



KING COUNTY AUDITOR'S OFFICE

CAPITAL PROJECTS OVERSIGHT PROGRAM

DATA CENTER RELOCATION PROJECT OVERSIGHT REPORT FOR JUNE 2009

CURRENT RISK RATING ▼ Schedule and cost risks exist for the permanent secondary fiber line work to be completed in 2010.



PROJECT DESCRIPTION

The Data Center Relocation Project will create a dedicated King County facility in leased space at the Sabey Data Center in Tukwila to replace the county's existing data center in the Seattle Metropolitan Tower. The new facility will house approximately 50% of the county's data network systems, with room for expansion. Project delivery is being managed by the Facilities Management Division (FMD) and the Office of Information Resources Management (OIRM). Build-to-suit, design-build, and county-force delivery methods are being used. The project is currently in implementation.

PROJECT STATUS ● = No Current Concerns ▼ = Attention Needed ◆ = Corrective Action Needed

● **SCOPE**

The baseline scope includes: construction of 7,500 square feet (sf) of data center space, 580 sf of storage, and 3,982 sf of office space; installation of redundant fiber lines connecting to the county's wide area network core in downtown Seattle; installation of new or relocated IT network equipment; and data center staff relocation. The office space was removed from scope prior to construction to save \$1,322,318 in rent over the life of the lease.

▼ **SCHEDULE*** (*See "Issues and Risk" section below)

<u>Milestone</u>	<u>Approved Schedule</u>	<u>Current Forecast</u>	<u>Comment</u>
Design	11/21/08	Complete	Completed on schedule
Construction	04/10/09	03/31/09	Completed early
Phased IT Equipment Installation	10/25/09	10/25/09	On schedule
Decommissioning SMT	12/15/09	12/15//09	On schedule
Phased Fiber Line Installation	04/06/10	03/26/10	Permitting issues could delay installation

▼ **BUDGET**

Project	Budget Appropriations ¹	Expenditures thru 6/30/09 ²	% of Budget Expended	Forecast Cost at Completion ³	Forecast Balance at Completion
FMD	10,756,213	10,715,130	100%	10,756,213	0
OIRM	8,174,416	2,785,527	34%	8,174,417	(1)
Contingency	1,368,821	505,525	37%	1,368,820	1
Total	\$20,299,450	\$14,006,182	69%	\$20,299,450	\$0

Notes: 1 - Includes Ordinance 16638 which was passed by council on 08/31/09 and is awaiting enactment. 2 - Does not include encumbrances. 3 - Uncertainties exist regarding the phased fiber line installation, which is being done on a time and materials basis and faces permitting delays.

▼ **ISSUES AND RISKS**

The permitting process for the permanent secondary fiber line is taking significantly longer than expected, creating a risk that installation won't be completed on schedule, which could require additional use of contingency funds.

For detailed information regarding this project, see the following pages.

September 9, 2009

King County Auditor's Office – Cheryle Broom, County Auditor

The King County Auditor's Office was created in 1969 by the King County Home Rule Charter as an independent agency within the legislative branch of county government. Its mission is to promote public trust in King County Government by providing audits and other services that improve performance, accountability and transparency.

Capital Projects Oversight Program – Tina Rogers, Manager

The Capital Projects Oversight Program (CPO) was established within the Auditor's Office by the Metropolitan King County Council through Ordinance 15652 in 2006. Its goal is to promote the delivery of capital projects in accordance with the council approved scope, schedule, and budget; and to provide timely and accurate capital project reporting.

CPO oversight reports are available on the Auditor's Web site (www.kingcounty.gov/operations/auditor/reports) under the year of publication. Copies of reports can also be requested by mail at 516 Third Avenue, Rm. W-1033, Seattle, WA 98104, or by phone at 206-296-1655.

**ALTERNATIVE FORMATS AVAILABLE UPON REQUEST
CONTACT 206-296-1655 OR TTY 206-296-1024**

INTRODUCTION

This is the ninth monthly oversight report prepared for and submitted to council by the Capital Projects Oversight Program (CPO) on the status of the scope, schedule, budget, and risk for the Data Center Relocation project. Oversight is conducted through monthly meetings with the project team members from FMD and OIRM and representatives from the Office of Management and Budget (OMB), who are assisting with the budget. Information has also been obtained through site visits and direct contact with Data Center staff. FMD and OIRM produce a separate monthly progress report and their update for June is attached. We have provided two briefings regarding this project to council, the first to the Government Accountability and Oversight Committee on July 8, 2009, and the second to the Budget and Fiscal Management Committee on August 18, 2009.

