**ATTACHMENT 2 TO SCHEDULE 28.12
TO THE
COMPREHENSIVE INFRASTRUCTURE AGREEMENT**

STATEMENT OF TECHNICAL APPROACH

1.0 Statement of Approach to Chargeback Services Requirements

1.1 Chargeback Services Overview and Objectives

Overview

This will be accomplished while maintaining the existing Chargeback environment with little to no adverse impact to VITA's existing clients.

Northrop Grumman will support the services in accordance with the service level criteria existing as of the commencement date and their respective responsibilities as described herein.

Northrop Grumman has provided VITA with a price only for accomplishing activities 1 through 3 that are defined in **Section 1.2.2**, which will be further defined during the Interim Phase.

Services Objectives

The chargeback services will achieve the following key high-level objectives :

Phase One Objectives: *(Starting at Service Commencement Date – Chargeback System Deployment)*

➢ Ongoing management and support for VITA's current internal billing and chargeback systems to prevent disruptions of bill presentation services to Eligible Customers

➢ Accurate and timely presentation of chargeback invoices to Eligible Customers

Phase Two Objectives: *(Starting at Project Month 15)*

This phase addresses the deployment and management of a consolidated and integrated billing and chargeback system to replace the existing VITA systems. This new Chargeback system will optimize the delivery and management of the chargeback and bill presentation processes, providing an end-to-end enterprise view, which will:

➢ Replace the invoicing systems currently in use

➢ Collect and process resource usage data from a variety of systems platforms

➢ Store chargeback data

➢ Provide drill down capabilities to Eligible Customers from the reports

➢ Provide historical data to VITA for research and analysis

➢ Provide resource usage and accounting for all appropriate Commonwealth Systems technologies, using cost-effective methods

➢ Accept input from external sources to be included in a single database for processing and producing invoices, which can be generated and presented in both online and in hard-copy formats

➢ Accommodate special Eligible Customer requests for extracted information (e.g., extract files for the eligible customer to retrieve or create files to FTP to the eligible customer)

➢ Provide the ability to interface with other business systems to bring information in and to pass information out (e.g., telecommunication billing, manpower information, PeopleSoft Account Receivable, VITA's planning and forecasting systems)

1.2 Chargeback Management and Invoicing Services

Northrop Grumman will provide the products, processes and services to deliver the solution for VITA's Chargeback Services. The Commonwealth's best practice for the Chargeback system is to follow a planned assessment and phased approach to ensure complete success. The following provides Northrop Grumman's approach to work with the Commonwealth in establishing a services-oriented solution based on our methodologies and best practices.

Approach

Integrated Service Management (ISM) is an "end to end" hardware and software requirements analysis and design methodology for adding and integrating new services. ISM handles all aspects of Service fulfillment, Service Assurance and Service Usage which conforms to Industry standards as enhanced Telecommunications Operation Map (eTOM) for business processes, Information Technology Infrastructure Library (ITIL) for Operational processes for Service Delivery and Service Support and Information Technology Service Management (ITSM) for people processes and tools.

The architecture of ISM is designed to accommodate the increasingly rapid pace of service offerings and lifecycles and offers a set of flexible, adaptive tools that anticipate future needs. With this in mind, Northrop Grumman will work with VITA to analyze their existing environment and both current and anticipated needs, and will then define a realistic, workable roadmap for today's requirements and future expansion and/or migration to suitable components.

By moving from proprietary to open standards, ISM takes advantage of a common exchange and information model, which allows new services and products to be more rapidly implemented. These efficiencies translate directly into immediate and significant cost savings and increased customer satisfaction.

System Migration and Deployment Plan

This plan sets forth the activities necessary for the logical migration of the responsibility for providing Chargeback Services from VITA to Northrop Grumman (Migration and Deployment Plan). Within 5 days after the commencement date, a detailed migration and deployment plan will be prepared by a team of Northrop Grumman and VITA personnel ("Migration and Deployment Team"). The detailed Plan will describe:

➢ Goals, expectations and specific objectives of each portion of the plan
➢ Technical assumptions and dependencies inherent in the plan
➢ All variances between VITA facilities
➢ Timeliness, activity dates and people responsible for individual tasks throughout the migration and deployment period

The migration plan will be the control mechanism for determining the migration of responsibilities and it will contain descriptions and schedules for the required tasks. The

focus of the migration plan activities are to ensure that the service is transferred smoothly to Northrop Grumman with minimal disruption to VITA operations.

Upon completion of the detailed migration and deployment plan, the migration and deployment team will meet weekly, or as otherwise mutually agreed, and will review and update the plan to reflect changes such as revisions to schedules, resource requirements, dependencies, and priorities, and it will summarize the progress on plan activities to date.

