Attachment A to

DCD 130114

Statement of Work

For

City of Seattle

Next Generation Data Center (NGDC) Project

Phase 2: Design and Implementation Services

Sections Included in this Statement of Work

[1 Executive Summary 4](#_Toc369249134)

[1.1 Overview 4](#_Toc369249135)

[1.2 Scope 4](#_Toc369249136)

[1.3 Critical Success Factors 5](#_Toc369249137)

[2 Project Lifecycle Details 5](#_Toc369249138)

[2.1 General Responsibilities 6](#_Toc369249139)

[2.2 Project Management 6](#_Toc369249140)

[2.3 Requirements Management 12](#_Toc369249141)

[2.4 Stage 1: Startup 13](#_Toc369249142)

[2.5 Stage 2: Design 15](#_Toc369249143)

[2.5.1 Workstream 1: IT Business Process 15](#_Toc369249144)

[2.5.2 Workstream 2: Facilities & IT Technologies 20](#_Toc369249145)

[2.5.3 Workstream 3: Relocation 24](#_Toc369249146)

[2.6 Stage 3: Procure 27](#_Toc369249147)

[2.6.1 All Workstreams 27](#_Toc369249148)

[2.7 Stage 4: Build and Test 29](#_Toc369249149)

[2.7.1 Workstream 1: IT Business Process 29](#_Toc369249150)

[2.7.2 Workstream 2: Facilities & IT Technologies 31](#_Toc369249151)

[2.7.3 Workstream 3: Relocation 34](#_Toc369249152)

[2.8 Stage 5: Implement 36](#_Toc369249153)

[2.8.1 Workstream 1: IT Business Process 36](#_Toc369249154)

[2.8.2 Workstream 2: Facilities & IT Technologies 37](#_Toc369249155)

[2.8.3 Workstream: 3 Relocation 38](#_Toc369249156)

[3 Global Assumptions 41](#_Toc369249157)

[3.1 Project Management Assumptions 41](#_Toc369249158)

[3.2 Project Schedule Assumptions 42](#_Toc369249159)

[3.3 Staffing Assumptions 42](#_Toc369249160)

[3.4 Scope Assumptions 43](#_Toc369249161)

[3.5 Project Facilities and Equipment 43](#_Toc369249162)

[4 Project Organization and Staffing 43](#_Toc369249163)

[4.1 Governance Structure 43](#_Toc369249164)

[4.2 City Project Roles 44](#_Toc369249165)

[4.3 PwC Project Roles 45](#_Toc369249166)

[5 Project Management Processes 46](#_Toc369249167)

[5.1 Integrated Change Control 46](#_Toc369249168)

[5.2 Issue Management 46](#_Toc369249169)

[5.3 Weekly Status Report 47](#_Toc369249170)

[5.4 Deliverable Acceptance 47](#_Toc369249171)

[5.4.1 Submission 47](#_Toc369249172)

[5.4.2 Review 47](#_Toc369249173)

[5.4.3 Re-submission 47](#_Toc369249174)

[5.4.4 Sign-off 48](#_Toc369249175)

[5.4.5 Deliverable Review Assumptions 48](#_Toc369249176)

[5.5 Documentation Approach 48](#_Toc369249177)

[5.6 Project Completion Criteria 48](#_Toc369249178)

[5.6.1 Final Acceptance 48](#_Toc369249179)

Glossary of Terms

|  |  |  |
| --- | --- | --- |
| Term | Acronym | Definition |
| Project Plan | MPP | The Microsoft Project schedule with work breakdown structure, dependencies, resources, critical path, etc. |
| Onboarding | None | Project office setup for resources, PwCs, and subcontractors. Includes background checks, keycards, accounts, etc... |
| Project Management Plan | PMP | This is the overall narrative of how the project will be managed and usually pulls together the various project management plans (e.g. communications, financials, issues, etc.) |
| Cost Model | None | The cost model refers to the chargeback model for the NGDC services including policies/procedures/processes as defined in the RFP. |
| Cost Estimate | None | The cost estimate refers to the project capital & operating costs as defined in the initial cost estimate submitted for NGDC phase 1. |
| NGDC Governance Framework | None | The NGDC Governance Framework refers to the policies/procedures/processes required to operate the NGDC. |
| NGDC Phase 1 | None | This refers to the Strategy phase of the NGDC project. |
| NGDC Scope | None | This project includes the data center technologies and the associated tools located within the new facilities and the connections from the NGDC facilities to the existing City owned network. The scope is further defined in the RFP or in the NGDC Phase 1 deliverables. |
| Responsibility Assignment Matrix | RAM | Matrix describing the responsibilities by various roles in completing a task or a process. |
| Service Level Agreement | SLA | Component of a service. Typically used to refer to the service delivery time to the customer for a particular service. |
| Operational Level Agreement | OLA | Defines the interdependent relationships among the internal support groups involved in delivering an SLA. |
| Shared Services | None | Typically refers to the provision of a service by one group where that service was previously delivered by more than one part of the organization or group |
| fit-out | None | Work required to build out the “inside” of a data center facility or colocation such as deploying cabling, installing cabinets, deploying required power and cooling infrastructure, etc. This does not include deploying the actual technology such as servers, network gear, etc. |
| Cutover | None | The cutover is the actual window of time during which we implement the migration activities for a specific wave (e.g. DNS change, physical move of equipment, etc.). When you actually impact production. |
| Handoff | None | The handoff is the acceptance by the stakeholders that the specific wave is now no longer the responsibility of the project and is operational. There is also a handoff for the infrastructure as well. |
| Wave | None | The wave is a grouping of applications and systems that will be migrated at the same time (once). There will be ongoing waves of migrations according to the migration plan. |

# Executive Summary

## Overview

This statement of work sets forth the scope and definition of the services, work and project deliverables (collectively, the “Services”) to be provided by PwC (“PwC”) to the City of Seattle (“the City”) as part of the Next Generation Data Center (“NGDC”) Project: Phase Two .

This statement of work framework is intended to augment and not repeat information contained in the RFP and Proposal that are part of this Agreement. This statement of work framework includes but is not limited to the project lifecycle details, global assumptions, project organization and staffing, and project management processes.

## Scope

For the summary scope items, refer to the RFP & proposal.

Below is a list of out of scope items:

* + - * Re-architect any business application (e.g., create a failover mechanism that does not exist in the abandoned data centers/computer rooms, enable cloud computing, etc.)
      * Define IT standards not related to the NGDC.
      * Design non-NGDC technology operating components (Governance model, services or technology) such as End User computer or non-shared services.
      * Define or update cost model for non-NGDC services.
      * Rationalize or optimize applications during the migrations.
      * Increase the level of virtualization unless agreed upon as part of the migration activities.
      * Develop disaster recovery plans for the departments.
      * Redesign and architect the City network beyond establishing connectivity to the NGDC locations.
      * Select or implement an inventory or DCIM tool.
      * Select or implement a service catalog or chargeback tool.
      * Decommission technology infrastructure not included in the NGDC migrations.
      * Restore the abandoned data centers/computer rooms after the relocation Develop any technology dependent disaster recovery plan that does not require NGDC support

PwC is responsible for the development of the detail design of the scope items and for instituting the design’s socialization. PwC is responsible for facilitating and managing the build, test and implement activities.

PwC shall provide project leadership, leading practices, and tools to guide and effectively collaborate with the City staff to implement City’s data center strategy and design consistent with the deliverables from NGDC Project: Phase One, and with the detailed design developed in this NGDC: Phase Two.

PwC shall work collaboratively with the City project manager on the project management processes as described in this statement of work. The City expects PwC to meet the expectations of the Independent IT Project Quality Assurance (IIPQA) consultants. The expectations shall be discussed and finalized during the project planning stage.

## Critical Success Factors

In order to successfully execute the services described herein, there are several critical success factors that must be closely monitored and managed by the stakeholders. These factors are critical in setting expectations between the City and PwC, identifying and monitoring project risks, and promoting strong project communication.

**City Staff Resources Participation** – City acknowledges that its staff must be actively involved throughout the entire duration of services. Expectations about the City Staff Resource Participation will be elaborated throughout the project via the Project Management Plan and resource schedule. PwC shall communicate when there is insufficient participation of City staff resources through project status reports that will state real and potential impacts to the project timeline. PwC shall work the City project manager to determine appropriate team member involvement and escalate to the project sponsor where there is lacking involvement. Team member involvement could range from full-time, during early analysis meetings, to part-time during the technical implementation stage. See the Project Lifecycle Details for more detail.

**Effective Decision Making –** To meet the target timeline for NGDC Phase Two, the City recognizes that it is critical that stakeholders participate in the decision making process toward obtaining consensus. PwC shall communicate escalations where decisions are not made in a timely manner. The City also acknowledges that it is critical that a governance structure be defined, agreed upon by all departments and implemented as the project is launched.

**Responsibility and Knowledge Transfer Management** - PwC will facilitate the implementation activities and coordinate City staff resources or other City vendor resources, as identified and selected during the design and procurement stage, will execute the design and transfer to operations. The City acknowledges that it is critical that City staff, including subject matter experts, participate in the design of the NGDC to facilitate the knowledge transfer required for the build, test and implementation activities. Build and test as well as implementation readiness checklists will be developed in collaboration between PwC and City personnel to transfer responsibilities.

**Quality and Consistent Project Management** **Planning** – Due to the duration and scale of this initiative, a critical success factor is for PWC and the City to collaborate to establish a strong project management structure, including risk and issue management, resource management, financial tracking as well as consistent and clear reporting and communication across departments.

**PwC Implementation Methodology** –The City acknowledges that it is imperative to project success that the City follows and adopts the PwC Implementation Methodology.

# Project Lifecycle Details

This section describes, in detail, the deliverables of the statement of work and the activities required to complete the deliverables. Each stage or activity contains a summary. The specific responsibilities sections shall take precedence to the summary introductions.

## General Responsibilities

* The City and PwC shall review their responsibilities before work begins to verify that deliverables can be satisfactorily completed.
* The City and PwC shall, at the beginning of each activity, conduct a brief orientation session to introduce the tasks to be carried within that activity and the deliverables to be produced. As part of this orientation session an activity checklist shall be delivered by PwC verifying that the dependent activities are complete and meet the evaluation criteria for quality.

Project Lifecycle General Responsibilities for PwC

* Provide timely and appropriate responses to City’s requests for information.
* Coordinate project planning activities.
* Communicate PwC Implementation Methodology at the start of each activity.
* Perform all PwC resource allocation; coordination; scheduling; note taking for PwC facilitated meetings, sessions, and workshops; and management of action items assigned to the PwC team.

