Decision Analysis and Resolution (DAR) -
A Small Organization Multi-Process Workflow

SEPG Conference
March, 2011

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Agenda

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‣ **Our Mission**
Booz Allen Hamilton partners with clients to solve their most important and complex problems, making their mission our mission and delivering results that endure

‣ **What We Bring**
Expertise, objectivity, and the capabilities of exceptional people—combined with the institutional experience of helping clients succeed for more than 90 years

‣ **What Distinguishes Us**
Booz Allen …
    … combines a consultant's unique problem-solving orientation
    … with deep technical knowledge and strong execution
    … to help clients achieve success in their critical missions

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Organization Context

▸ **This organization is the focal point and clearing house for referrals of intrusion events on Defense Industrial Base (DIB) unclassified corporate networks.**

▸ **The organization supports a collaborative operational information sharing environment among multiple partners that produces threat information products for industry partners with reciprocal responsibilities providing notice of anomalies and sharing of relevant media.**

▸ **Because of increased reliance on the Internet for sharing and storing information, U.S. unclassified networks are more exposed and accessible to our adversaries.**

▸ **DoD and DIB networks face a full range of cyber threats, including advanced persistent threats (APTs) that can evade commercially available security tools and defeat generic security best practices.**

▸ **In this environment where no one tool or best practice can solve the problem, increased collaboration and partnership is vital.**

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The Challenge

▸ **Organization created in 2008 and continues to grow in staff, number of customers, and number of products delivered**

▸ **High demand for skilled cyber analysts**

▸ **"Ground Breaking" work requiring constant change and evolution**

▸ **Charismatic and demanding leadership**

▸ **Timely delivery of high quality, actionable products**

Chaos was a natural outgrowth of the organizational environment

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Establishing Discipline

- **The client recognized the power of a disciplined and mature process**

- **The CMMI-SVC was chosen as the vehicle to drive change and improve quality and service**

- **A Gap Analysis was conducted and an Action Plan developed**

And oh, by the way. The client wanted to be CMMI Level 3 in 6 months!!

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The Processes

- **As the organization executed the plan and process documents were being developed, the client recognized the need to keep the processes and accompanying artifacts lean.**

- **During normal day to day operations, and as the management team went about making decision, they recognized some commonalities among the various processes they were performing.**

- **The Management Team was involved in managing organizational issues, service incidents, risks, process changes, and proposed requirements. Instead of having separate processes and documentation, and in keeping with the "Keep It Lean" mentality, a combined approach for these various processes was proposed.**

- **Guidance was also given that decisions be made at the appropriate level (as low as possible) and recorded in a systemic and controlled process, eliminating arbitrary and reactionary decision-making.**

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Decisions can follow one of four paths

- **Action Owner (AO)**

  - Lowest level of decision making. Can be an analyst up to senior leadership (not including the Change Control Board (CCB).

- **Management**

  - Intermediate level of decision making above the AO and not including the CCB.

