"Voice Over IP Network Solution Design, Testing, Integration and Implementation"

Program Overview

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1. Introduction

The purpose of this document is to define the scope of the work that is required to satisfy the requirements of the Program. The intent is to ensure that all parties and stakeholders involved have a common understanding of the objectives, roles and responsibilities.

As well, this document:

➢ Identifies the processes that will be used during this program by the program office;
➢ Describes the program and the way it will be managed;
➢ Lists the program deliverables; and
➢ Provides details of the scope of the work to be performed.

2. Executive Summary

The Program scope covers a new Voice over IP (VoIP) Network Solution Design, Testing, Integration, Implementation and Network Management. The program outcomes are intended to provide a platform for the convergence of the existing client data and voice networks and assure a managed migration from conventional time division multiplex (TDM) technology to VoIP telephony technology.

Through this initiative, the Contractor, partnering with the Solution Vendor, will demonstrate a leadership role in the industry to deliver both data and voice services operating on one client IP Backbone infrastructure.

The Contractor has proven its ability to provide dependable network solutions and with positive results. The objective of this Program solution is to provide networking services that are secure, redundant, scaleable, and enhanced by professional management at the Local and Wide Area Networks level. As such, what is being proposed is a comprehensive end-to-end network solution.

Benefits to the Client include: reduced network costs, simplified network architecture and administration, overall improved efficiencies throughout the network, and reclamation of resources to re-focus on core competencies.

The Contractor Program Team works closely with the Solution Vendor Program Team to fulfill and exceed customer expectations, aiming to deliver the VoIP solution in time and on the budget.

A number of joint team meetings were held and aimed at defining, evaluating and specifying technical solution, service fulfilment and major program deliverables. The Contractor key resources are being assigned to work on the solution and service assurance at greater technical detail and building the network.

3. Program Definition

3.1. Program Scope

The program scope covers the program management services, technology and operational support for the upgrade of the existing Client voice network systems and services to the current version of the Solution Vendor's Voice over IP product line, including four major projects / groups of activities:
- Technical Solution Design;
- Core Infrastructure Provisioning, including:
  - provisioning core and non-core elements facilitating network access, transport and IP distribution;
  - additional upgrades to existing network to all its locations;
  - provisioning of transport for the IP edge distribution devices with enough bandwidth to carry all data and VoIP traffic;
  - building main transport rings.
- Service Fulfilment, including:
  - data and IP network design;
  - development and execution of the overall solution testing;
  - installation of the network switch systems;
  - ordering, engineering and installation of the customer equipment;
  - data solution and service design, site migrations, and service activation.
- Network Management, including resource provisioning, training, tools, and processes:
  - alarming of systems and core infrastructure, for notification of all failures;
  - capacity and core network upgrades testing;
  - installation of a network management platform to manage the network infrastructure;
  - customer technical and end-user, contractor technical and support services training;
  - operational handoff & ongoing support mechanism.

3.2. Program Deliverables

The Program deliverables reflect the major program activities within the Scope of Work to be delivered by the Program team. The following major activities were identified reflecting major in-scope projects within the Program:

- Program and In-scope Projects Management
- Technical Solution Design
- Core Infrastructure Provisioning, including network planning and engineering
- Service Fulfilment, including data network design, end-to-end testing, site installations and migrations
- Network Management, Transition and Operational Handoff
- Program Schedule
- Program Charter
- Program & Project Status Reports
- Test Plan
- Technical Solution Design Document
- Network Management Plan
- Network Sites VoIP Migrations

- Service assurance and training for support staff and the end-users

Through the Program life cycle a number of additional related activities and tasks will be emerging and included into the Scope of Work, such as:

- Non-standard elements to the proposed solution identified
- Ensure that tested and documented standards are in place for all custom parts of the solution
- Additional core builds required to ensure the network meets the capacity requirements
- Capital budget development and tracking for implementation
- Complete a detailed design of the WAN and LAN configuration templates to support the service fulfillment of Client requirements
- Identify gaps within the technology or processes required to meet the deliverables
- Ensure there are processes and procedures in place to test and turn-up the service
- Staffing and training, ensuring that the appropriate resources are available
- Deal with changes to the implementation plan and escalate accordingly
- Advise the stakeholders issues and potential risk to the successful completion of the program

3.3. Assumptions

- Contractor will manage the overall implementation schedule
- Any change to the program baselines will be managed based on the formal Project Management processes, including stakeholder sign-off
- Voice over IP will be treated as an upgrade to the existing solution
- Client information required to place orders and complete detailed designs will be accurate and provided in a timely manner
- The Steering Committee is capable of supplying the team with the resources to ensure success
- Contractor has the in-house expertise to perform the work
- The Program management team and its primes are dedicated to this initiative and will not be pulled onto other projects which may impact this one.