Project Lifecycle General Responsibilities for the City

* Provide timely and appropriate responses to PwC’s requests for project planning input and meeting requests.
* Review, revise, accept, and provide signoff for deliverables based on the Deliverable Acceptance section of this statement of work.
* Perform all City resource allocation; coordination; scheduling; note taking for City facilitated meetings, sessions, and workshops; and management of action items assigned to the City team.

## Project Management

The purpose of the project management activity is to identify the responsibilities and deliverables for initiation, planning, execution (monitor/control), and closeout for the entire project. The project management activity continues throughout the project lifecycle stages. The City shall provide a full time project manager who will collaborate with the PwC project manager to conduct the project management activities. The PwC shall take the lead role in using the PwC’s implementation methodology and shall conform to the City’s Program Management Office processes and standards as mutually agreed. This activity is comprised of planning project tasks, producing core project management documents and templates, and developing product implementation plans.

Entry Criteria

* Agreement execution.

Activity General Responsibilities for PwC

* The PwC project manager shall work collaboratively with the City project manager to verify seamless project management processes and project management deliverables.
* PwC tasks and efforts shall be transparent to the fullest extent to the City for project quality assurance.
* PwC shall work with the City project manager to define the collaboration methods, document management procedures, and communications methods to the PwC team.

Activity General Responsibilities for the City

* The City project manager shall work collaboratively with the PwC project manager to verify seamless project management processes and project management based deliverables.
* The City project manager is responsible for integrating with and reporting into other City Project Management Offices.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in **bold**)-  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Be actively involved in all project processes and manage the activities of the PwC project team. | Be actively involved in all project processes and interact closely with the PwC project manager. |  |
| 1. Work with the City project manager and Project Steering committees to finalize the existing draft governance structure for the project (including steering committee, working committee and subject matter specialist structure). | Work with the PwC project manager to finalize the governance structure for the project charter signoff. | Project governance structure |
| 1. Work with the City to review the City’s existing project charter and provide input. Verify that the City’s project charter is aligned with the statement of work. Confirm that the charter governance plan is understood and communicate the same to the PwC team. | Work with PwC to confirm/revise the City’s project charter. Verify that the City’s project charter is aligned with the statement of work. Work with the PwC Team to come up with a governance model and plan with roles and responsibilities for the project and communicate the same. The City is responsible for the finalization of the project charter. | Project charter |
| 1. Schedule the PwC resources necessary to support the project. Assist the City project manager to coordinate City resources. | Provide the relevant City resources for the project and facilitate their participation throughout the duration of the project. |  |
| 1. Introduce needed changes as required and comply with project change control procedures as defined in the Project Management Processes section of this document. Participate in change impact analysis. | Manage the change requests using the project change control procedures as defined in the project management processes section of this document. Verify team involvement in the change impact analysis and decision making related to change in scope, budget, schedule or quality. | * Change requests * Updated change registers * Updated decision register |
| 1. Work with the City project manager to finalize the project plan that includes resource loading for all tasks. Maintain the master project plan, including tasks, individual resource loading, timing, dependencies and estimates for PwC resources and work with the City project manager for City resources assignments. Scope of plan includes both PwC and City tasks. Updates shall be provided on a Weekly basis. The PwC project manager shares the responsibility of the project plan (.mpp) updates with the City project manager. | Provide inputs on project key tasks and resources from City that will be required as part of the project and that would need to be tracked in the project plan. Work with the PwC project manager to update the project plan. Work with the PwC project manager and provide inputs on all key tasks and resources from City that will be required as part of the project and that would need to be tracked in the project plan. Work with the PwC project manager to update the project plan. The City project manager shares the responsibility of the project plan (.mpp) updates with the PwC project manager. | **Baseline Project Plan** |
| 1. Work with the City to conduct the project planning activities for the integrated project plans and produce the project management plan; communications plan; procurement plan; scope management; risk management plan; issue management plan; change management plan; resource plan; test plan(process, technical setup, responsibilities, schedule, test results log); and acceptance quality plan. | Work with PwC to conduct the project planning activities for the integrated project plans and assist in the production of the project management plan; communications plan; procurement plan; scope management; risk management plan; issue management plan; change management plan; resource plan; and acceptance quality plan. The City will bring in the key stakeholders required for the planning activities. | * **Project Management Planning Stage Baseline** * **Project Management Plan** * **Communications Plan** * **Procurement Plan** * **Scope Management Plan** * **Risk Management Plan** * **Issue Management Plan** * **Change Management Plan** * **Resource Plan** * **Test Plan** * **Acceptance Quality Plan** |
| 1. Work with the City to verify that the quality of the requirements & deliverables meet the acceptance/quality criteria and are within the scope of the project (process, technical setup, test results log.) | Work with the PwC to verify that the quality of the requirements & deliverables meet the acceptance/quality criteria and are within the scope of the project (process, technical setup, test results log.) | * Updated requirements register * Updated acceptance plans * Updated test plans * Updated project management plan (quality section) |
| 1. Prepare weekly status reports. Work with the City project manager and decide best approach in maintaining a progressive “Project Dashboard” to track metrics, deliverables, and key performance indicators for each major stage/activity of the project (e.g. one page manually compiled overview with a ‘keep it simple’ approach). This information should be updated at least weekly and posted on the SharePoint site. | Review status reports along with the PwC project manager and project governance team. Work with PwC project manager to determine best approach for the “Project Dashboard”. | Weekly Status Reports including an agreed upon ‘project dashboard’. |
| 1. Measure progress and performance against the plan and work with City project manager to resolve any deviations from plan. Assess scope and schedule monthly to manage any change. PwC is responsible for a monthly reporting package as detailed in the communication plan to communicate the true-up of the monitoring and controlling activities of the project. | Work with the PwC project manager to evaluate the project progress and resolve deviations from plan. | * **Monthly true-up package** * Updated Project Plan * Updated issues register * Updated risk register * Updated action item register * Updated change register * Updated decision register |
| 1. Verify that major decisions are updated on the decision register. | Verify that major decisions are updated on the decision register. | Updated decision register |
| 1. Work with the City to identify dependencies, conduct impact analysis, and assist the City in technical/IT business process change management approval processes. | Participate in City-wide Technical/IT business process Change Management meetings; setup Municipal Information Technology Investment Evaluation (MITIE) process to include data center impacts as part of the assessment; periodic review of the Citywide portfolio for impacts. Work with the departments to verify that impacts are understood. | * **Technical Change Management Plan** * Updated Technical Change Management System * Updated MITIE form |
| 1. Identify, document and escalate project issues as necessary. | Identify, document and escalate project issues as necessary. | Updated issues register |
| 1. Work with the City to: Identify; analyze; offer mitigations and perform mitigations; prepare contingency plans and execute contingency plans; or prepare response plans to risk on a weekly basis. | Work with PwC to: Identify; analyze; offer mitigations and perform mitigations; prepare contingency plans and execute contingency plans; or prepare response plans to risk on a weekly basis. | Updated risk register |
| 1. Participate and provide input to the meetings based on the communication plan for project and governance teams. | Schedule and conduct meetings and take notes based on the communication plan for project teams and governance teams | * Meeting notes * Updated issues register * Updated risk register * Updated action item register * Updated decision register |
| 1. Review deliverables with key City staff and provide revisions based on the City’s reviews. | Provide inputs in deliverables and participate in review process and workshops. | Sign-off of deliverables based on the Deliverable Acceptance section of this statement of work |
| 1. Participate in periodic Independent Monthly Quality Assurance (MQA) reviews (including interviews and review of key deliverables). | Communicate expectations of the MQA reviews and the time required to participate. Plan the MQA activities into the project schedule. | * Updated issues register * Updated risk register * Updated action item register |
| 1. Prepare a Completion Letter at the conclusion of the engagement. Participate in the “lesson learned” sessions and provide feedback/inputs for the same. | Conduct a lessons learned session, document, and communicate the same with the City staff. | * **Project completion letter** * **Lessons learned list** |
| 1. Work with the City to develop a readiness plan based on the City’s readiness strategy as defined in the project management process section of this SOW. During the design stage we agree on the readiness plan and checklist process. | Work with PwC to develop a readiness plan based on the City’s readiness strategy as defined in the project management process section of this SOW. During the design stage we agree on the readiness plan and checklist process. | Readiness plan & checklist |
| 1. Work with key stakeholders to develop a revised cost estimate for the project through full implementation and on-going costs (both capital and O&M expense) through 2018. This will be refined throughout the project lifecycle. | Provide subject matter expertise in the city financial management team required to outline and define the updated projects cost estimate. | * **Cost Estimate (**Updated Project Financials**)** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The project charter is a work product instead of a deliverable as the City is responsible for the final project charter.
2. This activity should be conducted primarily remote and the project kick-off will be conducted on-site.
3. The project management deliverables are based on the PMBOK guidelines.
4. PwC has project management deliverables templates as part of the PwC methodology.
5. The project management plans shall have approval methodology within the plans themselves
6. The project Windows SharePoint Services (WSS) site will be ‘air lifted’ to the SharePoint 2013 implementation at the City sometime Q1 2014 and the City shall be responsible for this ‘air lift’.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Baseline Project Plan** | MS Project (.mpp) | This document serves as documentation for the project plan with tasks, start date, end date, % completion, resource loading, dependencies, and critical path. | Phases, Task Name (Activities), Duration, Start Date and Finish Date, Duration (Schedule) % Work Completion, Predecessors (Dependencies), Successors, Resource Roles(detailed resource needs will be in the resource management plan). Ownership clarity for tasks. Clear strategy for task constraint types. Each objective in the project plan has an ACTIVITIES section and a DELIVERABLES section with clear review/revise efforts AND time for rework. Gantt Chart and Critical Path Tasks shall be available within the tool and can be printed. There is a clear readiness effort prior to each Phase go live that is duration appropriate and process oriented. There is an appropriate level of detail in the Work Breakdown Structure (WBS) for Phase 1 and for Phase 2 with a focus on rolling forecast (more elaboration as we progress for example as we get more details on the specific cutovers the project plan will be more detailed for those activities as the specific activities are identified). |
| Project Management Planning Stage Baseline:   * Project Management Plan * Procurement Plan * Scope Management Plan * Communications Plan * Acceptance Quality Plan * Risk Management Plan * Issue Management Plan * Change Management Plan * Resource Plan | WORD, VISIO, EXCEL | The purpose of these plans is to verify that industry standard project management practices are used and we get to a baseline state before we get to execution. These plans are elaborated throughout the project during the development of the monthly true-up package. | Contain Executive Summary; table of contents; purpose; audience; processes; roles; responsibilities; checklists; standards; procedures; and clearly define how the communications, acceptance/quality, risk, issue, change, and resources will be managed during the entire project. These plans can be elaborative in nature providing the overall structure is in place. |
| **Monthly true-up package** | PPT,  Excel | The purpose of this reporting package is to communicate the status of the project including scope, schedule, budget, risks, issues, actions, resource needs & change after the planning stage is completed. | Contains Project Profile & Overview (stage, product lifecycle, sponsor, baseline status, etc.; Project status summary; Project milestones/deliverables for the reporting month, planned milestones/deliverables for the next month(planned & unmet); Change requests for the month ; Budget plan to actual; schedule plan to actual; Top 3 high priority issues, actions (Issues/actions) unresolved in over 30 days; Top 3 highest exposure risks including triggers and response plan; Unresolved open decisions(Including from phase I); Resource needs; Kudos for current month.   * Updated plans & registers & controls * Updated readiness plan |
| **Technical Change Management Plan** |  |  | Reference the City’s existing change management process including the usage of the change management system   * Roles and responsibilities specifically how NGDC technical changes are managed through the existing change process. |
| **Project completion letter** | Word | Formalize acceptance of all deliverables. | Document detailing all deliverables competed. |
| **Lessons learned list** | Word | Capture experience from this initiative. | Document detailing all of the key lessons learned during the project. |
| **NGDC Cost Estimate** | Excel | Document detailing the updated financials for the project through the completion of the project and the operating costs (Capital & Expense) through 2018. | * Contains the project budget detailing the project cost estimate including design through full implementation (external and internal expenses including capital and operation and maintenance expense) for the initial set-up of the project and on-going operating costs (capital and operation and maintenance expense) through 2018. * This will be refined throughout the project lifecycle. * This document will be a revision from the cost estimate created in phase 1. |