- **Change Control Board (CCB)**

  - Issues and service incidents, service architecture changes/updates, or new requirements for CCB decision
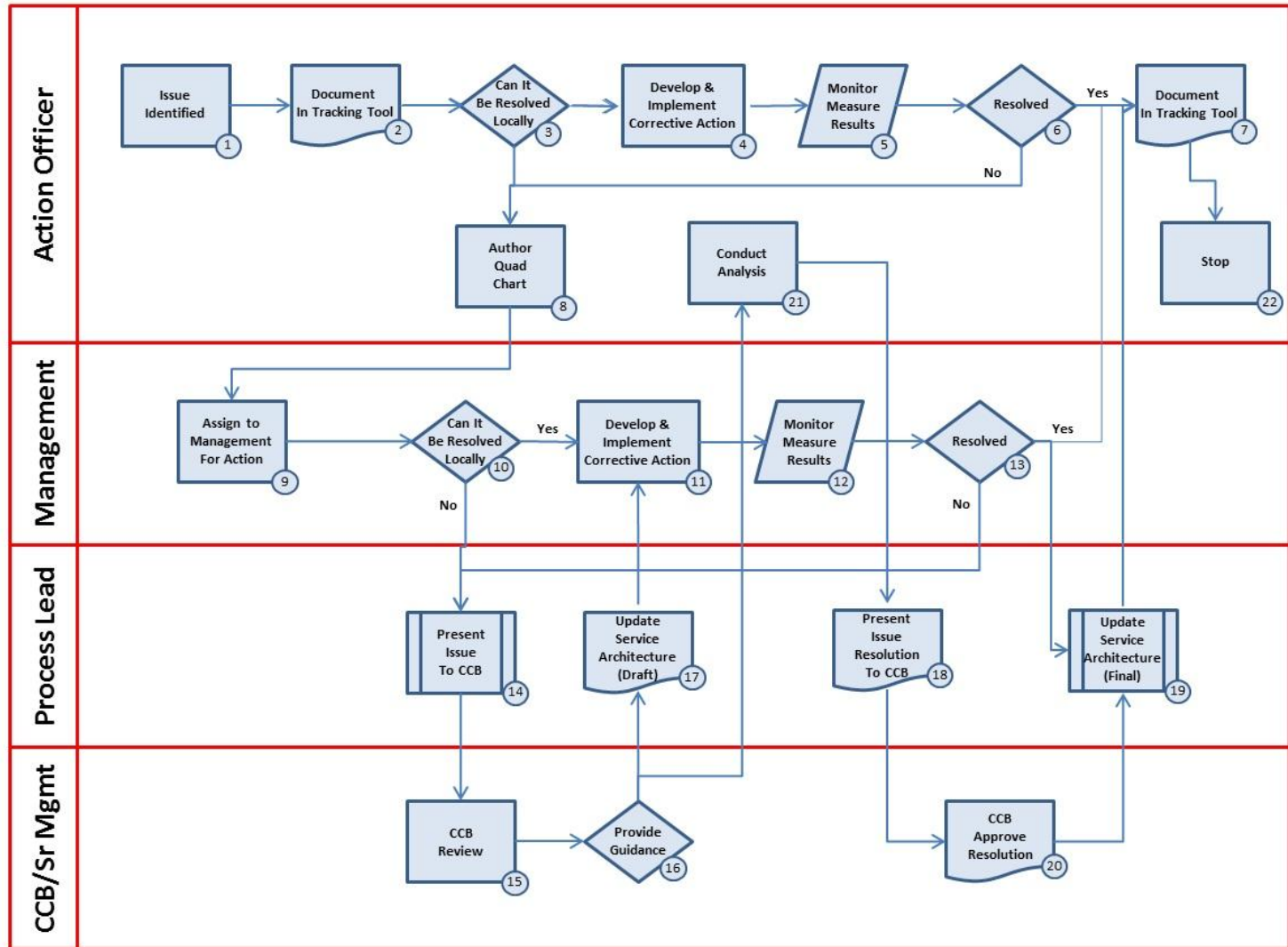
- **Sr Management**

  - Risks and issues requiring detailed analysis
  - Manages issues, provides guidance for detailed analyses and implementation, and decides on options and courses of action.

- **Process Lead**

  - Facilitates and supports the process by monitoring and tracking issues.

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Putting Them All Together

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Issues Resolved at the AO Level

▸ **Manage the Issue**

– If the issue is within the purview of the AO's roles and responsibilities, the AO develops and implements corrective actions, monitors, and measures the corrective actions. Based on the monitoring and measures, the AO determines if the issue is resolved. If the issue is resolved, the tracking tool is updated and the process stops.

– If the issue is not resolved or must be escalated to the next level – AO documents the issue in a Quad Chart and sends to next level via the tracking tool

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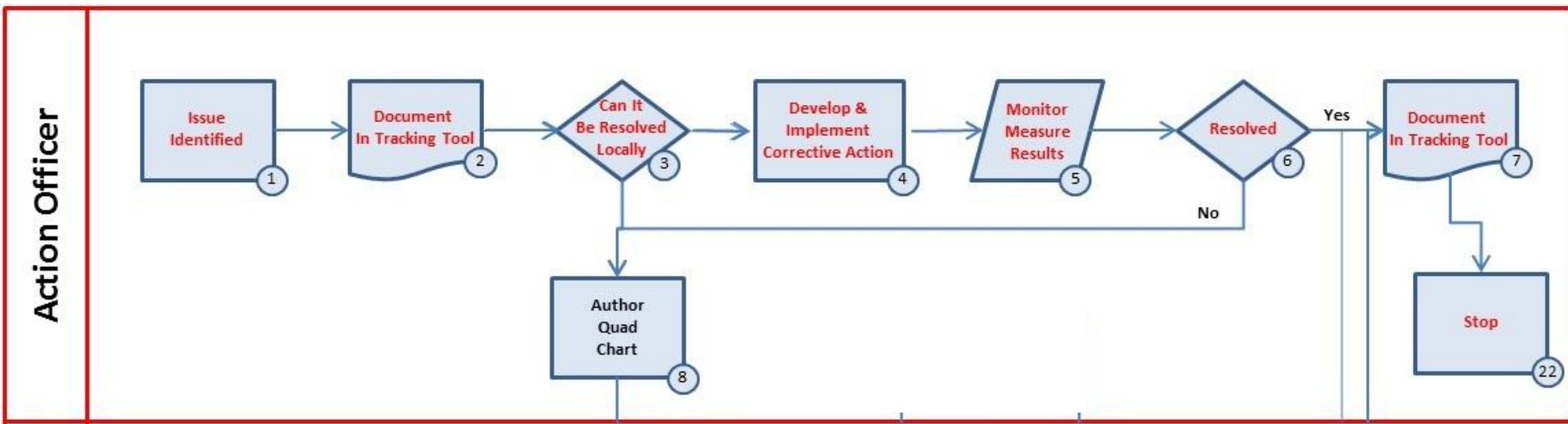
Issues Resolved at the Management Level - 1

