AGENDA

INFORMATION TECHNOLOGY COMMITTEE

Meeting Date: March 8th, 2016
Time: 12:30 PM
Location: 125 Worth Street, Room 532

BOARD OF DIRECTORS

CALL TO ORDER — **DR. BARRIOS-PAOLI**

ADOPTION OF MINUTES
February 11, 2016

CHIEF INFORMATION OFFICER REPORT — **MR. GUIDO**

ACTION ITEM:

1) Authorizing the President of the New York City Health and Hospitals Corporation ("NYC Health + Hospitals"), or his designee, to purchase storage hardware, software, And associated maintenance from various vendors on an on-going basis via Third Party Contract(s) in an amount not to exceed $13,748,060 for a one year period. — **MR. GUIDO**

INFORMATION ITEM:

1) EPIC GO Live Readiness Update — **MR. MARX**

OLD BUSINESS

NEW BUSINESS

ADJOURNMENT

MINUTES

Meeting Date: February 11, 2016

INFORMATION TECHNOLOGY COMMITTEE

ATTENDEES

COMMITTEE MEMBERS

Lilliam Barrios-Paoli, Ph D, Chair
Josephine Bolus, RN
Vincent Calamia, MD
Barbara Lowe, RN

NYC HEALTH + HOSPITALS CENTRAL OFFICE STAFF:

Machelle Allen, MD, Deputy Chief Medical Officer, Office of Health Care Improvement
Charles Borden, Senior Assistant Vice President, Quality
Ruby Ditchfield-Agboh, Network Chief Information Officer, Enterprise Information Technology Services
Suzanne Fathi, Director, Enterprise Information Technology Services
Sal Guido, Interim Chief Information Officer, Enterprise Information Technology Services
Colicia Hercules, Chief of Staff, Board Affairs
Michael Keil, Assistant Vice President, Enterprise Information Technology Services
Barbara Lederman, Senior Director, Enterprise Information Technology Services
Fred Leich, Senior Director, President's Office of Special Projects
Paul Lin, Director, Enterprise Information Technology Services
Patricia Lockhart, Secretary to the Corporation
Jeffrey Lutz, Senior Director, Enterprise Information Technology Services
Satish Malla, Senior Auditor, Office of Internal Audits
Ana Marengo, Senior Vice President, Communications & Marketing
Randall Marks, Chief of Staff, Office of the President
Antonio Martin, Executive Vice President and Chief Operating Officer
Keneko Ra, Assistant Vice President, Clinical Lab Operations
Salvatore Russo, Senior Vice President & General Counsel, Legal Affairs
Marisa Salamone Greason, Assistant Vice President, Enterprise Information Technology Services
Barry Schechter, Assistant Director, Enterprise Information Technology Services
Brenda Schultz, Assistant Vice President, Enterprise Information Technology Services
Jesse Singer, Senior Director, Medical and Professional Affairs
Eli Tarlow, Assistant Vice President, Enterprise Information Technology Services
Ross Wilson, MD, Senior Vice President and Chief Medical Officer, Corporate Medical & Professional Affairs

FACILITY STAFF:

Charles Barron, MD, Interim Medical Director, HHC Office of Behavioral Health and Director of Psychiatry, Elmhurst Hospital Center
Christine Greenidge, Interim Chief Nursing Executive, Metropolitan Hospital
John T. Pellicone, MD, Medical Director, Metropolitan Hospital Center
Anthony Rajkumar, Executive Director, Metropolitan Hospital Center
Shaxlee Wheeler, Analyst, Office of Management and Budget

OTHERS PRESENT:

Larry Garvey, Cerner
David N. Hoffman, Compliance Officer, Physicians Affiliate Group of New York
Matthew Lambert, MD, Clinovations
Ed Marx, CIO, Clinovations

INFORMATION TECHNOLOGY COMMITTEE
Thursday, February 11, 2016

Dr. Lilliam Barrios Paoli, Chair of the Committee, called the meeting to order at 10:15 AM. The minutes of the January 14, 2016 Information Technology Committee meeting were adopted.

CHIEF INFORMATION OFFICER REPORT

Mr. Guido, Interim Chief Information Officer, presented the Chief Information Officer Report. He began by stating that today's Information Item would focus on the Epic project. Mr. Guido reported that Ed Marx and Dr. Matthew Lambert would present. He stated that both have been great partners and bring a wealth of experience to NYC Health + Hospitals for the Epic implementation. Mr. Guido reiterated the importance of the Epic project to NYC Health + Hospitals. He stressed that this implementation will bring us to the next level of technology in how we care for our patients.

Mr. Guido addressed the report's Major IT Program Status Updates on a red-yellow-green color scale: Meaningful Use (Overall yellow, Budget green, On-Time yellow); Electronic Medical Record (Overall yellow, Budget green, On-Time yellow); Enterprise Resource Planning (all green); Radiology Consolidation (all green); and Data Sciences (all green).

SOARIAN STRESS TEST RESULTS

Mr. Guido stated that Soarian stress testing has been completed and was a very important project. He stated that Soarian is our Revenue Cycle system and we performed the stress testing to ensure that it could function in our full environment along with the integration into Epic. Mr. Guido was pleased to report that the stress test passed and we can now move forward.

IT STEERING COMMITTEE UPDATE

Mr. Guido reported to the committee that an IT Executive Steering Committee has been created which includes all Executive Directors from the facilities. This is an important committee because it will allow us to review projects as they come in from an IT standpoint and see how they align with Dr. Raju's 2020 Vision or if they are necessary for regulatory or patient safety purposes. The goal would be to concentrate on only those projects that meet these criterion-no other projects will be approved. Mr. Antonio Martin was identified as the chair of the committee. Mr. Guido stated that at the first meeting, seven projects were eliminated that did not meet the criteria. He reiterated that the committee will continue to review projects as they come in.

Dr. Barrios-Paoli said this is good because we have a lot of new people coming in and we want to get them into the rhythm of our decision making.

