**WURN**

**Project Charter – WUSTL Research Network Installation Project**

**Status: Permanent**

**Prepared by: Robert Guthrie,**

**Joe Marentette,**

**Craig Hager,**

**Terry McElroy**

**Project Sponsor: Dr. Fred Prior**

**Date Created: 04/06/2015**

**Date Last Modified: 11/10/2015**

**Revision History**

*Record both pre-approval and post-approval changes within this section. Highlight changes presented to sponsors and/or steering committees rather than detail every minor change.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Change and Reason For Changes** | **Version** |
| Robert Guthrie | 4/6/2015 | Initial draft | 1.00 |
| Joe Marentette | 5/12/15 | Added project “project approach/methodology” and “Risks” |  |
| Terry McElroy | 8/6/2015 | Update to 3.0 Milestone |  |
| Terry McElroy | 8/6/2015 | Update to 3.1 (Remove timeline) ? |  |
| Terry McElroy | 8/6/2015 | Update to 5.3 take out org chart |  |
| Terry McElroy | 8/6/2015 | Update to 6.0 Project Methodology |  |
| Terry McElroy | 8/11/2015 | Added phase 2 to Scope |  |

**OCIO PMO** **Washington University in St. Louis**

***Project Charter – WURN***

**Contents**

[Revision History](#page1) [1](#page1)

[1. Approvals](#page3) [3](#page3)

[2. Scope Summary](#page3) [3](#page3)

[3. Milestones](#page4) [4](#page4)

[4. Impact Assessment](#page5) [5](#page5)

[4.1. Impacted Systems, Processes, Services](#page5) [5](#page5)

[4.2. Assumptions, Constraints, and Dependencies](#page6) [6](#page6)

[4.2.1. Assumptions](#page6) [6](#page6)

[4.2.2. Constraints](#page6) [6](#page6)

[4.2.3. Dependencies](#page6) [6](#page6)

[5. Project Structure](#page7) [7](#page7)

[5.1. Project Team Roles](#page7) [7](#page7)

[5.2. Team Members](#page9) [9](#page9)

[5.5. Communication Plan](#page10) [10](#page10)

[5.6. Training Plan](#page10) [10](#page10)

[6. Project Methodology](#page10) [10](#page10)

[7. Project Estimated Cost/Effort](#page11) [11](#page11)

[8. Risks](#page11) [11](#page11)

[9. References](#page12) [12](#page12)

*Template Date 9/27/2011* **Washington University in St. Louis** ***Page 2 of 12***

Internal Use Only

|  |  |  |
| --- | --- | --- |
|  | **OCIO PMO** | **Washington University in St. Louis** |
|  | ***Project Charter – WURN*** |  |
|  | **1. Approvals** |  |
|  | **Role & Approval Detail** | **Name of Approver, Approval Date and Approval** |
|  |  | **Method** |
|  | **Steering Committee Chair** | Fred Prior |
|  | *Approval is required.* | Prof of Radiology |
|  |  | <Approval Date> |
|  |  | <Approval Method> |
|  | **Project Sponsor** | IT Executive Committee |
|  | *Name of business/University person who has approved this project.* | <Sponsor Title> |
|  | *Approval is required.* | <Approval Date> |
|  |  | <Approval Method> |
|  |  |  |

**2. Scope Summary**

The scope is to enhance Washington University’s cyberinfrastructure by creating a pan campus research network that increases access to and enables the transport, analysis, and dissemination of big data within and beyond the university. Researchers at Washington University are making strides in the generation, annotation, and dissemination of different forms of big data. These data cover a broad range of topics and include materials science, molecular and mesoscopic simulations, planetary and atmospheric sciences, genomics, cellular and organ level imaging, and the development of social and public health policies. Washington University in St. Louis (WUSTL) has embraced the importance of high performance computing and the prominent role that big data play in enabling discoveries in the sciences, medicine, and formulation of social/public health policies. The university recognizes that state of the art research requires access to local and remote data sources and computing resources. Further, we understand the obligation to share reusable data resources with the global research community. The design of Washington University’s Research Network, WURN, reflects this understanding and is meant to achieve two objectives:

1. To create a Research and Big Data (RBD) DMZ using concepts outlined by ESnet to isolate RBD traffic from everyday administrative, curricular and medical traffic. This RBD-DMZ will have internal routing capabilities of 40 Gbps and external connections to Internet2 at 10 Gbps to designated research data centers.
2. To deploy the RBD-DMZ in order to provide increased bandwidth and access to Research Data Centers (RDCs), which are located in existing data centers on the two campuses of Washington University. This deployment will also support co-location, high performance computing and PB-scale storage services. As a result of the proposed project, RDCs will have redundant, 10- Gbps connectivity between each other and will share a 10-Gbps link to Internet2.
3. Assuming completion of 1 and 2 above, Software Defined Networking (SDN) capability will be implemented to improve security, flexibility, and scalability.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **In Scope** |  | **Benefits** | **Validation Measure** |
|  | 1) | Design Effort |  | Ensures alignment with | Proof of concept effort |
|  |  |  |  | business and | (complete) |
|  |  |  |  | architectural goals |  |
|  |  |  |  |  |  |
|  | *Template Date 9/27/2011* | | **Washington University in St. Louis** | | ***Page 3 of 12*** |
|  |  |  | Internal Use Only | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **OCIO PMO** | | **Washington University in St. Louis** | |
|  | ***Project Charter – WURN*** | |  |  |
|  |  |  |  |  |
|  |  | **In Scope** | **Benefits** | **Validation Measure** |
|  | 2) | Create research network backbone | High bandwidth network | Installation of hardware and |
|  |  |  | for moving big data | security practices |
|  | 3) | Create two add/drop locations for 10Gb | Incent the movement of | Installation of hardware and |
|  |  | access to the research network backbone | research systems into the | security practices |
|  |  |  | designated data centers |  |
|  | 4) | Maintain an enterprise license for the | High bandwidth | Installation of software and |
|  |  | Aspera Application suite. | application for moving big | security practices |
|  |  |  | data |  |
|  | 5) | Periodic evaluation points to measure | Ensures that WUSTL is | Establish a baseline. Measure the |
|  |  | current state | obtaining the results it | time necessary to move big data |
|  |  |  | expects | and compare it to the baseline |
|  | 6) | SDN – Software development layer | Make Washington | improved security, |
|  |  |  | University an innovator of | flexibility, and scalability |
|  |  |  | moving big data. |  |
|  |  |  |  |  |
|  |  | **Out of Scope** | **Reason for Exclusion** |  |
|  | 1) | Data Storage | Each researcher currently handles their own data storage. A | |
|  |  |  | future phase of this project (not currently planned) will tackle | |
|  |  |  | the need to create a research storage utility | |
|  | 2) | High performance computing | Solution currently exists |  |
|  | 3) | Data management | Each researcher currently handles their own data | |
|  |  |  | management |  |
|  | 4) | Internet2 Bandwidth Upgrades | Not budgeted. |  |
|  | 5) | Clinical Networks and Security | Clinical networks have unique security and performance | |
|  |  |  | needs that are not suitable for the WURN design (essentially a | |
|  |  |  | science DMZ) |  |

**3. Milestones**

The following are the major project milestones identified at this time. As the project planning moves forward and the schedule is developed, the milestones and their target completion dates will be modified, adjusted, and finalized as necessary to establish the baseline schedule.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | **Target** |  |
|  | **Description** |  | **Date** |  |
| **1** | Project Initiation |  | 04/17/15 |  |
| **2** | Project Planning |  | 09/15/15 |  |
| **3** | Analysis / Requirements |  | 03/31/15 |  |
| **4** | Design Finalized |  | 07/17/15 |  |
| **5** | Proof of Concept |  | 08/28/15 |  |
| **6** | Vendor quotes accepted and purchased | | 09/04/15 |  |
| **7** | On-site Training for engineering and operations | | 11/25/15 |  |
| **8** | Hardware arrival and staging |  | 04/30/16 |  |
| **9** | Hardware configured and deployed |  | 05/29/16 |  |
| **10** | QA |  | 06/02/16 |  |
|  |  |  |  |  |
| *Template Date 9/27/2011* | | **Washington University in St. Louis** | | ***Page 4 of 12*** |
|  |  | Internal Use Only | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OCIO PMO** | |  | **Washington University in St. Louis** | |
| ***Project Charter – WURN*** | |  |  |  |
|  | WURN in production state |  | 06/05/16 |  |
| **11** |  |  |
| **12** | WURN operations migrated to SOC |  | 06/18/16 |  |
| **13** | Implement SDN |  | 01/02/17 |  |
| **14** | Close |  | 01/03/17 |  |

