11.3.5 Details on the Help Desk Services Proposed Solution

Section 11.3.5 focuses on the "how-to" of transitioning the Commonwealth's Help Desk support from the current state to the future state by consolidating more than forty existing Agency Help Desks into a Single Point of Contact (SPOC) Help Desk. The Commonwealth Partners Help Desk strategy delivers this future state by integrating people, processes and technology to comply with Schedule 3.3 - Appendix 4 requirements.

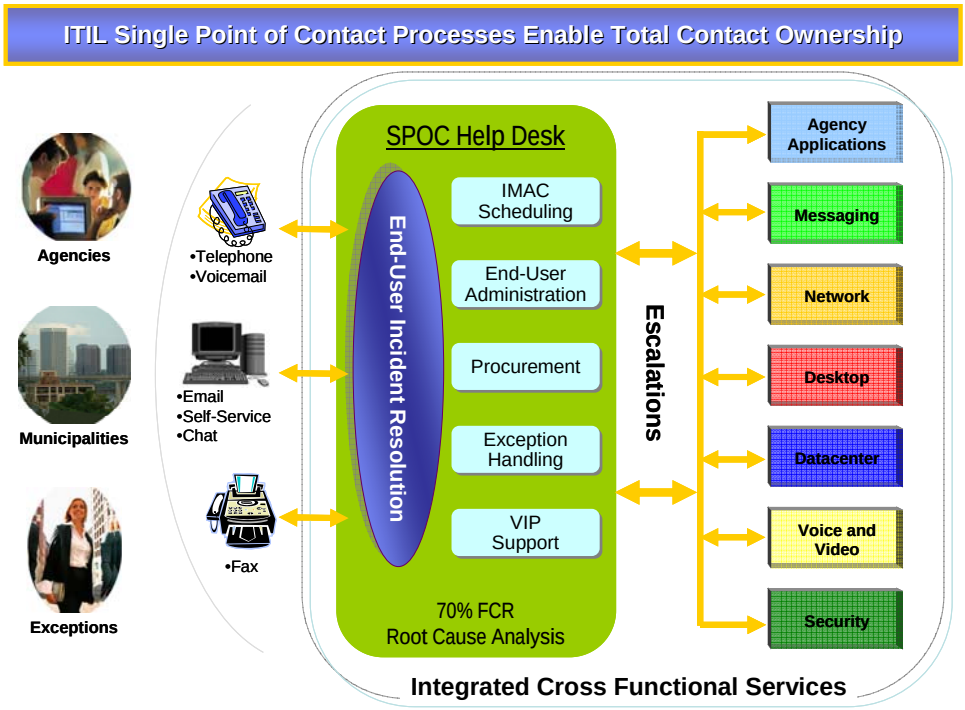

Figure 11.3.5-1 - Single Point of Contact Help Desk Support Approach with Total Contact Ownership™

The new centralized SPOC Help Desk provides End-Users with the ability to access the Help Desk across multiple contact channels. (Toll free telephone number, voicemail, email, chat, fax and web based self-service) The centralized Help Desk will support many different End-User Incidents. (End-User administration, password resets, procurement requests, everyday "how to" questions, IMAC scheduling and exceptions) End-Users will no longer have to call different numbers to work with different support groups for different types of Incidents. The Help Desk will log 100% of all Incidents. With a complete audit trail of information, Agency IT managers will be able to make better decisions. End-User productivity will be increased because the Help Desk will solve more Incidents on the first contact (70% FCR). If the Incident is escalated to any other Cross Functional team, the Help Desk will notify

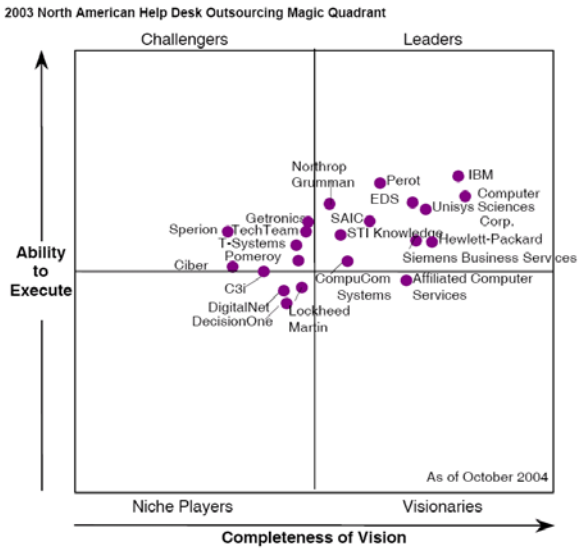

Figure 11.3.5-2 - The Gartner Group Help Desk Outsourcing Magic Quadrant

the End-User on the status of their Incident (STI Best Practice – Total Contact Ownership™). This best practice lets the End-User focus on their work instead of calling and calling the Help Desk for status updates. When the Incident is resolved, the End-User will be contacted by the Help Desk to confirm the Incident has been resolved to their satisfaction.

Commonwealth Partners integrates people, process and technology to ultimately achieve two overarching objectives; improving customer service to supported End-Users and improving IT infrastructure operating efficiencies for the Commonwealth. Commonwealth Partners IBM and STI Knowledge are both recognized by The Gartner Group for their ability to execute and completeness of vision for Help Desk outsourcing services.

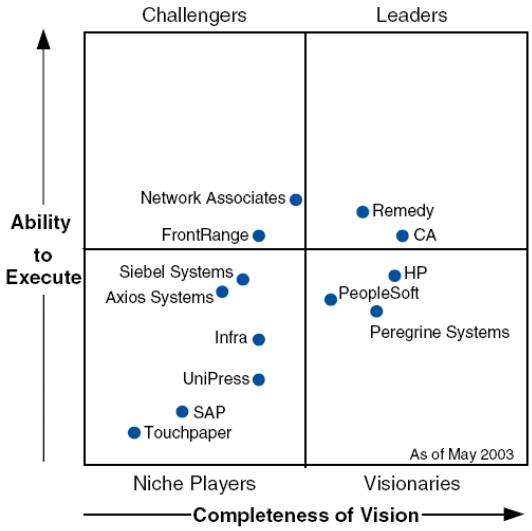

Figure 11.3.5-3 - Gartner Group IT Service Desk Magic Quadrant

STI Knowledge will perform all Help Desk services for the Commonwealth. This includes transitioning existing Agency Help Desks to the SPOC Help Desk (**Redacted**), replacing existing Help Desk technologies with new technologies, training and certifying Agency and Commonwealth Partner IT personnel on ITIL processes and STI Knowledge best practices, and operating the new Help Desk according to the agreed to Service Levels.

The Partners' have selected non-proprietary technologies from Computer Associates, Cisco, Witness and Citrix to automate the new processes and improve Help Desk efficiencies. Computers Associates is recognized by The Gartner Group for its' ability to execute and completeness of vision for Help Desk technology. In addition, IDC reports that Computer Associates has the largest market share, more than BMC's Remedy and Magic combined.

11.3.5.1 Help Desk Technology

The new technologies will automate the ITIL processes and STI Knowledge best practices to enable the Help Desk to meet the stated objectives of improving IT customer service and End-User self-service capabilities, improving the Commonwealth's efficiencies and effectiveness by leveraging knowledge databases, standardizing and automating best practices for End-User support, collecting data to detect and eliminate the root causes of recurring Problems and measuring the effectiveness of support through enhanced Service Level reporting.

In order to provide consistent and predictable services, the technologies will be integrated across all support groups. The integrated toolsets will facilitate the movement of information from one group to another. The technologies selected for use by the Help Desk are:

- Cisco's VoIP – Latest VoIP technology for Support
- Computer Associates – Help Desk, Admin, Knowledge Tools and Dashboard
- Witness eQuality – Quality monitoring and workforce optimization
- Control F1 – Remote control end user support
- Right Answers – Knowledge base containing resolutions to COTS applications

11.3.5.1.1 Help Desk Voice and Data Network Topology

The Partners' will deploy a Help Desk voice and data network topology that eliminates any single point of failure to minimize the risk of service disruption. The objective is to provide consistent and predictable services to End-Users that meet or exceed the established SLAs.