▸ **Determine if the issue is within the scope of the supervisor's roles and responsibilities to resolve**
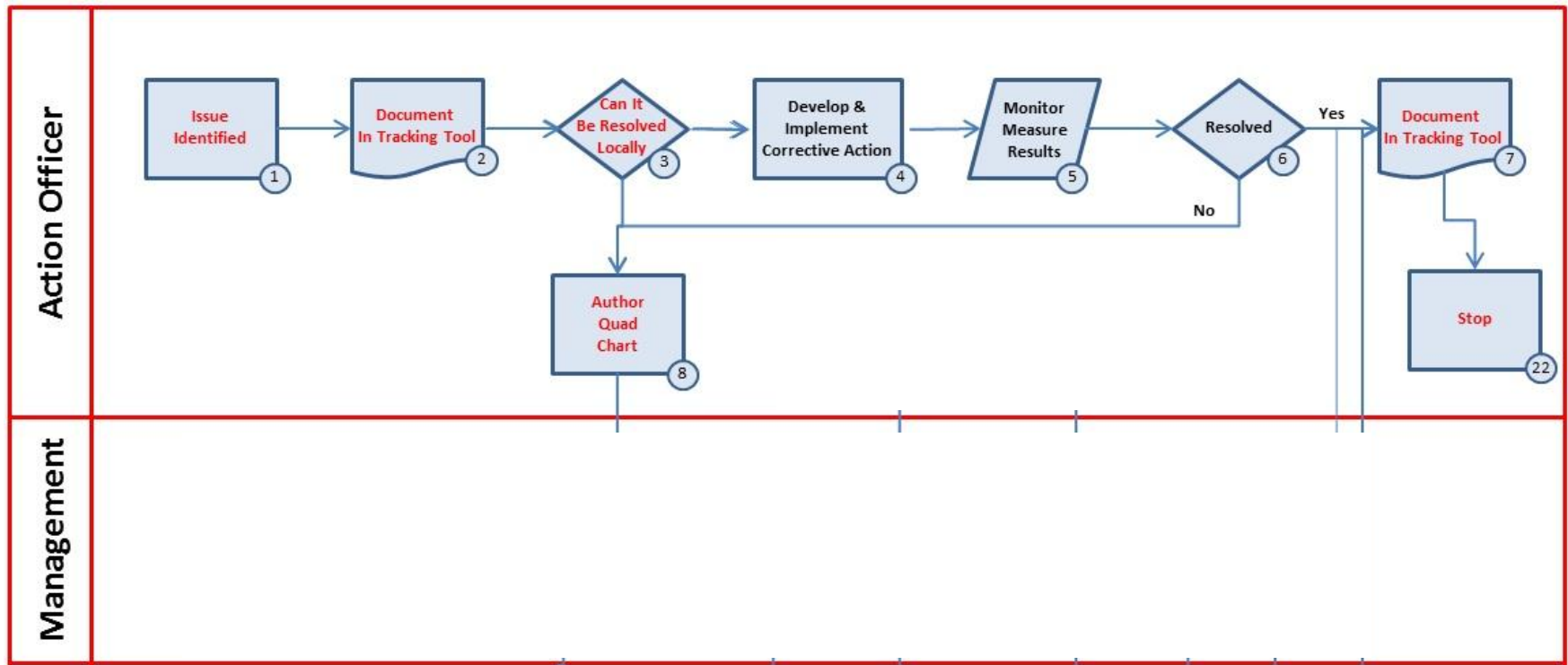
QUAD Chart

▶ **The QUAD Chart is a streamlined form that captures the essence of the issue, alternatives and solution**

Example of a QUAD Chart showing:

ISSUE TITLE (one per slide)

Background and Issue
1. XYZ is becoming over-run due to a high volume of data and an entirely manual publication process.
2. Experiencing a high number of quality issues
3. Causing delays (3-5 days) on average in product publication

Options

Option	Fix: Short term/long term	Cost	Prob. of success
Shift personnel for 'surge' capability			
Automate as much as possible (requires capability be shifted to DDB)			
Staffing Plan			
Preliminary Workflow			

Risks/Issues
1. Risk of burnout of the one person responsible for XYZ
2. Lack of funding until the end of CRA doesn't allow the ability to hire new personnel
3. As volume increased, the problem will only get worse.

