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LOS ANGELES COUNTY

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To ensure access to high-quality, patient-centered, cost-effective health care to Los Angeles County residents through direct services at DHS facilities and through collaboration with community and university partners.

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November 18, 2014

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

APPROVAL OF AMENDMENTS TO AGREEMENTS WITH NETSCOUT SYSTEMS, INC. AND PHILIPS HEALTHCARE
(ALL DISTRICTS)
(3 VOTES)

CIO RECOMMENDATION: APPROVE (X) APPROVE WITH MODIFICATION ( )
DISAPPROVE ( )

SUBJECT

Approval of amendments to two Agreements: 1) amend the Agreement with NetScout Systems, Inc. to allow purchase of hardware and software products as part of an upgrade to end of life products which includes professional services and installation and increase the maximum obligation to procure an upgrade to existing hardware and software installed to monitor enterprise network telecommunications and applications in the Department of Health Services; and 2) amend the Agreement with Philips Healthcare to increase the maximum obligation to procure an upgrade to patient monitoring systems for the Bio-Medical Device Integration at various facilities for successful implementation of the Online Real-Time Centralized Health Information Database.

IT IS RECOMMENDED THAT THE BOARD:

1. Authorize the Director of Health Services (Director), or his designee, to execute an Amendment Number 2 to Agreement No. H-705889 with NetScout

Systems, Inc. (NetScout), effective upon Board approval, to increase the maximum obligation of the Agreement by $502,660 for the current contract year to allow purchase of hardware and software products as part of an upgrade to end of life (EOL) equipment, which includes professional services, installation; and to delegate authority to the Director, or his designee, to execute an option to extend the maintenance and support services for the upgraded system for $138,600.

2. Authorize the Director, or his designee, to execute Amendment Number 6 to Agreement No. H-701585 with Philips Healthcare (Philips), effective upon Board approval, to increase the maximum obligation of the Agreement by $2,453,213 to procure an upgrade to the patient monitoring system of the Bio-Medical Device Integration (BMDI) for successful implementation of the Online Real-time Centralized Health Information Database (ORCHID) at the Facilities listed on Attachment B.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

NetScout

Approval of the first recommendation will allow the Director, or his designee, to execute an Amendment to the current Agreement with NetScout to purchase network data monitoring hardware and software, installation of the hardware and software, and professional services for the data centers at LAC+USC Medical Center (LAC+USC MC) and Martin Luther King, Jr. Outpatient Center (MLK OC). NetScout products at these data centers will support Department of Health Services (DHS) on an enterprise-wide basis for all network data monitoring to significantly reduce and prevent disruption to ORCHID and all other applications and systems that support patient care. Additionally, the Amendment will also allow the Director, or his designee, to exercise an option to extend the maintenance and support services provided by NetScout.

NetScout provides a suite of technologies that monitor critical network infrastructure links, applications and servers while simultaneously delivering a correlated view from DHS Enterprise Data Centers in LAC+USC MC and MLK OC. NetScout is used to monitor DHS network infrastructure at DHS facilities that support patient care systems and applications, such as ORCHID, mammography, Quadramed Affinity, X-ray, CareFusion Pyxis, Picture Archiving and Communication System (PACS), Enterprise Patient Data Repository (EPDR), Micro Medics Formulary Advisory, VisualDX and others, and to troubleshoot any network traffic between LAC+USC MC and MLK OC enterprise data centers. NetScout provides detailed views of all data center bandwidth usage, historical data, view user application experience, detects network data anomalies, and monitor network traffic flow. When switches, routers, servers, or applications require troubleshooting, NetScout alerts engineers to proactively prevent network congestion and outages by diverting network traffic, which is critical to patient care. Statistical and data trends are also collected to be analyzed by the network operations team for intelligent and engineered capacity planning.

Philips

Approval of the second recommendation will allow the Director, or his designee, to execute an Amendment to the current Agreement with Philips for one-time funding to upgrade the patient monitoring systems to BMDI at six DHS facilities for successful implementation of ORCHID. These additional one-time funds are expected to be paid as upgrade is completed for each facility prior to implementation of ORCHID. DHS is in the process of implementing the Electronic Health Records System, known as ORCHID, using Cerner Millennium. Due to age and incompatibility of existing

systems, DHS must purchase upgraded hardware and software in the DHS facilities listed on Attachment B to accommodate the interface of the new system requirements to Philips patient monitoring systems. Philips agreed to a 31% discount in all hardware and software prices to upgrade the patient monitoring system for the BMDI.