## Requirements Management

The purpose of the requirements management activity is to identify the responsibilities and deliverables for the collection and management of the requirements for this project. This activity continues throughout the project lifecycle stages. The City shall provide a full time project manager who will work with the PwC project manager to manage the requirements throughout the lifecycle. The PwC shall take the lead role in managing the requirements using PwC’s leading practices and shall conform to the City’s Program Management Office processes and standards to the fullest extent. This activity is comprised of creating a process for managing requirements, providing traceability of requirements, and centralizing the management and processing.

Entry Criteria

* Agreement Execution

Activity General Responsibilities for PwC

* Provide subject matter knowledge in the process of requirements management.
* Provide management and oversight of the process.
* Track and report on progress.

Activity General Responsibilities for the City

* Work collaboratively with the PwC project manager to verify seamless project management processes and project management based deliverables.
* Establish a central repository for managing requirements.
* Provide subject matter knowledge on City requirements management processes.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in **bold**)-  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Work with the City project manager and Project Steering committees to develop a process to elicit, centralize and manage requirements. | Provide access to City resources to develop the process. | Requirement management planning   * Business Requirements Management Plan * Business Requirements Communication Plan * Business Requirements Verification |
| 1. Work with the City project manager to establish a central repository (e.g., SharePoint or Excel). | Participate in the closeout and provide reviews and signoff. | **Requirement register** |
| 1. Conduct periodic reviews with stakeholders to analyze and sort requirements. | Provide access to city resources. Manage conflicts on requirements management. | Status update on requirement register |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. Requirements will be classified and sorted to identify the wants vs. the needs.
2. Conflicting requirements will be reviewed and resolved by the steering committees.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Requirements register** | SharePoint or excel | Provide a central place to track requirements. | Central repository with major requirement fields including:   * Requirement * Department * Classification (needs, wants, other) * Verification * Disposition (met, postponed, not applicable) * Traceability matrix (Design, test, implement) * Notes |

## Stage 1: Startup

The purpose of the startup stage is to prepare for the kickoff the project. Project startup is an opportunity to verify the project begins in a well-organized, structured fashion while verifying the City and PwC expectations regarding the implementation. This activity is comprised of the first on-site meeting conducted between the City and PwC (referred to as kick-off meeting).

Entry Criteria

* Project management plans
* Agreement Execution

General Responsibilities for PwC

* Provide content required to develop project initiation deliverables and work products.
* Collaborate with City personnel to conduct the kick off meeting.

General Responsibilities for the City

* Coordinate City resources for initiation activities.
* Coordinate project kick-off.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Provide information required to setup user accounts, VPN access, and key cards. | Provide administration staff assignments to issue key cards and submit tickets for user account creation and VPN access. | Key cards and user accounts with VPN access |
| 1. Finalize staffing for the project teams. Guidelines and recommendations for the City project staffing are addressed in the Project Staffing section of this document. This plan will include the plan for where resources will be embedded with City departments. | Identify and set expectations with key resources and for ongoing participation in the project. | Updated resource plan |
| 1. Develop a kick off deck and conduct a formal onsite Kick off meeting. The objective of this meeting is to review the purpose of the project, the project scope, deliverables, timeline and roles and responsibilities. | Provide meeting facilities and include Project Sponsor in Project Kickoff Meeting. Ensure the City team roles and responsibilities are clear in the presentation. Ensure the presentation is reviewed by project management teams and key staff prior to kickoff. | * **Project Kickoff Presentation** * Resource general roles and responsibilities |
| 1. Develop an agreed upon set of items to make decisions for the technical detailed design of the NGDC. Develop a framework of five items on how we make decisions regarding the technical detailed design (weighted or otherwise). Facilitate the development and socialization of the decision making frameworks for all workstreams in the design stage. Update the project plan. | Provide access to City subject matter experts for the design of the technical decision framework. | * Updated project plan * **NGDC Design Decision Making Framework** |
| 1. Work with the City project manager to assess the design of the SharePoint site. | Update the project SharePoint site on the City’s platform. Train the City staff on usage of the SharePoint site. | Updated project SharePoint site |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City project manager shall help in identifying the resources who can add value in different stages of the project.
2. The City project manager shall help the PwC project manager to manage the conflicts with other on-going projects in the City.
3. The City shall backup key document repositories.
4. HP subcontractor will participate in this activity.
5. This activity should be conducted primarily remote while the kick-off will be on-site.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Project Kickoff Presentation** | PowerPoint | The purpose of this slide deck is to present to the project team at kickoff the key aspects of the project. | Formal presentation by the project team to review project objectives, methodology, timeline, roles and responsibilities, risks, and other key project elements with project stakeholders |
| **NGDC Design Decision Making Framework** | Word  Visio | The purpose of the NGDC Design Decision Making Framework is to document and agree on the decision process that will be followed to finalize the design of the NGDC. This will include the inputs/outputs of source data and key steps to be followed. | Source Data; Scope; Output Evaluated; Decision Making Process & Methodology; Roles & Responsibilities |

Completion Criteria

* The conclusion of this activity shall coincide with activity closeout checklist and signoff to proceed.

## Stage 2: Design

The objective of this stage is to develop a comprehensive design for the NGDC project that will enable the implementation of the NGDC consistent with the high-level conceptual solution developed in Phase One.

The scope of the design phase includes the Governance Model, Services and Service Levels, Chargeback as well as facilities, technologies and the relocation processes.

### Workstream 1: IT Business Process

The focus of this workstream is to design a target state for the Governance model, services and service levels as well as to develop a chargeback model. PwC will provide leading practices in these domains and facilitate the development of these designs.

Entry Criteria

* Startup stage completion.

General Responsibilities for PwC

* Facilitate the development and socialization of the NGDC IT Governance Model.
* Facilitate the design and socialization of NGDC services, service levels and cost model.
* Provide subject matter knowledge in the area of IT Governance, IT Service Management and IT Chargeback.
* Comply with project management processes defined during startup stage and as part of the project management track.

