

11.3.2 Details on Cross Functional Services Proposed Solution

11.3.2.1 Services Overview

The Cross Functional Services are a set of horizontal services that provide management and support for the vertical technical service towers. IBM's Service Management framework uses a set of system management disciplines known as Enterprise Operational Process (EOP) to insure integrated, dependable, cost effective provision of the Cross Functional Services.

EOP enables IBM to plan, organize, measure, and control the many service delivery environments in a consistent manner. Through this series of processes, techniques, and procedures, which are a result of over 30 years of systems management experience, improved service quality and enhanced user productivity can be achieved in a systematic fashion.

Through the implementation of an integrated systems management model, based on best practices, the Commonwealth can achieve real savings. The IBM model leverages comprehensive processes, proven tools and diverse skill sets. Consolidation and centralization of processes and procedures that are currently distributed and duplicated across multiple agencies is key to realizing economies of scale. For example:

- Unified, coordinated Asset Management,
- Single Point of Contact Help Desk,
- Common approach and resources for backup and DR services,
- Centralized systems monitoring in the Operations Center, NOC, and eSOC,
- Well-defined, coordinated Change Management processes.

The Commonwealth Partners' ultimate objective is to deliver a level of service to the Commonwealth that exceeds the Commonwealth's current service. The flow and interaction of these Enterprise Operational Processes and other IT management processes are shown in the following graphic.

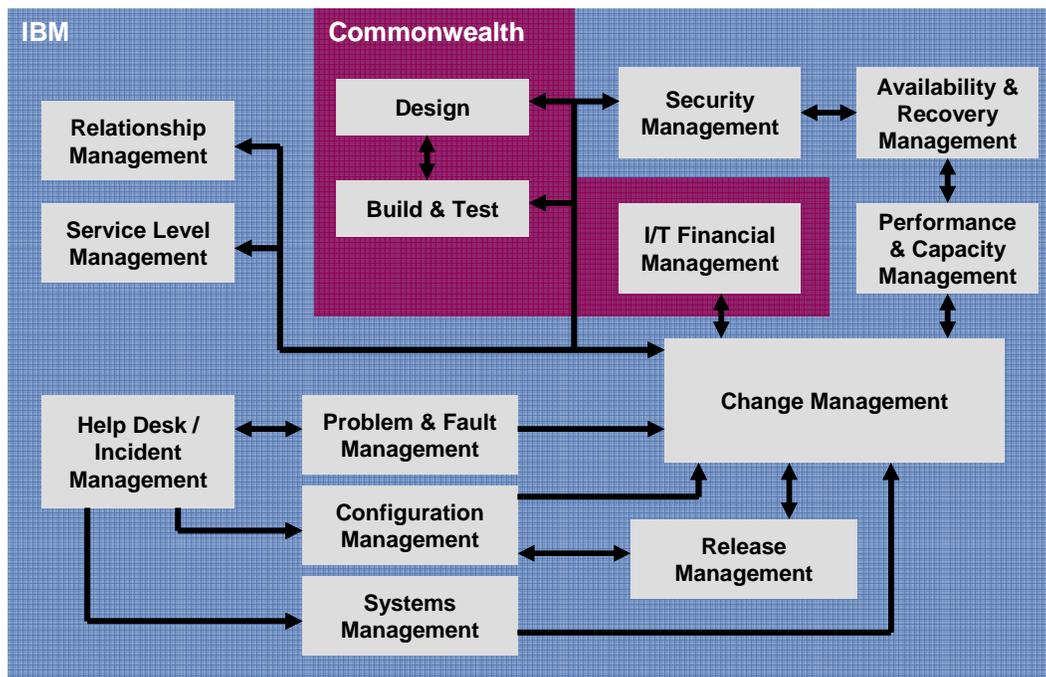


Figure 11.3.2 - 1. I/T Process Framework

The Enterprise Operational Process set conforms to the Information Technology Infrastructure Library (ITIL) framework of best practices for the management of IT infrastructure.

In the early 1980's, IBM documented the original Systems Management concepts in a four-volume series called "A Management System for Information Systems". These widely accepted "yellow books", along with education and expertise provided by IBM, were key inputs to the original set of ITIL books. IBM continues to be a contributor to the ongoing collaborative effort.

