# University of Kansas
## Changing for Excellence

Phase II Business Case Executive Summary
Information Technology - All Campuses

November 4, 2011

Experience. Redefined.®

# Information technology – all campuses

Huron identified opportunities across campuses related to information technology in the range of $5,600K - $8,400K.

| Current Challenges and Opportunities |
|---|
| • There is a high level of decentralized hardware, software, and IT staff managed by academic and administrative departments<br>  − 500+ decentralized servers identified across campus<br>• The role of Technology Liaison staff is not clearly defined, leading to inconsistent expectations and levels of service across campus<br>• There is a perception among campus users that IT implementations and projects are not fully supported by University leadership, causing many efforts to “fizzle out” mid-stream or shortly after completion<br>• Certain capital-level hardware and software across campus are at or near the end of their lifecycles, including the current telephone systems and PeopleSoft HR<br>• Each campus has developed unique technical infrastructures to support most administrative areas |

| Goals |
|---|
| • Centralize and virtualize servers maintained remotely across campus to reduce institutional IT costs while providing improved service and data integrity<br>• Reorganize campus technology liaisons to provide broader coverage and more standardized service<br>• Increase the use of multi-function devices (MFD) to reduce total costs of campus printing<br>• Reassess responsibilities of departmental IT staff<br>• Centralize identity management and network management solutions for all KU campuses to save costs and, more importantly, make it easier for students and faculty to collaborate between departments and seamlessly conduct work on any KU campus<br>• Leverage combined buying power of all campuses to negotiate more favorable deals with software vendors |

| Annual Gross Financial Opportunity | | |
|---|---|---|
| **Cost Savings** | **Resource Reallocation** | **New Revenue** |
| $3,655K - $6,310K | $2,000K - $2,400K | N/A |

# Phase II findings updates

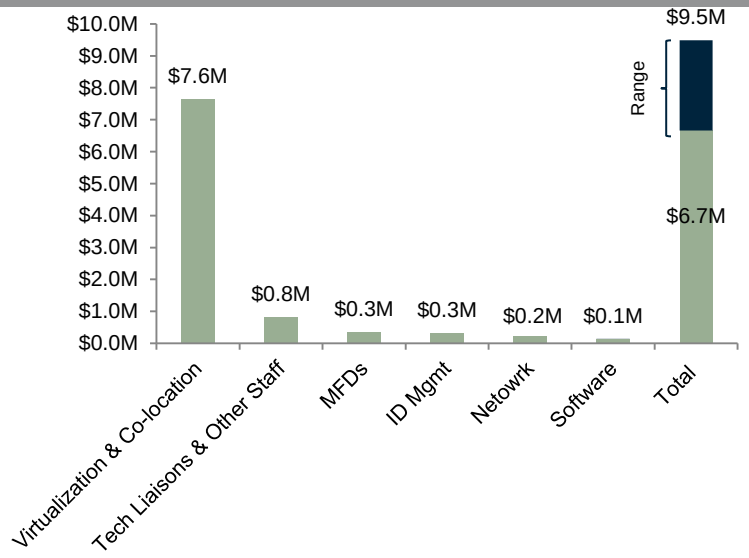
Huron refined and modified the Phase I findings related to IT based on additional analysis and discussions with the IT workgroups and staff.

| Opportunity updates |
| --- |
| • Initial analysis indicated 71 Technical Liaisons (TLs) were performing IT functions and could be centralized; further discussion revealed that a number of the TLs do not perform technical functions. The estimate of TLs to be centralize was adjusted to 51 FTE.<br>• Initial analysis indicated 120 decentralized FTE that were unidentified and could benefit from being centrally managed. Based on further analysis, that number was increased to 136 individuals by expanding the scope of the opportunity.<br>• In server centralization and virtualization the workgroup identified additional savings in expanding the virtualization initiative to also include co-location and central file storage services. These adjustments increased FTE being considered for reduction reallocation from 41 to 82 and identified additional savings projections of $0.8M through CFS migration.<br>• After further analysis the leveraging software purchasing workgroup increased initial savings projections by 2-3%; this added $0.1M to the savings projection<br>• After completing Phase II analysis, It was clear that no IT initiative is completely independent of the others. There are various dependencies noted throughout each of the business cases and these will need to be considered in order to arrive at the anticipated savings in the projected timelines.<br>• Through further analysis and discussion in ID management and network optimization cross-campus workgroup meetings, there are fundamental disagreements between the campuses in how to optimize Identity and network management. The business cases in these areas represent both workgroup input and Huron's idea of the optimal structure to maximize savings. |

# Information technology analysis – opportunity

Several identified opportunities, when taken in aggregate, create significant financial benefits for KU.