General Responsibilities for the City

* Comply with project management processes defined during initiation and as part of the project management activity.
* Comply with the roles and responsibilities matrix defined in startup stage, including but not limited to decision making responsibilities.
* Provide objective and constructive feedback on the process or content.
* Provide city-specific content such as current state information or requirements.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Elicitation and management of requirements from City stakeholders as identified in startup stage. Requirements shall cover: NGDC IT Governance Model, Services and Service Levels and Chargeback Model. | Assist with the Elicitation effort. Provide QA assistance with the data collected. Assist project team with the identification or modification of the list of key stakeholders to engage if applicable. | * Updated Requirements Register * **Requirements Summary** |
| 1. PwC will make best effort to prepare the current state cost model for services in scope based on the information available. | Discover and gather the data required for the cost model for services in scope. | * Current State Cost Model |
| 1. Review and document the current structure of IT Governance and service models, including constraints and cultural considerations. Review and document the current state roles and responsibilities. | Assist with the data collection effort. Provide QA assistance with the data collected. Assist project team with the identification or modification of the list of key stakeholders to engage if applicable. | * Inventory of current state processes * Current state roles & responsibilities |
| 1. Facilitate the development and socialization of the initial NGDC IT Governance model with pro-forma policy set, structure and high-level interaction model. Similarly to the design of the services, the socialization for the Governance model shall take place through working or education sessions with key stakeholders to discuss requirements, current state and industry leading practices or industry frameworks. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. | Initial Governance Model |
| 1. Conduct review workshops to verify scenarios for the initial model by performing tabletop exercises by using defined scenarios. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. | Updated Initial Governance Model |
| 1. Complete the design of the initial NGDC IT Governance charter, including goals, objectives and guiding principles. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. | **NGDC IT Governance Charter** |
| 1. Facilitate the development and socialization of the NGDC IT Governance interaction model with Responsibility Assignment Matrix (RAM). | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. | **NGDC Governance Target State** |
| 1. Facilitate the development of the strategic roadmap for the IT Governance model | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. | **NGDC IT Governance Strategic Roadmap** |
| 1. Update master project plan with relevant stages from the strategic roadmap. Update test scenarios and activities required for testing. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Assist with the development of test scenarios and activities required for testing. | * Updated project plan * Updated test plan |
| 1. Facilitate and document the design of NGDC target state services (e.g., compute, storage) through working or education sessions with key stakeholders to discuss requirements, current state, nomenclature and definition of SLA/OLA and industry leading practices or industry frameworks. | Assist with the coordination of required interviews or working sessions. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures | **NGDC Service Catalog with service level and service level management framework.** |
| 1. Work with key finance stakeholders to develop a new cost model for NGDC services. | Provide subject matter expertise within the constraints associated to the cost model within the City’s environment. | * **NGDC cost model design (chargeback)** * **NGDC cost model design overview** |
| 1. Work with key stakeholders to develop a revised cost estimate for the project through full implementation and on-going operating costs (capital and operation and maintenance expense) through 2018. | Provide subject matter expertise in the city financial management team required to outline and define the updated projects cost estimate. | * Updated Cost Estimate (Updated Project Financials) * Updated Financial Forecast |
| 1. Socialize the design and obtain buy-in from key stakeholders. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. | **Design Stage IT Business Process Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City shall provide subject matter experts to describe the current IT Governance models in use within the City and provide feedback to the PwC resources.
2. Cost models will not be updated for non NGDC services by the project team.
3. The detailed decision making framework related to the design of the NGDC IT Governance model, IT Services and cost model is not detailed at this Stage.
4. The assignment of the NGDC governance framework roles will be the responsibility of the Executive Steering Committee.
5. Where appropriate, PwC resources will be embedded with the departments to gather requirements and collaborate on the design of the Next Generation Data Center.
6. The City will make accurate data available that is required to build a current state cost model. The current state cost model will be as accurate as the data provided.
7. The processes defined as part of this design exercise will include the process and criteria for handoff to operations.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process was identified during the Initial Acceptance Duration period and this time will not find addition rework items.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Requirements Summary** | Excel, SharePoint | Report summarizing the key requirements for the design of the NGDC IT Governance Model, Services and Cost model. Requirements shall also reflect disaster recovery considerations and the impact on the Governance or services models captured. | Updated Requirements Register  Word document summarizing:   * The summary of the major requirements related to this workstream for the departments in scope. * Mapping of the requirements along needs / wants dimension. * Major themes summary (what works, what does not work) * This work document is to be accompanied by the listing of the requirements collected in excel. * Summary with list of requirements by department and by topic (Governance, Services and service levels, Cost Model (Chargeback)) |
| **NGDC IT Governance Charter** | Word | Document capturing the charter for the Governance model so it can be used as a reference document when developing and implementing the design. | Document summarizing:   * NGDC IT governance charter including goals, objectives, and guiding principles * NGDC Governance framework goals and objectives * Guiding principles to be followed for the design of the governance model * High level Governance interaction models (e.g., key governing entities, key processes in scope, underlying technology or tools if applicable) |
| **NGDC IT Governance Target State** | Word,  Visio | Document describing the structure of the Governance Model, including RACI between the various governing entities. | Document summarizing:   * NGDC Governance Target state including interaction models, roles, and responsibilities (RAM). * Interaction models e.g. interaction flows between the governing entities for the key processes in scope. * The content will be swim lane based workflow diagrams by role with narratives explaining the workflow in the form of detailed procedures. * Responsibility assignment matrix (RAM) for the various governing entities in scope. * Major gap summary (against current state) * KPIs and success metrics * Includes business processes for activating and deactivating he DR state * IT Business Process Change Management   Flows might be developed in Visio or other software solution. If this is the case, the source files will be provided to the City. |
| **NGDC IT Governance Strategic Roadmap** | PowerPoint | PowerPoint presentation describing the high level implementation roadmap for the “ideal” Governance model. | Power presentation summarizing:   * The description of the recommended phases for the deployment of the target state Governance Model * Includes details of initial phase (to also be reflected in master project plan) as well as future phases as appropriate. * Phases benefits * Phases timing * High level implementation effort for subsequent phases |
| **NGDC Service Catalog with service level and service level management framework.** | Word | Document summarizing the NGDC technology services and their key attributes. | Document including:   * Definition of each service for the services in scope (NGDC data center services) * Associated service offerings and service attributes. * Services levels & OLA and/or SLA * Service level management procedures |
| **NGDC cost model design (chargeback)** | Excel | Excel model capturing the inputs and outputs of the NGDC cost model. | Includes projections for the NGDC services defined:   * Expense base for the services (or agreed upon in scope expense base for the services) * Volume projections (as required) * Unit rate projections (as required) * Revenue projections * Measurement metrics |
| **NGDC cost model overview** | PowerPoint | Presentation aimed at summarizing the principles of the chargeback model, its intent, underlying processes, tools, benefits and risks. | PowerPoint presentation summarizing key aspects of the chargeback models including:   * Requirements summary and guiding principles used for the development of the model. * Overview of the services, cost basis, unit cost rationale, projection rationale. * Summary of the measurement and reporting processes. * Summary of key RAM for the model. * If applicable, summary of projected improvements (roadmap). * Current state cost model comparison |
| **Design Stage IT Business Process Summary** | PowerPoint | Capture the main changes made during the build and test stage. Provide visibility into open items and potential issues identified during the stage. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues * Test results log |

### Workstream 2: Facilities & IT Technologies

During the design phase, the focus of this workstream is to develop the logical and physical designs of the co-location facilities as defined below as well as of the technology infrastructure to be deployed for the shared services.

Entry Criteria

* Startup stage completed.

General Responsibilities for PwC

* Comply with project management processes defined during startup and as part of the project management track.
* Manage the development and socialization of a thorough technology design for the NGDC Facilities and IT Infrastructure.
* Manage the identification and socialization process of Citywide NGDC standards.
* Provide subject matter knowledge and industry leading practices in the areas of data center technologies and facilities.

General Responsibilities for the City

* Comply with project management processes defined during startup and as part of the project management track.
* Comply with the roles and responsibilities matrix defined in startup stage, including but not limited to decision making responsibilities.
* Provide objective and constructive feedback on the process or content.
* Provide city-specific content such as current state information or requirements.
* The City shall provide resources in accordance with the resource plan.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Facilitate and document the development and socialization of the inventory management process in conjunction with workstream 3 (relocation), the project office and City key stakeholders. | City will provide access to the people and processes required for the inventory management process | Inventory management process |
| 1. Validate and update the complete current state data for data center technology. | Assist with the data collection effort. Provide QA assistance with the data collected. Assist project team with the identification or modification of the list of key stakeholders to engage if applicable. | Current state data |
| 1. Elicitation and management of requirements from City stakeholders as identified in startup stage. Requirements shall include, but are not limited to: Co-location physical requirements (incl. security), updated power projections technology projections, technology requirements for domains in scope (compute, storage, network, back-up, and security). Requirements shall also reflect disaster recovery. | Assist with the Elicitation effort. Provide QA assistance with the data collected. Assist project team with the identification or modification of the list of key stakeholders to engage if applicable. Provide subject matter experts about the City data center environments for all the departments. | * Updated requirements register * **Requirements Summary** |
| 1. Facilitate and document, and socialize the identification of the Citywide data center technology standards and produce the citywide data center architecture based on these standards. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts for the City data center environments for all the departments. | **Citywide Data Center Architecture & Guidelines** |
| 1. Facilitate the development and socialization of the Facilities and IT Technologies design for NGDC. The designs will be developed in a collaborative manner with the City key technology stakeholders. Education and working sessions shall be scheduled to collaboratively elaborate the designs. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts about the City data center environments for all the departments. | * **Logical and Physical Designs for NGDC IT Technologies (and associated management tools)** * **Data Center Facilities Design** |
| 1. Work with city resources to obtain Bills of Material or other financial data as needed to provide financial input to the cost model. Work with project management office to develop updated financial forecast. | Provide Bills of Material or access to City specific pricing or contract terms. | Bills of Materials |
| 1. Work with the city resources to develop a testing approach for the design (e.g., lab, proof of concepts, pilots) | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts for the City data center environments for all the departments. | * Testing Approach * Updated project plan * Updated test plan * Updated Test Scenarios |
| 1. Develop a standard process and documentation template for as-is built for the NGDC and configuration information. Reuse existing templates to the fullest extent. | Review and agree to the standard process and documentation templates used for as-is built for NGDC including configuration information. Provide any existing templates. | * As-is built documentation process * As-is built documentation template |
| 1. Develop a process and documentation template (including handoff checklist) to handoff the colocations to operations. | Review and agree to the standard process and documentation templates used for handoff to operations. Provide any existing templates. | * Technology handoff document and process |
| 1. Develop a standard process and documentation template (including handoff checklist) to handoff the technology infrastructure deployed to operations. | Review and agree to the standard process and documentation templates used for handoff to operations. Provide any existing templates. | * Colocations handoff document and process |
| 1. Work with key stakeholders to develop a revised cost estimate for the project through full implementation and on-going operating costs (capital and operation and maintenance expense) through 2018. | Provide subject matter expertise in the city financial management team required to outline and define the updated projects cost estimate. | * Updated Cost Estimate (Updated Project Financials) |
| 1. Socialize the design and obtain buy-in from key stakeholders. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. | **Design Stage Facilities & IT Technologies Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City shall provide subject matter experts for the technologies currently in use in the City.
2. This design effort does not include non-data center services (e.g. desktops).
3. The definition of application disaster recovery designs will be not be created by the NGDC project.
4. The departments shall provide high level RTOs and RPOs as requirements.
5. A complete network re-design is not required for the execution of the NGDC project.
6. The PwC will provide some subject matter knowledge but will rely on the City resources for final decision making process.
7. IP addressing information is to be provided by the City of Seattle.
8. Non-shared services shall be captured but will not have detailed designs created.
9. Upon Request PowerPoint presentations can be converted into a Word document format.
10. PwC is providing the approach for developing test scenarios.
11. The NGDC DR Facility will be built with the RPO and RTO requirements defined up to the connectivity to the NGDC, storage and backup layer but will not fully implement the database and applications which are the departments’ responsibilities.
12. Where appropriate, PwC resources will be embedded with the departments to gather requirements and collaborate on the design of the Next Generation Data Center.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Requirements Summary** | Word | Word report aimed at summarizing key functional and technical requirements that influenced the design of the Facilities and IT Infrastructure of NGDC. | * Requirements or rationale represented for all departments in scope. * Logical and Physical requirements for NGDC IT Technologies and associated management tools (compute, storage/back-up, network (LAN/WAN/Internet/Security)) * Data Center Facilities requirements (floor layout, power and cooling requirements, rack layout, physical security, cabling standards and cabling plan) |
| **Citywide Data Center Architecture & Guidelines** | Word | Word report aimed at capturing the citywide NGDC standards. | * NGDC domains in scope represented (compute, storage, back-up, network, data center facilities) |
| **Logical and Physical Designs for NGDC IT Technologies (and associated management tools)** | Word / Visio | Word report with Visio diagrams aimed at capturing the logical and physical design of the solution. | * Technology design to include compute, storage/back-up, network (LAN/WAN/Internet/Security) * Include (compute, storage/back-up, network(LAN/WAN/Internet/Security)) |
| **Data Center Facilities Design** | Word / Visio | Word report with Visio diagrams aimed at capturing the logical and physical design of the solution. | * Facilities design to include floor layout, power and cooling, rack layout, physical security and cabling plan |
| **Design Stage Facilities & IT Technologies Summary** | PowerPoint | Capture the main changes made during the build and test stage. Provide visibility into open items and potential issues identified during the stage. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues * Test results log |

### Workstream 3: Relocation

During the design phase, the focus of this workstream is to develop the initial wave schedule as well as the templates and process documentation to be followed during the actual detailed planning and execution activities of the relocation.