EOP also provides reports essential to Cross Functional Services management and evaluation of the services and determining areas requiring focus and improvement. Using the systems management and EOP set as the foundation for delivery of the Cross Functional Services provides the following benefits:

- Agreed-upon, measured, and reported service commitments
- A documented process for manual and automatic problem identification, impact severity assessment, tracking, escalation, and resolution
- System status reporting
- A controlled environment for operational change management

The philosophy of the EOP set is to provide consistent, repeatable, steady-state delivery of high quality services as shown in Figure 11.3.2 - 2. Each EOP set collects metrics related to the Cross Functional Services and when those metrics are relevant to service agreements, they are reviewed with the Commonwealth as part of the governance process and used to identify mutually beneficial process improvement areas. This approach creates an inherent service culture focused on: customer satisfaction, value, and quality.

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Figure 11.3.2 - 2. Enterprise operational processes are standardized across services.

This strategic solution developed specifically to meet the challenges faced by organizations in today's IT industry provides a comprehensive, integrated framework to support seamless Cross Functional Service support. The process architecture is both globally applicable and fully integrated to manage technical services through a flexible process driven framework.

11.3.2.2 Service Descriptions and Roles & Responsibilities

The full set of Cross-Functional Service Descriptions is provided below. A schematic that shows many of the service areas is shown below:

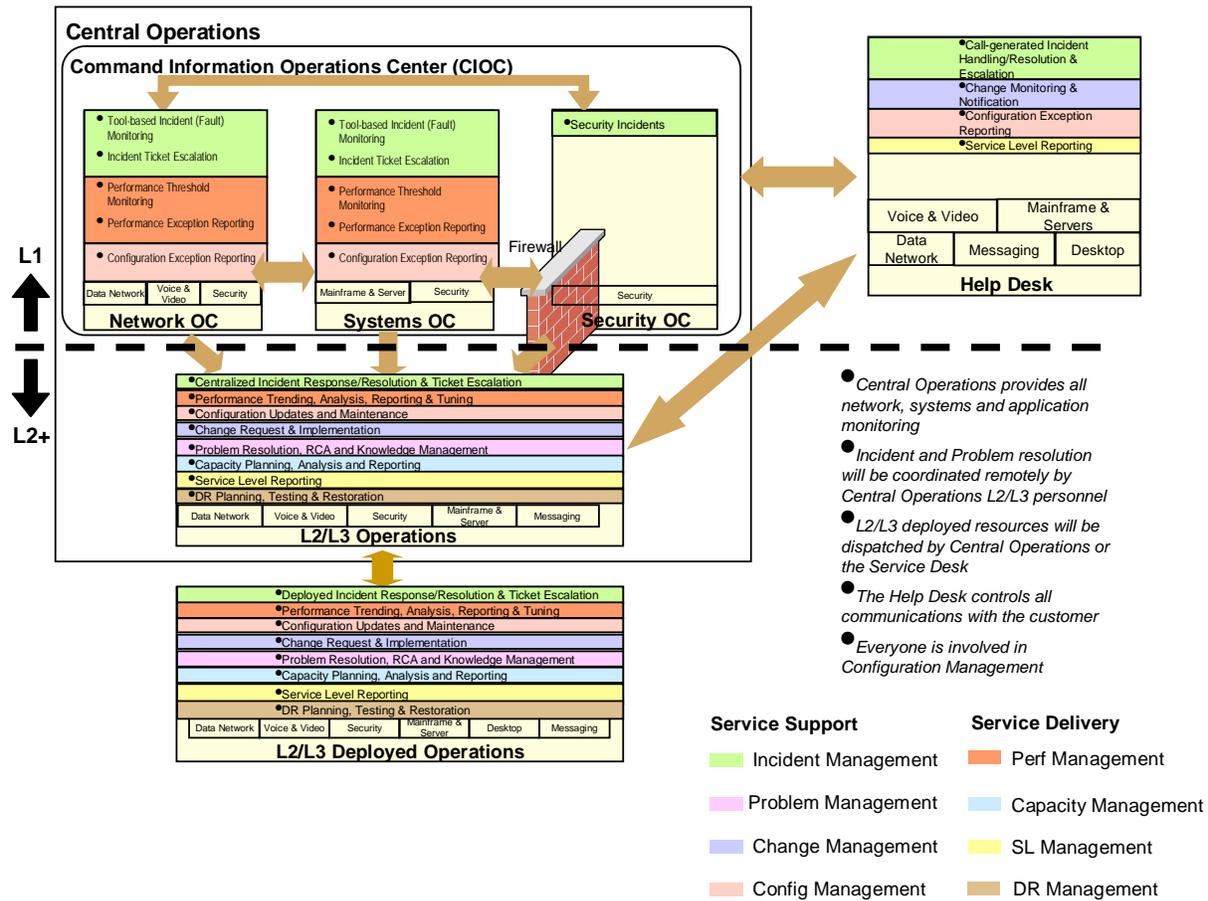


Figure 11.3.2 - 3. Cross functional services bind and complement each service set.

11.3.2.2.1 IT Processes and Activities

The IT processes and activities defined in this SOW are consistent with the lifecycle development phases followed by the Commonwealth Partners. Our team is highly skilled and experienced performing all lifecycle phases. Refer to the table in section 6.1.5 for the list of tools in our solution.

Planning and Analysis

The Commonwealth Partners will work jointly with VITA personnel in planning and analysis activities, aligning our efforts with the Project Management Institute's (PMI) Project Management Book of Knowledge (PMBok) best practices. WWPMM is IBM's implementation of the PMBoK. We will participate in defining services, standards, schedule, and reporting requirements. Infrastructure planning and analysis will be largely driven by non-functional requirements, which include performance, capacity, availability, backup, service continuity and disaster recovery. The Commonwealth Partners will be responsible for installation of all in-scope infrastructure hardware and software defined. Management reports will be created to document planning and analysis activities. We will also support VITA in the definition of backup and retention policies. In keeping current with technology changes, the Commonwealth Partners will monitor trends in technology and make recommendations on technology

refresh and upgrades. When appropriate and as time allows, feasibility studies for implementing new technologies may be performed. We will support technical and business planning activities and conduct technical reviews with recommendations for infrastructure improvements if warranted.

Requirements Definition

The Commonwealth Partners will be responsible for collecting infrastructure functional, performance, availability, maintainability, and IT service continuity requirements. Techniques, such as interviews and surveys, will be used in gathering the requirements. In conjunction with requirements collection, Acceptance Test procedures will also be defined.

Design Specifications

Following the requirements definition phase, the Commonwealth Partners will create and document the appropriate design plans and specifications. As part of the design, the environment configuration will be developed. The appropriate tower components will be determined and any upgrades, replacements, or conversion required will be identified.

Acquisition and Management

Acquisition and management of in-scope software and hardware components will be the responsibility of the Commonwealth Partners. Acquisition, procurement, and asset management procedures will be documented in the Procedures Manual. A list of preferred suppliers will also be maintained. Vendor proposals will be evaluated, and contracts for tower components purchased or leased by the Commonwealth Partners will be negotiated. Selection of components will be assessed against the Commonwealth standards and architectures. Once purchase orders and service orders are issued, assets are managed and tracked for their lifetime until disposal. A browser-based catalog will be provided for desktop and laptop product selection. The *OrderNow!* toolset will be used to place, order, and order tracking services. Selected assets will be installed and configured by the Commonwealth Partners. For efficient management, a standardized set of supported hardware platforms and software will be defined.

Assets will be defined and tracked in the Asset Management database. A unified, coordinated approach will be followed for all assets tracked by the Commonwealth Partners. Software and hardware assets will be managed in a single repository. Initially, a wall-to-wall inventory will be conducted to capture in-scope assets. Updates and verification of asset information will be done in a consistent manner. When disposal of an asset is required, activities, such as de-installation, termination of license, and cleansing of storage media, will be performed if required.

Engineering/Development

Engineering and development policies and procedures will be defined in the Procedures Manual. Engineering and Development Plans will also be created. Where applicable, these plans will be managed using IBM's formal project management methodologies.

Integration and Testing

Integration and testing procedures will be created to help in verifying the system is properly functioning. Where appropriate, a test environment will be established. Software release matrices will be developed and maintained. The Commonwealth Partners will conduct integration and security testing for all new and upgraded components. Testing phases include unit test, integration test, systems test, and regression test. Staging of new and enhanced components into existing environments will be performed. New release

testing will be conducted to verify conformance with service levels. In support of the system, configuration management, change management, and defect tracking activities will be performed. Defects found in the software and hardware provided by the Commonwealth Partners will be corrected, unless there is mutual agreement to defer correcting the defect.