An operationally efficient Help Desk is highly dependent upon how efficiently End-User contacts are routed to the right person, the first time. The Commonwealth Partners will be using one of the most reliable and sophisticated Cisco VoIP installations for Help Desks in the Southeast. The Cisco Internet Protocol Contact Center ("IPCC") will receive calls via a toll free number from End-Users throughout the Commonwealth and will use intelligent contact routing and call treatment over the IP infrastructure to minimize data and voice circuit costs. By combining ACD functionality with IP telephony, the Partners' will be able to rapidly deploy the new Help Desk infrastructure to meet new requirements throughout the Term. With Cisco's web reporting, statistics on every aspect of the telephony infrastructure can be managed remotely. If the Partners' determine that it is more efficient to use caller entered digits to help identify End-Users, the Cisco technology will enable us to further discriminate the routing of the call. For critical outages or other important messages, the IPCC will allow us to put front end messages on the phone system to inform End-Users of system-wide outages. Informing End-Users of a known outage will enable them to focus on other activities instead of calling and calling the Help Desk; thereby increasing their productivity.

- Voice and data connectivity will be provided over redundant T1 circuits between the IPCC housed in a MCI CoLo facility and the Help Desk in **Redacted** for fail-safe operations and load balancing
- Compression technology will be used between the IPCC and the Help Desk to improve operating efficiencies by balancing the load and minimizing the bandwidth utilized.
- The MCI CoLo facility is a level 4 facility eliminating weather and power issues for the phone switch and systems.
- Data connectivity will be provided over redundant T1 circuits between the IPCC facility and the **Redacted** Data Center including VPN backup access via the public internet
- The Help Desk and IPCC have generator backup power in the event of a critical power outage

This topology design will increase customer satisfaction ratings at or above the stated SLAs while reducing the cost of support.

Redacted

Figure 11.3.5.1.1-1 - Help Desk Voice and Data Network Diagram

11.3.5.1.2 Computer Associates Service Desk

Computer Associates ("CA") Service Desk contains the industry's most complete suite of integrated help desk service and support tools. The tools will enable the Help Desk to meet the Commonwealth's Help Desk objectives by automating ITIL processes and STI Knowledge best practices. The core CA Service Desk engine is powered by extensive work flow capabilities that are standardized on ITIL processes. The automated processes will minimize the time it takes to resolve low priority Incidents and increase the time available for Help Desk resources to focus on resolving Problems of higher business impact through such processes as Root Cause Analysis. Service Level tracking and management within CA Service Desk will facilitate SLA compliance thereby improving customer service.

The new Help Desk tools will provide End-Users with the ability to resolve their own Incidents through self-service capabilities for password resets, knowledge search, and service requests. Overall End-User productivity will be increased because they will be able to solve their Incidents more quickly. The self-

service resolution is facilitated with the deployment of the unified Incident management tool for the entire Commonwealth. The CA tools will be deployed with no additional charge to Agency IT management and support groups, providing these support groups with the same tools and technologies that are utilized by the Help Desk.

- Agency Directors, CIOs and ESDs will have an improved ability to redirect their resources to higher business impact Problems with detailed management reports
- Agency application programmers will have easy access to Incidents and Problems enabling them to create patches before the next release following the documented change control process
- All End-Users, thru self-service, will have access to their Incident information and audit trails to view that work has been performed to resolve their Incident and better understand which support group is handling their Incident and when it will be resolved
- All End-Users, thru self-service, will now have the ability to reset their own passwords, getting them back to productive work faster

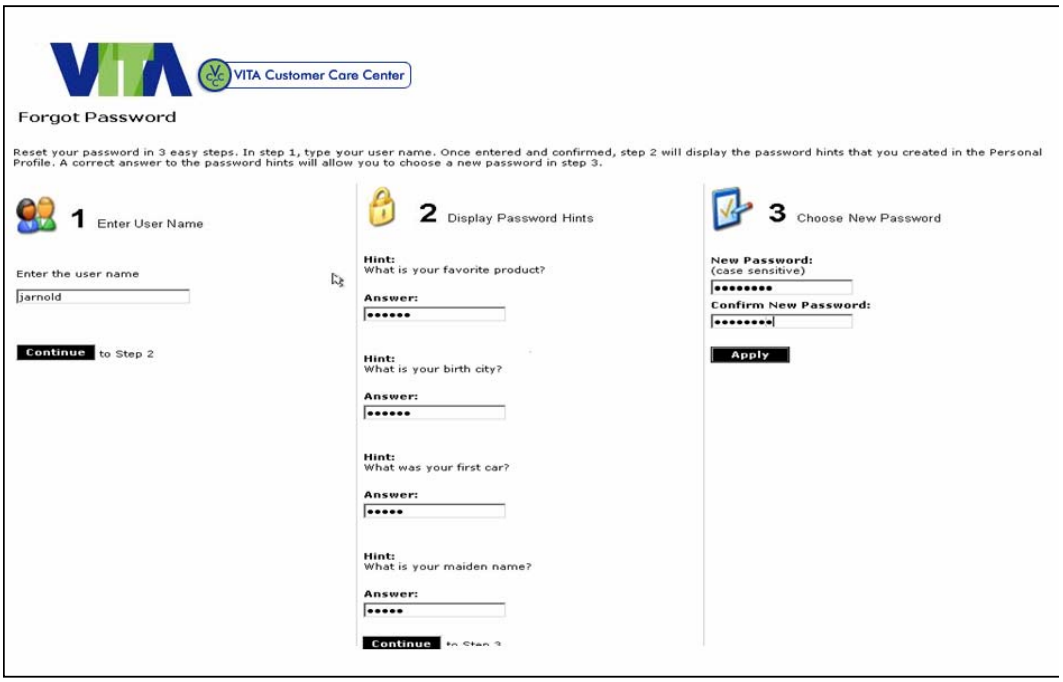

Figure 11.3.5.1.2-1 - Help Desk Web-Based Self-Service Portal Powered by Computer Associates

11.3.5.1.3 Computer Associates Dashboard

During an Agency's transition to the new Help Desk, the Agency's Level II-III support groups will receive training on the new Help Desk technologies. Upon completion of the training, the Agency IT personnel will use the new technologies to resolve routed Incidents and help reduce future IT Incidents and support costs by recoding the Incident resolution. Agency IT personnel will receive training on CA's Service Desk, Knowledge tools and Dashboard to be able to:

- Use the content manager to create, test and post Knowledge articles to the Knowledge database that will allow End-Users to solve LOB application Incidents via self-service, thereby improving efficiencies by reducing escalations to Agency Level II-III support groups

- Receive routed Incidents on LOB applications within the system saving time from re-keying information
- Review Incident volume by application, End-User, and priority to help improve customer service and efficiencies by allocating resources to Problems with higher priority and business impact,

The bottom line is this; Agency IT managers will be able to manage their support organizations more effectively because they will be utilizing the same technologies, processes and training as Commonwealth Partners. Agency support personnel will be able to view and update Incident details and access a complete audit trail for each Incident. With the unified tools, Agencies will have more control over the Problem and Change Management Processes. Agency IT managers will have the information they need to better understand the level of satisfaction End-Users have with their respective LOB applications.

