moved which in turn will impact the necessary level of engagement.



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Multiple Team Relationships



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How will we work together?

- Monthly AIC meetings to share information & promote a collaborative dialogue
- Regular project meetings with customer(s) as we move closer to specific implementations
- Email and periodic Newsletters
- Customer Action Item Log to track readiness progress and activities
- Customer Issue Log to track questions, inquiries, and issues
- In the meantime, direct inquiries to CTS Service Desk with subject line: Data Center Support



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Website

[Home](#)

Coming Soon ... FAQs



Q & A



Contact Information

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- Steve Lovaas – Client Liaison
Steve.Lovaas@cts.wa.gov 360.407.8723



Next Meeting

We have not scheduled our next meeting yet.

We wanted to talk to you first.

We would like to meet monthly towards the end of each month.

How about either the 4th Thursday or Friday?

Vote by a show of hands?