Implementation and Migration

Implementation and migration policies and procedures will be developed. All migration planning will be coordinated with VITA. Installation of new or enhanced components (hardware, software, and physical infrastructure) in the production system will be conducted by the Commonwealth Partners. Deployment activities will be coordinated with VITA and any other affected parties. If applicable to the SOW, data will be migrated with the goal of minimizing any impacts on the End-Users. Appropriate testing on IMACs will be performed. The Commonwealth Partners will also assist VITA in End-User acceptance tests.

Environment and Facilities Support

The Commonwealth Partners will perform those activities associated with maintaining the environment and facilities requirements. Procedures for environment and facilities support will be developed and maintained. Environment systems will be monitored within the Commonwealth-provided facilities. For schedule upgrades, coordination of installations will be coordinated with the appropriate personnel. Facilities Support activities will adhere to the Change Management procedures.

Training and Knowledge Transfer

Training and knowledge transfer plans will be documented in the project plan. Commonwealth personnel shall be instructed on the provision of services (e.g., how to request a service). Refresher training will be conducted as needed. Commonwealth Partner personnel will stay current with technology trends and take training classes if warranted. Training materials for in-scope, End-User capabilities will be prepared and provided to Commonwealth personnel.

Documentation

Documentation deliverables will be prepared, which are consistent with Change Management, service continuity, and Disaster Recovery requirements. A documentation repository shall be maintained to store the deliverable documentation, and VITA shall be provided access to the documentation. Documentation may include system specifications and configurations, operating procedures, policies, the Procedures Manual, and schedules.

Operations and Administration

The Commonwealth Partners will develop operations procedures and the supporting operational documentation. Systems management tools will be used to monitor the systems infrastructure. Our goals will be to provide a consolidated monitoring interface for the Operations Center (OC), Network Operations Center (NOC), and Security Operations Center (SOC). Events from monitored components will be supplied to a central console running Tivoli Enterprise Console.

A unified, common Help Desk will be provided for incident and problem handling. Remote control capability for support desktops without dispatching technicians will also be supported. Level 2 and Level 3 support will be provided to address those problems that cannot be resolved by the Help Desk. Operational reports will be provided at the frequencies defined in the SOW. Incremental and full backups

will be performed on tower components. The media will be stored at Iron Mountain in order to support a subsequent recovery operation. Recovery operations will be tested to verify incremental and full backups are possible. A Disaster Recovery test will be performed annually.

Maintenance

Maintenance will be provided for tower components managed by the Commonwealth Partners. Repair technicians will be dispatched as needed to provide break / fix support. Parts depots across the Commonwealth will be maintained to support timely break / fix activities. Service pack, product patch, and emergency fixes will be provided for components managed by the Commonwealth Partners. Electronic software distribution will also be conducted for efficient installation of commercial software.

Technology Refreshment and Replenishment (TR&R)

TR&R policies, plans, and procedures will be established. The intent of TR&R is to maintain technology currency of system components.

11.3.2.2.2 Service Delivery

Capacity Management

To help ensure capacity demands are met, the Commonwealth Partners have utilized experiential data and tools to size the solution. A number of tools have been selected to monitor network and processor capacities. These tools are included in the Tools Table. Utilization and capacity SLAs and reports apply to the midrange, mainframe, and network towers.

Performance Management

The Commonwealth Partners will create performance requirements. Performance tuning will also be performed to facilitate meeting SLAs are met. Performance improvement plans will be created to address any problems with meeting service levels.