Planned Activities/Way Ahead

POA&M	Owner	ETA (RYG Schema)
Reduce number of formats -	MNO	11/10
Script XYZ (DDB – Oracle online at end of Q1, scripted XYZ by end of Q2)	DDB	Mar 11
Measure	Ops Supt	Mar -Apr
Approve solution	MNO	Apr 11
Implement as final	MNO	TBD

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# Issues Resolved at the Management Level - 2

- ▸ **The supervisor develops and implements corrective actions, monitors, and measures the corrective actions**

- ▸ **Based on the monitoring and measures, the supervisor determines if the issue is resolved**
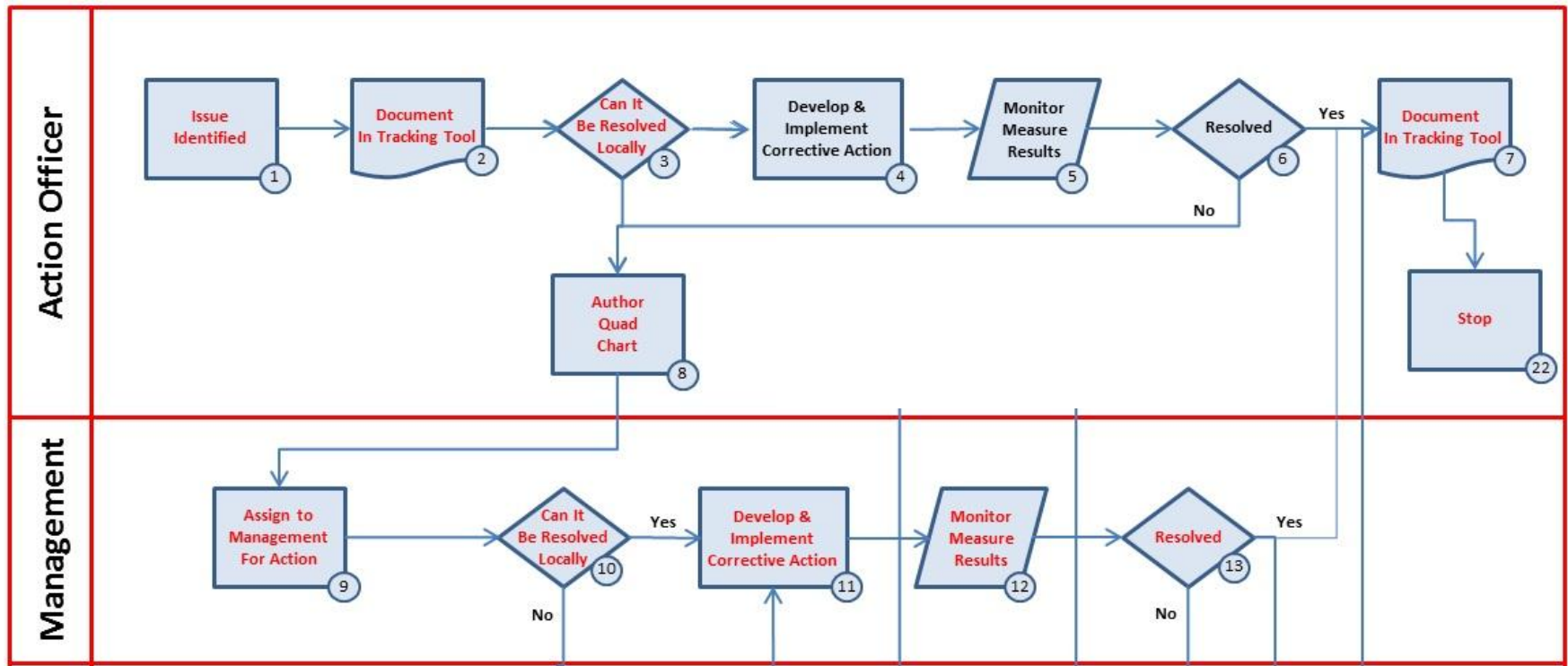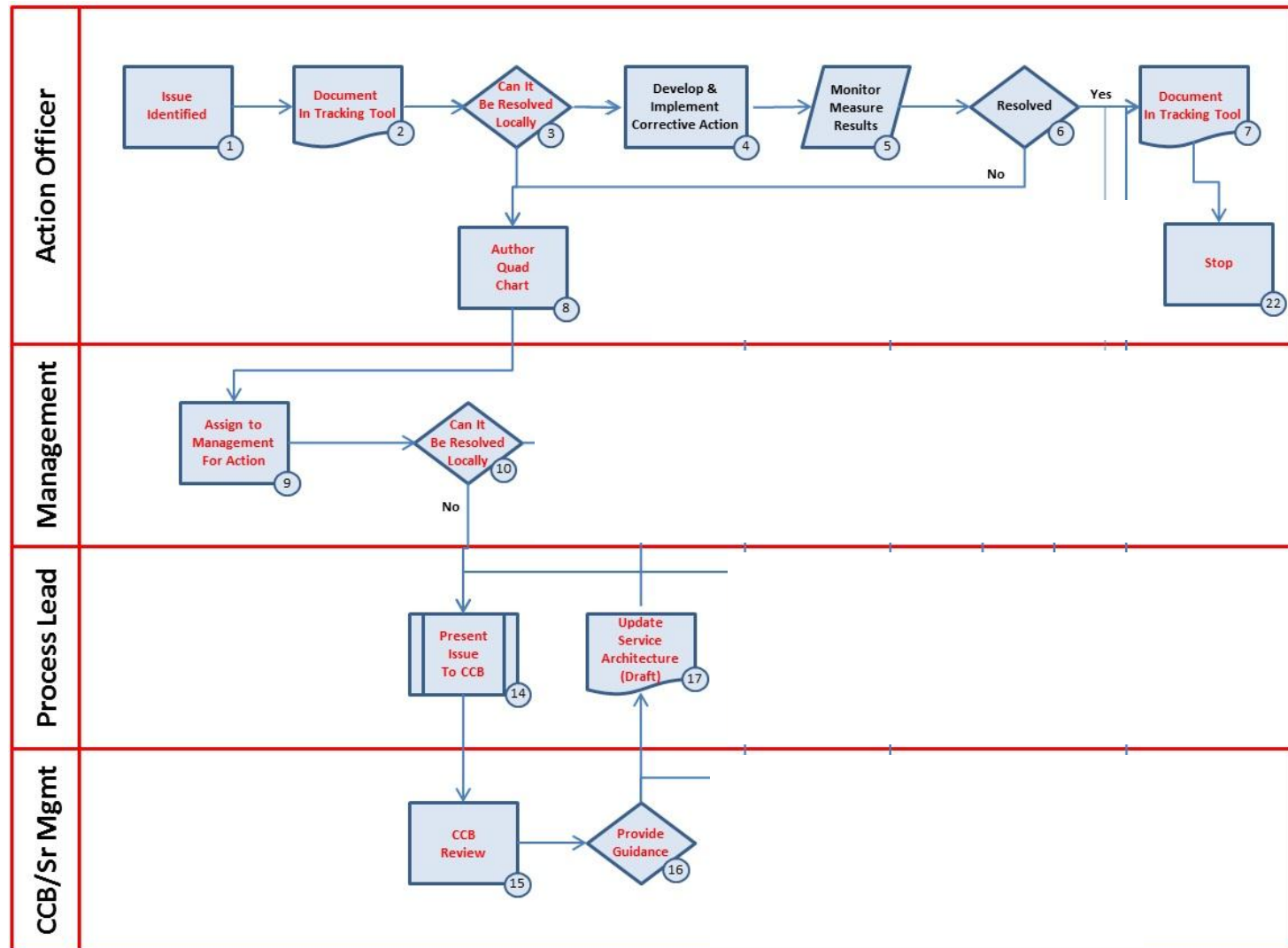
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Issues Sent to CCB - (Service Architecture Changes) 1
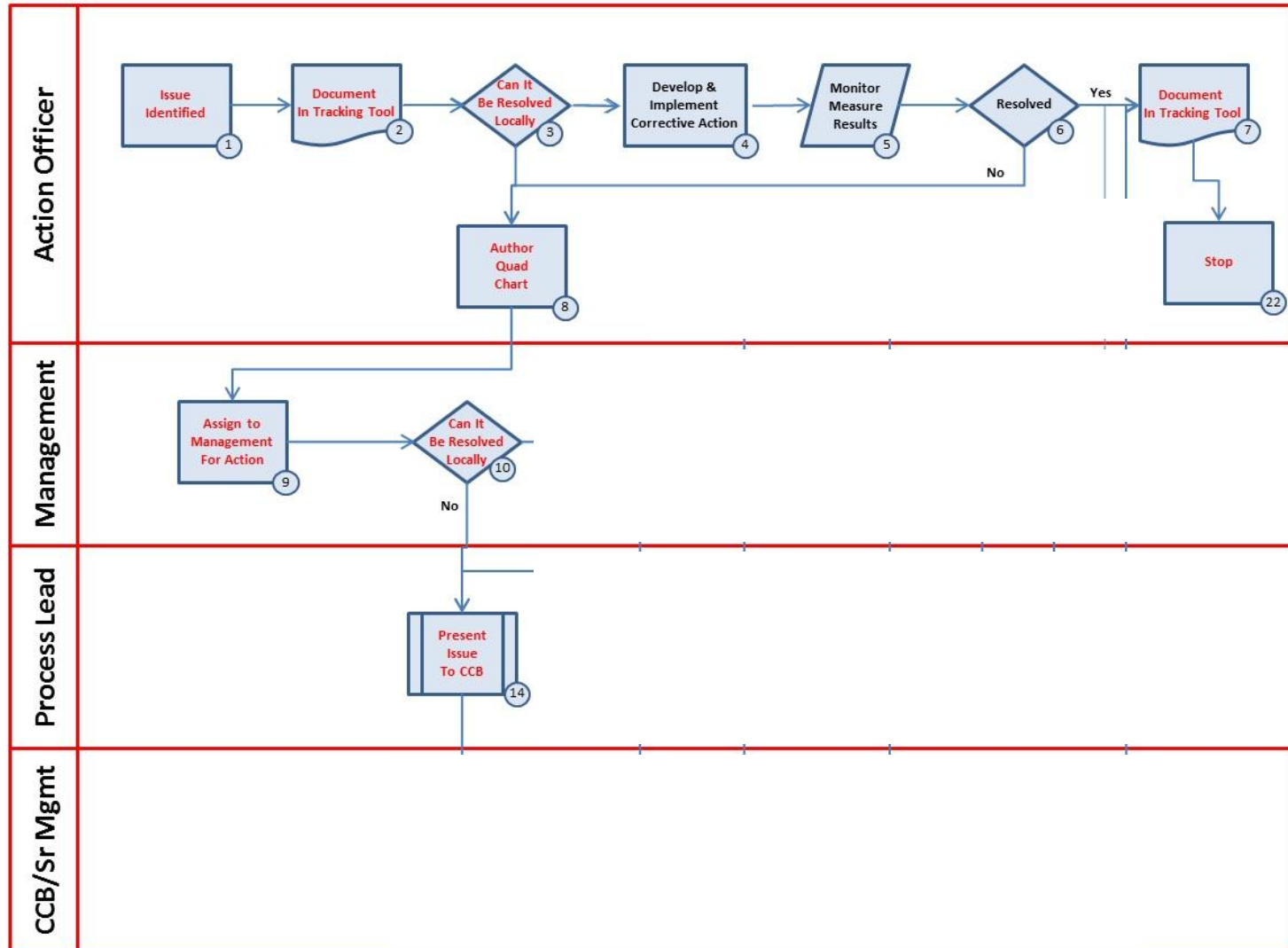
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Issues Sent to CCB - (Service Architecture Changes) 2