**4. Impact Assessment**

The WURN Project directly supports several of the university goals and objectives. The following table lists the business goals and objectives that the WURN Project supports and how it supports them:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Business Goal/Objective** |  | **Description** |
|  |  |  |  |
|  |  |  |  |
|  | Enable more grants |  | Having a high speed research network will give WUSTL a stronger |
|  |  | position to be awarded grants |
|  |  |  |
|  |  |  |  |
|  | Improve staff efficiency thus |  | Fewer hours spent supporting the transfer of research data |
|  | reducing overhead costs |  |
|  |  |  |
|  |  |  |  |
|  | Enable greater throughput |  | Greater throughput will enable more grants or more work being done |
|  |  | on the existing grants |
|  |  |  |
|  |  |  |  |
|  | Enable new data transfer |  | Volume of data to be transferred, in some cases, has made it difficult |
|  |  | if not impossible to do on a practical level. WURN creates new |
|  | opportunities |  |
|  |  | opportunities to transfer large data sets |
|  |  |  |
|  |  |  |  |
|  | Preparing for future |  | SDN positions the University for strategic networking advancement |
|  |  |  |  |

**4.1. Impacted Systems, Processes, Services**

The WURN Project will impact WUSTL in several ways. The following provides a high-level explanation of how the organization, tools, processes, and roles and responsibilities will be affected as a result of the WURN Project implementation:

**Tools:** As a result of this project, two new tools will be provided:*Aspera and perfSONAR.*Authenticated endpoints may utilize the enterprise Aspera license to transfer big data, but will not have on premise support for this product. perfSONAR will provide performance monitoring and measurement of the WURN. The server administrators and the network engineers and operators need to be trained on Aspera and perfSONAR. In addition, training will be needed for SDN.

**Processes:** with the WURN Project comes more efficient and streamlined research network.This improved efficiency will lessen the burden on researchers and reduce the time necessary to transfer data.

*Template Date 9/27/2011* **Washington University in St. Louis** ***Page 5 of 12***

Internal Use Only

**OCIO PMO** **Washington University in St. Louis**

***Project Charter – WURN***

**Roles and Responsibilities:** in addition to the WURN Project allowing greater ease withtransferring data, the manpower required to do so will be reduced. The new network will be managed by the Shared Infrastructure Services group and we do not anticipate any changes to IT staffing for the initial phase. Additional staffing will be required to support future initiatives, such as SDN.

**Hardware/Software:** There will be state-of-the-art network hardware implemented in theWURN and users will be offered cutting edge file transfer software. To ensure WURN business continuity and provide opportunity for growth, Wustl needs to budget for hardware replacement and upgrades.

**4.2. Assumptions, Constraints, and Dependencies**

**4.2.1. Assumptions**

The following assumptions apply to the WURN Project. As project planning begins and more assumptions are identified, they will be added accordingly.

* + All affected staff and employees will be trained accordingly on the new system.
  + Funding is available for training.
  + Funding is available for purchasing hardware/software.
  + All department heads will provide necessary support for successful project completion.
  + Project has executive-level support and backing.

1. **Constraints**

The following constraints apply to the WURN Project. As project planning begins and more constraints are identified, they will be added accordingly.

* + There are limited IT resources available to support the WURN Project and other, ongoing, IT initiatives.
  + There are a limited number of commercial off the shelf (COTS) products to support big data transfer
  + As implementation will be done internally and not by the product developers or vendors, there will be limited support from the hardware/software providers.
  + Internet 2 connection

1. **Dependencies**

SDN requires completion of RBD-DMZ and extensive training..