## Phase II – Steady State Net Annual Impact




## Phase II – Business Case Financial Summary

- The IT business case consists of 3 Lawrence campus and 3 cross-campus opportunities.
- Majority of dollars are realized in server centralization through virtualization and co-location
- Total first year initial investment is approximately 1M. The vast majority of savings are projected to be realized in years 2-5.
- Savings opportunities are not independent of one another. Dependencies have been noted throughout the business case.
- Executive mandates and policy updates are recommended in a number of initiatives to assure successful implementation
- Cross-campus Network and ID Management optimization savings opportunities require further analysis and cooperation to be realized

| 5-year Cumulative Impact (Expected Case) | $000s (parentheses denote costs) |
|---|---|
| **Cost Savings** | $19,360 |
| **Reallocation Savings** | $15,879 |
| ***Investment Requirement (total)*** | *($3,115)* |
| **Net Benefit** | $32,124 |

# Financial model notes and assumptions – server centralization and virtualization

A series of assumptions were required to estimate the financial impact of implementing server centralization and virtualization.

| Notes | Assumptions |
|---|---|
| If projected virtualization and co-location targets are reached, the KU IT data center will be near its power-usage capacity. This limitation is well known by KU IT and the capital expenditure required to increase power capacity may need to be accelerated to handle the increased demand for power. | An additional minimum of 4.5 KU IT FTE are required to handle the increased number of customers and servers. 3.5 FTE are projected to be met through transfers of currently decentralized IT personnel and student workers. The other FTE, with experience in enterprise platforms, will need to be hired externally. |
| The rate at which servers are centralized will impact the need for some of the aforementioned labor requirements that could alter the timing of cost projections. | Projections assume that a mandate from KU-leadership will be required to force movement to Central IT. This mandate will need to be strictly enforced. |
| | It was assumed that 15% of all 546 identified servers would be candidates for CFS shared services. These servers are expected to be medium and small sized at a ratio of 1:2 and cost the university an estimated $13,745 and $7,845 annually per server. |
| | It was assumed that the 273 physical servers to be virtualized are of small size and cost KU $7,845 annually per server. |

In order to achieve the estimated savings current server owners will need to be held accountable to adhering to server centralization policies and KU IT will need to assure customer satisfaction through constant process improvement.

# Financial model summary - server centralization and virtualization

The following table summarizes the net benefits of the server centralization and virtualization business case.

***Expected Case ($000's)***
***(assumed 13 FTE reduction and 69 FTE reallocation)***

| Benefits | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 |
|---|---|---|---|---|---|
| Non-Labor Virtualization savings | $348 | $1,738 | $2,201 | $2,317 | $2,317 |
| FTE Reduction | $102 | $509 | $645 | $679 | $679 |
| FTE Reallocation | $594 | $2,971 | $3,763 | $3,961 | $3,961 |
| Co-location - CFS | $120 | $602 | $763 | $803 | $803 |
| Total | $1,164 | $5,820 | $7,371 | $7,759 | $7,759 |
| **Costs** | | | | | |
| Virtualization | | | | | |
| Personnel (1 FTE) | $44 | $89 | $89 | $89 | $89 |
| Software, hardware & Support | $398 | $37 | $41 | $46 | $26 |
| Total | $443 | $126 | $130 | $135 | $115 |
| Centralization | | | | | |
| Hardware | $67 | $72 | $36 | $0 | $0 |
| Infrastructure | $85 | $0 | $0 | $0 | $0 |
| Total | $152 | $72 | $36 | $0 | $0 |
| Net | $569 | $5,622 | $7,205 | $7,624 | $7,645 |

***Low Benefits Case***
***(Estimate –25%)***
Net Present Value **$20.5M**

***High Benefits Case***
***(Estimate +15%)***
Net Present Value **$32.0M**

**Net Present Value (Expected Case): $27,716,622**



*Note: 0.95% discount rate (5 year municipal bond, 8/18/11)*

# Financial model notes and assumptions – reorganize & redefine decentralized IT staff

A series of assumptions were required to estimate the financial impact of reorganizing and redefining decentralized IT staff.

