Instruction

Due to the technical nature of this template, NUIT Cyberinfrastructure engineers in collaboration with ITMS application teams, and business subject matter experts should complete it.

This template provides the infrastructure cost estimate for the project. The information captured in this template will be used to define the necessary budget and will be used to obtain funding approval for the project. The information collected for this template should be based on the business needs outlined in the *Project Charter* and the *Business Requirements Analysis*.

***If significant changes to technology needs occur prior to the Requirements & Design phase of the project, this template may need to be updated and funding may need to be re-approved.***

1. Project Overview

Provide high-level information to help Cyberinfrastructure engineers understand what is being proposed and the business reasons for recommending the solution.

1.1 Objective

Describe the objective of the project (2 to 3 sentences).

**1.2 Business Case**

Provide the business case for the project, including the problem being solved, who/what area is impacted, and the business benefits of the project. (A few sentences will be sufficient).

**1.3 Risks**

Document specific risks that have been identified or that should be considered.

**1.4 Out of Scope**

Delineate specific activities, capabilities, and items that are out of scope for the project.

2. Technical Design Diagram

Provide a diagram that illustrates all new and existing technical resources required for the successful completion of this project. The diagram should include the following:

* How new infrastructure will be located and how it will connect within existing enterprise infrastructure.
* Servers, storage, network – assume all are virtual unless there are specific technical issues that are expected to require physical resources.
* Logical data flow.
* Critical ancillary equipment or connections where needed.

3. Technical Specifications

Provide high-level technical specifications with enough detail to develop an infrastructure cost estimate.

3.1 Servers

Under the appropriate heading (3.1.1 through 3.1.4 below), list a brief description and function for each server that is needed, and include the following information:

* Operating System
* Application memory requirements
* Application CPU requirements
* Functional characteristics of the application and whether there are any system dependencies
* Expected application transaction volume

3.1.1 Application Servers

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3.1.2 File Servers

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3.1.3 Web Servers

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3.1.4 Database Servers

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**3.2 Access Requirements**

Define the access requirements related to the following:

* Approximate number ofusers requiring simultaneous access to the application
* List user communities who will need access, including
  + ITMS Developers
  + Departmental /School IT
  + Vendors
  + Other

3.3 Databases

List a brief description and function for each database that is needed, and include the following information:

* Oracle or SQL Server
* Database version required
* Memory requirements
* CPU requirements
* Amount of storage needed the first 12 months (in GB)
* Projected annual growth (% or GB)
* Expected transaction volume
* Special data preservation requirements
* Provide technical specification data sheet for the application if available

**3.4 Storage Needs exclusive of databases**

Describe the following elements related to storage needs, excluding database requirements:

* The amount of storage needed for the first 12 months (in GB).
* Projected annual growth (% or GB).
* Data protection.
* Note: The NUIT data backup standard is weekly fulls with a two-week incremental rotation; fulls are retained for 29 days. If this does not meet your needs, specify requirements here.

4. Resource Needs

Identify the staff resources needed to successfully complete this project. Also identify the staff, technical, and other resource dependencies that should be considered.

* Staff Resources
* Staff Dependencies
* Technical Dependencies
* Other Dependencies

**5. Assumptions**

Enumerate all additional assumptions that will impact the technical design, documentation and cost estimate for this project.

**6. Concerns and Issues**

Enumerate all additional concerns and issues that may impact the technical design, documentation, or cost estimate for this project.

7. Estimated Costs

Prepare a cost estimate, using Excel. Include the detailed calculation information on one tab and the summary estimate information on a separate tab. The spreadsheet should accompany this document (whether electronic or hard copy) in all communications.

Document Tracking

The following chart is used to log of all changes made to this document.

| **Version** | **Date of edit/change** | **Who made the edit/change** | **Description of edit/change** |
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