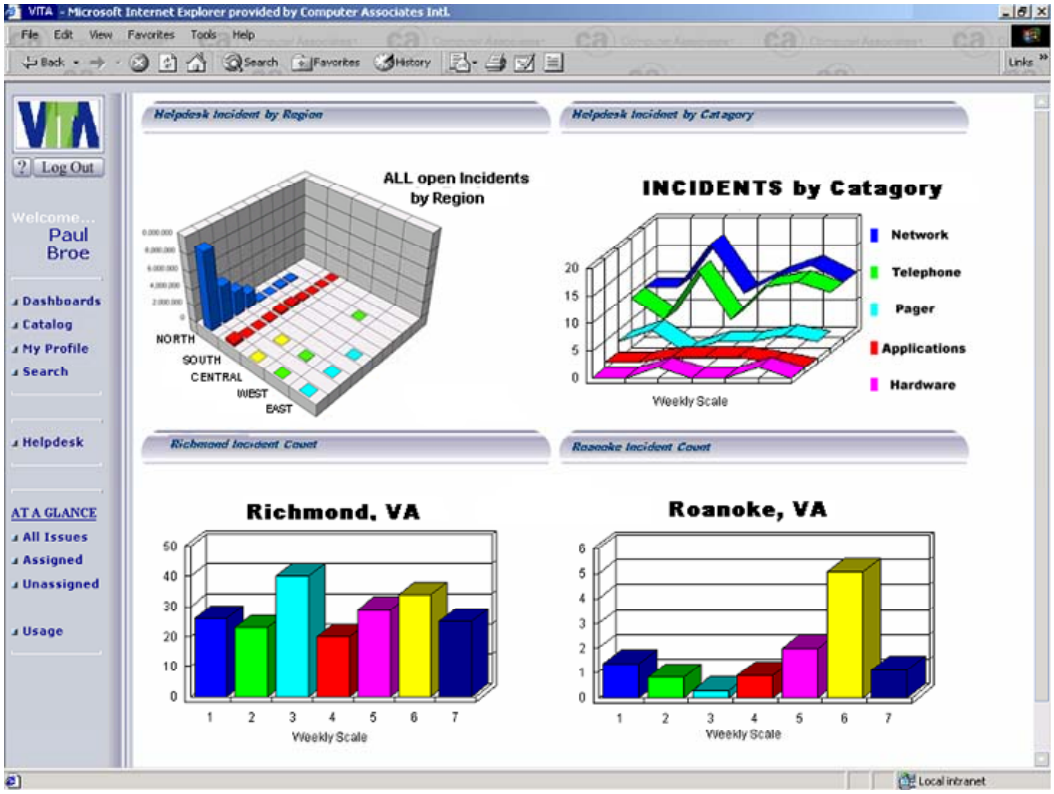

Figure 11.3.5.1.3-1 - Agency Reporting Dashboard
Powered by Computer Associates

11.3.5.1.4 Computer Associates eTrust Admin

CA's eTrust Admin tools will automate user provisioning, de-provisioning and password management services across disparate Commonwealth systems, applications, physical resources and Web services. The new tools will allow the Help Desk to provide very high levels of service to End-Users by granting them access to applications they are authorized to access much quicker than today. Account Administration services will be provided 24x7x365. Some of the key features of End-User administration are:

- Role and policy-based End-User provisioning
- Embedded workflow
- Directory integration

- Common identity and access management
- Password synchronization

Role and policy-based End-User provisioning will facilitate Agency account compliance with Commonwealth security requirements. The Help Desk will now be able to administer End-User accounts which include creating, modifying and revoking access. Ghost accounts will be minimized. This means that when an End-Users ID is revoked, ALL access is revoked and you don't leave any unused IDs on the system. eTrust will be integrated tightly with LDAP creating more opportunities to improve efficiencies and security compliance. End-User administration services will be performed much faster than they are today and have more audit controls in place to facilitate future compliance requirements. The new Help Desk will get the Commonwealth's resources to work faster and revoke access quicker with more accuracy.

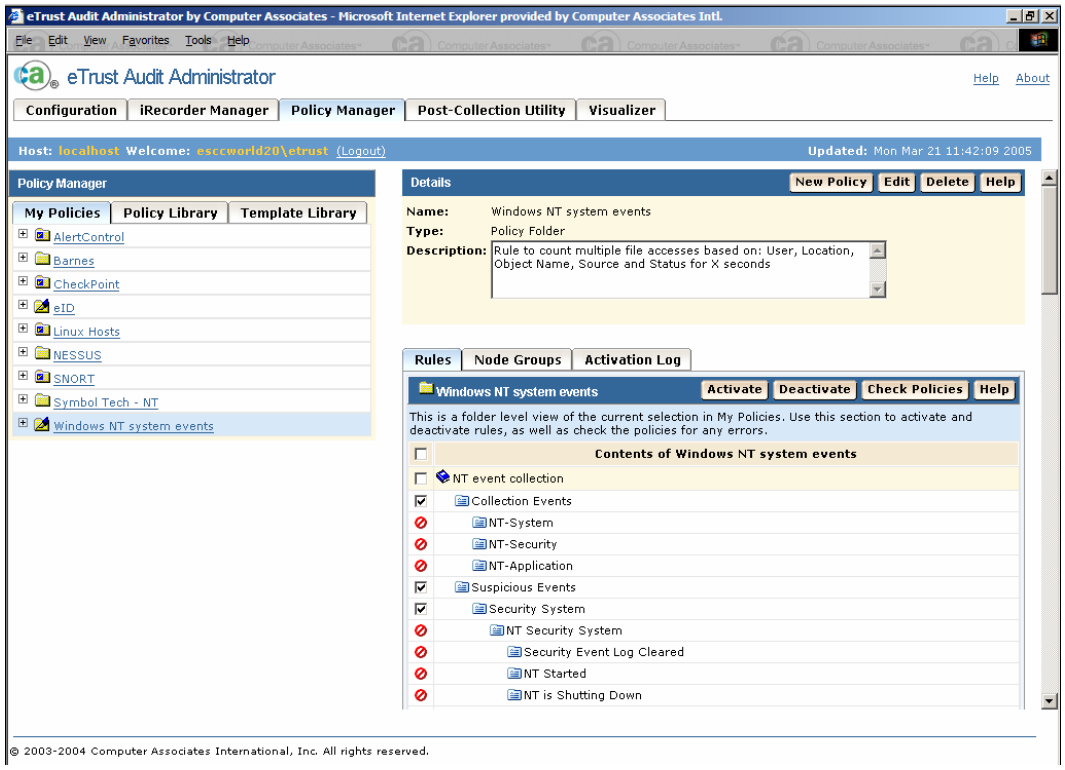

Figure 11.3.5.1.4-1 - eTrust Web Based, Policy Manager Wizard

11.3.5.2 Help Desk People

By the time all Agencies have been transitioned to the new Help Desk, Commonwealth Partners will have more than one-hundred and thirty Help Desk professionals providing SPOC Help Desk support to Commonwealth End-Users and Municipalities.

Our professionals will display a passion for the resolving End-User Incidents that will be obvious to those using the services. The professionals will come to work every day motivated to help the Commonwealth's End-Users and will adapt to the Commonwealth's culture. Our professionals are our most valuable asset and are the core reason for our continued success. We provide opportunities for professional growth through training and performance. The resulting Help Desk culture is one of open communication, respect for every individual, and total dedication to helping Agencies and End-Users achieve their business goals.

The Help Desk operation is organized in teams by areas of competency to facilitate First Contact Resolution and enhance the End-User experience. There are separate teams for VIP Support, Large and Standard Agency Support, Account Administration, IMAC Scheduling, Procurement, and Exception handling. The operation consists of approximately thirteen Team Leads who each manage a team of ten Help Desk professionals. There is also a pool of shared resources that provide support to the Help Desk operation for functions such as Quality Assurance, Human Resources, Reporting, Root Cause Analysis, Systems Administration, Training, Knowledge Management, Engineering and Finance and Billing.