| Notes | Assumptions |
|---|---|
| Infrastructure investment is interpreted as office or space renovation. This is extremely difficult to estimate without a thorough assessment of current work space conditions for all decentralized IT staff.<br><br>The current infrastructure for SCCM (patch management tool) will support 20,000 end points. This should be more than sufficient to account for the proposed expansion. Additional cost in this area is unlikely.<br><br>Total software costs were attained through a quote from the respective vendors. Those quotes were for bulk purchases of additional licenses. Because of the phased reorganization being recommended, those license fees may vary based on actual volume purchased and further negotiations with vendors may be necessary to secure the quoted price. | Central IT provides a $2,000 per year training budget now. Under the assumption that departments currently provide a training budget at a rate of 50% (namely, $1,000), the net additional cost for the institution is $1,000 per headcount per year. It was assumed that 125 FTE would qualify for the $2,000 per year allowance under the new model.<br><br>FTE reduction will happen gradually over the next 4 years in both TLs and other decentralized staff.<br><br>In order to improve Central IT's ability to measure performance, a standardized ticketing system will need to be implemented across campus. These additional costs would be funded by Central IT. |

The timing of actual costs may vary depending on the rate at which decentralized IT staff are reorganized and the services that require expenditures are rolled out.

# Financial model summary - reorganize & redefine decentralized IT staff

Benefits to reorganizing and redefining decentralized IT staff will be realized as business centers are created.

***Expected Case ($,000s)***
***(assumed 14 FTE reduction by 2016)***

| **Benefits** | **FY 2012** | **FY 2013** | **FY 2014** | **FY 2015** | **FY 2016** |
|---|---|---|---|---|---|
| Cost Savings ($) | $0 | $125 | $502 | $753 | $836 |
| Total | $0 | $125 | $502 | $753 | $836 |
| **Costs** | | | | | |
| Software Licenses | $9 | $28 | $112 | $167 | $186 |
| Training | $6 | $19 | $75 | $113 | $125 |
| Total | $16 | $47 | $187 | $280 | $311 |
| Net | ($16) | $79 | $315 | $473 | $525 |

***Low Benefits Case***
***(assumed 9 FTE Reduction)***
Net Present Value **$0.60M**

***High Benefits Case***
***(assumed 19 FTE Reduction)***
Net Present Value **$2.36M**

**Net Present Value (Expected Case): $1,324,532**



*Note: 0.95% discount rate (5 year municipal bond, 8/18/11)*

# Financial model notes and assumptions – increase MFD usage

A series of assumptions were required to estimate the financial impact of increasing MFD usage.

| Notes | Assumptions |
|---|---|
| Pilot sites have already been identified and have been briefed on the intended implementation<br><br>Embedded Papercut software is required to monitor MFD device usage and track savings<br><br>Training materials need to be developed for MFDs to improve user experience and assure adoption<br><br>A test MFD is included to be used as a troubleshooting device to improve the service capabilities of MFD support staff<br><br>Some locations may not have the appropriate ports or power outlets necessary to support an MFD. Costs were estimated for required hardware that diminish over time. | Cost to lease MFDs are to be paid by departments.<br><br>The workgroup members estimate that target savings can be met by the end of FY 2013. They also anticipate that additional savings can be realized above the 50% cost reduction target. |

The timing of savings may vary depending on MFD deployment and adoption.

# Financial model summary - increase MFD usage

Benefits to transitioning departments from desktop printers to MFDs are expected to be realized through a targeted approach.

***Expected Case ($,000s)***
***(assumed 50% reduction of toner & desktop printers)***

| Benefits | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 |
|---|---|---|---|---|---|
| Toner Savings | $0 | $323 | $323 | $323 | $323 |
| Desktop Printer Savings | $0 | $20 | $20 | $20 | $20 |
| Total | $0 | $343 | $343 | $343 | $343 |
| **Costs** | | | | | |
| Network ports & Power | $5 | $4 | $3 | $2 | $1 |
| Embedded Papercut Software | $5 | $5 | $5 | $5 | $5 |
| Training | $3 | $2 | $1 | $1 | $1 |
| Test MFD | $1 | $1 | $1 | $1 | $1 |
| Total | $14 | $12 | $10 | $9 | $8 |
| Net | ($14) | $330 | $332 | $333 | $334 |

**Net Present Value (Expected Case): $1,272,846**

***Low Benefits Case***
***(Estimate -25%)***
Net Present Value **$0.94M**

***High Benefits Case***
***(Estimate +15)***
Net Present Value **$1.47M**



*Note: 0.95% discount rate (5 year municipal bond, 8/18/11)*

# Financial model notes and assumptions – single identity management system

A series of assumptions were required to estimate the financial impact of implementing a single identity management system.