*Template Date 9/27/2011* **Washington University in St. Louis** ***Page 6 of 12***

Internal Use Only

**OCIO PMO** **Washington University in St. Louis**

***Project Charter – WURN***

**5. Project Structure**

**5.1. Project Team Roles**

*Describe the roles necessary to complete the project. Remember title and role are not the same thing; one team member may fill more than one role.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Role** | **Purpose** | **Responsibilities** | |  |  |
|  | Project Sponsor(s) | Provides resources and support for | 1) | Provide project objectives and goals |  |  |
|  |  | the project and is accountable for | 2) | Provide funding |  |  |
|  |  | enabling success | 3) | Approve Project Charter and Plan |  |  |
|  |  |  | 4) | Signs off on approvals to proceed to next phase | |  |
|  |  |  | 5) | Vocal and visible project champion |  |  |
|  |  |  | 6) | Ultimate decision maker for project |  |  |
|  |  |  | 7) | May chose to delegate some of these |  |  |
|  |  |  |  | responsibilities |  |  |
|  | Steering Committee | Project Governance/Oversight | 1) | Act as advisory group for the design, |  |  |
|  | (includes management |  |  | implementation and training aspects of the project | |  |
|  | representatives from key |  | 2) | Acts as vocal and visible project champions and | |  |
|  | stakeholder groups) |  |  | liaisons to stakeholders |  |  |
|  |  |  | 3) | Approve project deliverables |  |  |
|  |  |  | 4) | Approve scope changes to be presented to | |  |
|  |  |  |  | sponsor |  |  |
|  |  |  | 5) | Helps resolve issues and policy decisions |  |  |
|  |  |  | 6) | Provides resources (in some cases) |  |  |
|  |  |  | 7) | Provides subject matter expertise |  |  |
|  | Project Manager | Direct and manage project work | 1) | Responsible for ensuring that the Project Team | |  |
|  |  |  |  | completes the project; responsible for |  |  |
|  |  |  |  | management of project process |  |  |
|  |  |  | 2) | Develops Project Charter and comprehensive | |  |
|  |  |  |  | project plan via joint planning with the Project | |  |
|  |  |  |  | Team |  |  |
|  |  |  | 3) | Coordinates and manages the team’s performance | |  |
|  |  |  |  | of project tasks, ensuring integration of all project | |  |
|  |  |  |  | work with focus on creation of project deliverables | |  |
|  |  |  |  | and work performance information |  |  |
|  |  |  | 4) | Secures acceptance and approval of deliverables | |  |
|  |  |  |  | from the Project Sponsor, Steering Committee | |  |
|  |  |  |  | and Stakeholders |  |  |
|  |  |  | 5) | Responsible for communication including status of | |  |
|  |  |  |  | project health |  |  |
|  |  |  | 6) | Responsible for risk management, and escalation | |  |
|  |  |  |  | of issues that cannot be resolved in the team | |  |
|  |  |  | 7) | Responsible for managing change requests and | |  |
|  |  |  |  | documenting decisions made by accountable | |  |
|  |  |  |  | parties: sponsor, steering team, Functional Project | |  |
|  |  |  |  | Lead, Enterprise Architecture, Information | |  |
|  |  |  |  | Security, etc. |  |  |
|  |  |  | 8) | Manages project procurements working with | |  |
|  |  |  |  | Resource Management |  |  |
|  |  |  | 9) | Ensures project is delivered within budget, on | |  |
|  |  |  |  | schedule and within scope |  |  |
|  |  |  |  |  |  |  |
|  | *Template Date 9/27/2011* | **Washington University in St. Louis** | | | ***Page 7 of 12*** |  |
|  |  | Internal Use Only | |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **OCIO PMO** |  |  | **Washington University in St. Louis** | |  |
|  | ***Project Charter – WURN*** |  |  |  |  |  |
|  |  |  |  | |  |  |
|  | **Role** | **Purpose** | **Responsibilities** | |  |  |
|  |  |  |  |  | |  |
|  | Business / Functional | Customer representation and | 1) | Ensures project success by providing subject | |  |
|  | Project Lead | decision making |  | matter expertise to project |  |  |
|  |  |  | 2) | Responsible to accurately represent their | |  |
|  |  |  |  | organization’s needs to the Project Team | |  |
|  |  |  | 3) | Ensures all appropriate Stakeholders, working | |  |
|  |  |  |  | groups (ancillary and administrative, etc.) are | |  |
|  |  |  |  | included for input / validation, working with | |  |
|  |  |  |  | Steering Committee, Project Manager and | |  |
|  |  |  |  | Technical Leader |  |  |
|  |  |  | 4) | Makes project decisions on behalf of business | |  |
|  |  |  |  | units that will use or be affected by the product or | |  |
|  |  |  |  | service the project will deliver |  |  |
|  |  |  | 5) | Responsible for achieving consensus of their | |  |
|  |  |  |  | business unit(s) on issues or deliverables and | |  |
|  |  |  |  | communicate decisions to the Project Manager | |  |
|  |  |  | 6) | Review and approve process deliverables, and | |  |
|  |  |  |  | ensure the right subject matter experts are | |  |
|  |  |  |  | available to the Project Team |  |  |
|  |  |  | 7) | Validates deliverables that describe the product or | |  |
|  |  |  |  | service the project will produce |  |  |
|  |  |  | 8) | Communicates information about the project to | |  |