Philips' patient monitoring systems are critical to patient care by monitoring expanded, real-time view of patients' vital signs, such as Electronic Cardio Graph (ECG), blood pressure, and oxygen levels in the Emergency Room, Intensive Care Unit, step-down units, recovery, surgery, anesthesia, and other departments. DHS, working with Philips, identified outdated patient monitors, servers, central stations, client servers, and patient links at various DHS facilities that are not compatible with ORCHID due to lack of necessary ports or having older versions of software. In addition, servers and central stations at LAC+USC MC have reached the EOL and are no longer supported by Philips. Acquisition of BMDI needs to proceed immediately to ensure that each facility's patient monitoring systems are fully interfaced, tested, and functional with ORCHID by each facility's go-live date to prevent any disruption to patient care.

Implementation of Strategic Plan Goals

The recommended actions support Goal 1, Operational Effectiveness/Fiscal Sustainability, and Goal 3, Integrated Services Delivery, of the County's Strategic Plan.

FISCAL IMPACT/FINANCING

The increased annual maximum obligation of the Agreement with NetScout is $502,660 for the current contract year, and $138,600 for the option to extend the maintenance and support services for one year.

The increased maximum obligation of the Agreement with Philips is $2,453,213.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

NetScout

On October 15, 2013, your Board approved the current Agreement with NetScout, who is the Original Equipment Manufacturer (OEM), as a Purchase Order (PO) conversion to provide equipment maintenance and support services. NetScout monitors network traffic statistics and does not have access to patient data. Current NetScout products are either EOL or reaching EOL with outdated software and require replacement. NetScout products currently in place at DHS facilities will be removed as they reach EOL and can no longer be supported. DHS Enterprise Data Centers in LAC +USC MC and MLK OC will be replaced with upgraded NetScout products to handle monitoring that was already provided by NetScout products installed at Heath Services Administration, Harbor-UCLA Medical Center (H-UCLA MC), LAC+USC MC, Olive View-UCLA Medical Center (OV-UCLA MC), Rancho Los Amigos National Rehabilitation Center (RLANRC), High Desert Regional Health Center, MLK OC, Internal Services Department (ISD), and DHS facilities at Alhambra and Ferguson.

Philips

On October 18, 2005, your Board approved the current sole source Agreement with Philips, which is the OEM, as a Purchase Order (PO) conversion to provide equipment maintenance and support services.

Subsequent amendments approved by your Board extended the Agreement through December 31, 2019 and reflected a doing business as (d/b/a) name change, Philips Medical Systems, Inc. was changed to Philips Healthcare.

ORCHID went live at Harbor H-UCLA MC on November 1, 2014. On December 3, 2013, the Board approved a delegated authority to the Director, or his designee, to amend the Philips Agreement amount and correspondingly increase the maximum obligation amount to facilitate the integration with ORCHID. That delegation was used to amend the Philips Agreement to pay for the costs for H-UCLA's BMDI. OV-UCLA MC will be the last facility to go-live and upgrades for the BMDI will be handled via a PO through ISD, as it is primarily a commodity purchase that is under ISD's authority as the County's Purchasing Agent.

County Counsel has approved Exhibits I and II as to form. The Chief Information Officer (CIO) concurs with the Department's recommendation and the CIO Analysis is included as Attachment A.

CONTRACTING PROCESS

NetScout is the OEM of their network data monitoring systems. NetScout is the only company uniquely qualified to maintain and support its proprietary products and warranty the work of NetScout staff and technicians for the installation, repair, and maintenance.

Philips is the OEM of patient monitoring systems. OEM uses proprietary technology in their equipment and software in accordance with the specification and complies with all accrediting and licensing agencies' requirements, including The Joint Commission.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of the recommendations will ensure DHS can provide uninterrupted critical patient-care data, patient application services, medical recordkeeping, and DHS enterprise communication, and will minimize clinical disruption during the ORCHID integration process and allow DHS to obtain ongoing critical equipment maintenance and repair services for facility operations.