1.2.1   Roles and Responsibilities

Northrop Grumman's Responsibilities

Northrop Grumman, with VITA's cooperation, is responsible for developing and implementing the migration and deployment plan. Responsibilities include establishing a migration and deployment project office, management of, at a minimum, weekly migration and deployment status meetings and the tracking of all tasks. Northrop Grumman will provide regular updates to VITA management describing the following:

➢ Activities scheduled during the current reporting period
➢ Activities planned for the next reporting period
➢ Change control activities

VITA Responsibilities

VITA will be required to assign personnel to the migration and deployment team to assist Northrop Grumman in implementing the migration and deployment plan. VITA will provide the required resources as determined by the migration and deployment plan necessary to perform its responsibilities, including:

➢ Appropriate personnel working with Northrop Grumman to develop individual plan chapters and identify the tasks needed to complete each major service area migration
➢ Representation and input from the end-user organizations who will be required to assist in defining the criteria for the operations migration portions of the plan. This will facilitate the migration of VITA's application processing functions to Northrop Grumman
➢ Access for Northrop Grumman personnel to the facilities and systems affected as a result of the migration
➢ Current, detailed data on facilities, hardware/software/network configurations and inventory data related to the migration
➢ Identification of all current and future known projects
➢ All required documentation related to the migration (i.e., third party services, existing processes and procedures, systems documentation, etc).

1.2.2   Chargeback System Development and Support

This section describes the tasks necessary to migrate and deploy the Chargeback system processing and the associated technical support.

Northrop Grumman will be employing the fundamental features of the ISM approach presented in **Section 1.3** above, to design and deploy the new Chargeback environment. These features are:

➢ *Common communications infrastructure*—Use of a communications infrastructure service to communicate between components offers reliable transport and capability of addressing and identifying the communicating entities.

➢ *Process enabled*—Use of a process management service to control interactions between the components externalizes process flows.

➢ *Shared information model*—A single information representation (Shared Information Model) is used for business information concepts communicated between two or more components.

➢ *Service usability*—Every service offered by a component can be used by other components that need it.

➢ *Service status*—Every component communicates its status to the system management service in a common way.

➢ *Loosely coupled distributed system*—ISM systems are characterized by the fact that the software entities within it are "loosely coupled" and distributed. The software entities are capable of executing in a computing node in ant configuration of computers that are connected together by a communications bus.

➢ *Separation of business logic from software implementation*—An ISM system is characterized by the separation of the hard-coded behavior of software, from the business logic that is required. (The separation of the rules governing process flow from the behavior of software components).

➢ *Common communications infrastructure*—In the ISM solution, a common communications infrastructure is implemented using Message Oriented Middleware (MOM).

Chargeback Services Migration and Deployment Plan Activities

1. Hold joint Planning Session

A joint planning session will be held during the Interim Phase. The objective of this session is to develop task level details for all migration and deployment activities. We will also develop a schedule for all the major subsequent activities in this service area; identify the type of personnel for both Northrop Grumman and VITA that will be needed to support them; and the time requirements from each.

2. Document Detailed Migration and Deployment Plan

Migration and deployment tasks will be identified by the participants of the joint planning session that will be documented in a project plan. The project plan will include:

➢ Activity and task level descriptions
➢ Activity and task level schedules
➢ Task ownership
➢ Critical path task schedules
➢ Key milestones

Responsibility for development of the plan will be shared by Northrop Grumman and VITA. Documenting the plan is a Northrop Grumman responsibility. VITA will review and approve the documented plan.

3. Develop New Chargeback Environment Specifications

The migration and deployment team will take the high-level system specifications provided in the Draft Chargeback Services Requirements Document and create a details system specification document. This specification will define:

➢ Information System Architecture
   ➢ Develop baseline descriptions as-is to the extent necessary.
   ➢ Develop the data target (to-be) by defining the major types of sources of data necessary
   ➢ Develop the application systems target (to-be) by defining the major types of application systems necessary to process the data.

➢ Conceptual Application Diagram

➢ Application System Target Architecture

➢ Distribution of capabilities within each component

➢ External system controls

➢ Detail reporting requirements

➢ "Cost recover" options to be designed into the system

➢ Identify "open" system interfaces for systems being provided as part of the Transition activities for services that will be implemented later

The analysis and design work done during this activity will also product the following:

➢ Gap Analysis results
   ➢ Gap analysis (from Data Architecture)
   ➢ Gap analysis (from Applications Systems Architecture)
➢ Impact Analysis
➢ Data Baseline (as-is) Description
➢ Applications Systems Baseline (as-is)
➢ Data Target (to-be) Architecture Applications Systems Target (to-be) Application System Diagram and Infrastructure Landscape
➢ People gap (Training)
➢ Process gap (Process inefficiencies)
➢ Tool gap (duplicate or missing)

4. Develop Acceptance Test Plan and Criteria

Successful execution of the acceptance test will help to establish a high level of confidence in the system developed. The acceptance test plan and acceptance criteria will be developed by VITA with assistance from Northrop Grumman. The test plan and criteria will define items such as:

➢ Test scripts
➢ Test schedule
➢ End user participation

➢ Methodology for collecting and analyzing test results

The test plan will be developed early in the operations migration and deployment period to allow time to complete preparation of test scripts and to schedule end user participation, as appropriate.