PROJECT STATUS UPDATE

Scope

No new scope changes were considered in June. As mentioned in the December 2008 report, an amendment to the Data Center lease has been agreed to in principle with the landlord to remove 3,982 square feet (sf) of office space. This will result in \$1,322,318 in rent savings over the life of the lease. This did not reduce the county's tenant improvement costs. The OIRM staff originally planned to occupy this office space will utilize existing OIRM space in the Chinook Building instead. The remaining Data Center space, including work space for the necessary on-site operators, is not altered by this scope change. The executive will notify council of the intent to modify the lease by separate letter.

Another scope change involves leasing a temporary AboveNet fiber line connection through the landlord for 12 months instead of 9 months as originally planned. This connection is needed to provide redundant access to the county's wide area network (KCWAN) core in downtown Seattle while the installation of the county's permanent secondary KCWAN fiber line is being completed. A 9-month lease was anticipated when the project budget was developed; however, the minimum lease term available was 12 months. The additional 3 months required will cost \$ 536,089 and is being charged to the project contingency budget. A lease amendment has already been executed between the landlord and the county for this work.

Schedule

There were no schedule changes in June. Commissioning of the Data Center was completed on May 15, 2009. OIRM's relocation consultant completed the detailed relocation plan for the servers early on June 26, 2009. The following six relocation dates were identified based on agency input: July 18th, August 8th, August 22nd, September 19th, October 3rd, and October 24th. Three moves have been successfully completed to date.

The relocation consultant's work has provided independent verification of the baseline schedule, which we believe is reasonably accurate through December 2009. Based on the information available at this time, however, we feel that the schedule for the permanent secondary fiber work to be completed in 2010 is at risk. The county is relying on the City of Seattle to obtain all necessary permits and to install the secondary fiber facilities. Permits from multiple jurisdictions are involved, including the City of Tukwila, the U.S. Army Corps of Engineers, and Seattle City Light. All permits have been obtained except for the approval needed from Seattle City Light to locate fiber lines on their poles along the selected route. The Seattle City Light permit was applied for on November 4, 2008 and was expected to be approved within 6

months. Although over 10 months have already passed, eleven other projects are still ahead of the county in Seattle City Light's permitting queue. Unless the county's permit is approved within 30 days, it is unlikely that the fiber installation can be completed by the April 6, 2010 target date. Should this work be delayed past April, the county faces escalated charges for the temporary secondary fiber connection leased through the landlord from AboveNet, which is explained in the "Budget" section below.

Budget

Once a \$ 1,387,017 supplemental budget appropriation approved by the Budget and Fiscal Management Committee on August 18, 2009 is enacted, the project budget will be \$ 20,299,450 as shown below. Through June, the project expenditures total \$14,006,182 or approximately 69% of the current appropriation total:

Project No.	Project Name	Project Scope	Appropriations To Date
395657	FMD Data Center Relocation	Tenant Improvements	\$10,756,213
377219	OIRM Data Center Relocation	IT Infrastructure, Networking Equipment Purchase and Relocation; Data Center Staff Relocation	\$ 8,174,416 ⁽¹⁾
377220	OIRM Data Center Contingency	Contingency Budget	\$ 1,368,821 ⁽²⁾
Total			\$20,299,450

Notes: 1- Includes \$ 6,917,613 in existing appropriations plus \$ 1,256,803 included in Ordinance 16638, which was passed by council on 08/31/09 and is awaiting enactment. 2 – Includes \$ 1,238,607 in existing appropriations plus \$ 130,214 included in Ordinance 16638.

Additional use of contingency funds may be necessary due to the permitting delay for the secondary fiber work explained in the "Schedule" section above. Should the secondary fiber installation be delayed beyond April 2010, the county will have to continue leasing a temporary line through the landlord, which will cost \$ 118,408 per month after adding a 3% escalation charge for a month-to-month contract. The total estimated budget for the KCWAN work is \$ 1,850,003, including \$ 462,500 for the primary fiber line and \$ 1,387,503 for the secondary fiber line. The actual cost for the primary fiber line was \$ 294,294, leaving approximately \$ 1,555,709 available for the secondary fiber work. The secondary fiber work is being completed on a time and materials basis.