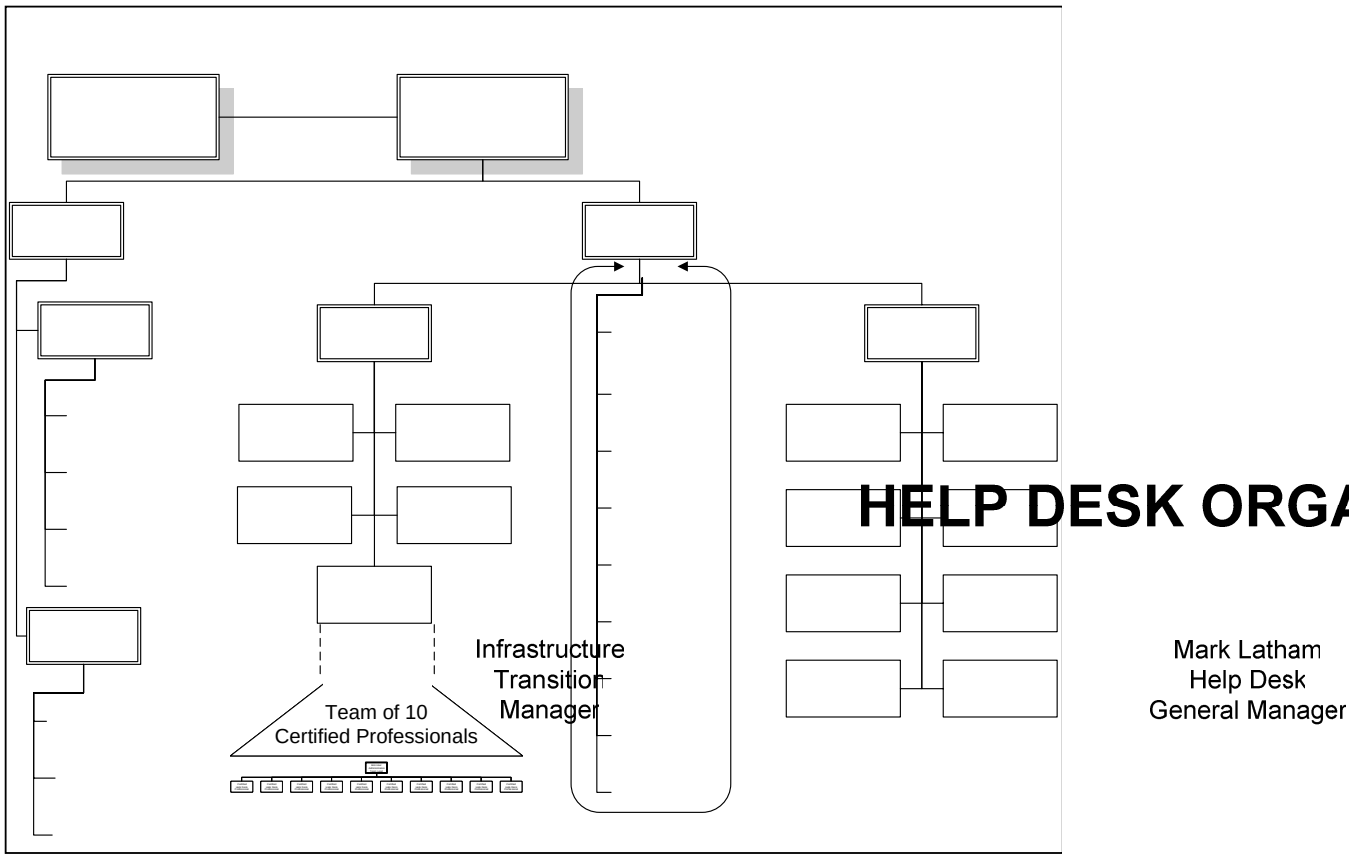

Figure 11.3.5.2-1 - Commonwealth Partners Help Desk Organization

The Project Manager and his/her direct reports are responsible for transitioning the existing Agency Help Desks to the consolidated SPOC Help Desk **Redacted**. The specific roles of the Transition Project Team are detailed in the Help Desk Transition Section 11.3.5.4.

STI Knowledge has a very low 7.5% annual turnover rate compared to an industry average of 26%. STI is able to capitalize on the difference in turnover rates to improve End-User support by retaining professionals who have specific knowledge. The low turnover rate also improves operating efficiencies by minimizing recruiting activities and by maintaining high levels of productivity. Commonwealth Partners has many programs to help motivate and retain highly skilled and qualified people including:

Motivation and Retention Programs	
• Daily reviews with their Team Lead about the previous day	• Stock option grants
• Monthly performance reviews	• Career planning with specific timelines, targets and goals.

Motivation and Retention Programs	
• Regularly scheduled Town Hall meetings	• Accredited on line continuing education
• Quarterly peer (stock option) awards	• Continued professional education and training
• Special company and family events	• Increased responsibilities and challenging work assignments
• Bonus programs based on performance	• Annually scheduled performance reviews and salary reviews
• Generous Paid Time Off policies	• An open door policy and open communication

Commonwealth Partners encourages and rewards Help Desk professionals who achieve an outstanding level of customer satisfaction. One of our customers included STI's Help Desk professionals in their contest to solve a costly printer repair problem. An STI Help Desk professional won the contest by designing a plastic printer stand that kept grease fumes from jamming the printers. We are certain that our ability to retain Help Desk professionals translates into higher levels of customer service and improves operating efficiencies.

In the first twelve months, Commonwealth Partners will train approximately one thousand IT professionals supporting the Commonwealth, on ITIL processes and STI Knowledge best practices. Commonwealth Partners will post a monthly course schedule and Agencies are encouraged to enroll their Level II-III resources.

PLANNED TRAINING CURRICULUM							
POSITION		ITIL FOUNDATION	HELP DESK PROFESSIONAL	HELP DESK TEAM LEAD	HELP DESK MANAGER	HELP DESK DIRECTOR	KNOWLEDGE MANAGER
AGENCY	CIO	✓				✓	
	LEVEL II-III ENGINEER	✓	✓				
	KNOWLEDGE MANAGER	✓					✓
COMMONWEALTH PARTNERS	PROGRAM MANAGEMENT	✓				✓	
	CROSS FUNCTIONAL TOWERS	✓					
	HELP DESK PROFESSIONAL	✓	✓				
	HELP DESK TEAM LEAD	✓	✓	✓			
	HELP DESK MANAGER	✓	✓	✓	✓		
	HELP DESK DIRECTOR	✓	✓	✓	✓	✓	
QUANTITY		800	600	150	50	100	100

Figure 11.3.5.2-2 – Training Plan - Approximate Quantity of Classes by Course.

All Commonwealth Partners Help Desk personnel will be trained on ITIL processes and certified on STI Knowledge best practices for their appropriate duties as illustrated in the previous Training Plan Table within thirty days of employment. Individuals not earning a passing grade will be removed from the Help

Desk until they have passed the exam. The STI Knowledge training ensures that all Help Desk professionals have the standard level of knowledge required to provide consistent, predictable service to End-Users and that the Help Desk is improving operating efficiencies.

This table illustrates the STI Knowledge training course particulars such as title, duration, description, prerequisites, certification requirements, and an outline of the major topics.

Course	Course Outline	
ITIL Foundation and Best Practices 2 Day Classroom Led Course Intended for IT personnel who are participating in the implementation of ITIL/IT Service Management Best Practices. Students learn the basic concepts for practical implementation and application of ITIL best practices in a live environment. The course includes approximately 18 hours of classroom work, as well as homework assignments. Students should working in the field of IT Service Management. Certification exam provided by independent testing organization. A testing fee of $375 per exam is required if taking the exam.	• Introduction to IT Service Management • Service Desk • Incident Management • Problem Management • Configuration Management • Change Management • Release Management	• Service Level Management • Availability Management • Capacity Management • Continuity Management • Financial Management • Security Management • ITIL in Practice
Certified Knowledge Management™ (CKM) 1½ Day Classroom Led Course Course provides vital insight into knowledge management framework strategies with a strong focus on the implementation of procedures to create and maintain a knowledge management environment. Students should be familiar with the basic concepts of a customer support center. Online Certification exam. Students must score a 90% or higher on the exam to obtain Certification.	• Defining Knowledge Management • Evaluating and Organizing Existing Knowledge • How to use the Computer Associates Content Generation Workflow • Best Practices	• Writing a Knowledge Solution • Creating a Method of Categorization Best Practices • Maintaining the Knowledge Database • Evaluating Knowledge Database Effectiveness

Course	Course Outline	
Certified Help Desk Professional™ (CHDP) 2 Day Classroom Led Course or-online Intended for IT personnel who support End-Users. The course focuses on the fundamentals of customer support and procedures including handling problem reports, follow-up techniques, best practices, and troubleshooting. Students should be familiar with the basic concepts of a customer support center. Online Certification exam. Students must score a 90% or higher on the exam to obtain Certification.	• Evolution of the Support Industry • Framework of a World-Class Knowledge Center • Best Practices for Documentation • Best Practices for Email and Chat • HIPPA Processes	• Best Practices for Customer Interactions • Trouble Shooting and Problem Prevention • Managing Difficult Customer Behavior • Communication Skills
Certified Team Lead™ (CTL) 2 Day Classroom Led Course Course builds on the fundamentals learned in CHDP training. CTL focuses on refining leadership skills, initiating change and process improvements, mentoring and delivering customer excellence. Completion of CHDP is a prerequisite. Online Certification exam. Students must score a 90% or higher on the exam to obtain Certification.	• The Role of the Team Lead • Communicating Professionalism • Business Writing and Presentation Skills • Interacting with Your Peers	• Delivering Excellence in Customer Service • Managing Change and Conflict • Best Practices for Staffing and Scheduling • Marketing the Help Desk
Certified Help Desk Manager™ (CHDM) 2 Day Classroom Led Course Course provides vital insight into promoting the support organization. Students learn how to build and retain a qualified team of professionals and skills for managing and exceeding customer expectations. Completion of CHDP is a prerequisite. Online Certification exam. Students must score a 90% or higher on the exam to obtain Certification.	• Evolution of the Support Industry • Establishing the Value of the Support Center • Framework for a World-Class Knowledge Center • Tools and Technology	• The Physical Environment of a Support Center • Staffing and Training in the Support Center • Managing a Successful Support Center Team • Marketing the Support Center

Course	Course Outline
Certified Help Desk Director™ (CHDD) 2½ Day Classroom Led Course Course provides vital skills for aligning the support center with the organizations goals and objectives. Students learn how to evaluate cost versus value and continuously transform the support center to meet changing organizational requirements. Completion of CHDP and CHDM are a prerequisite. Online Certification exam. Students must score a 90% or higher on the exam to obtain Certification. In addition, student must submit a business case within four weeks of the class date.	• The Customer Support Center and the Business • Cost Versus Value • Assessment Tools • Structure, Service and Operating Procedures • Staffing and Training • Support Systems • Trends in the Customer Support Industry • Presenting a Business Case • Change Management • Project Management • Role of the Customer Support Director

Commonwealth Partners will collaborate with **Redacted** Community Colleges to obtain accreditation for the STI Knowledge training and certification courses. The Partners' have already held discussions with teams representing both Community Colleges and expect no obstacles to receiving accreditation because STI's courses have already received accreditation from NYU and Georgia University. These community colleges in **Redacted** Virginia provide STI with excellent access to a skilled and educated workforce. Our recruitment strategy is a key process in not only finding people but finding the right people the first time.