Entry Criteria

* Startup stage completion.

General Responsibilities for PwC

* Comply with project management processes defined during initiation and as part of the project management track.
* Facilitate the development and socialization of a process for inventory management.
* Provide oversight and lead the development of relocation processes with City key stakeholders.
* Provide subject matter knowledge and industry leading practices in the areas of data center relocation.

General Responsibilities for the City

* Comply with project management processes defined during initiation and as part of the project management activity.
* Comply with the roles and responsibilities matrix defined in startup stage, including but not limited to decision making responsibilities.
* Provide objective and constructive feedback on the process or content.
* Provide city-specific content such as current state information or requirements.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Facilitate the development and socialization of an approach for inventory collection and management in conjunction with workstream 2 (facilities & IT Technologies), project management office and city stakeholders. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts about the City data center environments for all the departments. | Inventory approach and process |
| 1. Facilitate and document the process to collect required inventory information per approach agreed in previous step. Track the inventory process status. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts for the City data center environments for all the departments. Input inventory information into inventory tools. | **Initial Hardware and Application Inventory Baseline** |
| 1. Facilitate the development and socialization of an application classification approach. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts for the City data center environments for all the departments. | Application classification summary |
| 1. Facilitate the development and socialization of migration approaches and strategy. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts about the City data center environments for all the departments. | Migration Approach and Strategy Summary  Test Approach |
| 1. Customize migration tools and templates and socialize. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts about the City data center environments for all the departments. | * **Relocation Processes Documentation** * **Relocation Decision Helper** |
| 1. Work with City key stakeholders to develop equipment projections and associated financials to provide information required for financial forecasts in the project management activity. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts for the City data center environments for all the departments. | Updated Cost Estimate |
| 1. Develop initial wave schedule and socialize. | Assist with the coordination of the socialization effort. Assist with information or feedback request to obtain feedback within timeframe described or to engage escalation procedures. Provide subject matter experts about the City data center environments for all the departments. | **Initial Migration Wave Schedule** |
| 1. Update master project plan accordingly. | Review updates made to the project plan and provide feedback. Provide subject matter experts to validate validity of sequencing and timing for the City. | Updated project plan |
| 1. Conduct an activity closeout for quality. | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. Detailed documentation on all applications and migration plans are out of scope for the design stage and are expected to be completed prior to the actual cut-over of the applications and systems.
2. The City will train employees on the DCIM tool selected and input the information required for the application & infrastructure inventory as defined in the inventory process document.
3. PwC will facilitate the effort for collecting the application inventory.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Initial Hardware and Application Inventory Baseline** | DCIM Report, Excel | Identify what hardware and applications are being moved | * Initial list of hardware and applications targeted for migration. |
| **Relocation Decision Helper** | PowerPoint | Presentation summarizing the key decision tree and decision process for the migrations, including virtualization, shared services, equipment replacement. | * Summary of the main migration processes with workflow for usage of the relocation templates and step-by-step procedure * Process flows of the main migration decision processes including: migration approach to be used (e.g. forklift, logical P2V, logical V2V, logical reinstall), equipment repurposing, shared services |
| **Relocation Processes Documentation** | Word or excel | Templates to be used for the detailed planning and execution of the migrations. | * Application profile template (WORD). * Migration wave readiness tracker template (Excel). This is a T-minus approach readiness for each wave. * Detailed cutover (in production) schedule template (activities to track/ hour by hour schedule). This is the detailed logistics from start to end. * Command center and cutover coordination template. * Post migration and handoff template (signoff). |
| **Initial Migration Wave Schedule** | Excel | Document the initial targeted wave schedule for the build and test as well as implement migrations to be conducted. This schedule will be used as the basis for the detailed planning effort of the migrations as described in the build and test as well as implement stages. The initial migration wave schedule is tracked in the project plan. | * List of waves with the list of tentative systems/applications targeted for the wave. * Summary of the key dependencies captured as part of this design exercise. * Overall summary of the wave schedule. * Summary of key points of contact for detailed planning of the waves. |

## Stage 3: Procure

The objective of the Procure stage is to execute on the procurement activities required for the various workstreams in scope. Procurement activities can take the form of RFP/RFI/RFQ or other vendor selection process.

### All Workstreams

Procurement activities will follow a similar structure across workstreams and are detailed in this section.

Entry Criteria

* Agreement on procurement approach obtained.
* Bills of Materials

General Responsibilities for PwC

* Provide subject matter knowledge in the area of procurement effort related to services, hardware or software to deploy or test IT business processes (Governance and Service Management).
* Assist the City in developing content for the procurement material such as RFP or RFQ.
* Assist the City with the scoring and evaluation activities.
* Assist the City with responding to Question and Answers.

General Responsibilities for the City

* Own the procurement process end to end.
* Own the management of the documentation (publication, printing, sharing with reviewers, orals material if applicable).
* Manage all vendor communication and lead the negotiations.
* Ensure compliance with City procurement rules.
* Own the final decision on the procurement efforts.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Work with the city technical and IT business stakeholder to identify long lead time items and validate plan for addressing these items (such as networking circuits). | Provide access to stakeholders. Co-author the long lead item procurement approach. Provide knowledge on options to accelerate or mitigate delays on procurement activities. | Updated project plan |
| 1. Develop a centralized procurement tracking tool with the City procurement lead and with the project management office. | Provide existing tools and templates. Review centralized tracking tool. | Centralized procurement tracking tool |
| 1. Co-create solution-specific specifications (materials & services). | Lead the effort of the procurement process including the effort of building the content from an end to end standpoint. Work with City resources to obtain city content for the material to be developed. | Purchase Order (PO);  Request for Proposal (RFP);  Request for Qualifications (RFQ); Etc. Content |
| 1. Assisting DoIT to conduct research to create a bidders list to whom the sourcing document (RFP, RFQ, etc.) can be distributed. | Identify the list of suppliers, including preferred suppliers from all departments. Manage the communication to the vendor community. | List of bidders |
| 1. Provide subject matter knowledge on building scoring and evaluation matrices when applicable. | Share City standards for evaluation. Provide input on key evaluation criteria. | Scoring and evaluation matrices |
| 1. Assist the city in conducting research or developing content to address vendor Q&A. | Manage the communication of Q&A within the city and with the vendor community. Manage the management of the responses | Q&A responses |
| 1. Standardize results from a financial standpoint and populate NGDC cost model with service cost components as RFPs are finalized. | Provide input on the financial responses. Provide knowledge and insight on city specific financial implications such as but not exclusive to taxes, additional discounts, etc. | * Responses financial summary * Updated cost estimate * Updated cost model |
| 1. Provide subject matter knowledge as needed during negotiations assistance. | Own the negotiations with the vendors. Provide City standards for negotiations. | * Signed Contract * Updated Citywide Data Center Architecture & Guidelines |
| 1. Coordinate with project management track to track progress and report on financials for the project | Facilitate access to City resources if applicable. Report on negotiations progress and final agreement. | * Updated project plan * Updated financials |
| 1. Co-develop a summary presentation on responses received and facilitate the socialization and consensus building process. | Provide directions and feedback on approach used for consensus building. | * Summary presentations of procurement results * **Final Procurement Decision Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City will provide a procurement lead to manage and centralize the procurement processes and verify procurement activities are conducted according to City standards and requirements.
2. The City will use the selection process that is in the best interest of the City.
3. The procurement workstream is continuous across all workstreams in the project lifecycle and may be repetitive in nature.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Final Procurement Decision Summary** | PowerPoint | Captures the decisions made from a procurement standpoint and the rationale. This will be an evolving document throughout the procurement effort. | * List of procurement efforts * Summary of decision process, decision and rational for the decision. * Capture the vendors selected as well as the manufacturers |

## Stage 4: Build and Test

The objective of the Build & Test stage is to establish the core foundations of the NGDC strategy based on the design developed in the Design stage. It also includes the testing of the technologies as well as core processes identified during the design phase. The build and test stage provides opportunities to train and socialize City participants on the processes and procedures.

### Workstream 1: IT Business Process

During this stage, the focus of this workstream is to proceed with the implementation and testing of the core NGDC IT business processes as identified in the Governance IT Roadmap deliverable to run the NGDC environment.

Entry Criteria

* Governance and Services designed.
* Procurement stage completed for the components required for the build and test stage.

General Responsibilities for PwC

* Coordinate City resources that execute the build and test activities.
* Coordinate vendor resources if applicable that execute the build and test activities.
* Use the project management framework and key performance indicators (KPI’s) structure defined in the Design stage to track and report on the progress of the deployment of the IT Business Process components defined in the Design stage.
* Coordinate the management of testing activities tracking and design updates.
* Provide subject matter knowledge on building and testing approaches, including issue resolutions.

General Responsibilities for the City

* Provide access to the City resources.
* Fulfill the resource needs that have been identified as part of the resource plan.
* Execute the build and test activities.
* Comply with the project management processes.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Review the build and test activities included in the project plan with key stakeholders and reconfirm resource plan. | Provide input on the activities and feedback on required changes. | * Updated project plan * Updated resource plan |
| 1. Facilitate and oversee the deployment of the tools required for the IT business process concerning the deployment of or update to existing (if applicable) identified and procured as part of the procure stage. | Execute the deployment of the tools if applicable. Document the installation and configuration steps. Report on progress. | * Updated project plan * Tools configuration documentation |
| 1. Facilitate and oversee the deployment of the IT business process changes identified in the design stage. | Source the roles identified for build stage.  Implement the changes in processes identified for build stage. Report on progress. | Updated project plan |
| 1. Conduct testing activities to validate the design with the technology and processes deployed, using the KPIs or metrics defined in the design stage. Capture the testing activities output. | Participate to the testing activities. Review output of the testing activities and provide feedback. | * Testing summary * Updated Test Log |
| 1. Facilitate the processing of the testing activities output and schedule required follow ups to address issues or open items. Incorporate required changes into the IT business process deliverables and comply with project change management procedures as required. | Provide feedback on the changes required to the design. Review changes made. Facilitate access to City resources as needed. | * Updated Governance Charter * Updated Governance Target State * Updated Service Catalog * Updated NGDC IT Governance Strategic Roadmap * Updated change log * Updated test plan * Updated test cases |
| 1. Validate impact of changes on the cost model or financial projections. | Validate changes made to the cost model or financial projections. | * Updated NGDC cost model * Updated NGDC cost estimate * Updated readiness checklist |
| 1. Develop an executive summary presentation of the outputs of the build and test stage with a summary of the main changes made to the design as well as potential open items. | Provide directions in developing the summary. Provide access to city resources who executed the change if applicable. | **Build and Test Stage IT Business Process Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City will provide the resources to execute the implementation of the build and document the configurations of any tools required and identified as part of the design stage (city resources or vendor resources).
2. Changes to work products are summarized into the summary deliverable of this activity which follows an acceptance process. Where there are project changes to scope, schedule, cost estimate, or quality aspects the project change management process is used.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Build and Test Stage IT Business Process Summary** | PowerPoint | Capture the main changes made during the build and test stage. Provide visibility into open items and potential issues identified during the stage. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues * Test results log |

### Workstream 2: Facilities & IT Technologies

During this stage, the focus of this workstream is to proceed with the initial fit-out of the colocation facilities as well as the implementation of the initial technology infrastructure required to run the NGDC Phase Two environment. It also includes the testing of the technology being deployed and the management of the updates to the design based on the testing output.