Respectfully submitted,

Mitchell H. Katz, M.D.
Director

Reviewed by:

RICHARD SANCHEZ
Chief Information Officer

MHK:RS:al

Enclosures

c: Chief Executive Office
County Counsel
Executive Office, Board of Supervisors

RICHARD SANCHEZ
CHIEF INFORMATION OFFICER

Office of the CIO

CIO Analysis

NUMBER:	DATE:
CA 14-25	10/16/2014

SUBJECT:

APPROVAL OF AMENDMENTS WITH NETSCOUT SYSTEMS, INC. AND PHILIPS HEALTHCARE

RECOMMENDATION:

☒ Approve ☐ Approve with Modification ☐ Disapprove

CONTRACT TYPE:

☐ New Contract ☐ Sole Source

☒ Amendment to Agreements (H-705889 & H-701585) ☐ Other: Describe contract type.

CONTRACT COMPONENTS:

☒ Software ☒ Hardware

☐ Telecommunications ☒ Professional Services

SUMMARY:

Department Executive Sponsor: Mitchell H. Katz, M.D., Director, Department of Health Services

The Department of Health Services (DHS) is requesting delegated authority from the Board to execute:

1) Amendment No. 2 to Agreement No. H-705889 with Netscout Systems, Inc (Netscout) for data monitoring equipment upgrade, maintenance and support services; and
2) An Amendment to Agreement (No. H-701585) with Philips Healthcare (Philips) to upgrade patient monitoring systems for the Bio-Medical Device Integration (BMDI) with the DHS Electronic Health Record System called Online Real-Time Centralized Health Information Database (ORCHID).

Netscout Amendment Amount: $641,260 Funding: DHS FY 2014-15 Operational Budget
Philips Amendment Amount: $2,453,213

☐ Legislative or Regulatory Mandate ☐ Subvened/Grant Funded: N/A

Strategic and Business Analysis	PROJECT GOALS AND OBJECTIVES: The **Netscout** upgrade will monitor the network traffic and assist in making critical decisions to run the network in an effective manner, and analyze possible network issues for the efficient functioning of all patient care applications. The **Philips** upgrade will procure hardware, software and professional services for current patient monitoring systems for uninterrupted BMDI with ORCHID. This upgrade will link the hospitals to communicate with Cerner Millenium, ORCHID. Without this upgrade and services, DHS will not be able to continue to electronically chart patient vitals once they Go-Live with Cerner. This allows vitals to automatically be captured in the system, avoiding errors and allowing for timely and accurate data capture to provide DHS' patients the best care possible.
	BUSINESS DRIVERS: The drivers for: NetScout will: - Minimize any disruption to patient care at the County facilities; - Create effective infrastructure as needed by the demand of patient volume and quality of care by monitoring network traffic bandwith to proactively take corrective action; and - Ensure predictive capability to proactively diffuse response time issues. Philips will: - Interface patient monitoring systems that are critical to patient care by monitoring expanded, real-time view of patients' vital signs, such as Electronic Cardio Graph (ECG), blood pressure, and oxygen levels in the Emergency Room, Intensive Care Unit, step-down units, recovery, surgery, anesthesia and other departments with ORCHID; - Promote accurate and timely patient vitals capture; and - Enable Nursing staff and providers to concentrate on patient care: electronically charting vitals allows for complete, accurate charts available to healthcare providers to have a complete picture of a patient's status to provide appropriate and timely care.
	PROJECT ORGANIZATION: <u>NetScout</u> Enrique Garcia, Associate Chief, Information Systems, is DHS' Information Technology (IT) Project Manager. The project will be directed by Oscar Orozco, Information Technology Specialist I, Health Services Administration. <u>Philips</u> Robert Bart, M.D., Medical Director I, is DHS's IT ProjectManager. Pamela Griffith, Sr. Information Technology Manager, DHS's Project Director.

