Samples of Management Consulting Assignments

Performed by DCAG are

Provided in the following pages.

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Standards and Procedures Manual - Structure

Generic Manual available from DCAG

i. Table of Contents
ii. Benefits from S&P Manual.
iii, Company Overview.
iv. Division and Department Overview.
v. Compliance Requirements.
vi. Company Organization.
vii. Department Organization.
viii. Job Descriptions.
ix. Forms Library.
x. Workflow Analysis.
xi. Tools Analysis.
xii. Available Training.

1. Service Level Management
2. Inventory Management
3. Configuration Management
4. Capacity Management
5. Performance Management
6. Application Development
7. Application Maintenance.
8. Application Testing.
9. Quality Assurance.
10. Production Acceptance
11. Production Operations
12. Recovery Management
13. EDP Security Management
14. Vital Records Management
15. Change Management
16. Problem Management:
    a. Operations Control Center,
    b. Network Control Center,
    c. Help Desk,
    d. Crisis Management,
    e. Activating Contingencies.
17. Data Processing Environment.

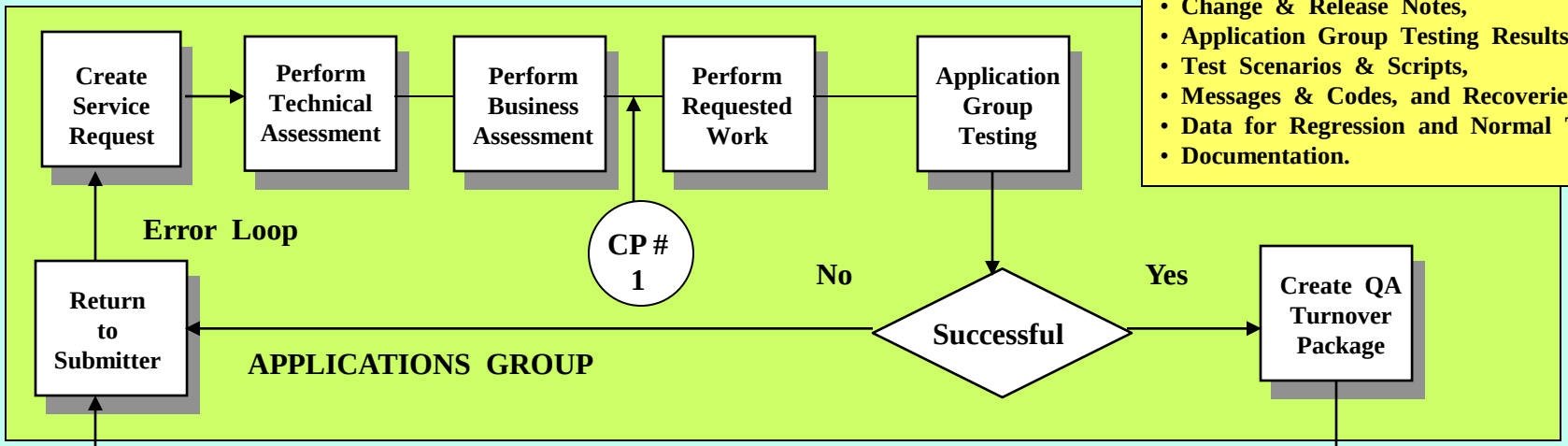
Quality Assurance and PLC Checkpoints

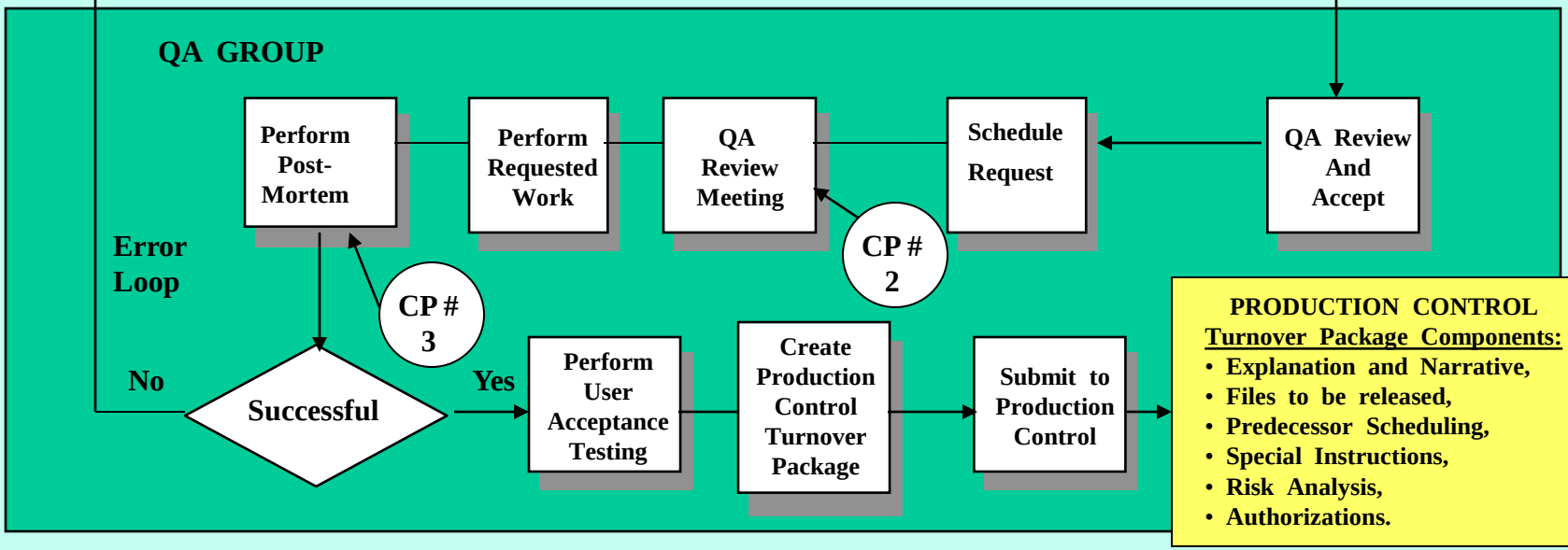
Review and optimization services available from DCAG.

Interfaces Between Applications, QA, and Production Groups.

TESTING and QA Turnover Package Components:

- Service Form and results from Assessments,
- Change & Release Notes,
- Application Group Testing Results,
- Test Scenarios & Scripts,
- Messages & Codes, and Recoveries,
- Data for Regression and Normal Testing,
- Documentation.