Mr. Martin stated he is concerned with the Epic implementation in that we do not try to put too much more on the IT staff. He said it is his job to decide what projects are unnecessary at this point in time and can be delayed.

IDENTITY IQ PROJECT ROLL-OUT

Mr. Guido informed the committee that Identity IQ is an authorization management system for access to our system. He said right now we have six different ways of doing this which are mostly manual. Using Identity IQ, he stated, we consolidated all into one system, automated it for all access levels both Epic and non-Epic and integrated it through our PeopleSoft Human Resources system. Mr. Guido mentioned that for the first implementation of Epic at Elmhurst and Queens Hospitals, the system is being used manually in order to understand how it works. The process will then be automated.

Mr. Guido said to date, Woodhull, Jacobi and North Central Bronx Hospitals and Cumberland Diagnostic and Treatment Center have gotten Identity IQ with the rest of the facilities to be completed by the end of May.

CONSOLIDATION OF NYC HEALTH + HOSPITALS MOBILE AND DATA PLANS

Mr. Guido said that six months ago, we assumed responsibility for NYC Health + Hospitals telecommunications, both landlines and mobile. He stated that we consolidated all telecommunications contracts into three carriers (Verizon, AT&T, and Sprint) with a single management team responsible for managing it all, saving us around $850,000/ year. Mr. Guido stated that we continue to look for other ways to save.

ACTION ITEM:

Sal Guido, Interim Chief Information Officer, presented to the committee the following resolution:

Authorizing the President of the New York City Health and Hospitals Corporation ("NYC Health + Hospitals"), or his delegate, to enter into an enterprise-wide agreement with Microsoft Corporation for renewal of software licenses and maintenance and support agreements in an amount not to exceed $38,439,048 (which includes a 10% contingency of $3,494,459) for a three year period.

The following Enterprise Information Technology Services (EITS) staff introduced themselves: Jeffrey Lutz, Senior Director, Infrastructure; Barbara Lederman, Senior Director, Finance Administration; and Paul Lin, Director, Network Services.

Mr. Lutz reviewed a PowerPoint presentation titled, "Microsoft Enterprise License Agreement." He spoke to the Background Summary (NYC Health + Hospitals Requirements, Current Enterprise Agreement, In Scope Software Products) and Solution Summary (Enterprise Agreement, Special Enrollment Programs, Office 365 Option with Enterprise Mobility Suite).

When Mr. Lutz went over the Financial Analysis, he pointed out that the new agreement will result in savings of $1.6 million over the three-year contract period, not including contingency.

Mr. Lutz continued by speaking to the Budget Overview, including the FY16 Operating OTPS Budget (Non-Epic EMR).

Question: Ms. Lowe asked, how is the 10% contingency determined?

Answer: Mr. Lutz responded that the 10% contingency is worked into any program to handle anything that is new and needed, such as applications. He said it is what we have used in the past.

Ms. Lowe stated that there is so much new demand with all the changes occurring.

Mr. Lutz said this is one of the things that we want to pay close attention to, especially with the new demands and the need of our workforce to be mobile. He said that this is one of the nice things about this agreement – it gives us more flexibility. He said the license allows us to use it in multiple places immediately without additional costs.

Question: Ms. Lowe asked, is this the cap amount?

Answer: Mr. Guido said yes, absolutely. He said that there is something for you to consider: as Microsoft brings more products to the market and as tech matures in the health care industry, we wanted to make sure that we have the dollars in place to take advantage of that. Mr. Guido said the contingency is for additional users or licenses that we might need over the next three years.

Approved for consideration by the full board.

INFORMATION ITEMS:

Ed Marx, Epic GO Program CIO, and Dr. Matthew Lambert, Medical Director, Epic GO Clinical Teams Lead (both of Clinovations), gave the following update:

Mr. Marx introduced the PowerPoint presentation entitled "Board IT Committee Epic Status". He pointed out the big number 50 in the top right corner of the cover page. He explained that the number 50 was for the 50 days until the first go-live of the Epic system on April 1, 2016 at Queens and Elmhurst hospitals.

Mr. Marx spoke to the slide called Executive Summary. He pointed out that this information was as of January 25, 2016, but that the team had made substantial progress since that time. He said we use the red-yellow-green colors traditionally used to denote progress.

Mr. Marx addressed each section of the Summary, including Clinical Build (green), Non-Clinical Build (yellow on the presentation, but now green), Staffing (yellow), Ancillary Systems (green), Soarian Readiness (green), Facilities Prepared (green), Infrastructure (yellow), EMPI (yellow), Testing (listed as Red but as of last night it went yellow and is going up), Training (yellow) and Lab Integration (yellow). Overall, the project is listed as yellow.

Mr. Marx made some points about each section:

Clinical Build is 95% done but it might change as the need to build on more due to government regulations. He stated that we will always be building.

Non-Clinical Build is green today but two weeks ago it was yellow. Recently we reached the 95% completion mark.

Staffing will always be yellow as we bring on new people to support our go-live. Sal made an excellent hire (Pamela Saechow) for the GO team with implementation experience.

Enterprise Master Patient Index (EMPI) is yellow but the arrow went from down to up.

Question: Mr. Martin asked that Mr. Marx explain EMPI for those who might not know what it stands for.

Answer: Mr. Marx explained that it stands for Enterprise Master Patient Index (EMPI). He stated that EMPI makes sure that the patient's name matches for both clinical as well as billing purposes. This is very important for identifying patients who have similar or identical names.

Testing has been diligent but it has been difficult to achieve our goals. But yesterday, at 5:05 PM, we went from red to yellow now that we have tested 90% of all possible permutations. We are even moving forward towards green now that we have achieved so much and our new management hire (who has experience in testing) is taking this over.

Training will stay yellow because we will be training in perpetuity as more people and more facilities come on-board. We have wonderful facilities at Metropolitan Hospital Center that can handle hundreds of people at a time and we do on-site training at facilities. We also allow physicians who are familiar with Epic to take a "test out" since they already know how to work the system. That has been a great physician satisfier.