Issues and Risks

As discussed in the "Schedule" and "Budget" sections, on-time and on-budget completion of the permanent secondary fiber installation is at risk.

RECOMMENDATIONS

Because of the uncertainties inherent in the time and material contract used for the secondary fiber work and the difficulty in obtaining approvals from Seattle City Light in a timely manner, we recommend that the project team work more proactively to assure that this work is completed on time and on budget. We have suggested that they document the current permitting delay with the City of Seattle, including explaining the county's potential cost impacts should the significant delay in Seattle City Light's approval

impact the April 6, 2010 target date for completing fiber installation. The project team has notified us that the permitting delay has been brought to the attention of the Chief Technology Officer of the City of Seattle, who may be able to help resolve this issue.

ACKNOWLEDGEMENTS

We appreciate the collaborative efforts of FMD, OIRM, and OMB in providing for effective oversight of the Data Center Relocation project consistent with council intent. This report was prepared by a team from the King County Auditor's Office, including Ron Perry, Tina Rogers, and Tom Wood. Should you have questions or comments on the report, please contact Tom Wood, Capital Projects Oversight Analyst or Tina Rogers, Capital Projects Oversight Program Manager.

DISTRIBUTION

King County Government Accountability and Oversight Committee

cc: Metropolitan King County Councilmembers
Kurt Triplett, King County Executive
David Martinez, County Chief Information Officer, Office of Information Resource Management
Jim Buck, County Administrative Officer Designee, Department of Executive Services (DES)
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Kathy Brown, Director, Facilities Management Division
Saroja Reddy, Policy Staff Director, King County Council
Mike Alvine, Senior Principal Legislative Analyst, King County Council
Mark Melroy, Senior Principal Legislative Analyst, King County Council

ATTACHMENT

Data Center Relocation – June 2009 Report* (*Jointly issued by FMD and OIRM)

DATA CENTER RELOCATION

Facilities Management Division & Office of Information Resource Management
June 2009 Monthly Report



Hot aisle & High voltage distribution panel - King County Data Center

Project Summary

The Data Center Relocation Project will create a dedicated King County facility in the new Sabey Data Center located in Tukwila, Washington. The project will develop approximately 7,500 s.f. of data space and 580 s.f. of storage. The total budget is \$18.8 million which includes \$9.9 million for tenant improvements. The Data Center currently resides in leased space in the Seattle Municipal Tower. Through April 2010 the Facilities Management Division, Office of Information Management and the Sabey Company will collaborate on designing, constructing, equipping and relocating approximately 60% of King County government's IT equipment and Data systems to this new, state-of-the-art facility. The facility has additional capacity to house all King County Agencies IT systems. In addition, the project will provide two diversely routed, secure fiber networks to serve as redundant connections between the Data Center and King County's Wide Area Network 'cores' in downtown Seattle. This new fiber line system will accommodate 100% of today's IT needs with capacity for growth.



Progress Highlights

- All network installations proceeding as planned.
- New network core tested
- Detailed relocation plan issued

Project Milestone Chronology

- | | |
|-----------------|-----------------------------------------------------------|
| • July 2008 | Data Center Legislation Approved |
| • August 2008 | King County Lease with the Sabey Data Center LLC |
| • August 2008 | Sazan Contract – CM and Technical Consultant |
| • October 2008 | Monthly Reporting to Auditor's Office and County Council |
| • November 2008 | MOU Between FMD, OIRM and the Budget Office |
| • November 2008 | Contingency Review Process established |
| • November 2008 | Responsibility Matrix established |
| • December 2008 | Relocation Consultant Contract Finalized |
| • January 2009 | Conditional design approval granted |
| • February 2009 | 100% Construction Documents submitted |
| • March 2009 | Temporary Certificate of Occupancy issued |
| • April 2009 | FMD issued substantial completion notice |
| • April 2009 | Temporary Fiber completed (Abovenet) |
| • April 2009 | High level relocation plan completed |
| • May 2009 | Commissioning of building systems completed successfully. |
| • May 2009 | Primary Fiber link completed. |
| • June 2009 | New network core tested |
| • June 2009 | Detailed relocation plan issued |