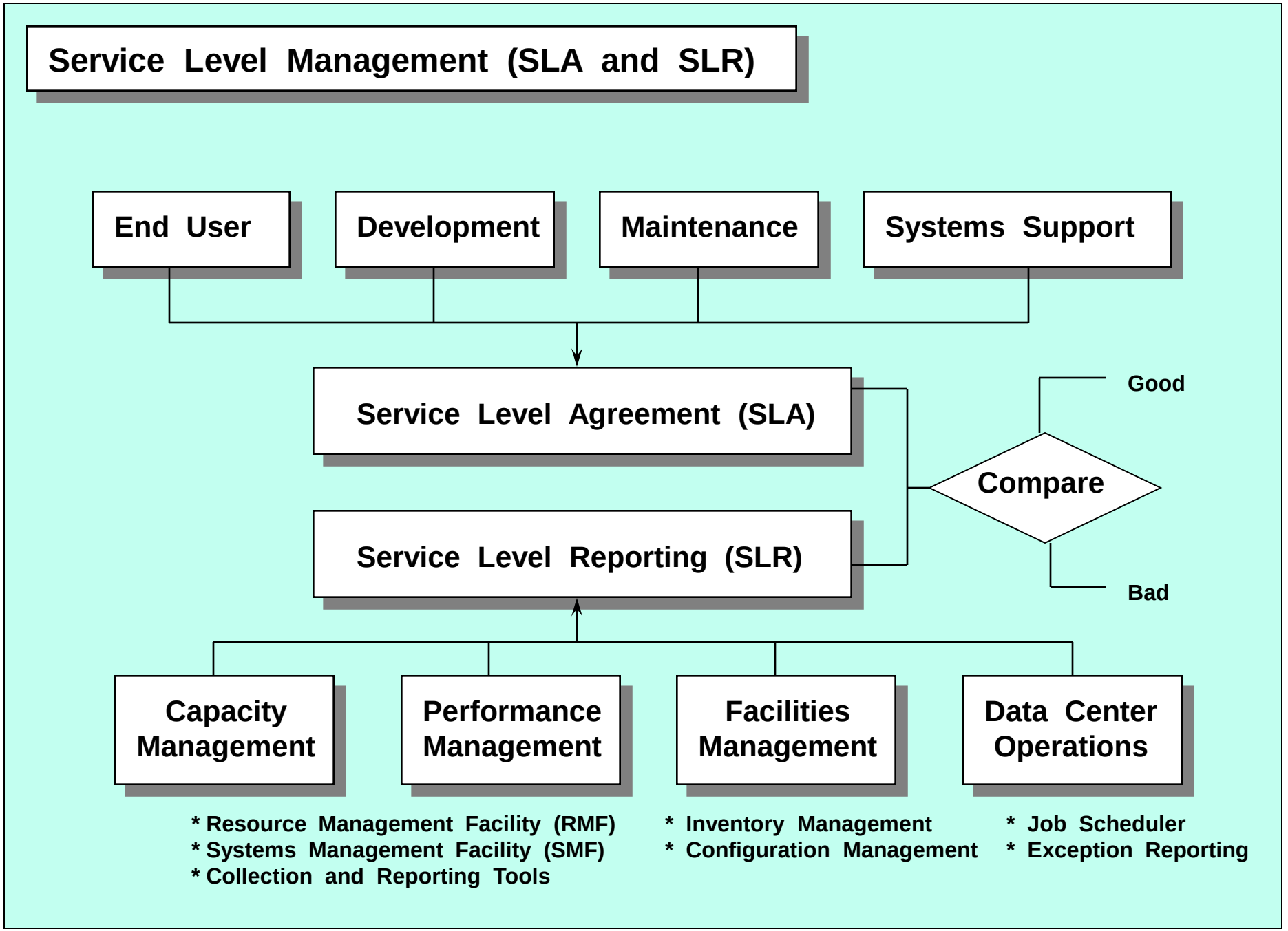
PRODUCTION CONTROL Turnover Package Components:

- Explanation and Narrative,
- Files to be released,
- Predecessor Scheduling,
- Special Instructions,
- Risk Analysis,
- Authorizations.

Job Descriptions

Job Descriptions provide employees with a detailed description of the work they are expected to perform and how they will be evaluated (Functional Responsibilities - 60%, Training - 10%, Meetings - 10%, Projects -20%). Job Descriptions help employees understand what is required of them, their career opportunities and facilitate their becoming productive more rapidly. Job Functional Responsibilities and Skill Requirements can also determine the training employees need to perform the functions associated with their jobs. Through this mechanism, it will be possible to develop a skilled staff whose performance far exceeds expectations. The categories included in a Job Description include:

CATEGORY:	DESCRIPTION:
Job Title	Name of Position
Job Description	Description of position as it pertains to the overall corporate / departmental operation.
Functional Responsibilities	Functions performed and criticality of function.
Tools Used	Tools associated with Job position.
Current Skill Level	Employee skills related to this position.
Skill Requirements	Employee Skill level needed to perform job functions.
Training Requirements	Employee Training needed to perform job functions.
Training Schedule	Employee Training schedule to meet job functions.
Career Path Desires	Employee mid / long term career goals.
Evaluation Criteria	Criteria by which employees are evaluated.


Service Level Management (SLA and SLR)
End User
Development
Maintenance
Systems Support
Service Level Agreement (SLA)
Service Level Reporting (SLR)
Compare
Good
Bad
Capacity Management
Performance Management
Facilities Management
Data Center Operations
* Resource Management Facility (RMF)
* Systems Management Facility (SMF)
* Collection and Reporting Tools
* Inventory Management
* Configuration Management
* Job Scheduler
* Exception Reporting

Configuration and Infrastructure Management

Every location consists of all of the components listed below, but only those items listed under "Component and Release Management" are the concern of this project.