Simple yet strategic requirements such as, training on ITIL processes and STI Knowledge best practices and typing at a speed of 35 words per minute, are extremely important in creating an operating environment where Help Desk professionals provide consistent, predictable and quick service to Commonwealth End-Users. The Commonwealth Partners' experience in hiring, training, and retaining Help Desk professionals will improve customer service levels and generate greater efficiencies.

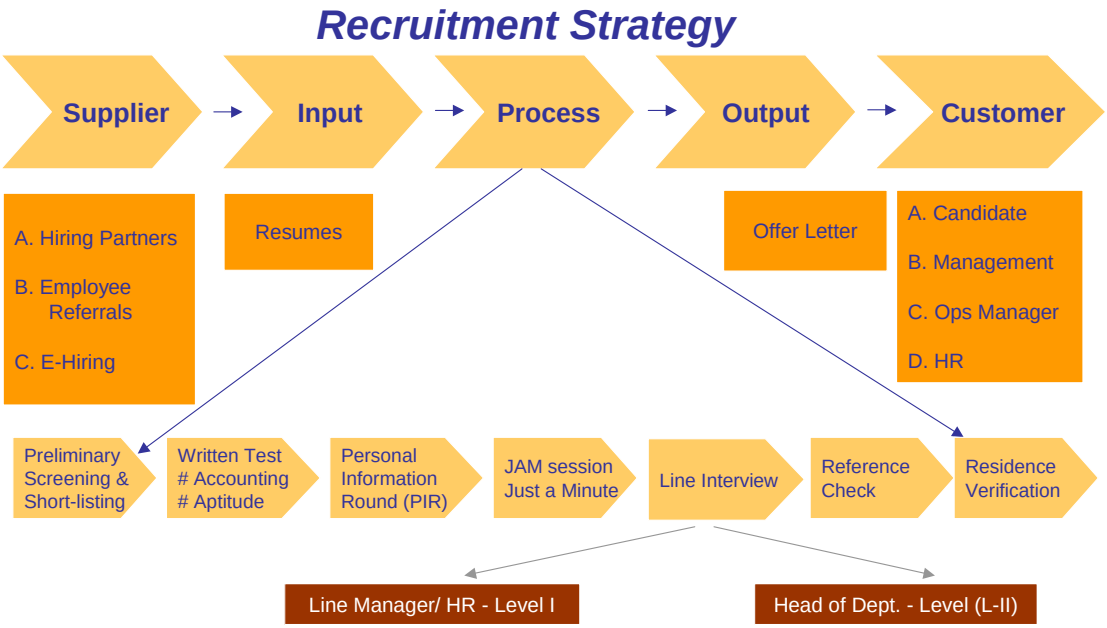

Figure 11.3.5.2-3 - Recruitment Strategies

11.3.5.3 Help Desk Processes

ITIL processes start with the basics of Incident management. An Incident is defined as "any event which is not part of the standard operation of a service and which causes, or may cause, an interruption to, or a reduction in, the quality of that service". The ITIL incident-management process helps to avoid these situations and improves control of the incidents once they occur. This process enables support organizations to manage these situations in a structured way, with minimum impact to the service or business goals. The incident life cycle consists of identification, classification, diagnosis, escalation and finally, resolution. The goal is to restore normal service operation as quickly as possible with minimum disruption of the business.

The CA tools selected by the Commonwealth Partners support and automate the ITIL processes and STI best practices. CA Service Desk supports and automates the ITIL Incident management process by recording all information collected from the infrastructure, End-Users and third-party vendors. The unified toolset creates new Incidents from web interfaces, chat, email, Tivoli enterprise manager, and the phone. Using predefined business rules within the toolset, Incidents can be assigned through CA Service Desk either automatically, or to a group or individual within the support organization and can be based on urgency, location, skill set, and configuration item. Integrating the technology, people and processes will improve IT customer service and improve recording and reporting of Problems for Root Cause Analysis.

In addition to ITIL processes, the Partners' will implement STI best practices to improve operational efficiencies and IT customer service. Many STI best practices have been adopted by the VCCC and other managed service providers. By combining ITIL processes and STI best practices, Commonwealth Partners will be able to provide consistent and predictable End-User services across all functional towers. The top 10 STI best practices being utilized for the new Help Desk are described in the following table.

STI Best Practice	Description
1. Alignment with Business Goals and Objectives	The Best Practice of aligning the support organization with the goals and objectives of the business. We encourage our Help Desk professionals to identify with what our customers do for a living. Each Agency has an overall goal of providing services to Virginia citizens even though each Agency is unique in the service it provides. Commonwealth Partners will make sure processes like Incident categorization are standardized where it is feasible and that exceptions for certain Agency processes are accommodated. For instance, the Partners' know that VSP has specific security needs for VCIN. These requirements are unique to VSP and will be accounted for in our SOPs.
2. Total Contact Ownership™ (TCO)	TCO is the single most effective best practice to guarantee that the Help Desk will improve customer service. TCO is STI Knowledge's #1 best practice. The process dictates that the professional who receives the request for service will own that request until the Incident has been resolved to the End-Users satisfaction. Example: When the Governor's office calls because an individual on the Governor's staff is experiencing difficulties with Excel, the Help Desk will not just escalate the Incident and forget about it. The Help Desk will own the Incident and follow the Incident if routed or escalated until the Incident is resolved. The Incident will not be closed until the End-User says he or she is satisfied with the resolution.

STI Best Practice	Description
3. First Contact Resolution (FCR), Knowledge Database (KB) and First Level Resolution (FLR)	FCR is the term used for Incidents resolved on the first contact. The use of the knowledge database by the Help Desk professional decreases the amount of time necessary to identify and document an End-Users Incident. If the Help Desk professional is not able to resolve the Incident on the first contact, the Incident may still be resolved via remote control, thus eliminating escalation to Desktop or other Cross Functional support groups. Since the knowledge database will be accessible by all End-Users via self-service, Agencies will be able to minimize escalations to their Level II-III support groups by creating and posting knowledge articles in the knowledge database that will help End-Users solve their own Incidents.
4. Professional Certification	Professional certification creates employees with a common knowledge level, which translates into consistent predictable service delivery for every Agency. The Partners' will provide incentives to our personnel for taking and passing internal and external certification classes to create a higher common level of knowledge amongst the Help Desk team. This ensures that the Help Desk will increase the skill set of our people while providing more knowledge capital to assist Agencies with the RCA process.
5. Dashboard Reporting for Better Decision Making	VITA's infrastructure support operation will be run like a business. For example, information will be provided to Agencies that allows them to analyze and understand the impact their pilot application had on customer service and operating efficiencies. The information would allow the Agency to make changes to the application prior to a general release thereby minimizing Incidents. In addition, the Dashboard will help Agencies understand where to allocate resources for higher business impact areas such as manning VIP applications during the General Assembly to keep the meetings productive. The recorded Incident information will be segmented by Agency enabling Agency IT managers to view their respective information real-time via web access.
6. High Impact Training (HIT)	HIT is the method of training Help Desk professionals to solve the issues that create 80% of the Incidents. STI Knowledge's HIT process focuses training on the Incidents that affect the Agencies the most which means it is more likely the Incident will be solved on first contact and the agency employee can be productive sooner. The List of Incidents falling into the 80% category will change over time and the Help Desk will monitor the Incidents to update Help Desk professional training as needed.
7. Root Cause Analysis (RCA)	RCA is a Help Desk best practice that can materially impact customer service and operating efficiencies. The RCA process will be used to select which Problems can be eliminated and which processes can be reengineered within Commonwealth Agencies. The information gathered on frequency of Incidents and probable causes of the Incidents will be documented to determine whether the Incidents could and should be eliminated. RCA is also used to document known issues to make sure the Help Desk professionals have the necessary information to resolve specific Incidents. RCA will improve Agency operating efficiencies by eliminating recurring Problems.