Entry Criteria

* Design stage completed.
* Facilities and IT Technologies procurement stage completed for the components required for the Build and Test stage.

General Responsibilities for PwC

* Coordinate City resources that execute the build and test activities.
* Coordinate vendor resources if applicable that execute the build and test activities.
* Use the project management framework to track and report on the progress of the deployment of the co-location infrastructure and the IT Infrastructure components defined in the Design stage.
* Coordinate the management of testing activities tracking and design updates.
* Provide subject matter knowledge on building and testing approaches, including issue resolutions.

General Responsibilities for the City

* Fulfill the resource needs that have been identified as part of the resource plan.
* Report on the testing activities as defined in the testing plan.
* Comply with the project management processes.

1. Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Review the build and test activities included in the project plan with key stakeholders and reconfirm resource plan. | Provide input on the activities and feedback on required changes. | * Updated project plan * Updated resource plan |
| 1. Manage the vendors and city resources executing the fit-out of the co-location facilities. Facilitate co-locations walkthroughs and sign off on the acceptance of the co-locations from the vendor(s). | Manage the vendor relationship. Provide the resources for execution. Provide the resources for the walkthroughs and sign offs. | * Updated project plan * Vendor co-location acceptance document |
| 1. Facilitate the handoff of the colocations to operations. | Provide the resources to go through the handoffs. Report on progress required to assess readiness for handoff. | Colocations handoffs document |
| 1. Coordinate the set-up of the new connectivity to the data centers. | Manage the interactions with the carriers or contractors/vendors involved with the fiber deployment. Execute the installation of the circuits with the carriers. Proceed with testing activities with carriers. Document the circuit configurations. | Connectivity configuration |
| 1. Facilitate and oversee the deployment of the technologies and tools identified and procured as part of the Procurement stage if applicable. | Execute the deployment of the technologies and tools. Document the installation and configuration. Report on progress. | * Updated project plan * Tools configuration documentation |
| 1. Manage testing activities to validate the design defined in the design stage. Capture the testing activities output. | Conduct testing activities. Review output of the testing activities and provide feedback. | * Testing summary * Updated Test Log |
| 1. Facilitate the processing of the testing activities output and schedule required follow ups to address issues or open items. Incorporate required changes into the Facilities or IT Technologies designs and comply with project change management procedures as required. | Provide feedback on the changes required to the design. Review changes made. Facilitate access to City resources as needed. | * Updated design documentation * Updated change log * Updated test approach * Updated test plan |
| 1. Validate impact of changes on the cost model or financial projections. | Validate changes made to the cost model or financial projections. | * Updated NGDC cost model * Updated NGDC cost estimate |
| 1. Facilitate a standard process and documentation template as defined in the design stage for NGDC facility, technologies, and configuration. Work with the City in a lead role capacity to execute the process using the templates for NGDC facility and technologies. Build a tracking spreadsheet or use the Data Center Infrastructure Management (DCIM) tool for that purpose. | Work with PwC to follow the standard process and complete NGDC facility, technologies, and configuration documentation. | * As-is built for NGDC facility * As-is built for NGDC technology and configuration |
| 1. Develop a summary presentation of the outputs of the build and test stage with a summary of the main changes made to the design as well as potential open items. | Provide directions in developing the summary. Provide access to city resources who executed the change if applicable. | **Build and Test Stage Facilities & IT Technologies Summary** |
| 1. Facilitate the process of updating existing operating and configuration documentation and manuals for the NGDC and track the progress. | Update existing operating and configuration documentation/manuals for the NGDC. | * Updated project plan * Updated readiness checklist |
| 1. Facilitate the handoff of the infrastructure technology deployed to operations. | Provide the resources to go through the handoffs. Report on progress required to assess readiness for handoff. | Technology handoffs document |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City will provide the resources to execute the implementation of the build and document the configurations of the technologies deployed (city resources or vendor resources).

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Build and Test Stage Facilities & IT Technologies Summary** | PowerPoint | Capture the main changes made during the build and test stage. Provide visibility into open items and potential issues identified during the stage. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues * Test results |

### Workstream 3: Relocation

During this stage, the focus of this workstream is to proceed with the detailed planning activities for the targeted migration pilots (as identified in the design phase). It also includes the execution of the migrations for the applications and systems identified for the pilot group using the processes and templates developed in the design phase. Finally, it includes the process of updating these templates or processes as needed based on the output of these pilots.

Entry Criteria

* Relocation processes and templates defined.

General Responsibilities for PwC

* Facilitate the process to identify pilot candidates.
* Manage the process of engaging the City or vendor resources to execute the migration processes as defined in the Design stage.

General Responsibilities for the City

* Execute the migration processes.
* Report on progress of the execution.
* Manage end user communication for outages related to the migrations.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Review the build and test activities included in the project plan with key stakeholders and reconfirm resource plan. | Provide input on the activities and feedback on required changes. | * Updated project plan * Updated resource plan |
| 1. Facilitate the detailed migration planning activities for the migration pilots. Run a few examples on the use of the process and the documentation templates. | Provide access to the City resources. Participate in the documentation and the planning activities for the migration pilots. | Detailed migration activities  for each wave in scope of the pilots:   * Application profiles (WORD). * Migration wave readiness tracker (Excel) * Detailed cutover (in production) schedule template (activities to track/ hour by hour schedule). This is the detailed logistics from start to end. * Command center and cutover coordination document. * Post migration and handoff document (signoff). |
| 1. Manage the vendors and city resources to execute the migration pilots. | Provide the resources for execution. Report on progress. | * Updated project plan * Updated wave migration plan |
| 1. Facilitate the processing of the pilots output and schedule required follow ups to address issues or open items. Incorporate required changes into the relocation processes and comply with project change management procedures as required. | Provide feedback on the changes required to the relocation processes. Review changes made. Facilitate access to City resources as needed. | * Updated relocation processes * Updated test approach * Updated test plan * Updated test log |
| 1. Change cost model as required and validate impact of changes on the cost model or financial projections. | Assist PwC in validating the changes made to the cost model or financial projections. | * Updated NGDC cost model * Updated NGDC cost estimate |
| 1. Develop an executive summary presentation of the outputs of the build and test stage with a summary of the main changes made to the design as well as potential open items. | Provide directions in developing the summary. Provide access to city resources who executed the change if applicable. | **Build and Test Stage Relocation Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City will provide the resources to execute the implementation of the build and document the configurations of the technologies deployed (city resources or vendor resources).
2. City personnel will provide detailed test plans for the applications and services.
3. City department DR testing is the responsibility of the City departments.
4. Changes to work products are summarized into the summary deliverable of this activity which follows an acceptance process. Where there are project changes to scope, schedule, budget, or quality aspects the project change management process is used.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Build and Test Stage Relocation Summary** | PowerPoint | Capture the main changes made during the build and test stage. Provide visibility into open items and potential issues identified during the stage. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues * Test results log |

## Stage 5: Implement

The objectives of the Implement stage include the completion of the deployment of the processes and infrastructure required for NGDC Phase two. This stage also includes the execution of the migration detailed planning and execution for the relocation of the applications and systems from their current locations to the new NGDC locations following the relocation processes and templates defined in the design stage and validated as part of the pilot.

### Workstream 1: IT Business Process

During this stage, the focus of this workstream is to manage the execution of the implementation activities identified during design and validated during the build and test stage.

Entry Criteria

* Build and test stage completed.

General Responsibilities for PwC

* Coordinate City resources that execute the implementation activities.
* Coordinate vendor resources if applicable that execute the implementation activities.
* Use the project management framework and KPIs structure defined in the Design stage to track and report on the progress of the deployment of the IT Business Process components defined in the Design stage.
* Provide subject matter knowledge on the implementation activities.

General Responsibilities for the City

* Provide access to the City resources.
* Fulfill the resource needs that have been identified as part of the resource plan.
* Execute the implementation activities.
* Comply with the project management processes.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Facilitate the execution and reporting of the implementation activities as defined in the project plan. | Provide the required resources. Report on progress. | Updated project plan |
| 1. Executive summary of implementation activities including lessons learned and open items. | Provide input on implementation experience. Provide QA of the outputs and open items. | **Implement Stage IT Business Process Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City and/or selected vendors are responsible for the execution of the implementation activities.
2. The NGDC project should produce the “ideal” IT business process roadmap. The implementation of the “ideal” IT business process roadmap may be segmented as there may not be sufficient budget to implement the “ideal” IT business process vision within the scope of the NGDC project requiring future implementation considerations outside of the NGDC scope.
3. Changes to work products are summarized into the summary deliverable of this activity which follows an acceptance process. Where there are project changes to scope, schedule, budget, or quality aspects the project change management process is used.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Implement Stage IT Business Process Summary** | PowerPoint | Provide transparency into the implementation process as well as into open issues and lessons learned. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues |

### Workstream 2: Facilities & IT Technologies

During this stage, the focus of this workstream is to manage the execution of the implementation activities identified during design and validated during the build and test stage. More specifically, these activities include the deployment of additional infrastructure capacity to support the migrations. These technologies being deployed will follow the processes agreed upon for hand-offs for the transition to the Operations team.

Entry Criteria

* Build and test stage completed.
* Data center co-locations available and verified for production readiness.