Summary Schedule

Schedule Update:		6/30/09					
Complete	% Activity	Baseline		Actual		Current Forecast	
		Start	Finish	Start	Finish	Start	Finish
100%	Lease Development	2/4/08	8/15/08	2/4/08	8/15/08		
100%	Design TI's	8/18/08	11/21/08	8/18/08	11/12/08		
100%	Permits	10/24/08	11/21/08	10/30/08	11/18/08		
100%	Construct TI's	11/24/08	4/10/09	11/19/08	4/21/09		
98%	Commissioning	4/13/09	5/22/09	4/2/09	5/15/09		
93%	Data Center Infrastructure	5/5/08	5/11/09	5/5/08			7/17/09
85%	Network Engineering	5/5/08	9/30/09	5/5/08			9/23/09
70%	Telephony	9/15/08	6/22/09	9/15/08			8/5/09
100%	Wireless & KCPAN	9/15/08	10/7/09	9/15/08	4/13/09		
100%	Server Build Area	11/12/08	7/25/09	11/15/08	5/18/09		
30%	I-Net Equipment	3/9/09	6/29/09	5/5/09			8/23/09
100%	KCWAN Fiber-Primary Line	5/5/08	6/15/09	5/5/08	4/28/09		
55%	KCWAN Fiber-Secondary Line	5/5/08	4/6/10	5/5/08			3/26/10
100%	Temporary Fiber (AboveNet)	9/4/08	4/30/09	9/4/08	4/30/09		
45%	Systems Engineering	12/3/08	9/23/09	12/3/08			12/30/09
100%	Applications	9/15/08	8/10/09	9/15/08	4/30/09		
60%	Relocation Consultant Physical	4/22/08	10/12/09	4/22/08			10/25/09

Note: Items in bold indicate a change from the May 2009 Report

Budget Detail

Budget expenditures are tracking consistently with the schedule and planned expenditure levels.

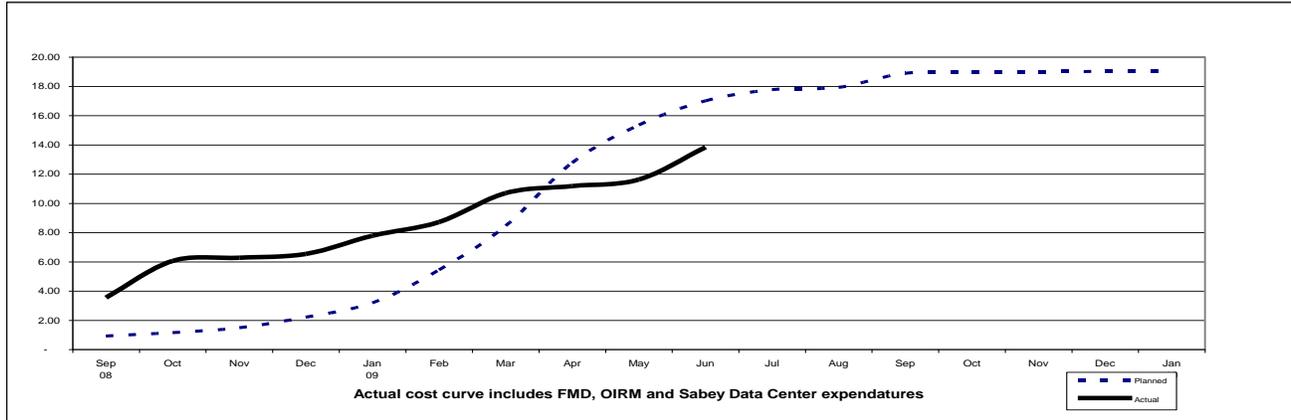
Contingency

Contingency Budget	\$1,238,607
Approved items	\$ (241,527)
Pending items	\$ (538,091)
Contingency available	\$ 458,989

1. Contingency has not been utilized for items anticipated to be included in the planned 2009 supplemental appropriation request. The contingency available in relation to remaining cost risk is being continuously monitored.
2. A supplemental appropriation request currently estimated at \$1,387,018 is planned for July 2009.
3. 2008 fourteenth month carryover budget was revised to align with 395657 project needs.