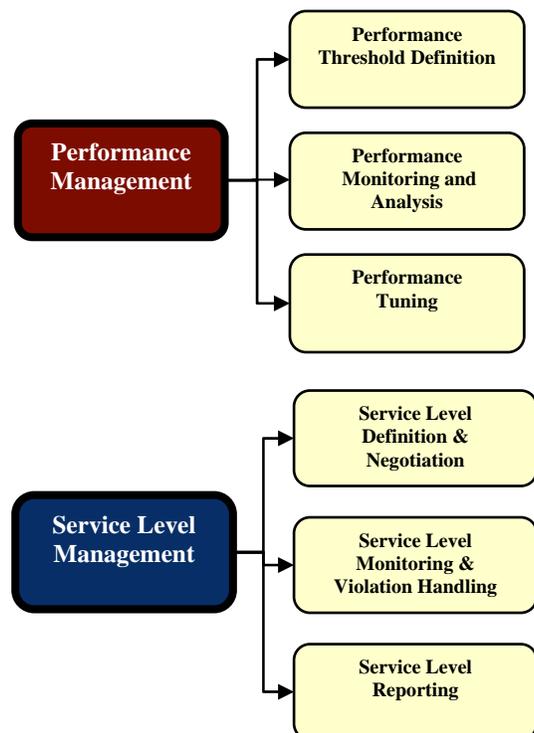
Service Level Monitoring and Reporting

Service levels are defined for each towers. Reports on service levels will be created and provided to the Commonwealth. Where appropriate, improvement plans will be created to address deficiencies.

IT Service Continuity and Disaster Recovery

(DR) Services

The Commonwealth Partners are responsible for recommending the approach for Service Continuity and Disaster Recovery procedures. Our approach is to utilize the SunGard contracts through the end of the lease. We would then utilize an IBM Business Continuity and Recovery Service (BCRS) Center. Backup tapes will be stored at Iron Mountain (e.g. daily incremental backups) and used for recovery with the BCRS location. Our approach is also positioned for enablement of electronic vaulting. The BCRS centers provide options for



electronic vaulting. This is a more costly option and is not included in the current scope. This option can be explored once the agency recovery time objectives are better understood and in accordance with Change Management procedures.

IT Continuity and Disaster Recovery Plans will be created and reviewed with VITA. The Commonwealth Partner's team will work with VITA to:

- Predefine conditions that might cause the recovery plan to go into effect,
- Identify decision makers and their roles,
- Inventory the resources required to bring the critical systems online,
- Identify the backup technique and frequency,
- Prioritize and sequence the restoration actions defined in the recovery plan,
- Develop communication strategies for keeping key parties informed.

In addition, annual DR testing will be scheduled and performed to validate the integrity of the recovery operations. Action plans will be developed to address shortcomings in the processes. VITA will be responsible for declaring an actual disaster. In the event of a disaster, the Commonwealth Partners will coordinate with VITA and initiate the IT Continuity and DR Plan.

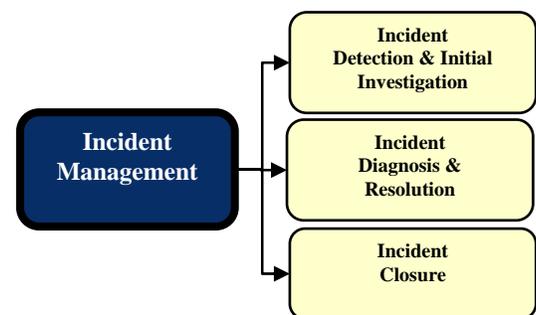
Vendor Financial Management and Invoicing

The Commonwealth Partners will document the invoicing, audit, and reporting requirements identified by VITA. Invoices and chargeback reports will be generated. Initially, we will assume responsibility for the existing Chargeback System. A new Chargeback System will be developed to address VITA's requirements. Examples of new requirements are to provide a web-based system, consolidate the multiple billing systems into a single solution, and replace direct billing for servers with consumption-based billing.

11.3.2.2.3 Service Support

Incident and Problem Management

The Commonwealth Partners will define the policies for dealing with Incident and Problem Management. A Single Point of Contact Help Desk will handle incident reporting across all towers and will support multiple channels (e.g., telephone, email, fax, and direct online). Once a ticket is entered for an incident, it is tracked through resolution. Root cause analysis of problems will be performed to help minimize future occurrences. A self-service feature for incident reporting and look up will also be provided to VITA and the user community. Self-service will provide users with an alternative reporting and diagnosis capability and is expected to enhance productivity.