5. Develop Migration and Deployment Schedule

Critical migration and deployment activities with committed deliverable dates will be agreed to by Northrop Grumman and VITA. Key dates will include freeze dates such as:

➢ Systems software changes
➢ Systems hardware changes
➢ Subsystem acceptance testing
➢ Subsystem implementation dates
➢ Documentation completion
➢ User training

The migration and deployment schedule will include "go/no go" criteria and checkpoint meetings to review migration activities, including cut over

6. Develop New Chargeback Environment

The development of the new chargeback system by Northrop Grumman will be executed according to the VITA and Northrop Grumman-defined, documented and agreed to system specification and schedule.

7. System Deployment

The primary objective of the deployment phase is to manage the introduction of products and services into the environment(s) as specified in the service design. This will involve the IT environments consisting of desktops, client/server systems, mainframes, operating systems, networks (both LANs and WANs), databases, application systems, and the physical environments necessary to support them.

The types of tasking we will perform during this phase include:

➢ Release planning
➢ Release preparation
➢ Training
➢ Production test
➢ End-user acceptance test
➢ Activation

Northrop Grumman will execute the system acceptance plan, complete documentation and training of operation staff on the new system.

VITA and Northrop Grumman will share the responsibility for ensuring that this training step is completed.

8. System Upgrades and Enhancements

During this time period the chargeback team will be:

➢ Migrating new components into the Chargeback system that are being implemented by other services as part of their transition projects

➢ Fine tuning and adjusting the system to satisfy SLAs

9. Post-Transition Support

During this phase Northrop Grumman will provide continuing service for the Chargeback system. This support will provide support efforts such as:

➢ Periodic software and hardware upgrades

➢ Updated chargeback algorithms as needed

➢ Minor refinements to the system needed to improvement performance and/or accuracy and/or timeliness

➢ Creation of special reports to support evolving VITA needs

➢ Interfacing new system components into the Chargeback environment

1.3 Service Management

Objectives

A key objective of the Chargeback Service is to attain service levels with performance credits where business is impacted through failure to meet significant mission critical systems or services, critical milestones or objectives, or when Service performance requirements are not met. Service levels are detailed in the following sections and the service level methodology is detailed in Schedule 3.12 (Service Level Methodology) of the Agreement.

Other objectives of the new chargeback environment are to:

➢ Collect, consolidate, and store the current billing information to a single database

➢ Allow for data collection from a variety of sources

➢ Provide a single location for maintaining rates and eligible customer profile information

➢ Allow queries for data analysis

➢ Provide a Web-based invoicing and reporting feature with the ability to drill-down to detail information, such as job, transaction, Eligible Customer, and similar core data

As VITA has suggested, Northrop Grumman is not proposing at this time to eliminate existing systems whose functions include billing and invoicing as part of a larger function. Only the invoicing portion of those systems would be transferred to the new system. However, as we and VITA evolve the fully detailed system requirements, this approach may be modified as needed.

Chargeback Services Management

Within five (5) days after the first day of each calendar quarter, Northrop Grumman will select a statistically valid sample, in accordance with the process specified in the procedures manual, to measure compliance with the following service levels pertaining to the accuracy of individual data elements in the asset tracking database. When Northrop Grumman assumes the support of the existing chargeback system, we will adhere to the service levels defined in the Schedule.

1.3.1 General Requirements

Northrop Grumman will provide a replacement Chargeback System that will adhere to all requirements defined in Appendix X to Schedule 3.3 of the Comprehensive Services Agreement, Chargeback Services Requirements.

The system will also provide the following capabilities and services:

1. Collect and process resource usage data from a variety of systems platforms
2. Store chargeback data
3. Provide drill down capabilities to eligible customers from the reports
4. Provide historical data to VITA for research and analysis
5. Provide resource usage and accounting for all appropriate Commonwealth systems technologies, using cost-effective methods
6. Accept input from external sources to be included in a single database for processing and producing invoices, which can be generated and presented in both online and in hard-copy formats
7. Accommodate special Eligible Customer requests for extracted information (e.g., extract files for the Eligible Customer to retrieve or create files to FTP to the eligible customer)
8. Provide the ability to interface with other business systems to bring information in and to pass information out (e.g., telecommunication billing, manpower information, PeopleSoft Account Receivable, VITA's planning and forecasting systems)