| Notes | Assumptions |
|---|---|
| Agreement must be reached by all campuses for the direction of identity management within the timelines set forth in the implementation plan. If decisions cannot be made in the designated timeframe, the increased project length will prolong the time required to reach the projected savings.<br><br>In the event that the project falls behind or an unforeseen issue arises, the hiring of additional external consultants may be necessary due to limited IT resources.<br><br>The savings projections and implementation plan assume that the CFE network optimization initiative is also selected to be implemented.<br><br>Intangible savings that are not captured in the net benefits analysis is the vastly improved user experience that results from moving to a single identity management system. | Reallocation cost savings will be realized after Meta Tree phase I as a result of meta tree synchronization. Programmers will not longer have to spend time developing one-off solutions.<br><br>As a result of optimizing identity management at KU, fewer FTE will be required to do the same tasks that are being performed today. These savings will only be captured if the currently separate ID management systems are collapsed to one single meta tree and an optimized AD environment. This collapse is assumed to be completed in FY 2015 for the purpose of this business case. |

The rate at which savings are realized is dependent on reaching periodic cross-campus agreement on the structure of identity management.

# Financial model summary - single identity management system

Projected benefits to transitioning to single identity management system are summarized below.

***Expected Case ($,000s)***

***(assumed 3 FTE reallocation & 2 FTE reduction by 2016)***

| Benefits | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 |
|---|---|---|---|---|---|
| FTE Reallocation | $0 | $90 | $180 | $180 | $180 |
| FTE Reduction | $0 | $0 | $0 | $128 | $128 |
| Total | $0 | $90 | $180 | $308 | $308 |
| **Costs** | | | | | |
| Meta Tree | | | | | |
| Hardware | $63 | $0 | $0 | $0 | $0 |
| External Consultants | $24 | $0 | $0 | $0 | $0 |
| Total | $87 | $0 | $0 | $0 | $0 |
| Active Directory | | | | | |
| Hardware | $0 | $140 | $0 | $0 | $0 |
| External Consultants | $135 | $135 | $0 | $0 | $0 |
| Total | $135 | $275 | $0 | $0 | $0 |
| Net | ($222) | ($185) | $180 | $308 | $308 |

***Low Benefits Case***

***(assumed 2 FTE reallocation & 1 FTE reduction)***

Net Present Value **$0.04M**

***High Benefits Case***

***(assumed 4 FTE reallocation & 3 FTE reduction)***

Net Present Value **$0.69M**

**Net Present Value (Expected Case): $363,867**

*Note: 0.95% discount rate (5 year municipal bond, 8/18/11)*

# Financial model notes and assumptions – optimize network management

The following notes and assumptions were made to arrive at the net benefit projections for network optimization

| Notes | Assumptions |
|---|---|
| Though cost reductions are not projected to occur until FY 2014, the changes that precede the movement to one network will improve user experience and eliminate the need for multiple log-ins.<br><br>After further analysis, the workgroup projected that reallocation savings could be realized after implementing a network operations center through more efficient resource deployment and targeted problem resolution. These savings were not able to be quantified by the group.<br><br>The wireless integration and network operations center expansion initiatives are related to the identity management initiatives and need to be coordinated to assure each group adheres to its set timeline and savings projections. | Following the natural progression from the initiatives planned in this business case, it was assumed that KU will continue on the path to one network as core refreshes and other scheduled upgrades are made. It is at the point of network consolidation that the projected savings are realized.<br><br>Some additional costs may be required to integrate networks as a full analysis has yet to be completed. An evaluation period has been included as part of the implementation plan to finalize these cost projections. Because of the lack of current information the workgroup could not estimate these costs.<br><br>In implementing the system-wide network operations center, there may be increased license fees for a single ticketing solution. |

Savings related to network optimization will be realized if KU decides to centrally manage the network personnel identified in phase I analysis.

# Financial model summary - optimize network management

The projected benefits resulting from network optimization are presented below.

***Expected Case ($000's)***
***(assumed 3 FTE reduction)***

| **Benefits** | **FY 2012** | **FY 2013** | **FY 2014** | **FY 2015** | **FY 2016** |
|---|---|---|---|---|---|
| Cost Savings | $0 | $0 | $0 | $219 | $219 |
| Total | $0 | $0 | $0 | $219 | $219 |
| **Costs** | | | | | |
| Phase I | | | | | |
| Hardware Upgrades | $305 | $0 | $0 | $0 | $0 |
| Consultants | $31 | $31 | $0 | $0 | $0 |
| External Contractors | $0 | $45 | $0 | $0 | $0 |
| Phase II | | | | | |
| Wireless Integration | $0 | $0 | $63 | $0 | $0 |
| Expand NOC | $0 | $0 | $30 | $0 | $0 |
| Total | $336 | $76 | $93 | $0 | $0 |
| Net | ($336) | ($76) | ($93) | $219 | $219 |