Configuration Management

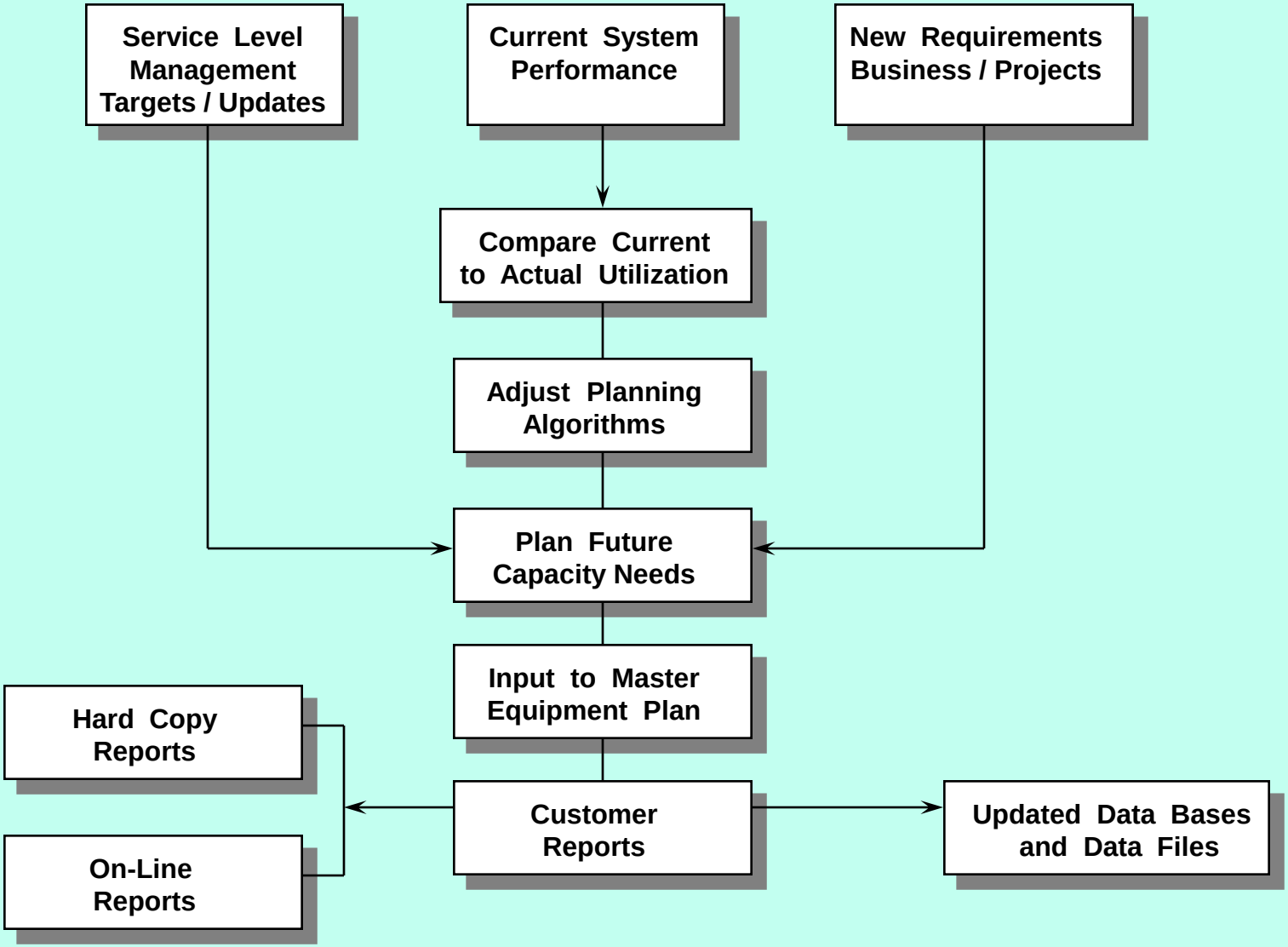
"Repeated for every Location"

- *Component and Release Management
  - *Hardware
  - *Software
  - *Communications
  - *Documentation
- Human Resource Management
- Facilities Management
  - Utilities
  - Fixed Assets
  - Furniture
  - Office Supplies and Decorations

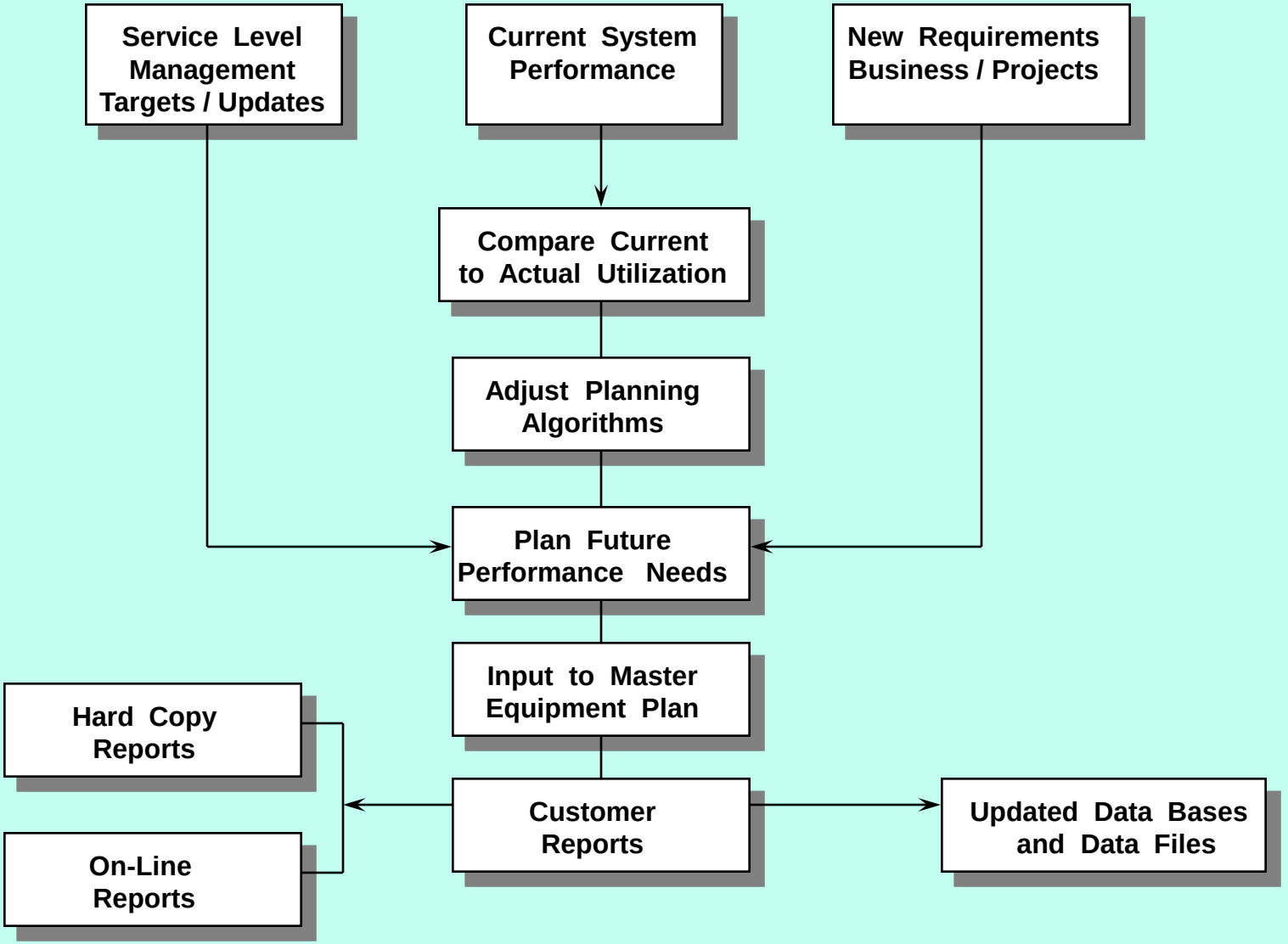
The configuration of every location should be defined within a Configuration Management System. It is important to know the release and version level of software and the characteristics of hardware and communications equipment. Insuring that all documentation reflects the current release levels of all components will reduce problems related to compatibility. Knowing the staff at a location is important, as is the Facilities contained within a physical location. This information is especially important for Business Recovery.