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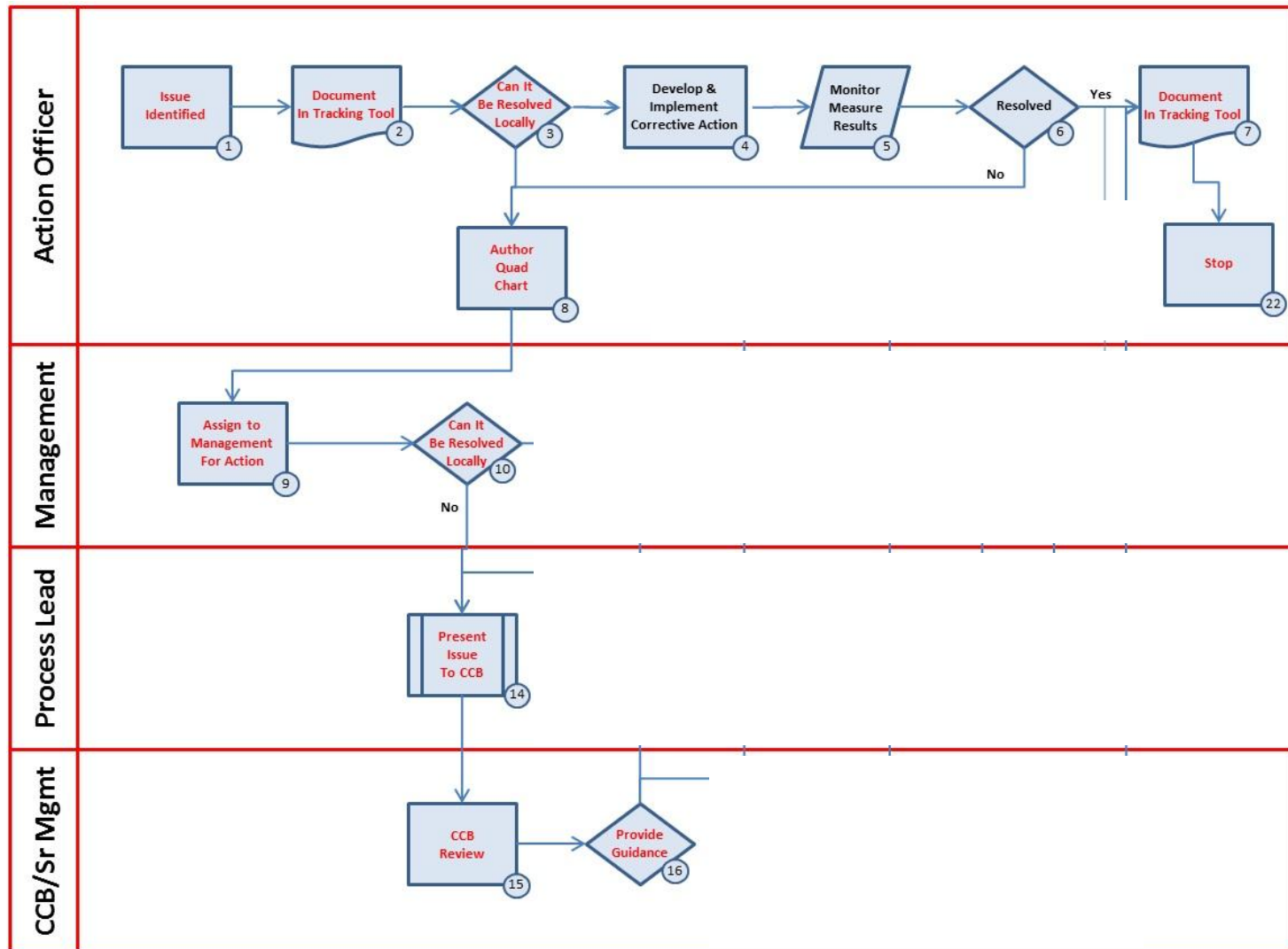
Issues Sent to CCB - (Service Architecture Changes) 3