**Net Present Value (Expected Case): ($78,000)**

***Low Benefits Case***
***(Estimate -25%)***

Net Present Value **($0.18M)**

***High Benefits Case***
***(Estimate +15%)***

Net Present Value **($0.01M)**



*Note: 0.95% discount rate (5 year municipal bond, 8/18/11)*

Cross-campus

# Financial model notes and assumptions – leveraging software purchasing

A series of assumptions were required to estimate the financial impact of leveraging software purchasing across campuses.

| Notes | Assumptions |
|---|---|
| The annual KU software spending used for the calculating potential savings was $3.5M. This data was gathered by the Huron procurement team in Phase I analysis.<br><br>Duties will need to be delegated to gather and maintain software purchasing data. It is likely that the procurement department will be responsible for assigning these duties. The time spent on this is anticipated to be nominal and diminish over time. | After discussing the projected opportunity with the workgroup the estimated savings was raised to 4% of annual software spending.<br><br>The workgroup estimated that the software review board could reach the originally estimated savings of 1-2% savings within 12 months of being operational. The additional savings a phased in over the following two years. |

As the review board and related processes are established and adopted by both campuses, savings related to leveraging software purchases will be realized.

# Financial model summary - leveraging software purchasing

Projected financial benefits to leveraging software purchases across campuses are summarized below.

***Expected Case ($,000s)***

***(assumed 4% reduction in annual software spending)***

| Benefits | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 |
|---|---|---|---|---|---|
| Cost Savings | $0 | $70 | $105 | $140 | $140 |
| Total | $0 | $70 | $105 | $140 | $140 |
| **Costs** | | | | | |
| N/A | $0 | $0 | $0 | $0 | $0 |
| Total | $0 | $0 | $0 | $0 | $0 |
| Net | 0 | $75 | $105 | $140 | $140 |

**Net Present Value (Expected Case): $439,091**

***Low Benefits Case***
***(Estimate -25%)***
Net Present Value **$0.33M**

***High Benefits Case***
***(Estimate +15%)***
Net Present Value **$0.50M**

*Note: 0.95% discount rate (5 year municipal bond, 8/18/11)*

# Risk assessment summary – server centralization and virtualization

Risks surrounding server centralization and virtualization IT staff are fairly low in respect to institutional, change management, project, finance and IT risks.

- There is some concern surrounding the number of people that will be impacted by the change, including current decentralized server administrators, faculty and department chairs and deans.
- Some current decentralized server owners will be reluctant to “give up” their servers.
  - Frequent and informative communications must go out to stakeholders to assure them that co-location and/or virtualization will have minimal impact on how they interact with their server. Information will be more secure and the server will be managed by specialized IT professionals.
  - Policy to reinforce this initiative may be needed to achieve maximum savings. Without policy surrounding servers on campus, the costs related to decentralized servers will continue to grow and projected savings will remain unrealized.
- Change will be happening on many fronts and will require coordination and cooperation to be successful.
- Other CFE IT initiatives will have a significant impact on the success of server centralization.
  - Specifically, the reorganizing and redefining IT staff initiative will aid in completing the registration process outlined as part of server centralization in addition to aiding with the overall migration. The rate at which servers migrate to the centralized environment is dependent on the cooperation of the TLs and other staff that currently administer and manage the distributed boxes.

Many potential risks can be mitigated through clear and frequent communication in addition to continuous process improvement.

# Risk assessment summary – reorganize & redefine decentralized IT staff

Risks surrounding reorganizing and redefining decentralized IT staff are fairly low in respect to Institutional, Change Management, Project, Finance and IT risks.

- There is some concern surrounding the number of people that will be impacted by the change, including the current TLs, decentralized IT staff and their supervisors and customers.
- Some schools and departments will be reluctant to “give up” their TLs.
  - Frequent and informative communications must go out to stakeholders to assure them that the new model will maintain or increase the level of IT support they receive.
- Change will be happening on many fronts and will require coordination and cooperation to be successful.
- Other IT initiatives will be aided by the centralization of TLs and other decentralized IT staff. These synergies are noted in the other business cases.
  - For example, the level of success of the server centralization and virtualization, MFD, & software purchasing initiatives are reliant on the cooperation of the TLs; centralizing reporting lines would act as an enabler to achieving the savings associated with these other initiatives.