|  |  |  |  | the customer community |  |  |
|  |  |  | 9) | Organizes and provides customer representatives | |  |
|  |  |  |  | to test the product or service and provides | |  |
|  |  |  |  | feedback to Project Team |  |  |
|  | Technical Project Lead | Provides technical leadership | 1) | Ensures project success by providing technical | |  |
|  |  |  |  | system expertise to guide technical work, | |  |
|  |  |  |  | coordinating closely with PM |  |  |
|  |  |  | 2) | Ensures successful translation of business | |  |
|  |  |  |  | requirements into technical specifications and | |  |
|  |  |  |  | solutions |  |  |
|  |  |  | 3) | Provides vision, understanding and guidance of | |  |
|  |  |  |  | how various pieces of solution will fit together at | |  |
|  |  |  |  | WUSTL to the Project Team |  |  |
|  |  |  | 4) | Owns entire solution from a technical design and | |  |
|  |  |  |  | engineering perspective and ensures it is |  |  |
|  |  |  |  | consistent with the architectural standards of the | |  |
|  |  |  |  | organization; works with EA & Info Security as | |  |
|  |  |  |  | needed |  |  |
|  |  |  | 5) | Lends expertise to evaluate vendor offerings | |  |
|  |  |  |  | specifically around transition to new solution | |  |
|  |  |  |  | including any conversion activities, integrations; | |  |
|  |  |  |  | works with PM to size technical effort |  |  |
|  |  |  | 6) | Guides how solution will operate and function in | |  |
|  |  |  |  | the context of the larger technical ecosystem at | |  |
|  |  |  |  | WUSTL (interfaces, interoperability, built for | |  |
|  |  |  |  | support, reuse, traceability, etc.) |  |  |
|  |  |  | 7) | Drives change to mitigate system / technical risks; | |  |
|  |  |  |  | facilitates resolutions to technical system issues | |  |
|  |  |  |  |  |  |  |
|  | *Template Date 9/27/2011* | **Washington University in St. Louis** | | | ***Page 8 of 12*** |  |
|  |  | Internal Use Only | |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **OCIO PMO** |  |  | **Washington University in St. Louis** |  |
|  | ***Project Charter – WURN*** |  |  |  |  |
|  |  |  |  | |  |
|  | **Role** | **Purpose** | **Responsibilities** | |  |
|  |  |  | 8) | Ensures technical testing, deployment and |  |
|  |  |  |  | transition to support plans are appropriate |  |
|  |  |  | 9) | Understands the technical delivery and IT service |  |
|  |  |  |  | management resources, processes and tools |  |
|  |  |  |  | required for successfully delivery of the product or |  |
|  |  |  |  | service and works with Project Manager to ensure |  |
|  |  |  |  | they are appropriately represented in project |  |
|  |  |  |  | plans |  |
|  | Business Analyst or | Requirements management | 1) | Takes a leadership role in defining, analyzing and |  |
|  | Business Systems Analyst |  |  | documenting requirements working with the |  |
|  |  |  |  | Business / Functional Project Lead and appropriate |  |
|  |  |  |  | SMEs |  |
|  |  |  | 2) | May assist / participate with defining the business |  |
|  |  |  |  | case |  |
|  |  |  | 3) | Elicits requirements (business, stakeholder, |  |
|  |  |  |  | solution, functional, nonfunctional, transition) |  |
|  |  |  | 4) | Organizes, translates and simplifies requirement |  |
|  |  |  |  | statements for appropriate use in solution |  |
|  |  |  |  | development / configuration process |  |
|  |  |  | 5) | Lead role in planning, monitoring and designing |  |
|  |  |  |  | use cases and test cases as well as acceptance |  |
|  |  |  |  | testing criteria |  |
|  |  |  | 6) | Participates in planning and determining content |  |
|  |  |  |  | of training materials working with performance |  |
|  |  |  |  | support resources. |  |
|  | Core Team | Provide leadership of various | 1) | Leaders of the various functional areas/units who |  |
|  |  | domains/disciplines necessary to |  | must create deliverables necessary to successfully |  |
|  |  | plan and execute project work |  | complete the project; emphasis is on “doers” of |  |
|  |  |  |  | work |  |
|  |  |  | 2) | Guides the work of the Extended Team – also |  |
|  |  |  |  | “doers” who create project deliverables (project |  |
|  |  |  |  | management deliverables and technical |  |
|  |  |  |  | deliverables) for review and verification by |  |
|  |  |  |  | customers, Steering Committee, and Sponsor(s) |  |
|  |  |  | 3) | Participates in joint planning session with PM |  |
|  |  |  | 4) | Always includes PM, Business/Functional Project |  |
|  |  |  |  | Lead, Technical Project Lead, Business Analyst. |  |
|  |  |  |  | May also include representatives from functional |  |
|  |  |  |  | business areas, key IT disciplines, external entities |  |
|  |  |  |  | (vendors), etc. |  |
|  | Extended Team | The “doers”, create project | 1) | Includes all resources who provide labor to create |  |
|  |  | deliverables |  | the deliverables of the project |  |
|  |  |  | 2) | May include members of functional business |  |
|  |  |  |  | departments, external entities (vendors), IT |  |
|  |  |  |  | resources, customers, etc. |  |