Lab Integration is yellow and will remain because we are working with a third party and an outside vendor. It is complex. It is going well but remains yellow.

Mr. Marx pointed to the middle "Overall Program Risk Status" as yellow but explained that this is very common for go-lives. Systems are very often yellow since they are so complex. He said I do not know of any exceptions to that. We prefer to be very cautious but confident that we will be successful.

Ms. Lowe said that EMPI is a huge challenge especially with our population. We need to identify people with similar names or are not identified.

Mr. Martin said he agreed and that it is a confounding issue. He gave kudos to Mr. Guido and his team for cleaning the system up.

Mr. Guido said we need to find a way of not just cleaning up EMPI but sustaining it. We are working with the EMR GO team to look at bio-metrics so that we can identify patients with a hand print. He said we needed to work with community leaders to make sure patients are comfortable with this. From a tech standpoint, he said, we could have done this a year ago. But from a community stand point, we needed to explain not just what we were using bio-metrics for; but also what we were not using it for. Mr. Guido said it is not fingerprinting. He said that if you tell us you are somebody, we just want to keep you consistent throughout our system.

Mr. Marx continued with the slide called Since We Met Last... This is a summary of updates including Cadence Scheduling Build Started; Clinician Engagement; Facility Leadership Engagement; GO Live Readiness Assessment (90 and 60 day countdown marks both passed), Integrated Testing Execution; Little Apples (focused testing), End User Training; Key Hires Made; End Users in Production Environment.

Mr. Marx addressed the slide Top Risks, including Risk Topic, Risk Description, Response Plan, Response Owner(s), and Response Target Date. Some of the Risks are no longer risks, such as Integrated Testing, Non-Clinical Build and EMPI. But they were risks at the time the slide was created.

Mr. Marx spoke to the slide Remediation Plan – Integrated Testing. He said we are going to keep training throughout this process.

For the slide called Budget Overview, he pointed to the EMR Project – Six Year Implementation Budget. He said that Brenda Schultz's Finance team has helped to keep us on budget.

On the slide Action Items, Mr. Marx pointed to the two bullet points: Cerner Update – Soarian Stress Test and Epic Resolute (Financials) Costs Update. They were followed by slides that gave more details on each. The first was Cerner Stress Testing (Soarian Financials – Stress Testing). The second was Resolute Cost Update.

Mr. Martin said this has been a great effort. He stated that he was cautiously comfortable and we are all working well together.

Mr. Martin added that there are two governance committees that he wanted to speak to. The first is chaired by Dr. Raju and it includes Mr. Marx and Dr. Lambert. The CEO of Epic calls in and the CEO of Cerner attends so that we can address any issues right then and there.

Mr. Martin said that the second meeting is with the First Deputy Mayor periodically. Yesterday was the meeting and it went very well.

Question: Ms. Lowe asked if this will be the system for our Performing Provider System (PPS) partners as well. She asked, how will this align?

Answer: Mr. Guido said that there are four hubs within the PPS and they are within our facilities. As we go live with Epic, the hubs will too. We do not distinguish between the PPS and the technology from an Epic standpoint.

Dr. Wilson said that the Epic rollout is for NYC Health + Hospitals only, not for other parties. We are not providing a system for them.

Mr. Guido said that we will collaborate with outside health care systems through the Regional Health Information Organizations (RHIOs). With the help of Dr. Wilson and Dr. Jenkins, we are reaching out to our

PPS partners to be sure that they are connected to the RHIO and thus, to us. He said we are working with three RHIOs to make sure we have coverage in all five boroughs of New York.

Dr. Wilson said that we are connecting partners and the RHIOs via a care management platform, GSI. Even small organizations can connect to this. He said that some organizations are letting the technology get in the way of the care delivery. However, Dr. Wilson stressed that they have taken the view that the care delivery is being designed and then they figure out how to use the technology to support it.

Mr. Guido concluded that this was the end of the presentations for today's meeting.

There being no further business, the meeting was adjourned 10:50 AM.

CHIEF INFORMATION OFFICER REPORT

Information Technology Committee of the NYC H+H Board of Directors
March 8, 2016 @ 12:30PM

Thank you and good afternoon. NYC Health + Hospitals is twenty-four (24) days away from our first Epic go-live scheduled at Elmhurst and Queens Hospital Centers. Edward Marx, Clinovations CIO and Dr. Matt Lambert, Clinovations Chief Medical Officer for the Epic Go Live Project will provide the Committee members with the program's go-live readiness update.

I also have several other updates that I want to provide the committee with:

Major IT Program Status Updates:

EITS PROGRAM	OVERALL STATUS	BUDGET STATUS	ON-TIME STATUS
MEANINGFUL USE			
ELECTRONIC MEDICAL RECORD (EMR)			
ENTERPRISE RESOURCE PLANNING (ERP)			
RADIOLOGY CONSOLIDATION			
DATA SCIENCES (ANALYTICS)			

On-Time no issues to report Caution – watch for potential project or budget overruns Critical – Missed timelines

Meaningful Use Update:

- In Calendar Year 2015, NYC Health + Hospitals received $18,997,500 dollars for the 2014 Adopt-Implement-Upgrade (AIU) providers of which there were a total of 894.
- For Calendar Year 2016, NYC Health + Hospitals will receive $30,238,750 dollars for the 2015 AIU identified providers. We estimate this to be about 1,423 providers.
- Once NYC Health + Hospitals begins attesting during a ninety (90) day period in 2016, we should receive an additional $19,694,500.00. This is based on the total number of 2014 AIU providers (895) plus the estimated 2015 AIU providers (1,423) for 2015.

March 27th ePrescribing Requirement Go-Live:

- ePrescribing, the mandate requiring providers to submit medications electronically will go into effect on March 27, 2016.
- Implementation of this requirement was delayed by legislation signed by Governor Cuomo one year ago.
- This mandate is part of the I-STOP (Internet System for Tracking Over-Prescribing) law which requires electronic prescribing for all types of medications (controlled and non-controlled substances).
- All NYC Health + Hospital facilities are prepared.