Many potential risks can be mitigated through clear and frequent communication coupled with careful planning.

# Risk assessment summary – increasing MFD usage

Risks surrounding increasing MFD usage are fairly low in respect to Institutional, Change Management, Project, Finance and IT risks.

- There is some concern surrounding the number of people that will be impacted by the change and the expected resistance to removing desktop printers. The benefits related to MFD printing need to be clearly communicated to the campus community to assure a successful roll-out.
- Cross functional collaboration is required to transition schools and departments from desktop printers to MFDs. Communication will be vital to a successful implementation.
- MFDs have an unfavorable reputation on campus due to missteps in their initial rollout. It will be difficult to reverse current perceptions. The workgroup is aware of this issue and used lessons learned to build the proposed implementation plan.
  - Giving TLs administrative access to the devices will help to mitigate some of the initial pushback.
- Extending administrative access to the MFDs to TLs will increase security concerns. These will largely be mitigated if the CFE IT staff reorganization moves forward requiring TLs to report centrally.

Many potential risks can be mitigated through clear and frequent communication coupled with careful planning.

# Risk assessment summary – single identity management system

The transition to a single identity management system has significant risks that can be mitigated through careful planning and extensive cross-campus communication.

- There is some concern surrounding the number of people that will be impacted by the change. Everyone with a KU ID will be impacted either directly or indirectly.
- Because of the nature of identity management, there are risks that some of these changes will be disruptive and could lead to downtime for some services and users.
- There are multiple entities involved in the change. Coordination through consistent communication will be necessary to assure an optimal implementation.
  - For example, the hospital and UKP will be effected by these changes and will require strong coordination and communication.
- There is a lack of agreement between the Lawrence and Medical Center campuses in regards to the details of how to achieve the long term goals for identity management and active directory. The implementation plan allocates time in the various phases to analyze options and make appropriate decisions.
  - KUL is of the opinion that one meta tree and active directory is optimal for KU. KUMC is requesting that more analysis be completed before they decide on an optimal solution.
- Resources available to implement the initiative are limited; there are concerns that current projects will be impacted and/or the SIMS project will not meet the set timeline due to this constraint.
- KUMC is actively working to replace their GroupWise email system. This could impact the costs and savings projections presented in this business case.

Many potential risks can be mitigated through clear and frequent communication in addition to careful planning.

Cross-campus

# Risk assessment summary – optimize network management

Risks surrounding optimizing network management are fairly moderate in respect to Institutional, Change Management, Project, Finance and IT risks.

- There is some concern surrounding the number of people that may be impacted by the process of changing devices with conflicting IP addresses.
- There are multiple entities involved in the change. Coordination through consistent communication will be necessary to assure an optimal implementation. This includes communicating with the Identity Management team to navigate the dependencies highlighted in this case.
- There is disagreement between the Lawrence and Medical Center campuses in regards to the details of how to achieve the long-term goals for network optimization. The implementation plan allocates time in the implementation plan to reach agreement that is critical to moving the group forward
  - Decisions on future network architecture need to be made within the time allotted in the implementation plan to allow KUMC to make the appropriate changes when they refresh their core in the next fiscal year.
- The network optimization initiative has implications for the identity management initiative and vice versa. Membership of both implementation teams need to communicate to coordinate change on multiple fronts.

Many potential risks can be mitigated through clear and frequent communication coupled with careful planning.

# Risk assessment summary – leveraging software purchasing

Risks surrounding leveraging software purchasing are fairly low in respect to institutional, change management, project, finance and IT risks.

- There is some concern surrounding the adoption of the new software review process on both campuses.
  - Software purchasing at KUL is completely decentralized and resistance to adhering to a standardized process is expected.
  - KUMC is smaller in scale and is made aware of larger software purchases organically. Standard processes will be required to maximize savings potential over time.
- There is some risk that schools or departments will avoid the software review process by using endowment or grant funding. Policy needs to be written and enforced to address these issues upon implementation.
- The software review board must be nimble in its ability to review and organize appropriate parties to realize software savings. Unnecessary bureaucracy needs to be avoided to be effective and achieve buy-in across the campuses.
- Duties of current resources need to be expanded to meet the needs of the software review board and achieve savings.

Many potential risks can be mitigated through clear and frequent communication in addition to careful planning.