**5.2. Team Members**

*List all staff participating in the project and indicate which role(s) they belong to. List each participant only once and indicate all roles they belong to for this project.*

*Template Date 9/27/2011* **Washington University in St. Louis** ***Page 9 of 12***

Internal Use Only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **OCIO PMO** |  | **Washington University in St. Louis** | |
|  | ***Project Charter – WURN*** |  |  |  |
|  |  |  |  |  |
|  | **Team Member** | **Title** |  | **Role** |
|  | Dr. Fred Prior | Prof of Radiology |  | Project Sponsor |
|  |  |  |  | Steering Committee |
|  |  |  |  |  |
|  | Terry McElroy | Project Manager |  | Steering Committee |
|  |  |  |  | Project Manager |
|  | John Roman | Manager, Network Engineering |  | Technical Project Lead |
|  | Joe Marentette, | Sr. Network Engineer |  | Core Team Lead |
|  | Jason Murray | Sr. Network Engineer |  | Core Team |
|  | Rick Walls | Sr. Network Engineer |  | Core Team |
|  | Matt House | Architect |  | Core Team |
|  |  |  |  |  |

**5.5. Communication Plan**

Program Status Updates: The project management team will provide updates to the Steering Committee on the progress of the project monthly. The status update will include issues, completed tasks, and planned tasks for the month.

Program pulse meetings: The project management team will conduct weekly project meetings as required to review project activities (schedule TBD based on project activities).

Program status reports: A project status report will be provided to the sponsor(s) and steering committee chair every Monday for the duration of the project.

Escalated status/issue communication: The project manager will determine if an issue warrants escalation. If so, the project manager will inform the sponsor, steering committee chair and the project team.

Program dependencies: The project management team will identify and communicate program dependencies to affected stakeholders.

**5.6. Training Plan**

Pending the results of the proof of concept, additional training may be required. The cost for training for the RBD-DMZ is included in the proposed budget. Training for SDN will need to be identified and funded.