Radiology Consolidation Program Update:

As mentioned in my January 14th report to the IT Committee, McKesson was selected from an M&PA and IT joint sponsored RFP to provide NYC Health + Hospitals with a solution that would transform radiology operations so that any image could be read at any site within the organization using a single platform and generating transparent performance metrics. Our goal was not to buy new IT systems but to transform and

optimize radiology workflows, leveraging existing systems and replace/add IT components where necessary. To date we have achieved the following:

- The contract has been finalized and signed by NYC Health + Hospitals Executive Leadership.
- A two (2) day architecture session with McKesson and EITS representatives was completed on January 14th and 15th where the system architecture and hardware requirements were finalized.
- Several preparatory meetings focused on governance and architecture planning have been held with the Clinical Information Systems lead, EITS Program Management Office staff and the M&PA lead who will act as NYC Health + Hospitals Program Manager.
- Program meetings have been scheduled for the week of February 21, including the first steering committee meeting to be held on Thursday, February 25, where the project approach and work plan will be presented by McKesson and NYC Health + Hospitals Program Manager.

Enterprise IT Services (EITS) Wellness Sessions:

- EITS is developing and promoting staff wellness events in order to combat the increased demands and strain attributed to the current workload within the division. Over the last several months, Enterprise IT Services has experienced the loss of several colleagues and has seen in increase in staff illness.
- A Town Hall Wellness webcast was recently held on February 4th with both Dr. Ross Wilson, Chief Medical Officer and Yvette Villanueva, Sr. Assistant Vice President, to inform staff of wellness options and programs throughout the organization that they can use.
- On Friday, March 4th, the first wellness event was held at 55 Water Street. The event which focuses on how to "Living Your Healthiest Life" attracted a large number of EITS staff. Mei Kong, Assistant Vice President and Vanita Yogeshwar, Director of the Office of Patient Safety and Employee Safety/Wellness facilitated the event.

- Due to the overwhelming popularity of this first session, additional sessions on a variety of topics are now being planned.
- EITS is also working with the Fund for NYC Health + Hospitals to secure grant monies to develop a long term program geared towards addressing all aspects wellness for the EITS staff.

EITS Response to Recent Ransomware Attack News Story:

- On February 5, 2016, Hollywood Presbyterian Medical Center (HPMC) in Los Angles, California was the victim of a "ransomware attack". The hackers disabled HPMC's information systems, holding their data hostage. HPMC medical providers were forced to revert to manual procedures (i.e., paper) to communicate orders and provide service.
- Ransomware "locks" the information and connects back to the attacker. If the affected user agrees to the ransom, the hackers then provide a decryption key to unlock the data.
- On February 15, 2016, HPMC was forced to pay $17,000 in bitcoins in order to regain access and control of all their systems.
- Ransomware such as that used at HPMC has the ability to find and encrypt files located within shared network drives, USB drives, external hard drives, network file shares and even some cloud storage drives. If one computer on a network becomes infected, other connected drives could also.
- The most common means of ransomware infections appear as phishing emails containing malicious attachments.
- There have been unsuccessful ransomware attempts on NYC Health + Hospitals but no reported cases over the past few months. However, we continue to inform and educate our staff to remain vigilant so that NYC Health + Hospitals does not fall prey to such an attack.
- NYC Health + Hospitals IT systems have several levels of protection in place to prevent hacking:

- Antivirus software used has the latest signatures to detect and delete ransomware as well as other malware virus.
- Continuous monitoring of corporate devices, included tracking devices that have connected to suspicious websites.
- Email protection which quarantines suspicious emails to reduce the likelihood of spreading a computer virus.
- Providing NYC Health + Hospitals staff with on-going information and education in order to remain ready in thwarting possible future attacks.

This completes my report today. Thank you.

RESOLUTION

Authorizing the President of the New York City Health and Hospitals Corporation ("NYC Health + Hospitals"), or his designee, to purchase storage hardware, software, and associated maintenance from various vendors on an on-going basis via Third Party Contract(s) in an amount not to exceed $13,748,060 for a one year period.

WHEREAS, the Storage Area Network ("System") has over 10 petabytes of storage, which is utilized to store NYC Health + Hospitals' email, business and clinical data applications as well as surveillance video systems; and

WHEREAS, this storage is configured to be highly available and provide disaster recovery protection for mission critical business and clinical applications used for patient care; and

WHEREAS, in order to keep up with the demand of storing mission critical data and providing continuous access to our email, business and clinical data applications as well as surveillance video systems, NYC Health + Hospitals must continuously upgrade and add additional storage to System; and

WHEREAS, NYC Health + Hospitals is implementing an Enterprise Resource Planning (ERP) system and the Enterprise Radiology Integration solution that were previously approved by the Board of Directors, which require storage hardware and software and associated maintenance; and

WHEREAS, NYC Health + Hospitals will solicit proposals from manufacturers and authorized resellers on an on-going basis via Third Party Contract(s) which offer discounted pricing compared to the market price for such equipment; and

WHEREAS, Enterprise Information Technology Services provides quarterly reports to the Board of Directors on the status of purchases made pursuant to this approved spending authority;

WHEREAS, the accountable person for this purchase is the Interim Corporate Chief Information Officer.

NOW, THEREFORE, be it:

RESOLVED, THAT THE President of the New York City Health and Hospitals Corporation ("NYC Health + Hospitals"), or his designee, be and hereby is authorized to purchase storage hardware, software, and associated maintenance from various vendors on an on-going basis via Third Party Contract(s) in an amount not to exceed $13,748,060 over a one year period.

Executive Summary –
On-Going Purchases for Storage Hardware, Software and Maintenance via Third Party Contracts

The accompanying resolution requests approval to purchase storage hardware, software and maintenance from various vendors on an on-going basis via Third Party Contract(s) in an amount not to exceed $13,748,060 million for enterprise wide projects for a one year period. Enterprise IT Services (EITS) will provide quarterly spending updates to the Board of Directors for these purchases during this 12 month period, which will include the specific bid and contract award information.