STI Best Practice	Description
8. 100% Logging for Support Demand	This best practice increases resource utilization by providing Incident reports by type, priority, user, or system. This type of information is only available when 100% of Incidents are logged. Commonwealth Partners believes that accurate information is needed to make educated decisions. The only way to verify the accuracy of RCA, Problem Prevention, and TCO is ensure that all Incidents are logged.
9. Help Desk Assist Marketing of New Services	The Help Desk will assist VITA's marketing of changes to End-Users in an effort to maximize the benefits of the change. As Agencies realize how the SPOC Help Desk support model helps them reduce costs and improve cycle times, they will promote the use of the Help Desk.
10. Problem Prediction and Prevention	The Help Desk will work to eliminate and prevent Problems before they occur; thereby improving customer service levels and improving operating efficiencies. Problem prediction and prevention is the ability to identify problems based on historical evidence from other customers as well as the ability to review patterns based on VITA's ongoing support. If the Problems cannot be eliminated or prevented, the next best level of efficiency is for the Help Desk is to help the End-Users be more self sufficient by providing self-service capabilities.

Root Cause Analysis, as you know, is a very important Help Desk best practice. The RCA process is actually very simple in concept, identify Problems and eliminate them. CA Service Desk tools provide visibility into Problems and automate the processes that will help the RCA team determine root causes faster. Below is an actual example of a RCA performed for Fannie Mae.

Scope and Intended Audience

This RCA is intended for Fannie Mae Service Center Management, e-Support Management and the STI Knowledge Fannie Mae Account team. This document discusses the results of the first RCA performed by STI's Help Desk at Fannie Mae.

Introduction

This RCA examines the most commonly reported problems and most frequently asked questions identified by the Help Desk. It is designed to help Fannie Mae management:

- Identify training needs for customers and Help Desk professionals
- Develop electronic and self-help material for customers and Help Desk professionals
- Propose call reduction techniques and methods

Ten Most Frequent Problem Types

Item	Frequency	Action Summary
Novell Login Assistance/Unable to Login	98	Create Knowledge Tree & submit to e-Support
File Server Not Responding	90	Retrain HDPs on Standard Operating Procedures
Network Printer Mapping Lost	70	Create Knowledge Tree &

at Login		submit to e-Support
New Printer Mapping	68	Refer to e-Support
Mechanical Printer Malfunction/Paper Jam	58	Escalate Problem
Setup/Configure Hardware	45	Escalate Problem
Printer Will Not Print	23	Create a Knowledge Tree & submit to e-Support
Misc. Hardware Failures	20	Create a Knowledge Tree & submit to e-Support

Recommended Actions for the Most Frequent Problem Types

In this section, each of the most frequent problem types are examined by the RCA team. Recommendations from the analysis are intended to decrease the frequency or expedite the resolution for each occurrence of the Problem.

Problem Example: File Server Not Responding

Update the SOP to reflect the following instructions when server problems are suspected:

Notification of Help Desk – "STI shall provide the Help Desk with immediate notification of any Emergency Severity Problem or unusual occurrence (e.g., any problem that affects two (2) or more End-Users, or any server becoming inoperable) within five (5) minutes of learning of such occurrence. Such notice shall be given by notifying the on-duty Help Desk Supervisor in conjunction with documenting the problem appropriately in the Problem Tracking System".

With quick notifications and updates to the Message of the Day and Home Site, many calls will be avoided by providing customers periodic updates on the situations.

11.3.5.4 Help Desk Transition

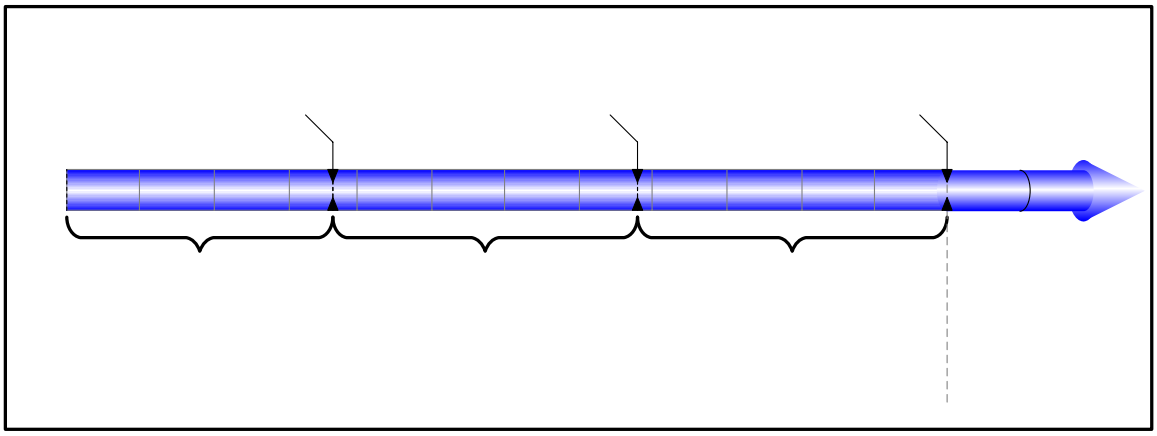

Figure 11.3.5.4-1 - Help Desk Transition Timeline.

During transition, Commonwealth Partners will consolidate more than forty existing Agency Help Desks into the new SPOC Help Desk. The Partners' will mitigate project risks by leveraging prior experience

and lessons learned from a similar project in the State of Florida. The Help Desk transition will take twelve months to complete.

The Partners' Help Desk transition resources are organized into multiple teams of process consultants, technical engineers, knowledge consultants, and documentation specialists working in parallel to transition Agencies and allocate expertise where it is needed the most.

Throughout the transition, our transition teams will document knowledge captured from existing Agency Help Desk resources and personnel in order to build a knowledge database that facilitates First Contact Resolution. Open Incidents from current Magic, TrackIT, and ITSM systems will be moved to the new CA Service Desk system.

During the first one-hundred days, the Commonwealth Partners will complete systems testing and acceptance of the new Help Desk technologies, upgrade the existing facility in **Redacted**, train the new Help Desk professionals, and incorporate ITIL processes and STI best practices into the CA Service Desk workflows. By March 2006, the Help Desk transition team will have completed many milestones requiring VITA approval such as standard report templates, SOPs, self-service portal design and the End-User Survey format.

The transition team will segment Agencies into three separate groups for transition. For example, Group I will include transitioning all of the small agencies from the VCCC to the new Help Desk. The Agency groups are co-determined with the Desktop and Messaging Towers in order to maximize the productivity of Commonwealth resources assisting the transition teams. The roles and responsibilities of the transition team are as follows:

Resource	Description
Project Manager	The Project Manager, reporting to the Help Desk general manager, is responsible for the transition of existing Agency Help Desks to the new SPOC Help Desk. This manager will work closely with his/her designated VITA tower lead to ensure that the final Help Desk design is aligned with VITA business objectives. The Project Manager will have multiple process and multiple technical teams working in parallel transitioning Agencies through all three group transitions. This manager will ensure overall transfer of knowledge into the Help Desk.
Enterprise Platform Engineer	The Enterprise Platform Engineer will focus primarily on ensuring smooth integration of Platform tools with existing systems in accordance with stated requirements.
Process Consultants	The Process Consultants are responsible for systems design (programming workflow and escalation paths), knowledge transfer (SLA's, SOP's, OLA's, etc.) and training (general and specific Agency needs). The consultants will gather SOPs, SLAs, OLAs, and other pertinent process information; Review and modify documents as needed; and, ensure continuity of knowledge and commitments through streamlined process design implementation.
Knowledge Consultant	The Knowledge Consultants are responsible for ensuring that all relevant knowledge is captured, reviewed, updated, formatted, and organized, and implemented according to ITIL processes and STI Knowledge best practices. The Knowledge Consultant will structure the knowledge database so that it is easily searchable by End-Users.
Telephony Engineer	The Telephony Engineer will ensure the transparent flow of inbound calls from End-Users to the Help Desk and outbound calls from the Help Desk to End-Users and other support groups.
Knowledge Base Engineer	The Knowledge Base Engineer will deliver a fully functional, populated Knowledge database that enables Help Desk professionals and End-Users to search an intuitive database for documented resolutions to known symptoms and root causes.
Documentation Specialist	The Documentation Specialist will analyze and collect current Commonwealth support information, interview and capture tacit knowledge from Agency IT personnel, and ensure proper adherence to Incident documentation and knowledge article procedures. The Documentation Specialist will also document all SOPs.

Each Agency will be transitioned by following four transition phases: Discovery, Design, Implementation, and Operations. This four phase transition approach breaks the transition down into four easily managed phases, Discovery - adding more definition to our due diligence findings; Design - incorporating VITA and Agency requirements into our final design; Implementation – deploying the new Help Desk tools, transitioning and re-engineering Agency specific support processes; Operations – continuous improvement for all Help Desk activities.