3.4. Definition of Success

The Program and relevant VoIP network transition is considered successful when the requirements listed below have been successfully met while applying Contractor's "best practices", executing on processes and methodologies and adhering to the Client's and Contractor's policies and procedures.

- Provide updated and accurate documentation as a result of the transition;
- No unscheduled outages due to the project activities;
- Comply with the client security policies and regulations;
- All changes approved through Change Management processes;
- Successful proof of concept and pilot location conversions with no impact to production; and
- Successful transition of all network locations.

4. Roles and Responsibilities

4.1. Program Team Roles and Responsibilities

Each program team member is assigned specific roles and responsibilities. The table below identifies these roles, individuals assigned and their associated responsibilities for this program.

Role	Team Member	Responsibilities
Steering Committee		✓ Serve as a decision making body to ensure that any decisions made respect the objectives of the program; ✓ Approve and sign off on the Program Charter; ✓ Remove directional, fiscal and resource roadblocks to enable the program's successful execution; ✓ Hold regular program review meetings with the Program Manager to monitor the progress of the program; ✓ Commit to providing resources for this program from their respective areas by signing deliverables forms in partnership with their primes;
Program Sponsor		✓ Ensures overall program success, achieving business objectives, expected benefits, high internal and external customer confidence; ✓ Provides effective program communication and issue resolution with executive level stakeholders; ✓ Provides day-to-day guidance to the Program Manager on behalf of the Steering Committee; ✓ Approves requests for changes that affect the overall program budget, scope, timeline, etc. as required.
Program Manager		✓ Manages the program in the assigned areas of responsibility; ✓ Manages multiple concurrent projects within the program, ensuring the program success and objectives and delivery on time and budget; ✓ Brings a unified approach to managing program and concurrent projects within the program, following Project Management Methodology to optimize use of the corporate, client and third party resources; ✓ Ensure that program is properly defined, budgeted, approved, planned, documented, resource allocated, scheduled, supervised and completed; ✓ Takes part in selecting and assigning the Project Managers and Primes, guides and mentors them, acting as the escalation point as required; ✓ Develop initial program timelines Project Managers and Primes; ✓ Guides the Project Managers and their primes in the development of the project plans, approves the project plans developed by project managers in conjunction with the primes; ✓ Combines all individual project plans into a master project; ✓ Defines and manages reporting and communication within

Role	Team Member	Responsibilities
		the program, including setting up regular status meetings with Steering Committee, program management team and project managers as required; ✓ Works with the Project Managers and their primes to ensure they have the resources, budget and tools they need to be successful in their projects; ✓ Manages cross-project interdependencies between the projects and project teams;
In-Scope Project Managers		✓ Manage projects within the assigned areas of program, ensuring the projects success and delivery on time and budget; ✓ Ensure that projects are properly defined, budgeted, approved, planned, documented, resource allocated, scheduled, supervised and completed; ✓ Work with the Program Manager and the primes in the development of the Project Management plans and scope documents, for the assigned projects in the program; ✓ Takes part in selecting and assigning the Project Primes and Team Members, guides and mentors them, acting as the escalation point as required; ✓ Work with the primes to ensure they have the resources, budget and tools they need to be successful in their sub-projects; ✓ Manage the project lifecycles of the combined projects, including project initiation, analysis, planning, design, construction, implementation, integration and closure. ✓ Work with the Program Manager and the team to define "success" for their sub-projects; ✓ Produce regular status reports to the Program Manager and attend the project management team meetings; ✓ Develop change notices with the primes and work with the Program Manager for resolution; ✓ Develop outstanding items forms and notify Program Manager when the outstanding item begins to jeopardize the time line; ✓ Develop deliverables forms with the primes and associated Steering Committee member and acquire signoff at both the committed and acceptance levels; ✓ Manage all project team meetings, capture minutes from meetings and track action items; ✓ Keeper of the deliverables for their teams; ✓ Record keeper for and communicator of teams decisions and directions.
In-Scope Project Primes and SME's		✓ Work with the Project Manager in the development of project plans and scope documents; ✓ Perform duties as outlined in scope document and the project management plans; ✓ Respond in a timely fashion to the Project Managers request for information; ✓ Provide updates to Project Managers on status of work; ✓ Identify risks and work with Project Managers to mitigate them;

Role	Team Member	Responsibilities
		✓ Relay needs to project mangers in a timely manner; ✓ Review and commit to deliverables by signing deliverables forms in partnership with their Steering Committee partner; and ✓ Review and accept, in partnership with other primes, the project deliverables related to their projects.