Cost Element	Description	Current Budget	Expenditures	Encumbrances	Current Balance	Estimate to Complete	Estimate at Completion	Projected Balance
395657	FMD Data Center Relocation							
001	Design	646,580	636,191	3,890	6,499	6,499	646,580	-
003	Construction	9,575,529	9,510,587	-	64,942	-	9,510,587	64,942
004	Equipment/Furnishings	268,984	268,984		-	-	268,984	-
005	Contingency				-	-	-	-
006	1% for Art				-	-	-	-
007	County Force Design				-	-	-	-
009	Project Management	265,120	299,456	-	(34,336)	30,606	330,062	(64,942)
	Totals	\$ 10,756,213	\$ 10,715,218	\$ 3,890	\$ 37,105	\$ 37,105	\$ 10,756,213	\$ -
377219	OIRM Data Center Relocation							
101	Data center Infrastructure	730,936	\$ 68,513	\$ 660,255	2,167	2,168	730,936	(1)
102	Network Engineering	1,883,060	\$ 1,737,301	\$ 27,663	118,096	118,096	1,883,060	(0)
103	Telephony	28,276	\$ -	\$ 26,992	1,284	9,675	36,667	(8,391)
104	Wireless & KCPAN	5,914	\$ 5,431	\$ -	483	483	5,914	-
105	Server Build Area	10,890	\$ -	\$ -	10,890	0	0	10,890
106	I-Net Equipment	107,101	\$ -	\$ -	107,101	107,101	107,101	-
107	KCWAN Fiber	1,839,866	\$ 33,611	\$ -	1,806,255	1,806,255	1,839,866	-
108	Abovenet Fiber	704,861	\$ 408,535	\$ 655,084	(358,758)	-	1,063,619	(358,758)
109	Systems Engineering	-	\$ -	\$ 12,671	(12,671)	96,829	109,500	(109,500)
110	Relocation Consultant	1,000,000	\$ 118,500	\$ 1,247,904	(366,404)	-	1,366,404	(366,404)
111	OIRM Labor	580,390	\$ 412,566	\$ -	167,824	592,464	1,005,030	(424,640)
112	Misc.							
		\$ 6,891,294	\$ 2,784,457	\$ 2,630,569	\$ 1,476,267	\$ 2,733,071	\$ 8,148,097	\$ (1,256,804)
377220	OIRM Data Center Contingency							
	Tenant Impr. Design Revisions			241,527				
108	Above Net Fiber			538,091				
		\$ 1,238,607	\$ -	\$ 779,618	\$ 458,989	\$ 589,202	1,368,820	(130,213)
	Grand Total All Projects	18,886,114	13,499,675	3,414,077	1,972,361	3,359,378	20,273,130	(1,387,017)

**Cashflow: Actual Versus Planned Expenditure
Through June 2009**



- ⊕ Original legislation included a supplemental appropriation in 2009.
- ⊕ ARMS Expenditures reported as of the 30th of reporting month
- ⊕ IBIS Expenditures reported as of the 20th of month following reporting month
- ⊕ Planned Cashflow distributed 9.5M lumpsum TI payment over Design & Constn period, To indicate earned value.
- ⊕ June expenditures lagging due to invoices not received

Planned Contract Listing

Description of each contract	Estimated Amount	Estimated Timeframe	Possible Vendor List
The contract would focus on consulting services for planning, scheduling and executing the relocation of the King County Enterprise Data Center. A sole source waiver has been received	\$1.5M	12/08 - 12/09	HP
Blanking panels and shelving for cabinets, power cords, patch cables, horizontal power, MDF caging	\$33,000	1/09-6/09	Graybar
Digital KVM and associated equipment, console controllers	\$324,000	1/09-6/09	Net IG (Carlyle)
Network switches	\$1.7M	3/09-8/09	Cisco
I-Net switch	\$86,000	3/09-6/09	Verizon (Marconi)
Other move related expense (e.g., surplus)	\$20,000	9/09-10/09	Emerald City Movers
Mainframe processor	\$240,000	7/09 – 10/09	IBM
Telephony, voice circuits	16.500	8/09 - 12/09	Qwest
Telephone testing	\$10,500	8/09 – 12/09	Cochran electric
Decommissioning of SMT	TBD	9/09-12/09	DoIT (City of Seattle usually requests their own inside staff)
Decommissioning Fortress Co-location (Auxiliary Server Room I and II)	TBD	9/09-10/09	Fortress
Closeout of lease at Fortress Co-location	TBD	9/09	Fortress with assistance of FMD
Seed equipment for distributed moves requiring minimal downtime	\$170,400	5/09 – 10/09	HP, Dell
Construction Management and Design Oversight.	\$197,000	09/08 – 07/09	Sazan Group Inc.
'Tenant Contribution' to lease Tenant Improvement	\$9,500,000	5/09 – 6/09	Sabey Data Center