**6. Project Methodology**

WURN Project Methodology

Initiation

* Develop a Business Case
* Perform Feasibility Study
* Establish the Project Charter
* Create the Project Team
* Set up the Steering Committee

*Template Date 9/27/2011* **Washington University in St. Louis** ***Page 10 of 12***

Internal Use Only

**OCIO PMO** **Washington University in St. Louis**

***Project Charter – WURN***

Planning

* Perform Analysis
* Create a Resource Plan
* Create a Quality Plan
* Create a Risk Plan
* Create a Communications Plan
* Create a Procurement Plan
* Perform Vendor Management
* Create a Project Plan

Execution

* Perform Design / Architecture
* Build Deliverables
* Monitor and Control Deliverables
* Perform System Test
* Perform Change Management
* Implement Hardware/Software
* Perform Training
* Turn over to Support

Close

* Perform Project Closure
* Review Project Completion

**7. Project Estimated Cost/Effort**

Estimates Project Cost are located on Box.com.

Pseudo path: …Box.com/WURN/Project Documentation/WURN BOM.xlsx

Direct Link: https://wustl.box.com/s/l7dpp2eb67wqrzkxvhtc28qu83j0qtgg

**8. Risks**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Risk** | **Level** |  | **Risk plan** |  |
|  |  |  | **(H/M/L)** | |  |  |
|  | 1) | Chosen hardware does not meet | L |  | • Engage hardware vendor for assistance. If necessary, | |
|  |  | requirements |  |  | evaluate different hardware solutions. |  |
|  | 2) | WURN implementation does not meet | L |  | • Work with researchers to better define expectations and | |
|  |  | researcher expectations |  |  | create action items accordingly. |  |
|  | 3) | The selected data moving software | M |  | • TBD |  |
|  |  | cannot meet the transfer speeds, |  |  |  |  |
|  |  | authentication, or scheduling |  |  |  |  |
|  |  |  |  |  |  |  |
|  | *Template Date 9/27/2011* | | **Washington University in St. Louis** | | | ***Page 11 of 12*** |
|  |  |  |  | Internal Use Only | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **OCIO PMO** | |  |  | **Washington University in St. Louis** |
|  | ***Project Charter – WURN*** | |  |  |  |
|  |  |  |  |  |  |
|  |  | **Risk** | **Level** | | **Risk plan** |
|  |  |  | **(H/M/L)** | |  |
|  |  | capabilities. |  |  |  |
|  |  |  |  |  |  |
|  | 4) | People resources may not be available |  | M | • Work with project managers to make sure people |
|  |  | for implementation because they are |  |  | resources are available as needed. |
|  |  | assigned to other projects |  |  |  |
|  | 5) | Internet2 bandwidth is insufficient to |  | M | • Monitor usage closely and be prepared to add second 10 |
|  |  | meet institutional production needs |  |  | Gbps I2 connection. |
|  |  | (Box, O365, etc.) as well as researcher |  |  |  |
|  |  | needs. |  |  |  |
|  | **9. References** | |  |  |  |
|  |  |  |  |  | |
|  |  | **Content Asset /Document** |  | **Location** | |
|  |  |  |  |  |  |
|  | 1) | Project Approval Document |  |  |  |
|  |  |  |  | Project Signoff.docx | |
|  |  |  |  |  |  |
|  | 2) | Governance Document |  |  |  |
|  |  |  |  | WURN Project | |
|  |  |  |  | Governance v1.docx | |
|  |  |  |  |  |  |
|  | 3) | Change Control Document |  |  |  |
|  |  |  |  | Change Control | |
|  |  |  |  | Process Form.doc | |
|  |  |  |  |  | |
|  | 4) | Financial Analysis Spreadsheet |  | Pseudo path: …Box.com/WURN/Project Documentation/WURN | |
|  |  |  |  | BOM.xlsx | |
|  |  |  |  | Direct Link: | |
|  |  |  |  | https://wustl.box.com/s/l7dpp2eb67wqrzkxvhtc28qu83j0qtgg | |
|  | 5) | SLA |  | TBD |  |
|  |  |  |  |  |  |



*Template Date 9/27/2011* **Washington University in St. Louis** ***Page 12 of 12***

Internal Use Only