General Responsibilities for PwC

* Coordinate City resources that execute the implementation activities.
* Coordinate vendor resources if applicable that execute the implementation activities.
* Use the project management framework and KPIs structure defined in the Design stage to track and report on the progress of the deployment of the technologies as defined in the Design stage.
* Provide subject matter knowledge on the implementation activities.

General Responsibilities for the City

* Fulfill the resource needs that have been identified as part of the resource plan.
* Execute the implementation activities.
* Comply with the project management processes.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Facilitate the execution and reporting of the implementation activities as defined in the project plan. | Provide the required resources. Report on progress. | Updated project plan |
| 1. Facilitate the handoff of new infrastructure technology deployed to operations. | Provide the resources to go through the handoffs. Report on progress required to assess readiness for handoff. | Technology handoffs document |
| 1. Executive summary of implementation activities including lessons learned and open items. | Provide input on implementation experience. Provide QA of the outputs and open items. | **Implement Stage Facilities & IT Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. The City is responsible for the execution of the implementation activities.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Implement Stage Facilities & IT Summary** | PowerPoint | Provide transparency into the implementation process as well as into open issues and lessons learned. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues |

### Workstream: 3 Relocation

The focus of the implementation stage for the relocation stream is the detailed planning activities for the migrations of the non-pilot applications as well as the execution of the migrations from the current data center or server rooms locations to the NGDC locations for both logical and physical migrations.

The detailed migration planning activities for the non-pilot applications and systems will start prior to the completion of the pilots place prior to the execution of the pilots and are not consecutive activities.

Entry Criteria

* Relocation templates and processes defined.

General Responsibilities for PwC

* Coordinate City resources that execute the relocation activities.
* Coordinate vendor resources if applicable that execute the relocation activities.
* Coordinate the relocation vendor and track the execution.
* Use the project management framework and the relocation processes defined in the design stage to execute the migrations as well as proceed with the physical relocation of the assets.
* Provide subject matter knowledge on application migration activities.

General Responsibilities for the City

* Fulfill the resource needs that have been identified as part of the resource plan.
* Execute the implementation activities.
* Comply with the project management processes.

Specific Responsibilities

|  |  |  |
| --- | --- | --- |
| PwC RESPONSIBILITIES | CITY RESPONSIBILITIES | DELIVERABLES (in bold)  WORK PRODUCTS |
| 1. Work with the City to establish the activity closeout checklist for this activity. | Work with PwC to establish the activity closeout checklist. | Activity closeout checklist |
| 1. Following the wave schedule, facilitate the detailed migration planning activities for the migrations based on the agreed upon templates and processes defined in the design stage and updated in the build and test stages. This includes working with the City resources to develop the documentation listed in the work product columns. | Provide access to the City resources. Participate in the documentation and the planning activities for the migrations in scope. | Detailed migration activities  for each wave in scope of the pilots:   * Application profiles (WORD). * Migration wave readiness tracker (Excel) * Detailed cutover (in production) schedule template (activities to track/ hour by hour schedule). This is the detailed logistics from start to end. * Command center and cutover coordination document. * Post migration and handoff document (signoff). |
| 1. Centralize the reporting on the execution of the readiness activities for the migrations (wave readiness tracker) and post cut-over activities (post migration and hand off document). Update the wave schedule if required (expected delays on some migrations based on progress of readiness) and follow the change management process accordingly. | Provide the resources for execution as identified in the resource plan and as required for the migration preparation. Report on progress of the migration readiness activities. Provide feedback on migration wave plan changes. | * Updated project plan * Updated wave migration plan * Updated change log if appropriate * Updated issue log * Updated risk log |
| 1. Facilitate the go/no-go decision process where applicable. | Provide the resources to make the go/no-go decision for a particular wave. Coordinate access to the resources within the City to confirm readiness as defined in the readiness checklist. | * Updated migration wave plan * Notes |
| 1. Centralize the reporting on the execution of the cut-over activities after the execution of a wave. Update the wave schedule if required and follow the change management process accordingly. | Provide the resources for execution as identified in the resource plan and as required for the migration preparation. Report back to PwC on progress of the cut-overs readiness activities. Provide feedback on migration wave plan changes. | * Updated project plan * Updated wave migration plan * Updated change log if appropriate * Updated issue log * Updated risk log |
| 1. Facilitate the management of the physical relocation of the assets working with the relocation vendor. | Own the contract with the relocation vendor. Execute some of the physical relocation activities involving IT equipment or applications such as shutting down equipment, backing up, etc. | * Relocation vendor contract * List of physical assets to be relocated |
| 1. Executive summary of implementation activities including lessons learned and open items. | Provide input on implementation experience. Provide QA of the outputs and open items. | **Implement Stage Relocation Summary** |
| 1. Conduct an activity closeout for quality | Participate in the closeout and provide reviews and signoff. | Closeout checklist & signoff |

Assumptions

Assumptions listed here are specific to this activity.

1. All department migrations will be coordinated with the central project management office.
2. All departments will follow the processes defined in the design stage and tested in the build and test stage to migrate applications.
3. City department DR testing is the responsibility of the City departments.
4. The departments will provide a single point of contact to coordinate their department resources to verify the successful relocation of their services.

Deliverables

Deliverables listed here are specific to this activity. The acceptance plan shall further define the deliverable acceptance criteria and process.

|  |  |  |  |
| --- | --- | --- | --- |
| Deliverable | Type | Purpose | Acceptance Content |
| **Implement Stage Relocation Summary** | PowerPoint | Provide transparency into the implementation process as well as into open issues and lessons learned. | * Changes summary * Impact analysis (financials, time, resources) * Open items * Risks and Issues |

# Global Assumptions

## Project Management Assumptions

1. The Agreement effective date is the start date for this project.
2. The project plan shall allow for Independent IT Project Quality Assurance (IIPQA) activities based on the expectations agreed upon during the project startup activity of this agreement.
3. The City teams shall participate in all activities as defined in this statement of work.  The PwC shall provide the City with a schedule no later than 1-2 weeks prior to the activities to verify timely allocation and participation for both dependency work efforts and meeting requirements based on the communication plan.
4. The City project governance teams will demonstrate commitment for the NGDC Phase 2 project by participating in the project planning and status meetings based on the communication plan.
5. The PwC shall use the City based E-Mail messaging system so that the PwC may schedule project meetings using the City’s Outlook/Exchange system when needed.
6. The City shall provide key resources for participation in all project activities as defined in the resource and project plan delivered in the project management activity of this statement of work.
7. PwC may perform work remote (offsite) and as mutually agreed upon.
8. Detailed acceptance criteria for deliverables shall be mutually defined, agreed upon, and documented in advance.
9. The deliverable initial and final days of acceptance may be extended where PwC and the City mutually agree that the scheduling is appropriate.
10. PwC shall need access to City’s subject matter experts and/or key resources to assist in identifying business decisions, resolving process discrepancies, and answering questions. These subject matter experts and/or key resources will solicit input from appropriate City management on any areas where policy or procedure is undefined.
11. The City agrees during the project management activity of this statement of work to assign a clear approval process for each major project deliverable based on the Acceptance Plan and as defined in the deliverable approval procedures. The designated approver shall be responsible for overseeing, and may participate in, the design and development, as well as the approval, of the deliverable. The City may make changes to designated approvers with written notification to PwC a minimum of one month before a deliverable is due.
12. Some deliverables will be progressive in nature such as the Communication Plan so there may be a baseline version, updated version, and final version based on the level of knowledge as the project progresses.
13. Meeting management shall be the responsibility of the meeting organizer whether organized by the City or PwC.  Meeting management guidelines will be defined in the Communication Plan as mutually agreed up during the project planning activity.
14. The native files used for packaged deliverables are available to the City. For example Visio diagram embedded as an image will have the original Visio file provided.
15. There shall be one MS Project Plan (MPP) for the project and both the PwC and City project managers may update the plan.
16. Timing of the deliverable acceptance for initial and final reviews will be determined during the project management activity of this statement of work and documented in the mutually agreed upon acceptance plan.
17. Where an activity has a summary deliverable, the summary includes changes that were tracked throughout the activity. Where there are project changes to scope, schedule, budget, or quality aspects the project change management process is used.
18. Where appropriate, PwC resources will be embedded with the departments to gather requirements and collaborate on the design of the Next Generation Data Center.

## Project Schedule Assumptions

1. The normal City working hours are 8 am to 5 pm Monday through Friday.  Many departments allow flex schedules of 9/80 or 4/10s and PwC shall accommodate these schedules.
2. The Microsoft project plan shall assume 6.5 working hours for every work day to accommodate breaks and administrative meetings.
3. Schedule changes resulting from City business decisions and/or City staff availability that adjust the delivery of services beyond the agreed upon project scope and timeline may impact the overall project schedule.
4. PwC's project schedule and task estimates account for its staffing as per its proposal response and its understanding of the scope.  As part of requirements verifications, scope may be clarified, increased or reduced which may result in staff and associated schedule changes.
5. The schedule can be accelerated as mutually agreed by the City & PwC.
6. The project schedule is managed using Microsoft Project. Should any tasks slip behind schedule 10 business days, PwC and the City shall escalate according to the Communication Plan and/or Project Charter.
7. The project team will not schedule any activities the week between Christmas Day and New Year’s Day.
8. City Holidays for 2013 listed below.  The Holidays calendar for 2014 and 2015 is not published.  Generally holidays follow the list below.  When scheduling it is important to consider holidays and the weeks therein to verify that City staff are available.

|  |  |  |
| --- | --- | --- |
| New Year's Day | Tuesday | 1/1/2013 |
| Martin Luther King, Jr's Birthday | Monday | 1/21/2013 |
| President's Day | Monday | 2/18/2013 |
| Memorial Day | Monday | 5/27/2013 |
| Independence Day | Thursday | 7/4/2013 |
| Labor Day | Monday | 9/2/2013 |
| Veterans' Day | Monday | 11/11/2013 |
| Thanksgiving Day | Thursday | 11/28/2013 |
| Day After Thanksgiving | Friday | 11/29/2013 |
| Christmas Day | Wednesday | 12/25/2013 |

## Staffing Assumptions

1. Overtime on the part of the City staff shall be minimized and pre-approved by the City.
2. PwC personnel shall attend City steering committee meetings as needed.
3. PwC personnel collocated to departments requiring higher level background checks will be completed early in the project to prevent schedule delays.
4. Where appropriate, PwC resources will be embedded with the departments to collaborate on project deliverables.
5. All team members from the City and PwC shall attend a one hour ethics training.

