

## SDC Finance Committee

### Members

Elizabeth Harchenko  
 Revenue

Scott Harra  
 DAS-DO

Bret West  
 DAS-OPS

Dugan Petty  
 DAS-EISPD

Julie Bozzi  
 DAS-SDC

Robin Barnes  
 DAS-Finance

Pat Middelburg  
 DAS-SDC

Darin Rand  
 DAS-SDC

Ben Berry  
 ODOT

Barry Nathan  
 ODOT

George Ostertag  
 OED

Kay Erickson  
 DCBS

Jim Scherzinger  
 DHS

Satish Upadhyay  
 ODF

Traci Cooper  
 DHS

Kailean Kneeland  
 OSP

**Meeting Date:** May 5, 2010

**Time:** 1:30pm – 3:00pm

**Location:** BAM Conf. Rm.

**Attendees:** Sandy Jefferson, Robin Barnes, Gary Krieger, Darin Rand, Scott Harra, Kay Erickson, Julie Bozzi, Pat Middelburg, George Ostertag, Barry Nathan (via phone)

**Chair:** Elizabeth Harchenko

ITEM	ACTION, DISCUSSION
<b>SDC POP 805 Criteria</b>	
<b>Darin Rand</b>	<p>Darin talked through the methodology for the project criteria for the current biennium. He outlined three sections to include:</p> <ul style="list-style-type: none"> <li>• Included within Rates</li> <li>• Billed to Agency as Pass-through</li> <li>• Direct Charged to Agency</li> </ul> <p>Group discussed the situations outlined. Scott stated that if we continue to grow at the rate we have in the first year of this biennium, the excess expenditure limitation from this POP won't meet the need. This may lead to a visit to the e-Board and or rationing of services.</p> <p>(hand out attached)</p>
<b>SAN Storage, LAN Storage &amp; Back-ups</b>	
<b>Gary Krieger</b>	Talking Points attached

**Next Meeting:**  
 May 12, 2010  
 10:30 – Noon  
 Conf. Rm. A

For more information, contact: Yvonne Hanna @ [yvonne.hanna@das.state.or.us](mailto:yvonne.hanna@das.state.or.us)  
 or call 503-378-2349 ext. 325

## **SDC POP 805 Project Criteria**

Replacement of telecommunications and computing hardware prior to the funded equipment lifecycle and growth greater than planned are not covered by the SDC base budget. POP 805 limitation will be used in 2009-11 for these expenses and added to the SDC base budget for rate development purposes.

The following situations will use POP 805 limitation:

### **Included within Rates:**

- Replacement of hardware prior to funded equipment lifecycle schedule due to growth, new features/functionality or other requirement due to customer request
- Purchase of new hardware for rearchitected environment at customer request, growth or for new application/ business solution. Planned growth for 2009/11 does not include:
  - Growth above 8% for any new or replaced Distributed Server for each agency
  - Growth beyond equipped capacity for UNIX and iSeries servers as of July, 2009
  - Growth beyond equipped capacity on the Storage Area Network (SAN) as of July, 2009 (460 TB)
  - Growth beyond equipped capacity for Mainframe as of the fall 2009 upgrade (1,645 MIPS)
  - New agency location requiring a phone system, WAN network connectivity, security devices or LAN switching
- Software licenses, covered by rates, required for growth or replacement as described above
- Training for SDC staff for new technology required to support customer requests

### **Billed to Agency as Pass-through:**

- Vendor services and software billed under the standard rate model as pass-through
- Agency specific software on the Mainframe based on agency requirements
- Professional services used to design, architect, develop, deploy and implement replacement of hardware/software outside of equipment lifecycle schedule, new hardware/software due to rearchitecting, growth, new application/business solutions.
- Misc Services and Supplies (S&S) such as cabling, racks or other subcomponents required in support of projects described above
- Software licenses, normally covered by rates, outside of SDC standard based on customer requirements (example, customer requires Windows Server 2008 R2 which is operationally useable but Windows Server 2008 is the SDC standard)

### **Direct Charged to Agency:**

- SDC staff time for consulting, design, development and implementation which requires more than 10 hours of time for existing applications and over 10 cumulative hours for any new projects

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## Attachment

### Finance Committee 5/05/2010 Storage and Backups

**Gary Kreiger**  
Oregon State Data Center  
Storage and Security Support Services Manager

#### **SAN Storage**

1. Capacity planning
  - a. We get this information from the agencies when we hear about. This usually occurs when the Agencies engage with the SDC either in the solutions team or when it is in the design phase. There really is not a lot early notification outside of POP information.
  - b. Capacity increase picture tends to come into focus right after the start of a new biennium when there is money to do projects such as POPs or smaller projects that do not need Legislative approval.
  - c. We have much better sophisticated tools to look at trending then we did over a year ago.
  - d. Growth in SAN Storage is also due to server consolidation where old servers with local storage are moved in to the VM environment that uses SAN Storage.
  - e. Faster WAN connectivity at remote offices has allowed moving remote servers to the SDC with SAN attached storage.
2. We are in the process of signing a lease contract for new SAN Storage.
  - a. This new storage will allow us to better utilize SAN Storage thru the use of "Thin Provisioning" or "Storage Virtualization". This as been a proven technology to help reduce cost and has been in the industry for several years. We have estimated that we will get 25% to 30% better utilization of SAN Storage.
  - b. Implementing "Capacity on Demand". Our vendor will place extra SAN Storage on the SDC raised floor and not charge us for it until we need it. This should help us meet the unforeseen requests that the agencies send us.
3. Capacity on Demand will assist with the unforeseen Agency requests and growth of addition storage.

#### Things to consider when using SAN Storage:

- a. Ask for what you need plus a 1 year project growth. We have the ability now to easily add additional storage to your servers.

- b. Are your servers on the correct tier of storage? We now can move allocated storage between tiers without impacting the end user. We can also run tools to help determine which tier is suited for your server(s)

### **Local Storage**

1. Local Storage is disk capacity that is installed in a server or could be an externalized storage enclosure that is attached to a server.
  - a. This storage is setup and maintained by Server Computing Services (formerly known as Distributed Systems)
  - b. Each servers storage is independently managed where as SAN Storage is all managed through a centralized interface/application.
  - c. Storage teams role is to run our reporting tool against all storage (SAN and local storage).

### **Backups**

There are three main backup solutions that the SDC Manages.

- Tivoli Storage Manager (TSM) for Intel Server and AIX LPARS
  - Series (managed by the i-Series group in Server Computing Systems)
  - Mainframe (managed by the Mainframe Group)
1. Backup Capacity and Growth are Determined by these factors
    - a. Data Retention – how long does an agency keep an original file that has been modified or deleted. Currently most agencies have a daily backup and monthly backup scheduled.
    - b. Copies of the same data replicated to multiple servers and then backed up in multiple locations.
    - c. The overall storage growth affects the growth of backups
    - d. Certain types of files on servers that have not changed for a long period of time are on daily and monthly backups. This is a duplicate copy that is not needed... examples would be GIS data, photos...ect..
  2. Working with the Agencies
    - a. SDC has two LD positions to assist with slowing down the growth of SAN storage. One of the positions will be working on implementing our new leased SAN storage to implement “thin provisioning” (30% better storage utilization). The other position is working with the Agencies to look at their data to look at how old files are and to look for duplicate files. We have noticed that their may be more cost savings at looking at backups... what needs to be backed up vs. having Agencies delete old files.
    - b. Agencies (staff) do not feel comfortable just deleting old files. They want a cheaper way of storing the files so that they can be retrieved later if needed. Currently the SDC does not have this type of service however we are looking into this possibility.