5. *Program Management Processes*

5.1. Project Scope and Plan Documents

Project Management Plans (PMPs) will be developed for each group of related activities, tasks and projects within this program. Each Project Manager appointed to manage these projects shall develop the PMPs in conjunction with the primes. The PMP's will follow the structure of the Program Charter.

Project Scoping and Status Reporting documents will be developed by the Program Manager and shall be filled in for each project by the project managers / primes, together with the project SME's and team members. See appendixes for the templates of the documents.

5.2. Program Tracking

Contractor assigns Program and Project Managers to manage the delivery of the major Program activities and groups of tasks defined as the Program projects.

Project Managers mandate consists of two general project management tasks:
a)   Activity tracking on a regular and timely basis; and
b)   Reporting necessary information to the Program Manager and the Steering Committee. This information should contain the following:
- Progress reports on work being done (project status reports)
- Deliverables-in-progress status, in relation to the implementation plan
- Issues which have arisen
- Deliverables out for approval

5.3. Communications

The Project Managers will provide the following routine status reports to the Program Manager:
Formal weekly Project Status Reports, which prepared in the format defined and include:
- Status overview;
- Actions completed in the past period, and those planned for the coming period;
- Deliverables status; and
- Status of outstanding Problems/Issues, Decision Requests and Change Control items.
Daily and weekly reporting via e-mail or phone conversations, as appropriate, to raise any new items or deviations from current plan, including:
- Scope change;
- Target dates impacted;
- Technical issues;
- Timeline estimates; and
- Review or approval issues.

Team meetings will be held on a regularly schedule basis. For the purposes of this project, the meetings will be held weekly until the program is up and running and then they may be moved to bi-weekly at the Program Manager's discretion.

The Program Manager will provide the Steering Committee and Program Sponsor(s) with a synopsis of the program to date, in a regular status reports. This reports will be discussed at the regular status meetings.

5.4. Change Requests

Any proposed changes to the program baseline plan which could affect the scope, schedule or assumptions, must be reviewed by all affected parties, so that a properly informed decision can be reached on whether to approve or reject the change. Change requests may be proposed by the Steering Committee or by Primes, and will be processed using the following change control procedure and the appropriate change request form:

> a) The Project Manager will provide a brief description of the change request. The Project Manager will log the request and work with the Program Manager to jointly assess whether the change should be considered for implementation.

> b) Each will assess the potential benefits and costs (schedule, risk, expense) of implementing the change for the Project and for the overall Program, consulting with other members of their teams as appropriate.

> c) The Project Manager will provide a recommendation to the Program Manager on whether the change should be accepted within a reasonable time of the request being received.

> d) Based on this (and other) input, the Program Manager will decide whether to proceed with the change, and the original requestor will be informed of the decision.

The Program Manager will have five (5) working days from receipt of change request form to approve or reject the change. After the five (5) working days, if no response has been received, the change request is considered rejected.

5.5. Outstanding Items

Outstanding items include any items, which if not resolved, could have an adverse effect on the project.

The following information is supplied for each outstanding item:

> ➢ Description of item;
> ➢ Deadline for resolving the item and the impact if not resolved in time;
> ➢ Risk mitigation; and
> ➢ Description of action needed to resolve item.

For each outstanding item, the Project Manager who developed the item, will discuss with the Program Manager the implications of the item and how it will affect the sub-project it is related to. The item is logged, with the necessary risk mitigation information and included in the weekly status reports provided to the Program Manager.

5.6. Deliverables Validation

The proper Deliverables review and approval form must accompany any and all deliverables. The Program Manager and Program Sponsor has five (5) working days from receipt of deliverables form to approve or reject the deliverables. After the five (5) working days, if no response has been received from the project sponsor, the deliverable is considered approved.

5.7. Risk Management

The following high-level risks have been identified for the overall program:

- ➢ The Program Contract reflects current high-level client expectations for the technical network solution, services, and assurance
- ➢ Specific solution depends on the accuracy of the current network and other client specific information
- ➢ Client - specific technical solution requirements need further refinement
- ➢ Technical solution is based on the latest technology platform from the Solution Vendor that needs to be validated
- ➢ A number of actions and issues are outstanding, including some details of the proposed solution implementation
- ➢ Current proposed solution is based on a number of assumptions that have to be further verified
- ➢ Organizational uncertainties such as restructuring or changing priorities
- ➢ Budgetary constraints
- ➢ Insufficient time to complete all tasks.

The expectation of the program team is that the Program Management and Steering Committee, in conjunction with the program team, will facilitate the mitigation of these risks. This risk list is by no means complete and should not be taken as such. New risks will arise as the program unfolds and the scope documents and project management plans are developed. Any risks the team believes cannot be overcome in a timely manner will be brought to the Steering Committee's attention for discussion and resolution.