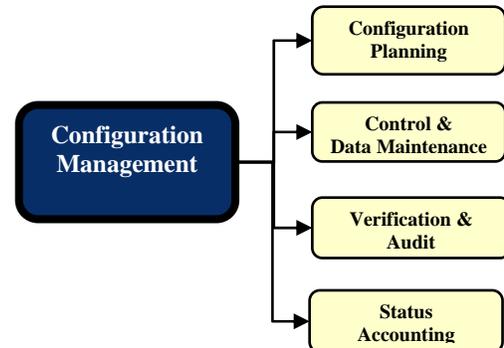
Root Cause Analysis

Information gathered on frequency of Priority 1 and Priority 2 incidents and probable cause of the incidents will be documented to document lessons learned and revise procedures to prevent reoccurrence. Root Cause Analysis (RCA) documentation is used to communicate known issues to the Help Desk

professionals to complete the incident to resolution. The Commonwealth Partners will document the RCA policies and procedures. Status reports will be provided that detail the root cause of a problem and the procedure for correcting any recurring problems.

Configuration Management

Configuration Management procedures and policies will be defined. A configuration management database will be established for the purpose of collecting and storing configuration. Tivoli Configuration Management will be used to provide software distribution and inventory functions. Configuration Management will interface with Problem Management and Change Management to provide relationship information between infrastructure components for impact analysis. Interfaces to Asset Management will be used to get updates on new and changed infrastructure components. Guidelines and approaches for isolation of system environments (e.g. production and test) will be established. Processes for verification and audit of the configuration repository and adherence to configuration standards will also be defined. Deficiencies found during verification and audit will be addressed by the Commonwealth Partners. Configuration Management reports will be provided as required.

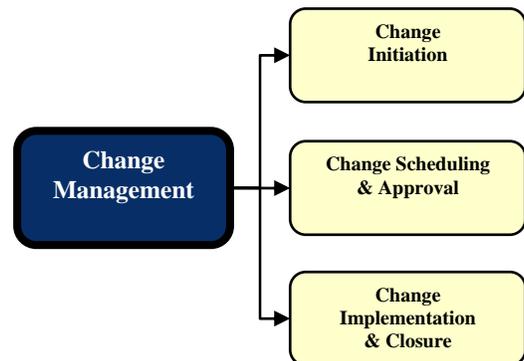


Change Management and Release Management

Change Management procedures and policies will be defined. A Change Management and Release Management plan will be created and reviewed with VITA. When a Change Request is received, it will be assigned to the appropriate parties. An impact analysis (including cost and schedule) will be conducted prior to assigning a disposition to the change. VITA and Commonwealth Partner personnel will meet to review propose changes.

In-scope software will be stored in a software configuration repository. Administration of the version control systems for in-scope custom applications (i.e., Chargeback) will also be provided.

Release Management is concerned with managing and coordinating the development, testing and control efforts that are required to successfully complete systems releases. The Commonwealth's affected clients will be notified when changes are scheduled and any impacts of the changes. The configuration database and asset management items will be updated to reflect changes.



Account Management

Account management processes will be developed. The list of services, timeframes, and order process will be defined for services offered to the customer. An End-User satisfaction program will be provided. Surveys will be used to collect satisfaction information and the results will be reported to VITA.

11.3.2.3 Service Management

The IBM Delivery Model is based on the Service Management processes and tools (SMC) that support them. The SMC are the foundation of IBM's success, as per Gartner in their Full-Service Magic Quadrant at the right.

The Commonwealth Partners Service Support begins with a world class Help Desk providing the single point of contact into well-defined, integrated set of workflows that enable effective integration of Incident, Problem, Change, Configuration, and Release Management processes.

Maximizing this Service Support foundation is a project office dedicated to Service Delivery. Experienced Service managers provide a single point of contact into existing services and new service offerings. These managers proactively coordinate the efforts of Availability, Business Continuity, Financial Security, and Capacity planners into an effective Service Delivery Strategy. CA UniCenter is used to provide the Help Desk and is complemented by IBM e-ESM that provides Asset Management, Change Management, Configuration Management, and Monitoring services. Both products are involved in providing Incident and Problem Management.