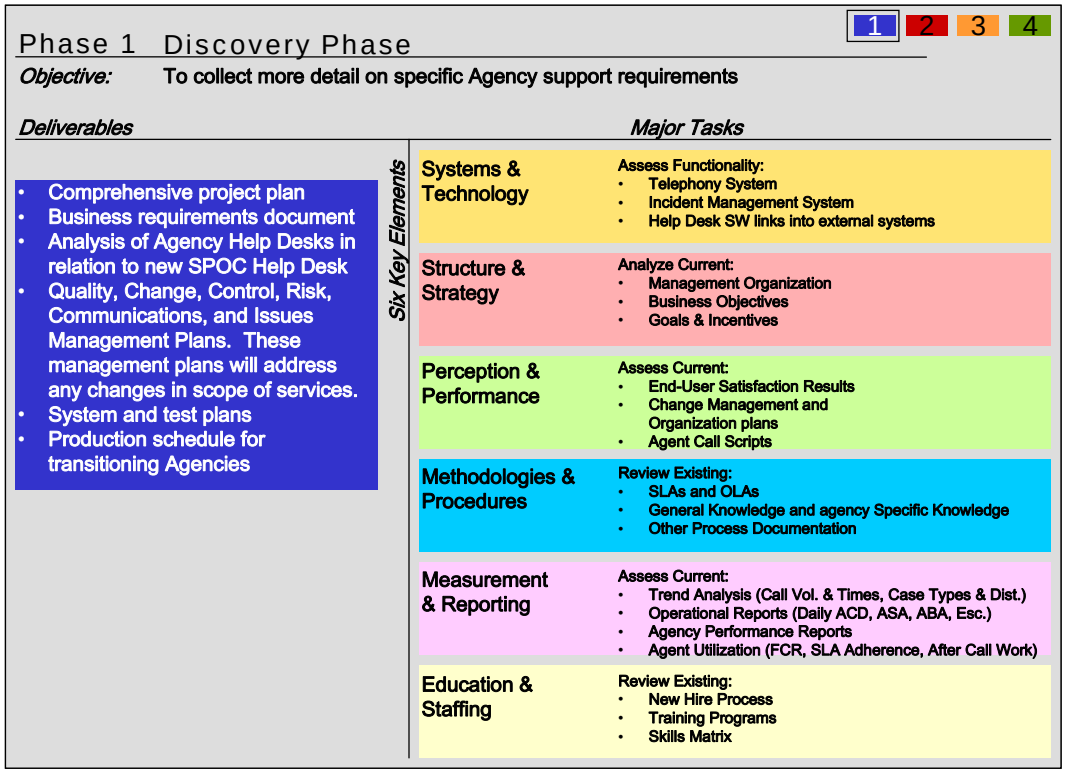

Figure 11.3.5.4-2 - Phase 1 Discovery.

During the initial Discovery Phase, the transition team will finalize the high-level project plan created during due diligence, including the activities and tasks to be performed in each phase of the project. The detailed Project Plan, including service specific milestones, is a living document that will be updated as needed to incorporate new business requirements necessary to transition Agency Help Desks from the current state to the future state.

Each phase focuses in on six key elements: Systems and Technology, Structure and Strategy, Perception and Performance, Methodologies and Procedures, Measurement and Reporting, and Education and Staffing. These key elements are interrelated and interdependent upon each other. Equal focus on all key elements is necessary for a successful transition. The primary mission of the Help Desk transition team is to make sure that the six key elements remain balanced throughout the transition and into steady state operations.

During the Discovery Phase, the Partners' process, technical and knowledge consultants will extract more detail about current and desired Help Desk operations than were uncovered during Due Diligence. The new information will be compared with ITIL processes and STI best practices to determine which processes need to be re-engineered in order to drive the expected improvements in customer service and operating efficiencies.

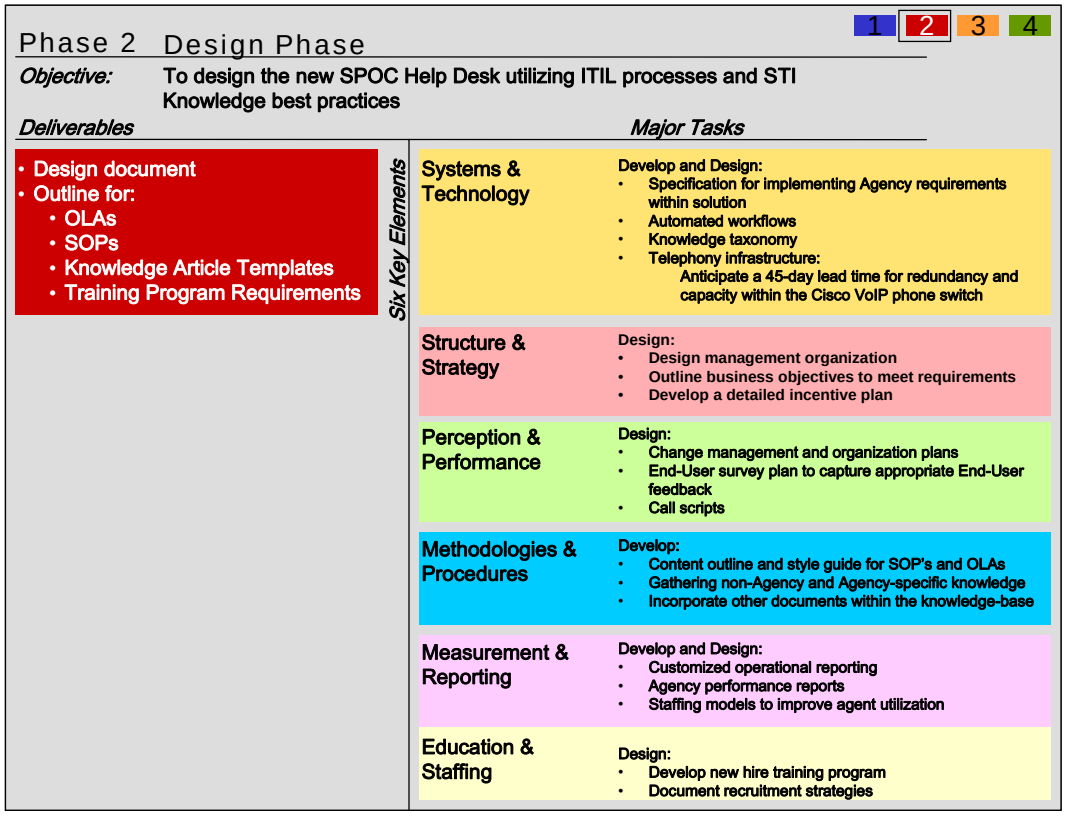

Figure 11.3.5.4-3 - Phase 2 Design.

Design Phase elements are crucial to generating the benefits derived from automating processes, integrating Cross-Functional Tower services, and consolidating resources. The base design will provide a wide array of value-add components while allowing for some customization on an Agency by Agency basis. During this phase, Commonwealth Partner consultants will be focused on designing the automated workflows to support the ITIL processes and STI best practices. The Help Desk transition team will also design the communication plan utilized to inform End-Users about the new SPOC Help Desk services.

One of the most visible deliverables of the Design Phase is the final design of the standard reporting templates. Reporting has many stakeholders (Agency CIO's, Directors, End-Users, Agency Level II-III Support, and VITA). Each of these stakeholders will have a suite of standardized reports, as listed in Appendix 4 of Schedule 3.3, that provides them with key business metrics such as; Total Incident Volume for their Agency, Volume of Incidents by type of system and priority, and most frequent users of the Help Desk.

SOPs are also developed during the Design Phase. The ITIL processes and STI Knowledge best practices allow for some customization. For example, during due diligence, we discovered that DMV had created standard support procedures for their Agency. During the Design Phase, our consultants will consider existing processes for incorporation into an Agencies final design and work closely with the Agency being transitioned to determine which existing processes can be incorporated into the SOP for use by the new Help Desk.