# Approach - server centralization and virtualization

The table below depicts the main components of server centralization and virtualization.

| Mobilize | Design | Deploy | Optimize |
|---|---|---|---|
| **Sept. 15th- Oct. 14th 2011** | **Nov. 1st- Jan. 15th 2012** | **Jan. 15th 2012-June 15th 2014** | **June 15th 2014-ongoing** |
| **Tasks**<br>• Develop framework for implementation<br>• Develop communication plan<br>• Establish implementation timeframe<br>• Establish implementation budget | **Tasks**<br>• Finalize design for migration processes<br>• Develop metrics to track cost savings and process improvement<br>• Get quotes from vendors and purchase necessary hardware/software<br>• Develop service level agreements | **Tasks**<br>• Server registration<br>• Analyze registration data<br>• Identify areas for shared server consideration<br>• Migrate servers<br>• Implement shared servers where possible | **Tasks**<br>• Require all new servers to be registered<br>• Reevaluate migration process to improve metrics<br>• Identify future areas for shared server opportunities |
| **Deliverables**<br>• Business case<br>• Executive committee decision | **Deliverables**<br>• Metrics<br>• Migration design<br>• Necessary hardware/software | **Deliverables**<br>• List of servers<br>• Migration of servers<br>• FTE reduction and reallocation | **Deliverables**<br>• Continuous evaluation and improved services |

# Approach - reorganize & redefine decentralized IT staff

The table below depicts the main components of the implementation of the reorganization and redefinition of decentralized IT staff.

| Mobilize | Design | Deploy | Optimize |
|---|---|---|---|
| **Aug. 9th-Oct. 20th, 2011** | **Nov. 1st-Feb. 20th, 2012** | **Feb. 20th 2012-May 15th 2013** | **May 15th 2013-Ongoing** |
| **Tasks**<br>• Develop and evaluate reorganized reporting structure<br>• Develop framework for implementation<br>• Develop communication plan<br>• Establish implementation timeframe<br>• Establish implementation budget | **Tasks**<br>• Appoint Director for IT support services<br>• Identify Professional Services implementation team<br>• Develop processes to evaluate customer needs<br>• Execute communication plan<br>• Identify initial implementation site | **Tasks**<br>• Inventory IT staff responsibilities & customer needs<br>• Appoint business center IT managers<br>• Change reporting relationships of TLs to Central IT<br>• Develop standard job descriptions & salary bands<br>• Reorganize & rationalize Staff<br>• Execute communication plan | **Tasks**<br>• Evaluate and identify additional IT areas that could be centralized<br>• Improve service offerings to IT customers and KPIs to track overall service levels<br>• Execute communication plan |
| **Deliverables**<br>• Business Case<br>• Executive Committee Decision | **Deliverables**<br>• Implementation team<br>• Pilot site<br>• Assessment tool | **Deliverables**<br>• Finalized job descriptions & salary bands<br>• Documented customer needs<br>• Reorganized staff and eliminated redundant FTEs | **Deliverables**<br>• Additional FTE reductions<br>• Improved KPIs |

# Approach - increase MFD usage

The table below depicts the main components of the required steps of increasing MFD usage.

| Mobilize | Design | Deploy | Optimize |
|---|---|---|---|
| **Aug. 9th-Oct. 20th, 2011** | **Nov. 1st-Dec. 19th, 2011** | **Dec. 20th 2011 -June 30th 2013** | **June 30th 2013-Ongoing** |
| **Tasks**<br>• Develop framework for implementation<br>• Develop communication plan<br>• Select pilot site<br>• Establish implementation timeframe<br>• Establish implementation budget | **Tasks**<br>• Develop training materials<br>• Train pilot site TLs and super users<br>• Revise training materials<br>• Identify implementation team<br>• Finalize pilot site implementation plans<br>• Execute communication plan | **Tasks**<br>• Implement pilot program<br>• Gather savings data and create marketing materials<br>• Improve MFD adoption process based on pilot site<br>• Develop roll-out schedule for schools and departments<br>• Transition desktop printers to MFDs<br>• Execute communication plan | **Tasks**<br>• Continue to monitor printing to assure cost efficiencies are maintained<br>• Expand efforts to further reduce toner costs on campus<br>• Continue to update training materials<br>• Continue to support MFD users<br>• Execute communication plan |
| **Deliverables**<br>• Business Case<br>• Executive Committee Decision<br>• Pilot site locations | **Deliverables**<br>• Implementation team<br>• Trained TLs and super users<br>• Pilot site implementation plan | **Deliverables**<br>• Proven transition process from desktop printers to MFDs<br>• Marketing materials and data to support transition to MFDs<br>• Complete rollout of MFDs to realize potential toner & device savings | **Deliverables**<br>• Verification of projected savings<br>• Potential additional savings opportunities |