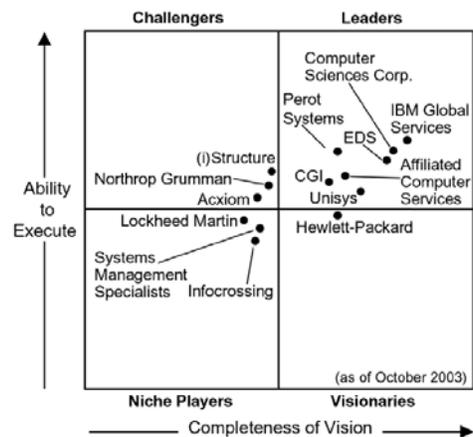
IBM's SMC integrated processes and tools measure the on-going efficiency and effectiveness of operations and services and provide the following benefits:

- Improved quality of service because the support for the Commonwealth business is standardized and optimized
- Improved IT service continuity capabilities
- Clearer view of current and future IT capabilities
- Improved management of IT driven by improved management information
- Greater flexibility through IT services built on standard, integrated, enterprise processes and tools that enable robust and flexible services
- Improvements in security, accuracy, speed, and availability as needed for the required services.
- Improved cycle time for changes with a higher success rate
- Improved flexibility and adaptability within the services

The Service Management framework, consists of the e-ESM toolset, our trained staff, and our Enterprise Operational Process set (EOP), the documented processes and procedures for deployment in a heterogeneous IT environment. e-ESM is IBM's global architecture and infrastructure for IT services. It is composed of three elements: a central data repository, common processes, and standard tools.

IBM's EOP set, supported by e-ESM, provide the foundation and framework for delivery of IT services. These processes focus on identifying and minimizing risk, as well as, verifying the success of the installation or alteration of hardware, system and application software, procedures and environmental facilities. IBM's best practices are encapsulated in the SMC, which will serve as the framework by which we jointly approach the development of tailored operational processes to support the Commonwealth on an ongoing basis.

Data Center Outsourcing Magic Quadrant



Service Model

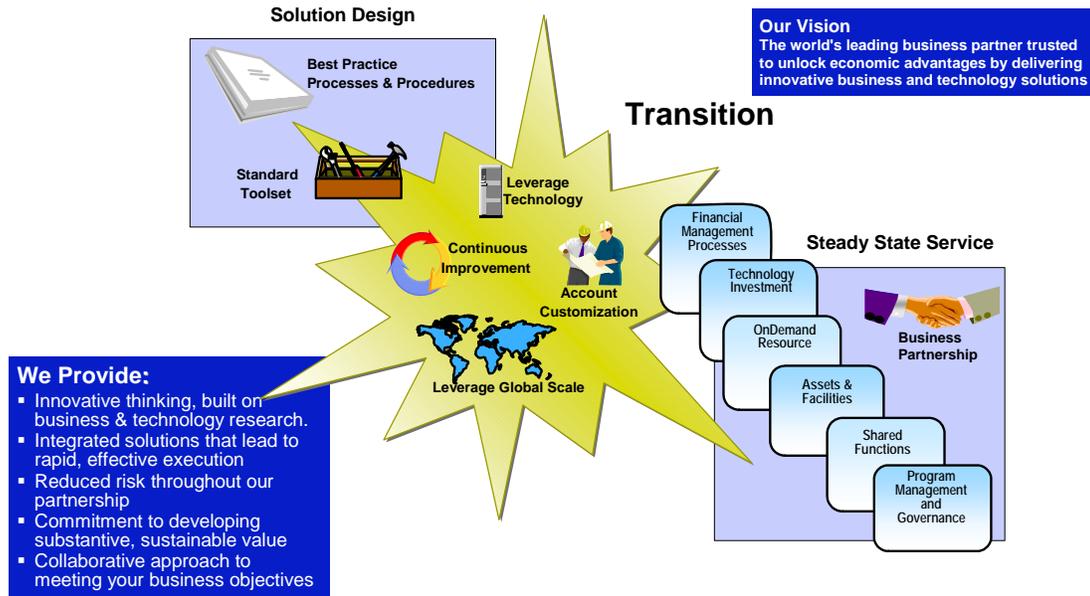


Figure 11.3.2 - 4. The Commonwealth Partners' service model provides an overall process architecture spanning the service lifecycle.

Together, we will review existing Commonwealth processes and environments, and leverage best practices from the Commonwealth and the Commonwealth Partners to establish an effective overall process architecture with detailed processes and procedures, methodologies and tool implementations specific to the Commonwealth's environment.

Our vision is one of an environment that, regardless of the underlying computing platform, provides insight into issues and problems quickly, and enables rapid response in addressing these issues and still drives continuous improvement in service and reduction of costs.