The NYC Health + Hospitals' Storage Area Network ("System") has over 10 Petabytes (equivalent to about four times the data volume of the US Census Bureau) of storage which is utilized to store NYC Health + Hospitals' email, business and clinical data applications as well as surveillance video systems. This storage is configured to be highly available and provide disaster recovery protection for mission critical business and clinical applications used for patient care.

A Storage Area Network (SAN) is a dedicated network that provides access to consolidated, block level data storage. SANs are primarily used to make storage devices, such as disk arrays, tape libraries, and optical jukeboxes, accessible to servers so that the devices appear like locally attached devices to the end user. In order to keep up with the demand of storing mission critical data and providing 24x7x 365 access to our applications and systems, we need to continuously upgrade and add additional storage to our System.

In addition to the storage needs to maintain existing applications which is continually increasing, NYC Health + Hospitals is implementing an Enterprise Resource Planning (ERP) system and the Enterprise Radiology Integration solution, which were previously presented to the Board of Directors, which require storage hardware and software and associated maintenance.

Under this spending authority, multiple solicitations will be conducted via Third Party Contract(s) to procure storage equipment on an on-going basis as-needed for the System. Enterprise Information Technology Services will solicit manufacturers and authorized resellers via various Third Party Contracts. A minimum of three resellers will be solicited for each purchase. A purchase order will be issued to the lowest responsive bidder for each purchase.

CONTRACT FACT SHEET

New York City Health and Hospitals Corporation

Contract Title: Storage Hardware, Software, and Maintenance

Project Title & Number: Storage Hardware, Software, and Maintenance

Project Location: Enterprise-Wide

Requesting Dept.: Enterprise IT Services

Successful Respondent: Multiple Vendors via Third Party Contracts

Contract Amount: $13,748,060

Contract Term: 12 months

Number of Respondents: (If Sole Source, explain in Background section) Multiple Vendors

Range of Proposals: $ Not Applicable to $

Minority Business Enterprise Invited: **Yes** If no, please explain:

Funding Source: X General Care Capital
Grant: explain
Other: explain

Method of Payment: Lump Sum Per Diem Time and Rate
X Other: explain Upon acceptance

EEO Analysis:

Compliance with HHC's McBride Principles? Yes No

Vendex Clearance Yes No **X N/A**

(Required for contracts in the amount of $100,000 or more awarded pursuant to an RFP, NA or as a Sole Source, or $100,000 or more if awarded pursuant to an RFB.)

CONTRACT FACT SHEET (continued)

Background (include description and history of problem; previous attempts, if any, to solve it; and how this contract will solve it):

The NYC Health + Hospitals' Storage Area Network ("System") has over 10 Petabytes (equivalent to about four times the data volume of the US Census Bureau) of storage which is utilized to store NYC Health + Hospitals' email, business and clinical data applications as well as surveillance video systems. This storage is configured to be highly available and provide disaster recovery protection for mission critical business and clinical applications used for patient care.

A Storage Area Network (SAN) is a dedicated network that provides access to consolidated, block level data storage. SANs are primarily used to make storage devices, such as disk arrays, tape libraries, and optical jukeboxes, accessible to servers so that the devices appear like locally attached devices to the end user.

In order to keep up with the demand of storing mission critical data and providing 24x7x 365 access to our applications and systems, we need to continuously upgrade and add additional storage to our System.

In addition to the storage needs to maintain existing applications which is continually increasing, NYC Health + Hospitals is implementing an Enterprise Resource Planning (ERP) system and the Enterprise Radiology Integration solution, that were previously presented to the Board of Directors, which require storage hardware and software and associated maintenance.

Contract Review Committee
Was the proposed contract presented at the Contract Review Committee (CRC)? (include date):

CRC approved this action item on February 17, 2016.

Has the proposed contract's scope of work, timetable, budget, contract deliverables or accountable person changed since presentation to the CRC? If so, please indicate how the proposed contract differs since presentation to the CRC:

No.

Selection Process (attach list of selection committee members, list of firms responding to RFP or NA, list of firms considered, describe here the process used to select the proposed contractor, the selection criteria, and the justification for the selection):

Process used to select the proposed contractor –

Solicitations will be conducted via various Third Party contracts to procure storage hardware, software, and maintenance on an on-going basis for the System.

By conducting solicitations via Third Party contracts, this mechanism will ensure that NYC Health + Hospitals is promoting competition by receiving the best price for the required

equipment. Third party contracts offer discounted pricing compared to the market price for such equipment.

The selection criteria –

Enterprise IT Services will solicit manufacturers and authorized resellers via various Third Party contracts. A minimum of three resellers will be solicited for each purchase. A purchase order will be issued to the lowest responsive and responsible bidder for each purchase.

The justification for the selection –

A purchase order will be issued to the lowest responsive and responsible bidder for each purchase.

Scope of work and timetable:

Vendors will provide Storage Equipment on an on-going basis for the Corporation's SAN's. The anticipated project duration for these purchases is one year. Purchases will continue to occur on an annual basis based on need.

Provide a brief costs/benefits analysis of the services to be purchased.

No services will be included in these purchases. Software, hardware, and maintenance will be purchased off of Third Party Contracts, which offer discounted pricing compared to the market price for such equipment. By soliciting vendors via Third Party Contracts, the Corporation can obtain significant saving off list pricing for storage hardware and software purchases.

Provide a brief summary of historical expenditure(s) for this service, if applicable.

Storage spending in FY2015 was approximately $5.4 million.

Provide a brief summary as to why the work or services cannot be performed by the Corporation's staff.

Not applicable. These purchases are for Storage Hardware, Software and Maintenance.

Will the contract produce artistic/creative/intellectual property? Who will own It? Will a copyright be obtained? Will it be marketable? Did the presence of such property and ownership thereof enter into contract price negotiations?

No.