* Denotes SMC disciplines covered within this project

Capacity Management - Process Flow



Performance Management - Process Flow



Application Development

Project Life Cycle (PLC) phases

- **Application Request,**
  - Development Request Form,
  - Management approval,
  - Needs Analysis,
  - Statement of Work,
  - Project Plan.
- **Justification,**
  - Cost Benefits Analysis.
- **Buy vs. Build,**
  - Available vendor products & costs,
  - Ability to build and costs,
  - Cost Benefits Analysis.
- **External Design,**
  - System and User interfaces.
- **Internal Design,**
  - Module to Module interfaces.
- **Programming Specifications,**
  - Language, messages, codes, etc…
- **Programming,**
  - Code program modules.
- **Data Sensitivity,**
  - Ownership, criticality, access controls, vital records management, Backup, and recovery.
- **Critical Job Definition,**
  - Business imperative and revenue,
  - Input / Output job feeds,
  - User audience, etc…
- **Service Requirements,**
  - SLA / SLR and Client Needs,
- **Support Requirements,**
  - Client Support, Deadlines, Operations.
- **Testing.**
  - Unit, System, Regression,
  - Messages & Codes, Recoveries, etc..,
  - Benchmark, Post Mortem.

Maintenance Development

Project Life Cycle (PLC) phases

- **Change / Problem Request,**
  - Change / Problem Request Form,
  - Management approval,
  - Needs Analysis,
  - Statement of Work,
  - Project Plan.
- **Justification,**
  - Cost Benefits Analysis.
- **Vendor or In-House,**
  - Available vendor products & costs,
  - Ability to build and costs,
  - Cost Benefits Analysis.
- **External Design,**
  - System and User interfaces.
- **Internal Design,**
  - Module to Module interfaces.
- **Programming Specifications,**
  - Language, messages, codes, etc…
- **Programming,**
  - Code program modules.
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  - Ownership, criticality, access controls, vital records management, and recovery.
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- **Testing.**
  - Unit, System, Regression,
  - Messages & Codes, Recoveries, etc..,
  - Benchmark, Post Mortem.

Application Testing tasks

- **Component & Release Management,**
  - List of Application Components,
  - Release Level must comply to components.
- **Walk Through,**
  - Step through application process,
  - Paper Test (various scenarios),
  - Analysis of Results,
  - Conclusions & Recommendations.
- **Unit Testing,**
  - Test functions of each module.
- **System Testing,**
  - Test module interfaces,
  - Test functions between modules,
  - Test user and system interfaces.
- **Test Scenarios,**
  - Define operational usages,
  - Define possible problem types,
  - Define possible contingencies.
- **Test Scripts,**
  - Define specific Test for each Scenario,
  - Execute Test Scripts,
  - Record results of Test Scripts.
- **Messages and Codes,**
  - Ensure all messages are generated,
  - Execute Recoveries for Error Messages,
  - Record results.
- **Regression Testing,**
  - Make sure that old features and functions still work in this release.
- **Benchmark,**
  - Run sample job stream,
  - Compare elapsed time to old standard,
  - Record results.
- **Post Mortem,**
  - Review results and make recommendation for improvement.

Quality Assurance Principles

1. **Customer Focused Organization** -- Organizations depend on their customers and therefore should understand current and future customer needs, meet customer requirements, and strive to exceed customer expectations.

2. **Leadership** -- Leaders establish unity of purpose and direction of organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

3. **Involvement of People** -- People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit.

4. **Process Approach** -- A desired result is achieved more efficiently when related resources and activities and managed as a process, hence QA is essentially a process.

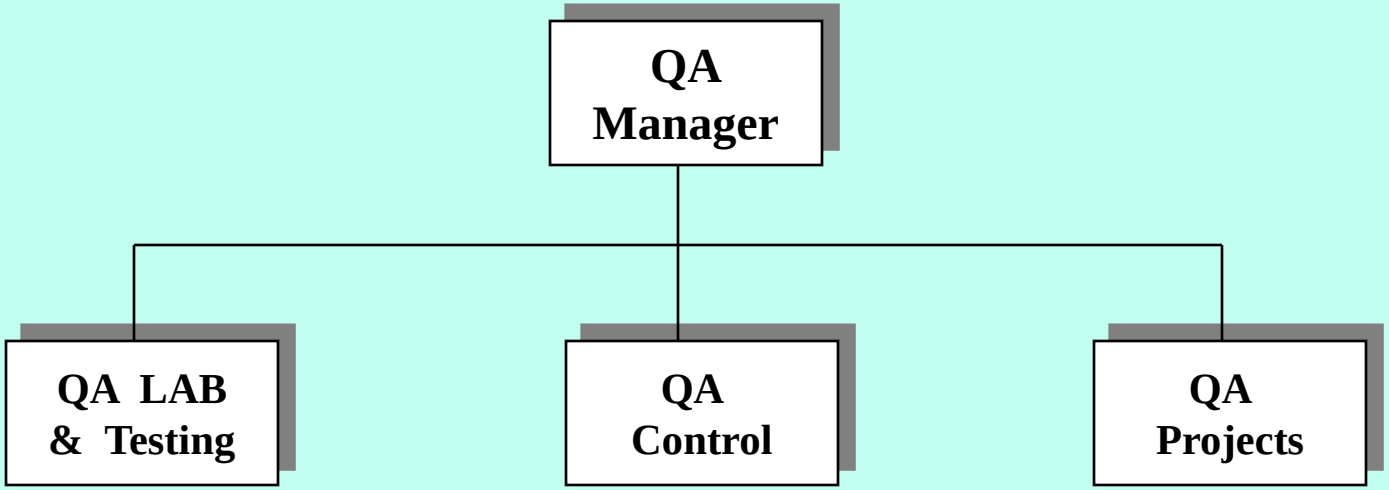
5. **System Approach to Management** -- Identifying, understanding, and managing a system of interrelated processes for a given objective improves the organization's effectiveness and efficiency.