Cross-campus

# Approach - single identity management system

The table below depicts the main components of the implementation of the single identity management system initiative.

| Mobilize | Design | Deploy | Optimize |
|---|---|---|---|
| **Aug. 9th-Oct. 20th, 2011** | **Nov. 1th-Dec. 1st, 2012** | **Dec. 1st 2011 –March 15th 2013** | **March 13th 2013-Ongoing** |
| **Tasks**<br>• Develop framework for implementation<br>• Develop communication plan<br>• Establish implementation timeframe<br>• Establish implementation budget | **Tasks**<br>• Execute communication plan<br>• Identify ID management implementation team<br>• Hire consultants to aid in evaluating long term AD and ID management solutions<br>• Develop issue escalation process<br>• Determine common ID and conflict resolution process | **Tasks**<br>• Execute communication plan<br>• Implement Meta Phase I<br>• Implement AD Phase I<br>• Convert to common AD architecture agreed upon in the design phase | **Tasks**<br>• Execute communication plan<br>• Implement meta tree and AD Phases II & III<br>• Review results and assure goals were met |
| **Deliverables**<br>• Business Case<br>• Executive Committee Decision | **Deliverables**<br>• Established implementation team<br>• Finalized implementation plan for meta tree Phase I and AD Phase I | **Deliverables**<br>• Common KU IDs<br>• Synchronized meta trees<br>• Consensus on meta tree and AD Phases II and III<br>• Potential FTE reallocations | **Deliverables**<br>• Optimized ID management and AD environments<br>• Potential FTE reductions |

# Approach - optimize network management

The table below depicts the key milestones to complete the network management initiative.

| Mobilize | Design | Deploy | Optimize |
|---|---|---|---|
| **Sept. 15th – Nov. 1st 2011** | **Nov 2nd-Dec. 1st 2011** | **Dec. 2nd 2011-Mar. 15th 2014** | **Mar. 16th 2014 - ongoing** |
| **Tasks**<br>• Develop framework for implementation<br>• Develop communication plan<br>• Establish implementation timeframe<br>• Establish implementation budget | **Tasks**<br>• Identify implementation team<br>• Develop vision for long-term network optimization*<br>• Finalize implementation plan to address IP address conflicts<br>• Execute communication plan | **Tasks**<br>• Execute communication plan<br>• Eliminate conflicting IP addresses<br>• Optimize DNS service<br>• Integrate wireless networks<br>• Begin cross-campus network meetings<br>• Expand network operations center | **Tasks**<br>• Track metrics and review performance<br>• Continue network optimization to achieve savings and improve user experience |
| **Deliverables**<br>• Business case<br>• Executive committee decision | **Deliverables**<br>• Long-term plan for the KU network | **Deliverables**<br>• Increased seamless connectivity between campuses | **Deliverables**<br>• Potential FTE reduction<br>• Network optimization opportunities |

* Development of the vision is anticipated to take 3 months and does not inhibit other phases in network optimization

The direction of the long-term vision established in the design phase is crucial for the long-term success of network optimization from both an operational and user perspective.

# Approach - leveraging software purchasing

The table below depicts the main components of the implementation of the Leverage Software Purchasing opportunity.

| Mobilize | Design | Deploy | Optimize |
|---|---|---|---|
| **Aug. 9th-Oct. 20th, 2011** | **Nov. 1th-Dec. 31st, 2011** | **Dec. 1st 2011 – July 25th 2013** | **July 25th 2013-Ongoing** |
| **Tasks**<br>• Develop framework for software purchasing<br>• Develop communication plan<br>• Establish implementation timeframe<br>• Establish implementation budget | **Tasks**<br>• Execute communication plan<br>• Identify members for Software Review Board<br>• Schedule and hold initial meeting of Software Review Board<br>• Gather datasets for initial SRB analysis of software purchases | **Tasks**<br>• Execute communication plan<br>• Purchasing to pursue software collaboration opportunities<br>• Develop links between SRB and Business Centers<br>• Initiate “software call” to KU Lawrence campus | **Tasks**<br>• Execute communication plan<br>• Review results and assure goals were met |
| **Deliverables**<br>• Business Case<br>• Executive Committee Decision | **Deliverables**<br>• Functioning SRB group<br>• Detailed data on software purchase | **Deliverables**<br>• Improved enterprise licenses<br>• Coordinated software purchases | **Deliverables**<br>• Regularly scheduled SRB meetings<br>• Regular communications and consultations with user communities regarding software purchases |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