Contract monitoring (include which Senior Vice President is responsible):

Sal Guido, Interim Corporate CIO.

Equal Employment Opportunity Analysis (include outreach efforts to MBE/WBE's, selection process, comparison of vendor/contractor EEO profile to EEO criteria. Indicate areas of under-representation and plan/timetable to address problem areas):

Received By E.E.O. _____ **Not Applicable**
Date

Analysis Completed By E.E.O._____
Date

_____
Name

NYC HEALTH+ HOSPITALS

On-Going Purchases for Storage Hardware, Software and Maintenance through Third Party Contracts

Information Technology Committee Meeting

March 8, 2016

NYC HEALTH+ HOSPITALS

Background Summary

- NYC Health + Hospitals has over 10 Petabytes of storage (equivalent to about 4x the data volume of the US Census Bureau). This storage is utilized to retain email, business and clinical data applications as well as surveillance video systems.

- This storage is configured to be highly available and provide disaster recovery protection for mission critical business and clinical applications used for patient care.

- Storage needs continually increase in order to support existing applications

- Implementation of the Enterprise Resource Planning (ERP) system and the Enterprise Radiology Integration solution, contracts which were approved by the Board of Directors, require additional storage hardware and software and associated maintenance.

NYC HEALTH+ HOSPITALS

Procurement Method

- Multiple solicitations will be conducted via Third Party Contract(s) to procure storage hardware, software and maintenance on an on-going basis. A purchase order will be issued to the lowest responsive bidder for each purchase

- By soliciting vendors via Third-Party contract, NYC Health + Hospitals can obtain significant discount off list prices.

- The request is for spending authority up to $13.75 million over a 12 month period, which includes the remainder of FY16 and FY17.

- Enterprise IT Services (EITS) will provide quarterly spending updates to the CRC and the Board of Directors for these purchases during this 12 month period, which will include the specific bid and contract award information

NYC HEALTH+ HOSPITALS

Some reasons why Storage needs continue to grow

- Legal Actions (Records that are relevant to any pending or reasonably anticipated legal actions must be retained for the entire period of the action regardless of the time set forth in NYC Health + Hospitals record retention schedule for such record)
- State mandated record retention schedules (Operating procedure 120-19)

Storage Trend

- 2007-50 TB (facilities had their own storage)
- 2011-1.2 PB
- 2013-4.1 PB
- 2016-10 PB
- Approx 1000% increase since 2011

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Storage Needs and Associated Funding Sources

Project	Storage Capital Total	Storage Maintenance** (OTPS) Total	Grand Total
Storage (for Existing Systems)	*$7,100,000*	*$3,620,000*	*$10,720,000*
Radiology	*$1,251,237*	*$250,247*	*$1,501,484*
ERP	*$1,272,146*	*$254,429*	*$1,526,575*
Total	***$9,623,383***	***$4,124,676***	**$13,748,060**

** *Maintenance costs to be funded out of EITS OTPS budget.*

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Questions?

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GO Executive Governance

Update to the Information Technology Board Committee

GO Team

March 8, 2016

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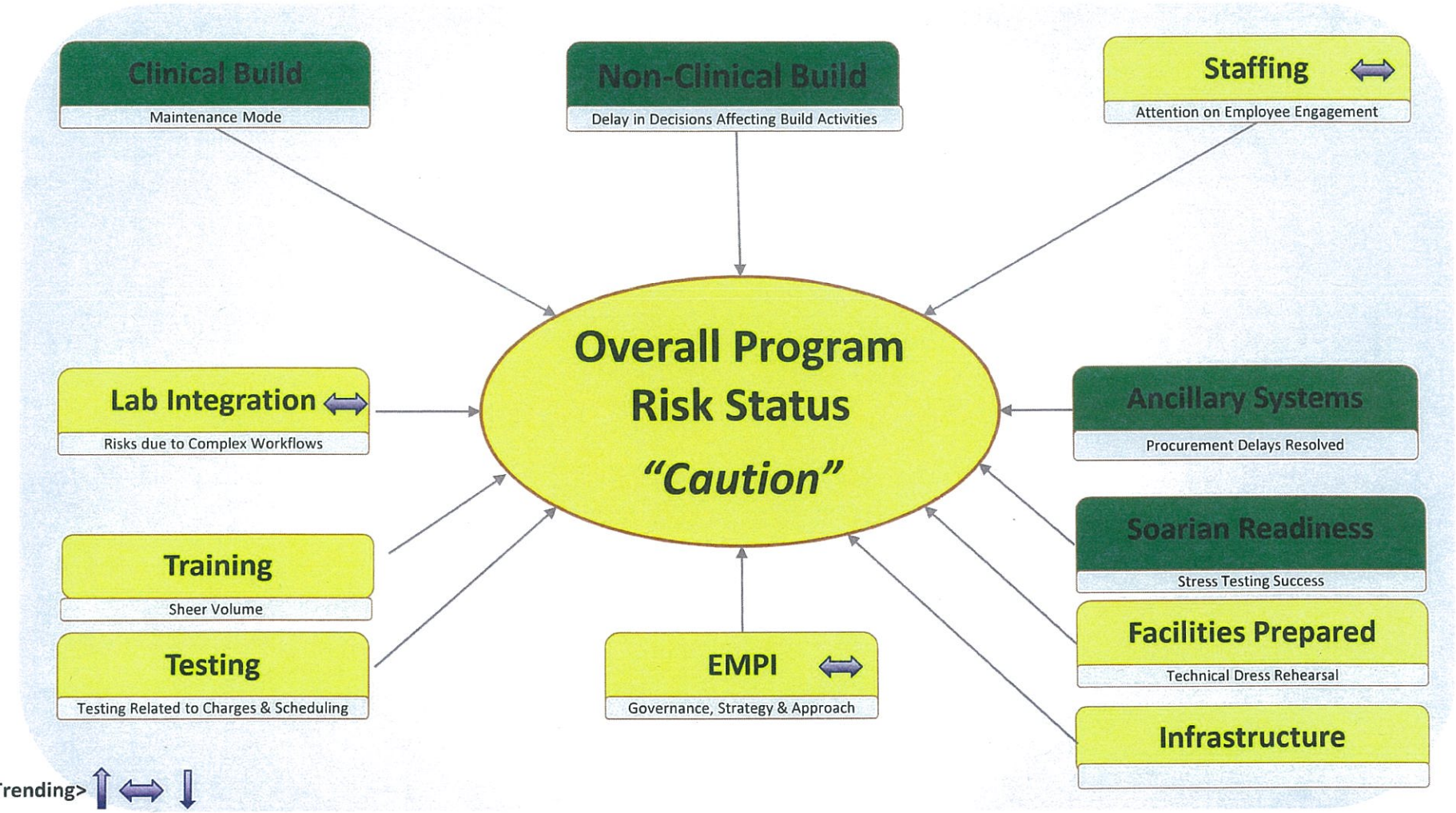
Executive Summary