6. **Continual Improvement** -- Continual improvement should be a permanent objective of the organization.

7. **Factual Approach to Decision Making** -- Effective decisions and actions are based on the analysis of data and information.

8. **Mutually Beneficial Supplier Relationships** -- An organization and its suppliers are independent, and a mutually beneficial relationship enhances the ability to create value.

Quality Assurance Structure



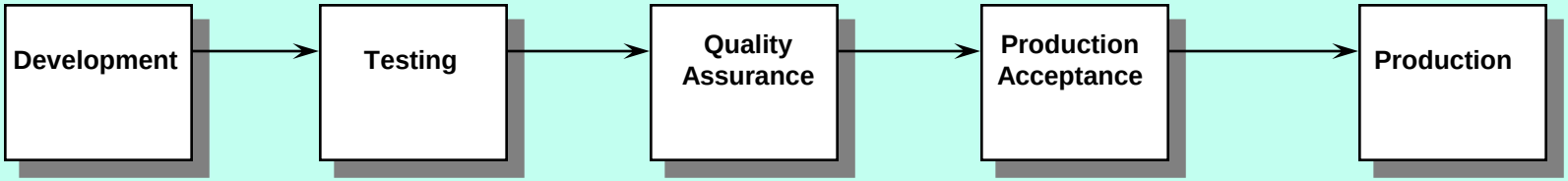
- Hardware Configuration and Management.
- Software Configuration and Management.
- Testing Script Development and Maintenance.
- Testing Schedule Development and Maintenance.
- Test Execution.
- Test Coordination.

- Define Processes.
- Enforce Processes.
- Maintain Test Database.
- Maintain Version Controls.
- Track and Monitor Requests.
- Production Documentation.

- Research and recommend Tools.
- Develop and Produce Management Reports & Metrics.
- Document Standards and Procedures.
- Publish Statistics.
- Liaise with other groups associated with QA results.
- Special Projects.

Application Management - Process Flow Diagram

1. Determine how Production Operations is involved with the process depicted below.
2. Define who is responsible for each area listed and what functions are performed for each area.
3. Itemize Tools used and their purpose.
4. Define Standards to be adhered to.
5. Describe Procedures associated with each of the areas below.
6. Create Standards and Procedures Manual sections associated with Application Management.



- Application Request,
- Justification,
- Buy vs Build,
- External Design,
- Internal Design,
- Programming Specifications,
- Programming,
- Data Sensitivity,
- Critical Job Definition,
- Service Requirements,
- Support Requirements.

- Test Scripts,
- Test Scenarios,
- Benchmarks,
- Abends,
- Messages,
- Recoveries,
- Support Personnel,
- Problem Escalation,
- Documentation.

- Validate Results,
- Components,
- Naming,
- Placement,
- Messages,
- Recoveries,
- Owner / Client,
- Support Structure,
- Documentation.

- EDP Security,
- Vital Records Management,
- Library Management,
- Scheduler,
- Tape Library,
- Print Pool,
- I/O Control,
- Technical Support,
- EDP Audit,
- Other personnel with Job support responsibilities.

- Service Level Management,
- Operational Support,
- Technical Support,
- Library Management,
- Vital Records Management,
- EDP Security,
- Disaster Recovery,
- EDP Audit.

Production Application Management

1. Application Components & Standards:
   a. Naming;
   b. Resources; and,
   c. Placement.

2. Job creation procedures.

3. Job testing procedures.

4. Job turnover process:
   a. Testing
   b. Quality Assurance;
   c. Production Acceptance: and,
   d. Production.

5. Tools :
   a. Testing;
   b. QA;
   c. Production Acceptance;
   d. Production Operations;
   e. Library Management; and,
   f. Source Code Management.

6. Critical Job definition.

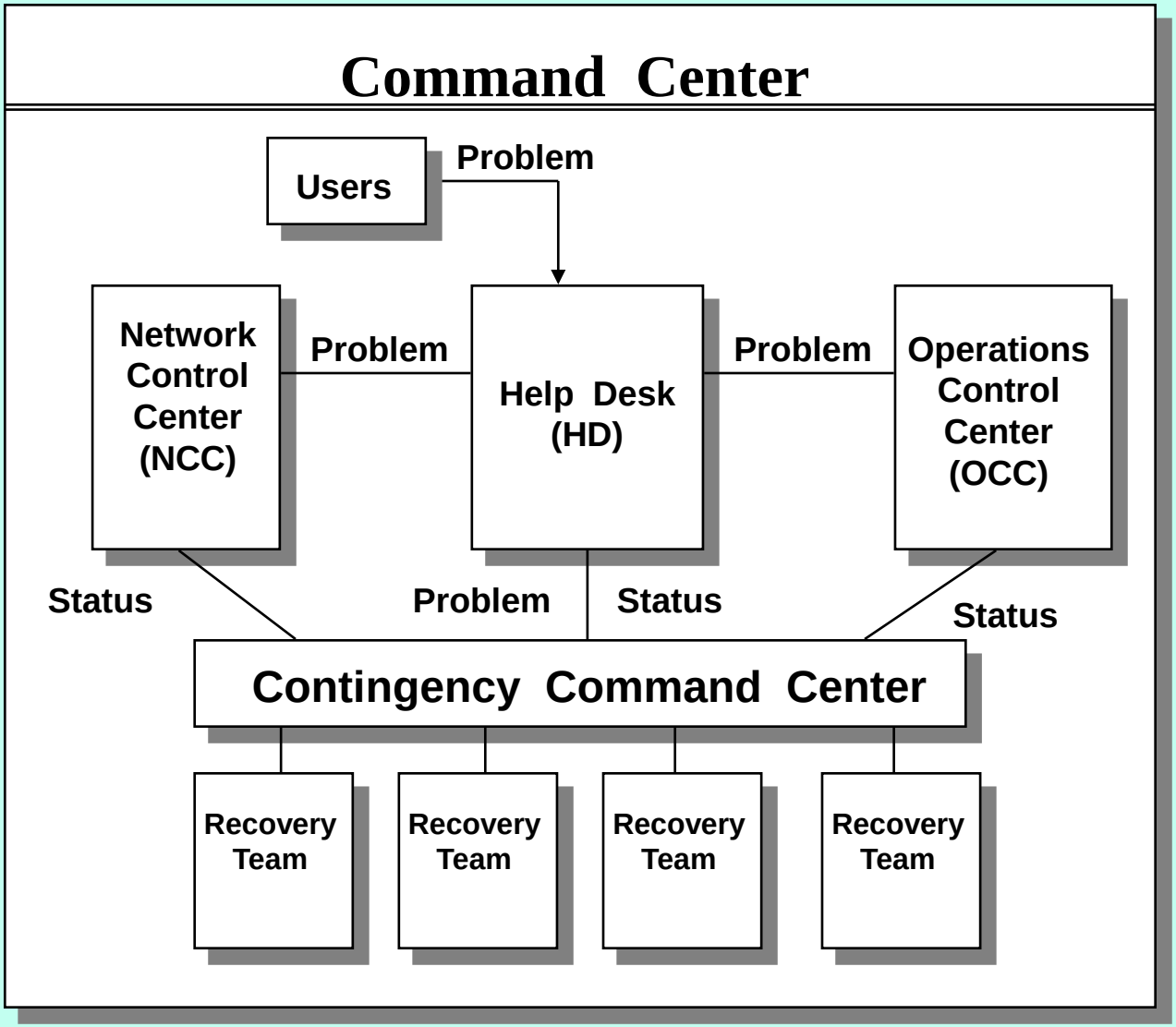
7. Vital Records Management:
   a. Identification;
   b. Classification;
   c. Back-up procedures;
   d. Local Vaulting;
   e. Remote Vaulting; and,
   f. Restoration procedures.