## Scope Assumptions

1. PwC shall conduct knowledge transfer throughout the project lifecycle.
2. All City departments will participate in the planning, design and relocation to the Next Generation Data Center.
3. All City departments will be collocated in the Next Generation Data Center.
4. During the design activities, the City will determine what shared services will be consumed by the departments.

## Project Facilities and Equipment

1. The City shall provide the office space for PwC’s use during the onsite project activities.
2. Office space includes cubicles, chairs, printers, Internet, Virtual Private Network, E-Mail, copier, Fax, access to office building, and other work environment items as deemed reasonable by the City.
3. Where remote work is mutually agreed upon, the City project manager shall provide an online meeting tool as a method of team collaboration.
4. The office space includes 5 standard office cubicle work spaces available at the Department of Information Technology, Seattle Municipal Tower for the duration of the project.   These workspaces are provided by the City exclusively for the project, and shall not be used for any other PwC purpose.
5. PwC will be provided escorted access to the City data centers.
6. The City will provide a space for team collaboration if possible.
7. Where PwC resources are collocated to department office space the departments are responsible for providing access and cubicle space.

# Project Organization and Staffing

## Governance Structure

The preliminary governance structure is setup for a clear escalation path when issues are unresolvable or risk mitigation is not achievable. Further development of the governance structure, processes and roles and responsibilities will be defined as part of the project management activity. The path below illustrates an overall team perspective where PwC and the City team, leadership, and governance work together to resolve problems and the escalation paths for all participants. Where the project managers cannot make decision related to project management, the Program Management Office director shall be the escalation point to triage project management responses before escalation to the Project Sponsor. While the City project steering committee shall make recommendations and collaborate with the project sponsor, it is the project sponsor’s decision to hold for escalations. Where the project sponsor cannot make a decision in collaboration with project steering committee or if there is resistance from the project steering committee, the Executive Steering Committee shall be the final escalation point.



## City Project Roles

The purpose of this section is to identify the major roles in the project and their general responsibilities.

|  |  |
| --- | --- |
| Role | Responsibilities |
| Project Executive Sponsor | * Responsible for leading the project’s strategic Vision and direction, and for collaborating with PwC Executives. Lead the Executive Steering Committee. |
| Project Sponsor | * Responsible for providing project leadership for the Next Generation Data Center and, in collaboration with the PwC Project Director, for developing the project implementation approach. Lead the project steering committee and co-lead the technical committee in addition to coordinating with the Executive Sponsor. |
| Project Manager | * Collaborate with PwC and the project management office and perform project management on behalf of the City. Co-lead the technical committee in addition to coordinating with the Project Sponsor. |
| Business Analyst | * Collaborate with the PwC business analyst for the delivery of the IT Business Process, and requirements development and management |
| Working Teams (Technical & Process) | * Responsible for providing current state documentation, future state requirements and executing implementation services as required. |

## PwC Project Roles

PwC shall assign key persons for this engagement with the City. These individuals are well versed in the Data Center application, and are well qualified to lead this effort. PwC’s project manager shall assume full responsibility for the coordination of this team and its interaction with key City staff assigned to the effort.

|  |  |
| --- | --- |
| Role | Responsibilities |
| Project Director | * Responsible for developing the project structure in partnership with the City project management team * Responsible for the project management of the initiative in partnership with the City project management team in 2013-2014 * Responsible for ensuring the knowledge transfer to the project coordinator in 2015 and for providing ongoing oversight |
| Project Manager | * Responsible for the weekly tracking and reporting of the progress of the project, in partnership with the City  project manager * Responsible for assisting Project Lead and City project manager in developing the project management plans for Phase Two |
| Project Delivery and QA | * Responsible for managing the quality of the delivery of  this engagement |
| Technology Oversight | * Responsible for reviewing the progress and relevance of the design being developed |
| IT Business Process Lead | * Responsible for the delivery of the IT Business  Process workstream * Provide subject matter knowledge |
| Technology Lead Architect | * Responsible for collecting technology requirements and coordinating the design and implementation of the facilities and IT infrastructure * Responsible for the management of the technical resources assigned to this workstream |

|  |  |
| --- | --- |
| Relocation Lead | * Responsible for developing the application migration processes, their socialization, and the development of the application migration plan |
| Compute and Storage Lead | * Responsible for working with the City to collect requirements, develop the design with the City staff, and manage the build and test for the compute, storage, and backup environments (There is a major focus on virtualization, of course, but other platforms are in scope.) |
| Network and Security Lead | * Similar to Compute and Storage Lead, but will focus on LAN, MAN, and WAN network technologies, including firewalls, VLAN, and QoS * The role is similar as above but will be focusing on security aspects. This is especially important as we are looking to consolidate some of the departments on a shared infrastructure. |
| Facilities Lead | * The role is similar as above but will be focusing on designing the co-location space layout, rack layout, cabling  conventions, etc. |
| Subject Matter Specialists | * Provide subject matter expertise on an as needed basis related to state and local, regulation, and data center transformation |

# Project Management Processes

## Integrated Change Control

This section describes the procedures to be used for managing change control for the services described in this statement of work. Change management planning shall be further defined during the project management activity.

Since changes could affect schedule or other terms of the statement of work, both PwC project manager and the City project manager must review and approve each change prior to implementation. Forms to be used shall be defined during the project management activity.

The following Change Control procedure shall be used:

1. A Project Change Request (PCR) shall be the vehicle for communicating the change. The PCR must describe the change, the rationale for the change, and the affect the change shall have on the project.
2. City project manager and the PwC project manager shall review the proposed change. If a PCR shall require more than 4 person hours to analyze the approach and impact to the project schedule, PwC shall provide an estimate of the time required to analyze the PCR.
3. City project manager and the PwC project manager shall then approve the PCR for analysis. Such approval constitutes authorization by City for the additional hours and cost required to investigate the PCR, if it is greater than 4 person hours.
4. PwC shall submit to City an estimate of the anticipated changes in the delivery schedule that shall result from the PCR. PwC shall continue performing the Services in accordance with the statement of work until the City and PwC approve the PCR.
5. The analysis shall determine the impact the PCR could have on schedule and other terms and conditions of the agreement. City project manager and the PwC project manager shall then either reject the PCR or approve it for implementation, within 10 days. Such an approval shall authorize schedule changes, and shall authorize the PCR to be implemented. This process shall be applicable to both City and PwC requested changes.
6. Any changes to this statement of work require an amendment to the agreement.

## Issue Management

Issue management shall be further defined during the project management activity of the project.

Project level issues shall be discussed and resolved by the City and PwC. All the project issues shall be recorded in the issue register and if it corresponds to a specific stage or deliverable, then these issues are logged and tracked within the deliverable itself. The City and PwC hold the primary responsibility for closing all the issues recorded at the deliverable or stage level. The Governance structure shall be followed as defined in the Governance section above.

## Weekly Status Report

PwC shall provide the City with a weekly status report that outlines the tasks completed during the prior week, the upcoming tasks that need to be completed during the following week, the resources needed to complete the tasks, a updated version of the project plan, and a listing of any issues that may be placing the project at risk (e.g., issues that may delay the project or jeopardize one or more of the production dates). The weekly status report format shall be defined during the project management activity.

## Deliverable Acceptance

Each deliverable shall undergo the following review steps. Where necessary, there may be additional steps for some of the deliverables. During the startup stage, PwC and the City shall write an overall acceptance plan that describes the deliverables, acceptance durations for initial and final periods, acceptance criteria details, review method, reviewers, and the review/revise process.

Prior to creation of a deliverable, the PwC project manager shall meet with the City project manager to confirm deliverable format and high level content according to the acceptance plan. The form to be used shall be further defined in the project management activity.

### Submission

A deliverable shall be submitted upon completion for review to the City project manager based on the acceptance plan and the deliverable duration initial and final duration as defined in this statement of work.

Drafts are circulated prior to the final revision to speed up the review process.

### Review

The final review process will be further defined in the acceptance plan. The City shall review the documents internally and return comments to the PwC team. Deliverables will be reviewed in draft stages for speeding acceptance and PwC shall schedule a walk-through of the deliverable with the team at a draft stage and/or on an incremental basis. Deliverables that undergo this process shall be decided on a need basis between the City and PwC and be documented in the Acceptance Plan. Examples of large or complex deliverables include the IT Governance Future State, Design Document, etc.

City teams shall also be responsible for closing any “blocking” issues identified for that deliverable acceptance. It would be ideal to close out all open items before the review is closed. Where it is not possible, a go-ahead shall be required to be taken jointly to proceed with the next steps of the deliverable, and impacts if any shall be identified and mitigation plans developed for the same.

The review needs to be completed within the days defined in the project lifecycle details unless the City and PwC agree on a longer review period.

### Re-submission

The PwC team shall review the City comments and incorporate or have discussions and close all the review comments. Once this is done, the deliverable is re-submitted to the City. The review comments need to be incorporated by the PwC and deliverable re-submitted within the days defined in the project lifecycle details unless the City and PwC agree on a longer review period.

### Sign-off

Once all the review comments are incorporated or resolved, the deliverable shall be signed off by the City project manager. The document shall be baselined and future changes will be managed through revision control through any identified tool that is best for this purpose based on the type of deliverable.

### Deliverable Review Assumptions

To enable efficient and timely acceptance of the deliverable the following would be observed by the relevant stakeholders from the City and PwC:

1. Exceptions shall be discussed and mutually agreed upon between the City and PwC project managers.
2. The review comments during this process are expected for the deliverable as a whole, unless submitted for review in increments. Review comments for documents should use tracking features where available.
3. The deliverables shall be submitted in electronic form to the City project manager.
4. All review comments and sign-off can also be provided by the City electronically.
5. The deliverables shall be submitted on any working day or any other time as mutually agreed upon in advance.
6. Deliverables submitted shall be counted from the next City business day for the start of the acceptance period.
7. In order to optimize the speed of the review process, PwC and the City shall be available within the review period to assist in its review, and shall address review comments in a timely manner.

## Documentation Approach

Documents will be stored on the City’s Windows SharePoint Services (WSS) environment. Check-in/Check-out processes will be followed as outlined by the project team and version control will be strictly enforced within SharePoint and each document control section. Mutually agreed upon naming standards will be used for all documents.

## Project Completion Criteria

The PwC shall have fulfilled its obligations under this Agreement when either one of the following first occurs:

1. PwC completes the PwC responsibilities defined in this statement of work, in accordance with the completion criteria specified in the project lifecycle details section and mutually agreed upon acceptance plan.
2. The City or PwC terminates the project in accordance with the provisions of the terms and conditions of this agreement.

### Final Acceptance

The City shall certify its final acceptance after PwC has successfully completed all deliverables and the City signs the Project Completion Letter.