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Since we Met Last…

- Scheduling Module Live
- Clinician Engagement
- Facility Leadership Engagement
- GO Live Readiness Assessment (T-30)
- Integrated Testing Round Two
- End User Training

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Top Risks

RISK TOPIC	RISK DESCRIPTION	RESPONSE PLAN	RESPONSE OWNER(S)	RESPONSE TARGET DATE
Integrated Testing: Execution of Integrated Testing is off-track	Critical Integrated Test scripts that involve patient movement must be completed by Go-Live	We have completed 94% integrated testing with the remaining due to scheduling and charge mapping.	Pam Saechow	02/29/16
Technical Dress Rehearsal: Testing of end user devices.	All end user hardware is at risk of not being fully deployed or tested before go-live due to deployment delays and staffing gaps.	We have prioritized to ensure successful testing by criticality and departments as well as ensure we have a post-live plan in place to mitigate	Sal Guido	03/18/16
Staffing: Timely Acquisition of Resources for Epic Go-Lives	If staffing backfill and "Ramp Up" is not completed by 2/29, creates risk for current and future go-lives.	Closely monitor acquisition of needed resources, working closely with leadership to resolve blockers.	Pam Saechow	02/29/16
Training: Throughput challenges	Identifying and training all staff, residents and agency prior to LIVE.	Daily calls to ensure effective collaboration. Escalation to senior execs.	Edward Marx	03/01/16
EMPI: Meeting < 5% Duplicate Rate	If the EMPI Duplicate Rate of <5% is not met, there is increased risk of duplicate patient record overlap	Recently obtained QuadraMed Fix, and restarted merging to reduce the duplication rate. Create end-user materials to mitigate risk of duplicates.	Erin Moss	03/15/16

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Budget Overview

EMR Project - Six Year Implementation Budget [Expenditures include Invoices Paid or In-Process]					
	Item		Total Implementation Dollars (in millions)		
			Total Budget	Expenditures [Paid or in Process] as of 1/31/2016	Balance
1	**Epic Contract**	Includes Software and Implementation and Training Services.	$144	$75	$69
2	**Third Party & Other Software**	Includes Endoscopy, Fetal Monitoring Systems, ePrescribing, Patient Education.	$30	$7	$23
3	**Hardware**	Includes Servers, Storage, Server Licensing, Network Switches.	$83	$45	$38
4	**Interfaces**	Includes Interface Software/Biomed Middleware.	$38	$4	$34
5	**Implementation Support**	Third party vendor staff augmentation, go-live support and training (includes costs associated with backfilling non-IT staff and temps).	$356	$48	$308
6	**Application Support Team**	New HHC FTE staff to be used through the implementation period including fringe benefits. These costs will become on-going after implementation period.	$113	$36	$77
	Clinicals-Only Total	[Without QuadraMed Transition/Existing Application/Existing Staff Costs]	**$764**	**$214**	**$550**

Note: :

1. 5 year current cost projection for Revenue Cycle was an additional $125 million. Budget is under review. Further evaluation required.

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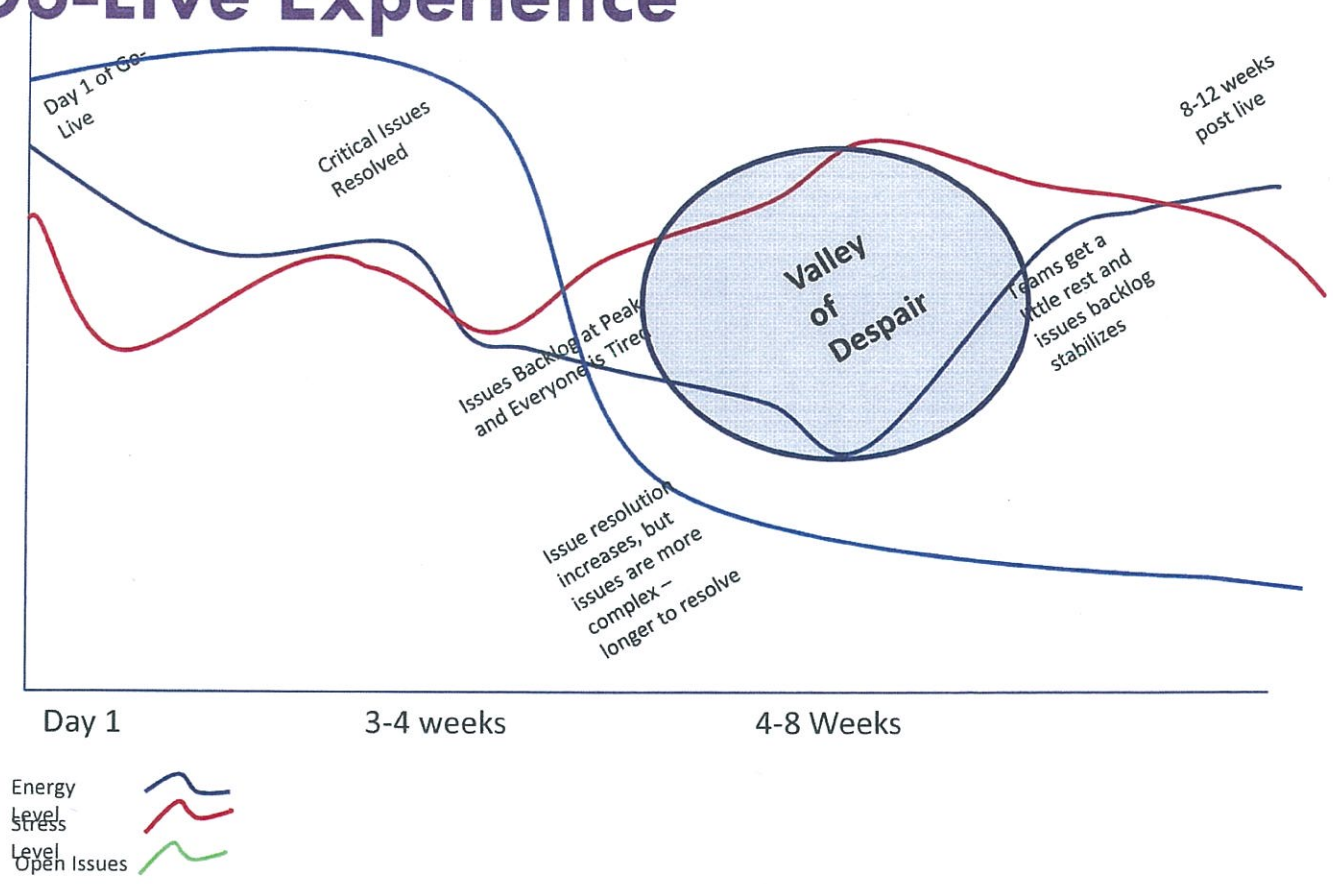
Go-Live Experience