8. Production Support:
   a. Messages;
   b. Recovery; and,
   c. Restart.

Contingency Command Center

Contingency Command Center:

- Housed within Command Center,
- Activated during Emergencies,
- Relates problems to Recovery Plan,
- Activates appropriate Recovery Team(s),
- Coordinates Recovery Actions,
- Maintains status on disaster and crisis situations,
- Communicates with;
  - Network Control Center,
  - Operations Control Center,
  - Help Desk,
  - Technical Staff, and
  - Management.
- Will escalate recovery actions, if necessary.

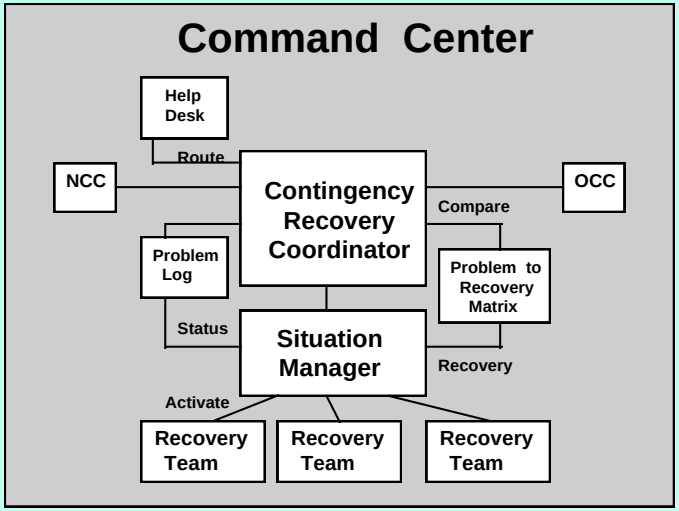


Contingency Recovery Operations

Contingency Recovery Coordinator

Responds to problems classified as "Potential Crisis Situations" by:

- **Logging the problem within the Problem Log;**
- **Comparing the problem to the Recovery Matrix;**
- **Selecting the appropriate Recovery Plan;**
- **Activating the Recovery Team identified within the Recovery Plan; and,**
- **Monitoring recovery operations and reporting on their status to Management.**



Situation Manager

Reporting to the Contingency Recovery Coordinator and responsible for monitoring Recovery Team operations and providing assistance through any mechanism at their disposal. When situations become overly complex and a potential crisis can occur, the Situation Manager will take appropriate escalation procedures needed to concentrate more resources on the resolution of the problem.

Recovery Teams

Designed to pull expertise together so that specific talents can address problems that require recovery operations, before normal processing can be resumed. Each Recovery Team consists of a Team Manager and Team Members. The organization of a Recovery Team is supplied to the Situation Manager and Contingency Recovery Coordinator. This organizational description includes functional responsibilities and alternate personnel for each of the recovery positions. Recovery Teams may require recovery tools to be utilized as an aid in performing recovery operations.

EDP Security Management

1. EDP Security Organizational Structure.

2. EDP Security personnel and their functional responsibilities:
   a. Data Owner definition.
   b. Data Sensitivity.
   c. Data Usage guidelines.
   d. Data Access Controls.
   e. Violation Capturing.
   f. Violation Reporting.
   g. Required Forms.
   h. Procedures for completing forms.
   i. Forms submission and processing.

3. Existing Documentation.

4. Standards and Procedures manual sections.

5. Process descriptions.

<NOTE>: The EDP Security Management discipline will be included as needed in the SMC processes documented within the S&P Manual.