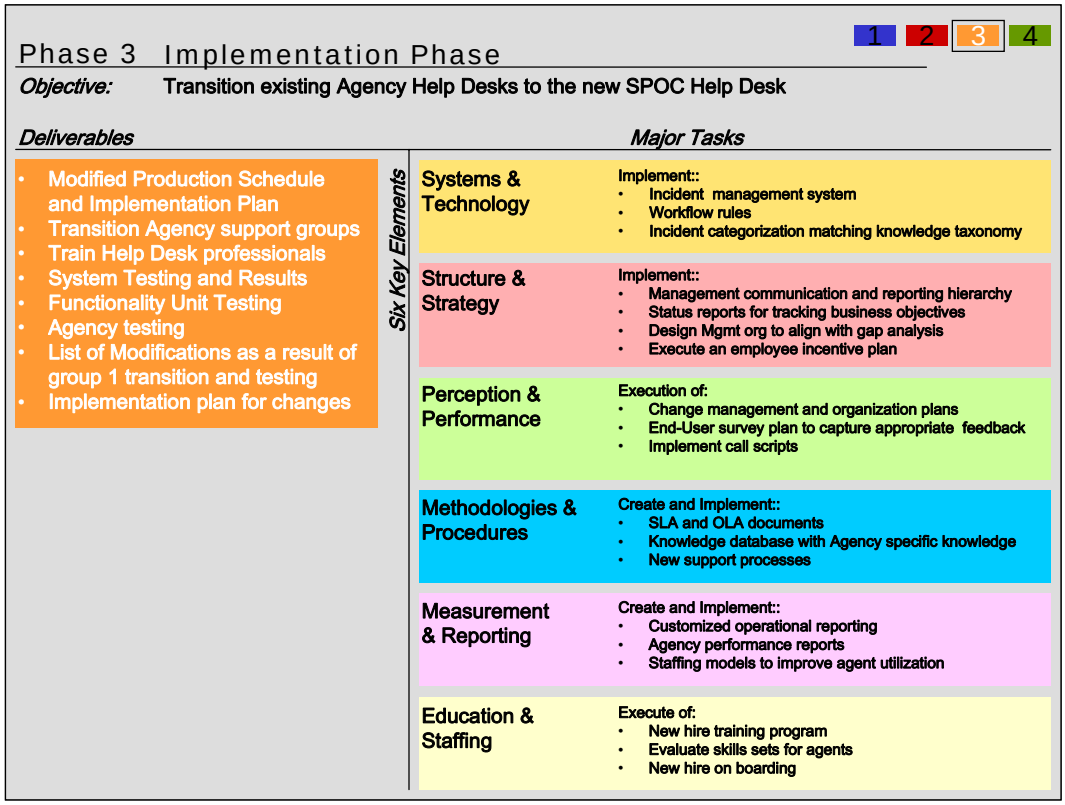

Figure 11.3.5.4-4 - Phase 3 Implementation.

During the Implementation Phase, Commonwealth Partner process consultants and technical engineers will begin executing on the final design agreed to during the Design Phase. This is the most exciting and active Phase. The Implementation Phase includes executing on all of the planning that has ensued to-date. Visible tasks completed during the Implementation Phase include replacing existing Agency Help Desk tools with the new Help Desk tools. The Partners' have included three hundred CA Service Desk licenses for Agency Level II-III support groups to use as the common, unified toolset within the Commonwealth for Incident, Problem, and Service Level Management. During this phase, the Help Desk transition team will:

- Transfer open Incidents from existing Agency tools to CA Service Desk
- Add Agency authorized End-User profiles to the CA toolsets
- Deploy automated password reset technology for End-Users to reset their own passwords on the most frequently accessed applications
- Train Agency Level II-III support groups on the new technologies
- Host webinars to train End-Users on how to access the new Help Desk including training on the self-service portal
- Update SOPs and VIP lists to incorporate Agency specific requirements
- Finalize, document, and automate OLA processes with Agency Level II-III support groups and other groups providing support to the Agency being transitioned

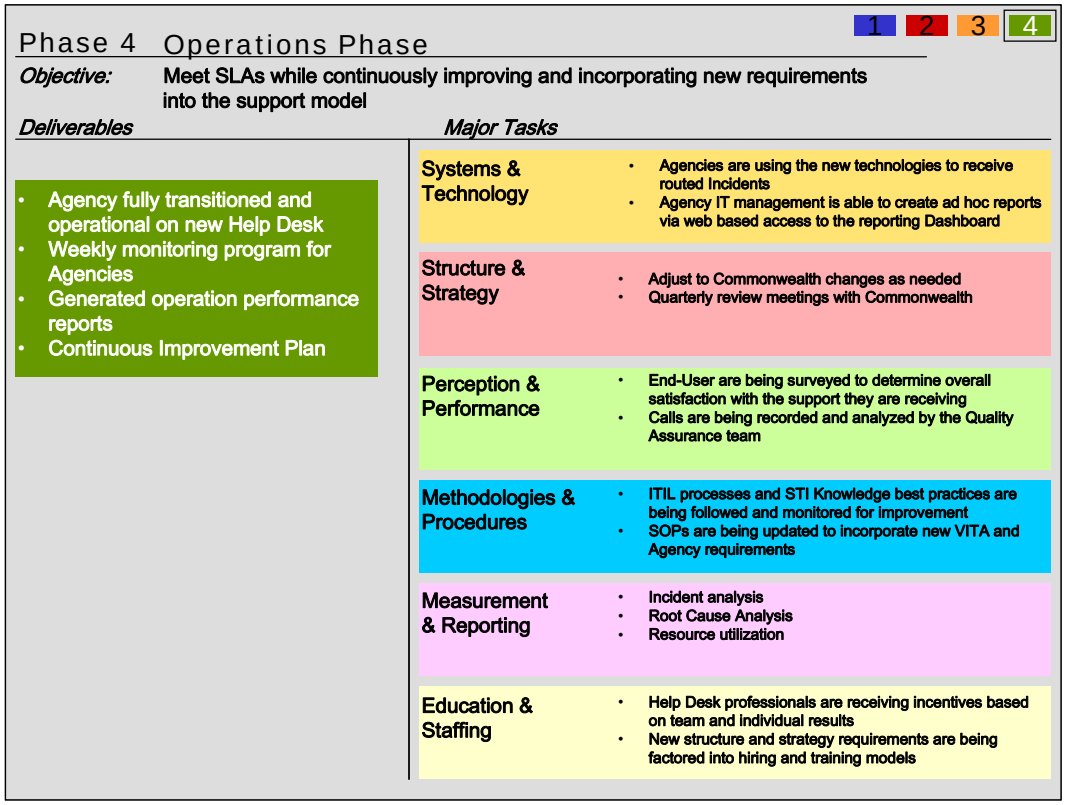

Figure 11.3.5.4-5 - Phase 4 Operations.

In the Operations Phase, an Agency's existing Help Desk will have been fully transitioned to the new SPOC Help Desk. Agency End-Users will now be receiving service and support from the new Help Desk according to the SLAs and operating hours described in Appendix 4, Schedule 3.3. In the Operations Phase, the new Help Desk will allow:

- End-Users to reset their own password via the self-service portal for password resets, view and update open Incidents, search the knowledge database before contacting the Help Desk, research previous Incidents, and initiate new service requests
- Agency IT managers to access online reports and generate ad hoc reports to make prudent operational decisions.
- Agency IT managers to view Incident details created by the Help Desk or End-Users to help the manager determine where to allocate his/her resources.
- VIPs to consistently receive higher service levels because their Incidents are routed to the proper support groups and escalation notices are sent out so that those who need to know are informed
- End-Users to be notified of known or planned outages because front-end messages will be broadcasts on the IVR and self-service portal to notify End-Users so that they can focus on other tasks
- End-Users to be surveyed according to the predetermined frequency. Survey results will be used by the Quality Assurance team for continuous process improvements
- The Quality Assurance team to record and monitor five to seven percent of Help Desk professional phone calls to provide more accurate and more real feedback to professionals; thereby driving improvements in customer service

Overall, the new Help Desk is beginning to deliver on the Commonwealth's objectives of improving customer service and improving operating efficiencies. Commonwealth employee productivity is also increasing due to quicker resolution times.

11.3.5.5 Summary

Commonwealth Partners past experience combined with the due diligence findings have provided our team with a good understanding of the Commonwealth's existing Agency Help Desk processes, technologies and people. During transition, our team will collect additional Agency Help Desk specific requirements and incorporate those requirements into the new Help Desk design. The Partners' have successfully mitigated transition and operational risks by:

- Standardizing on ITIL processes and STI Knowledge best practices.
- Selecting tools and technologies that are ITIL certified and non-proprietary
- Leveraging transition toolsets developed for a similar Help Desk project in the State of Florida
- Replacing existing Agency Help Desk tools with new unified tools from Computer Associates, Cisco, Witness and Citrix
- Negotiating favorable business terms with Computer Associates that allows for the transfer of software licenses to the Commonwealth upon Termination

Our Help Desk solution integrates people, process, and technology to ensure we meet the Commonwealth's Help Desk objectives of improving customer service and improving operating efficiencies.