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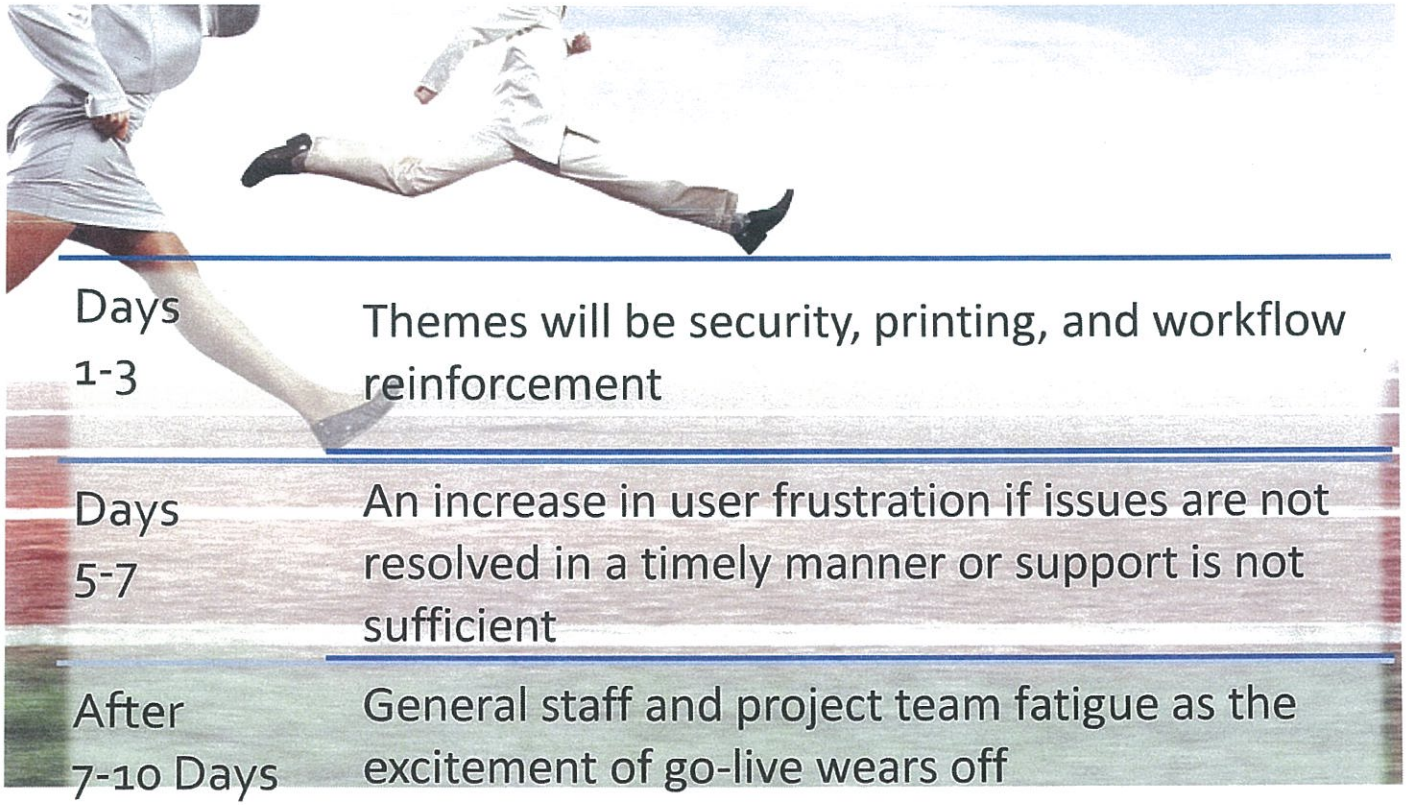
It May Feel Like Multiple Go-Lives



Days 1-3	Themes will be security, printing, and workflow reinforcement
Days 5-7	An increase in user frustration if issues are not resolved in a timely manner or support is not sufficient
After 7-10 Days	General staff and project team fatigue as the excitement of go-live wears off

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Action Items

- Epic Resolute (Financials) Costs Update
  - Legal negotiations continue between counsels
  - Anticipate a March start date