Vital Records Management

1. Define Vital Records Management Organizational Structure.

2. Define Vital Records management personnel and their functional responsibilities.

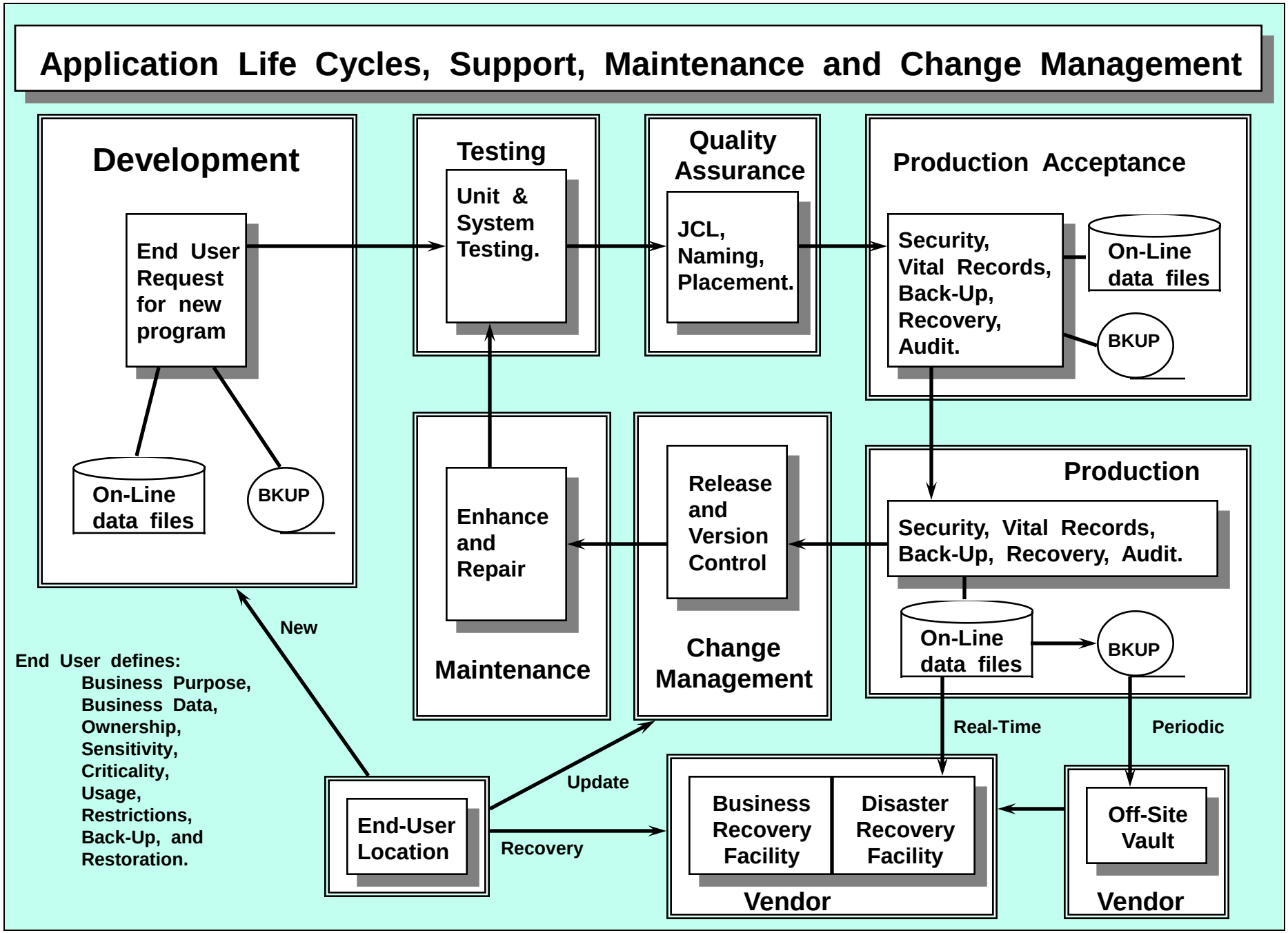
3. Vital Records Management Standards:
   a. Vital Records definition;
   b. Backup requirements;
   c. Vaulting requirements; and,
   d. Recovery requirements.

3. Vital Records Management procedures:
   a. Identification;
   b. Classification;
   c. Back-up procedures;
   d. Local Vaulting;
   e. Remote Vaulting;
   f. Restoration procedures;
   g. Interface with Tape Management System; and
      - Vault Management,
      - Tape Management,

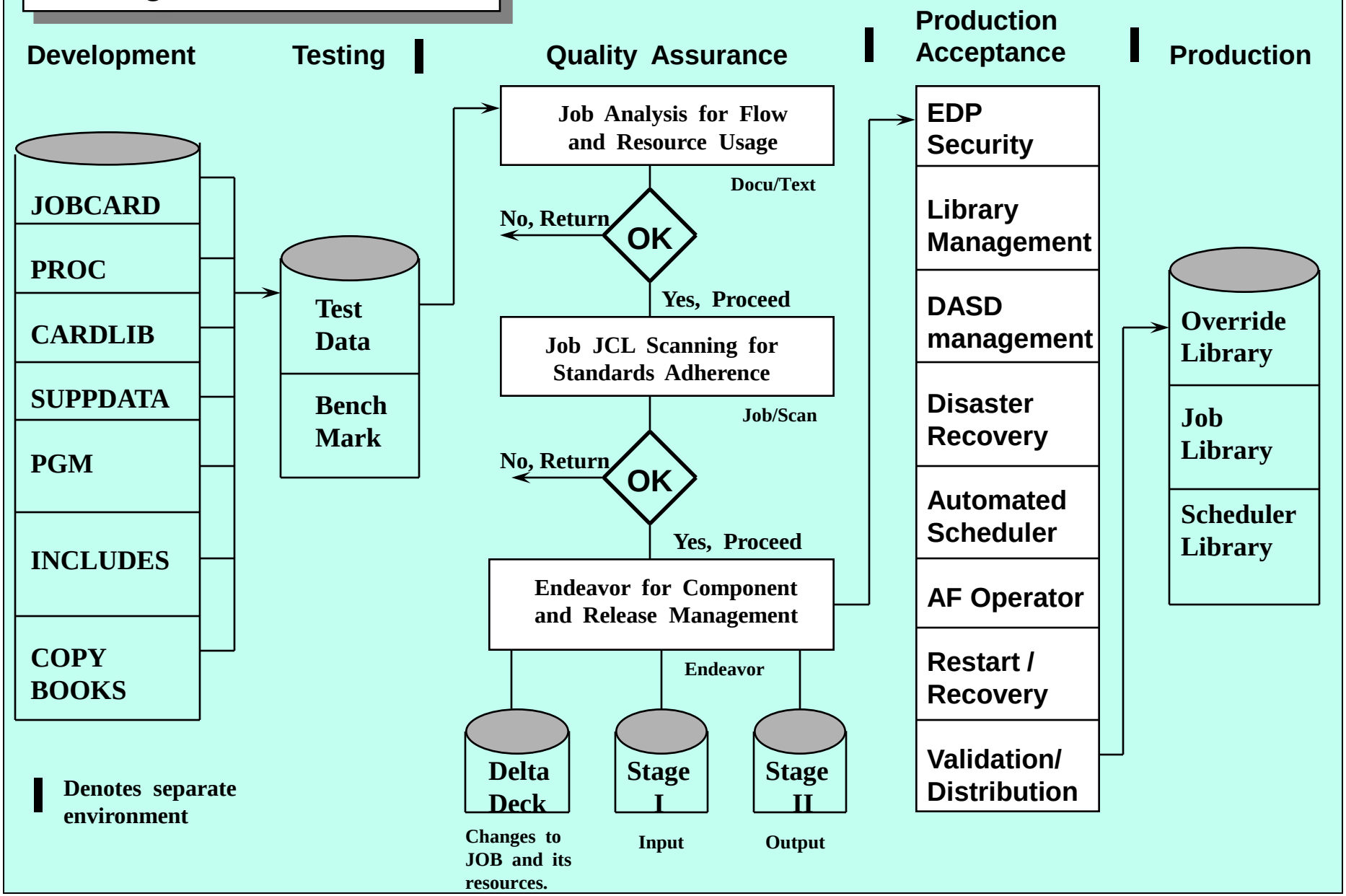
4. Vital Records Management Standards and Procedures Manual sections.