	PERFORMANCE METRICS: Netscout and Philips' response time, availability, and uptime are part of the maintenance and support, are clearly articulated in the Service Level Agreement (SLA) of the current Agreement's Statement of Work. The Amendment will continue with the identitical maintenance and support services and SLAs for both products.
	STRATEGIC AND BUSINESS ALIGNMENT: These actions support Goal 1, Operational Effectiveness/Fiscal Sustainability, and Goal 3, Integrated Services Delivery, of the County's Strategic Plan.
	PROJECT APPROACH: Netscout equipment and software components have been implemented throughout the DHS enterprise. The upgrade will continue uninterrupted data monitoring from new data centers at LAC+USC and MLK while phasing out current equipment in other facilities. Philips patient monitoring systems have been implemented throughout DHS' facilities. The Amendment will allow for adequate time to procure hardware and software, and install and test for upgrade to current patient monitoring systems for successful BMDI with the ORCHID implementation. This will happen in conjunction with the Phased Go-Live of ORCHID.
	ALTERNATIVES ANALYZED: As Original Equipment Manufacturers (OEMs), both Netscout and Philips are only vendors capable of maintaining supporting, repairing and upgrading their respective proprietary products. These are products are being used by DHS, and were originally purchased after due diligence.
Technical Analysis	Analysis of proposed IT solution: <u>Net Scout</u> NetScout utilizes a suite of technologies called Infinistream that monitor critical network infrastructures links, applications, and servers. It will be used to monitor network infrastructure at DHS facilities that support patient care systems and applications, such as ORCHID, Mammography, Quadramed Affinity, X-ray, CareFusion Pyxis, Picture Archving and Communication System (PACS), Enterprise Patient Data Repository (EDR) System, Micro Medics Formulary Advisory, VisualDX, and others. Netscout Infinistream provides detailed view of all data center bandwidth usage, allows packet decode, allows back in time packet review, views user application experience, detects network data anomalies, and monitors network traffic flow. Statistical and data trends are also collected to be analyzed by a network operations team for intelligent and engineered capacity planning.

Philips

Philips patient monitoring systems in DHS facilities is essential to monitoring vital signs. Monitors relay the information to patient link, central stations and servers. VueLinks that connects Avia ventilators for monitoring breathing, are out of support and require upgrde to Intellibridge EC5ID cables. In addition, hardware and software are out of support and require one new server, 11 central stations, and two patient links for LAC+USC MC and one patient link for Hudson CHC. The upgrade will enhance Patient monitors with Revision K software that is currently supported.

Financial Analysis

BUDGET:

NetScout

Onetime Cost:	
Hardware:	$ 364,060
Professional Services:	$ 138,600
SubTotal	**$ 502,660**
Ongoing Cost	
November 13, 2015 through November 12, 2016*	
Additional Maintenance and Support Service:	**$ 138,600**
Total Contract Cost (Current)	**$ 641,260**
Original Agreement	$ 160,894
Amendment 1	$ 171,006
Amendment 2 (current)	$ 641,260
Total Contract Cost (Cummulative)	$ 973,160

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Philips

Onetime Cost	
FY 2014-2015	
LAC+USC MC:	$ 2,097,653
Hudson CHC:	$ 196,125
MLK-Outpatient Center:	$ 24,442
Total Onetime Cost FY 2014-15	**$ 2,318,220**

	FY 2015-2016
	High Desert Regional Health Center: $ 6,100
	South-Valley HC $ 49,517
	RLANRC: $ 79,376
	Total Onetime Cost FY 2015-16 $ 134,993
	Ongoing Cost
	Total Contract cost (Current): $ 2,453,213
	Original Agreement $ 16,073,804
	Amendment 1 $ 23,626,921
	Amendment 2 $ 10,783,971
	Amendment 5 $ 49,221,865
	Amendment 6 (current) $ 2,453,213
	Total Cumulative Cost: $102,159,774
Risk Analysis	RISK MITIGATION:
	There are no significant risks in these projects. These products have been in-place and performed satisfactorily for a few years.
	The Chief Information Security Officer (CISO) has reviewed these Amendments and did not identify any IT security or privacy related issues.
CIO Approval	PREPARED BY:
	Sanmay Mukhopadhyay, Sr. Associate CIO — Date 11/6/14
	APPROVED:
	Richard Sanchez, County Chief Information Officer — Date 11/6/14

Please contact the Office of the CIO (213.253.5600 or info@cio.lacounty.gov) for questions concerning this CIO Analysis. This document is also available online at http://ciointranet.lacounty.gov/

Attachment B

DEPARTMENT OF HEALTH SERVICES
Equipment Maintenance & Repair Services and Hospital Services Agreements
Increase in maximum obligation for out of scope work

Netscout Systems, Inc.	Current Contract Year 11/13/2014 - 11/12/2015	Subsequent Optional Contract Year 11/13/2015 - 11/12/2016
Enterprise upgrade	$ 502,660	
Additional Maintenance & Support (for optional 1-year extention)		$ 138,600

Additional Maximum Obligation for Netscout	$ 641,260

Philips Healthcare	Contract Years 1/1/2014 - 12/31/2015
MLK-Outpatient Center	$ 24,442
LAC+USC MC	$ 2,097,653
Hudson CHC	$ 196,125
High Desert Regional Health Center	$ 6,100
South Valley HC	$ 79,376
RLANRC	$ 49,517

Additional Maximum Obligation for Philips	$ 2,453,213