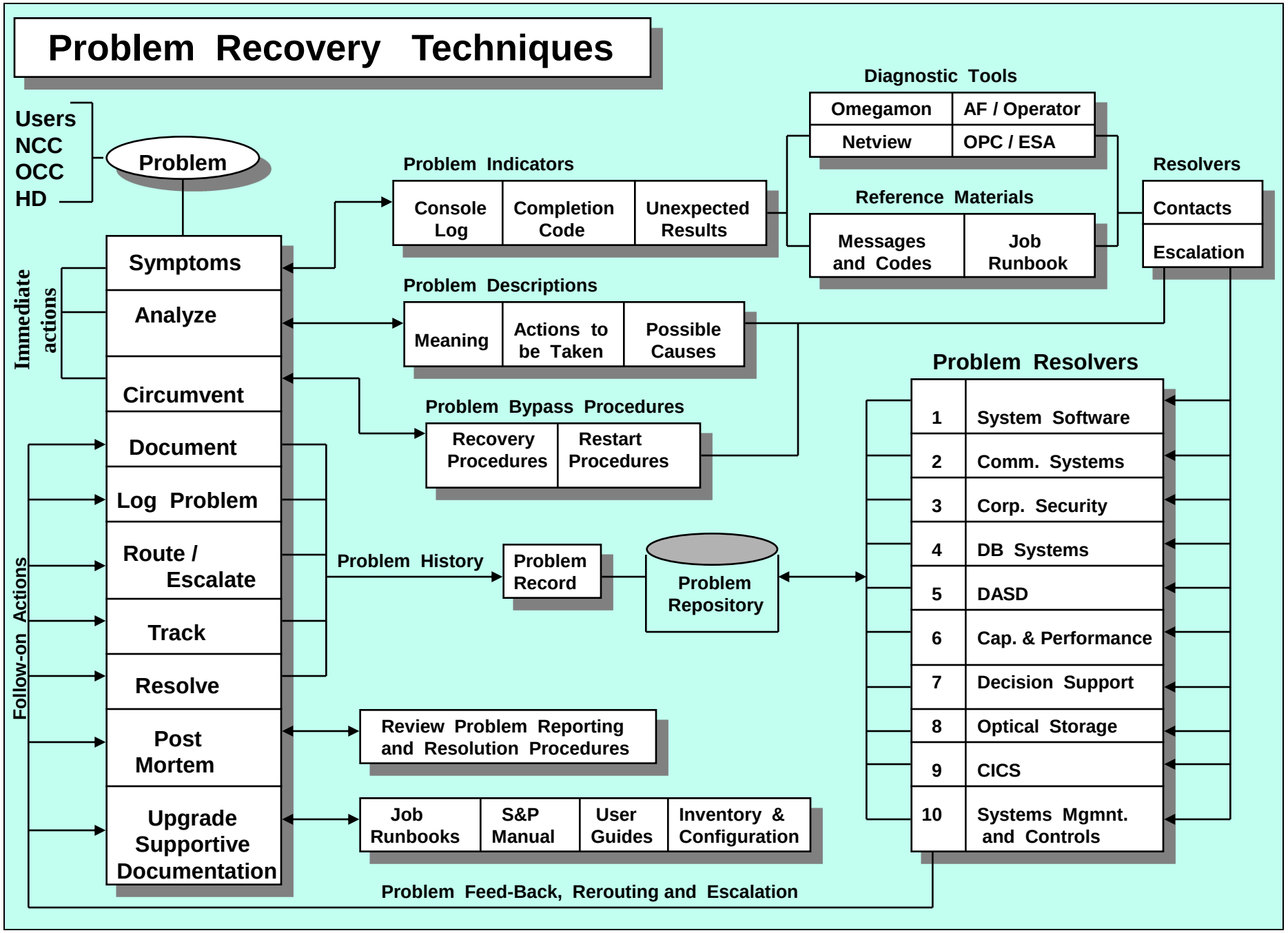
5. Vital records Management process descriptions.

<NOTE>: The Vital Records Management discipline will be included as needed in the SMC processes documented within the S&P Manual.


Application Life Cycles, Support, Maintenance and Change Management
Development
End User Request for new program
On-Line data files
BKUP
Testing
Unit & System Testing.
Quality Assurance
JCL, Naming, Placement.
Production Acceptance
Security, Vital Records, Back-Up, Recovery, Audit.
On-Line data files
BKUP
Enhance and Repair
Maintenance
Release and Version Control
Change Management
Production
Security, Vital Records, Back-Up, Recovery, Audit.
On-Line data files
BKUP
New
End User defines:
Business Purpose,
Business Data,
Ownership,
Sensitivity,
Criticality,
Usage,
Restrictions,
Back-Up, and
Restoration.
End-User Location
Update
Recovery
Real-Time
Periodic
Business Recovery Facility
Disaster Recovery Facility
Vendor
Off-Site Vault
Vendor

Change Control Process




Problem Recovery Techniques
Users
NCC
OCC
HD
Problem
Diagnostic Tools
Omegamon
AF / Operator
Netview
OPC / ESA
Problem Indicators
Console Log
Completion Code
Unexpected Results
Reference Materials
Messages and Codes
Job Runbook
Resolvers
Contacts
Escalation
Immediate actions
Symptoms
Analyze
Problem Descriptions
Meaning
Actions to be Taken
Possible Causes
Circumvent
Problem Bypass Procedures
Recovery Procedures
Restart Procedures
Problem Resolvers
Document
1 System Software
2 Comm. Systems
3 Corp. Security
4 DB Systems
5 DASD
6 Cap. & Performance
7 Decision Support
8 Optical Storage
9 CICS
10 Systems Mgmnt. and Controls
Log Problem
Route / Escalate
Problem History
Problem Record
Problem Repository
Track
Resolve
Post Mortem
Review Problem Reporting and Resolution Procedures
Upgrade Supportive Documentation
Job Runbooks
S&P Manual
User Guides
Inventory & Configuration
Follow-on Actions
Problem Feed-Back, Rerouting and Escalation

DCAG *Management Consulting Services*

- **Risk Assessments and Evaluations,**
  - **Defining Regulatory and Business Requirements,**
  - **Analyzing the use of Resources to meet Business Needs,**
- **Disaster Avoidance and Contingency Planning procedures,**
  - **EDP Security and Access Controls (Physical and Data),**
  - **Vital Records and Library Management,**
  - **Enterprise - Wide Disaster Recovery Plan evaluation / creation,**
- **Systems Management disciplines:**
  - **Problem and Change Management,**
  - **Inventory Management,**
  - **Enterprise - Wide platform configurations and connectivity,**
  - **Asset Management,**
- **Business Optimization (People and System Productivity),**
  - **Documentation and Training services,**
  - **Full range of Engineering, Development and Implementation services,**
  - **Full range of Support and Maintenance services,**