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Issues Sent to CCB - (Service Architecture Changes) 4

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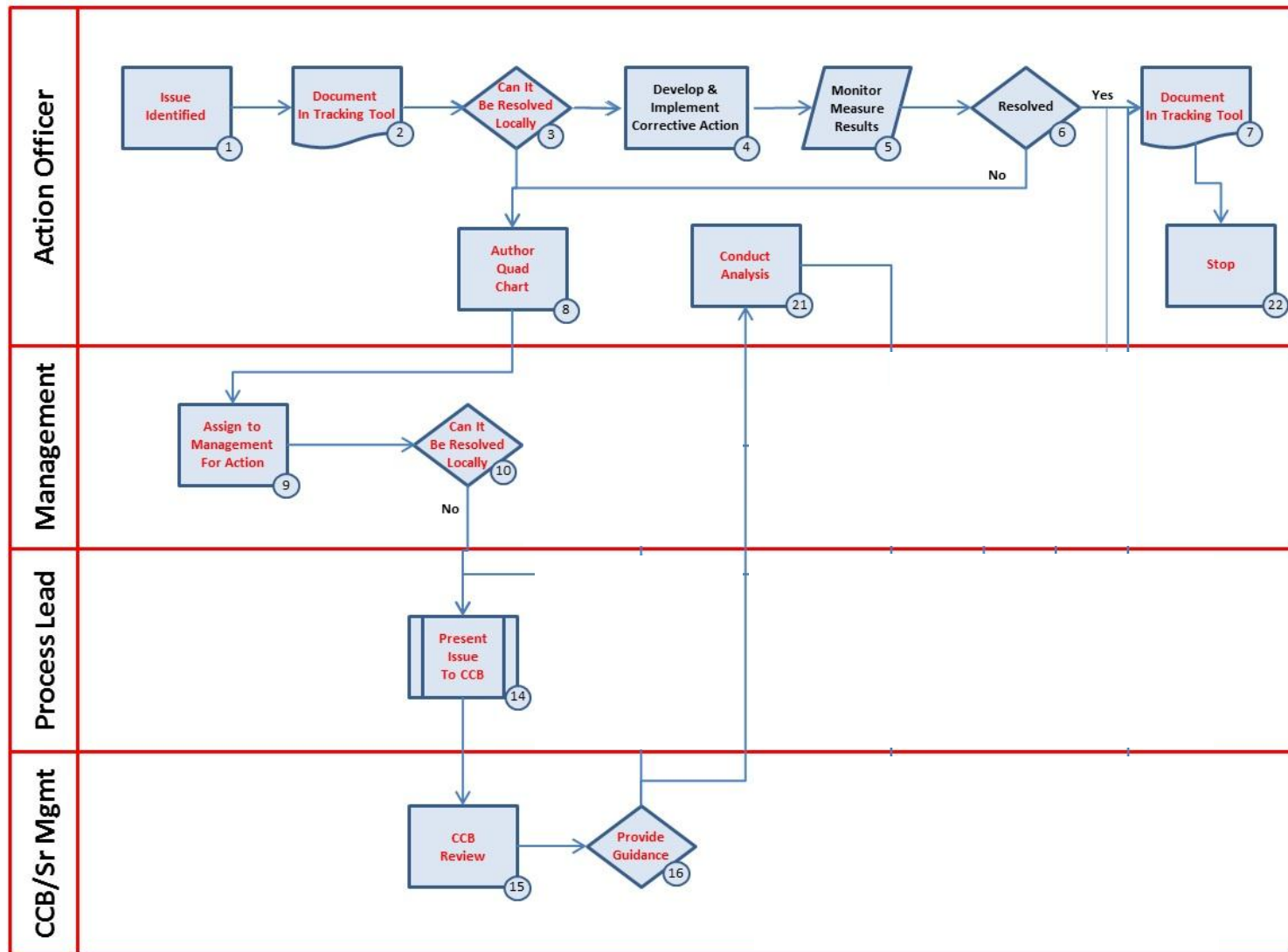Booz | Allen | Hamilton
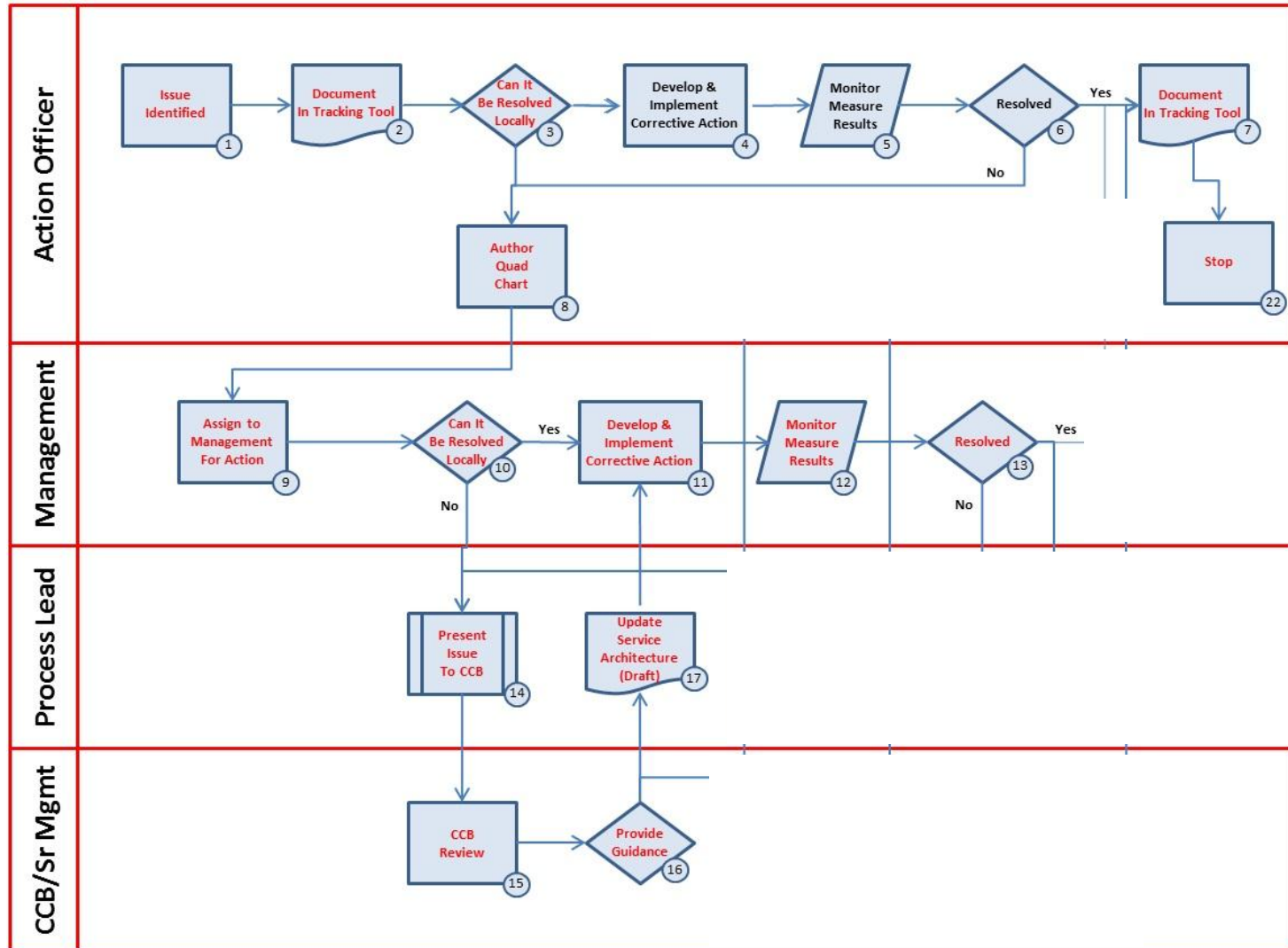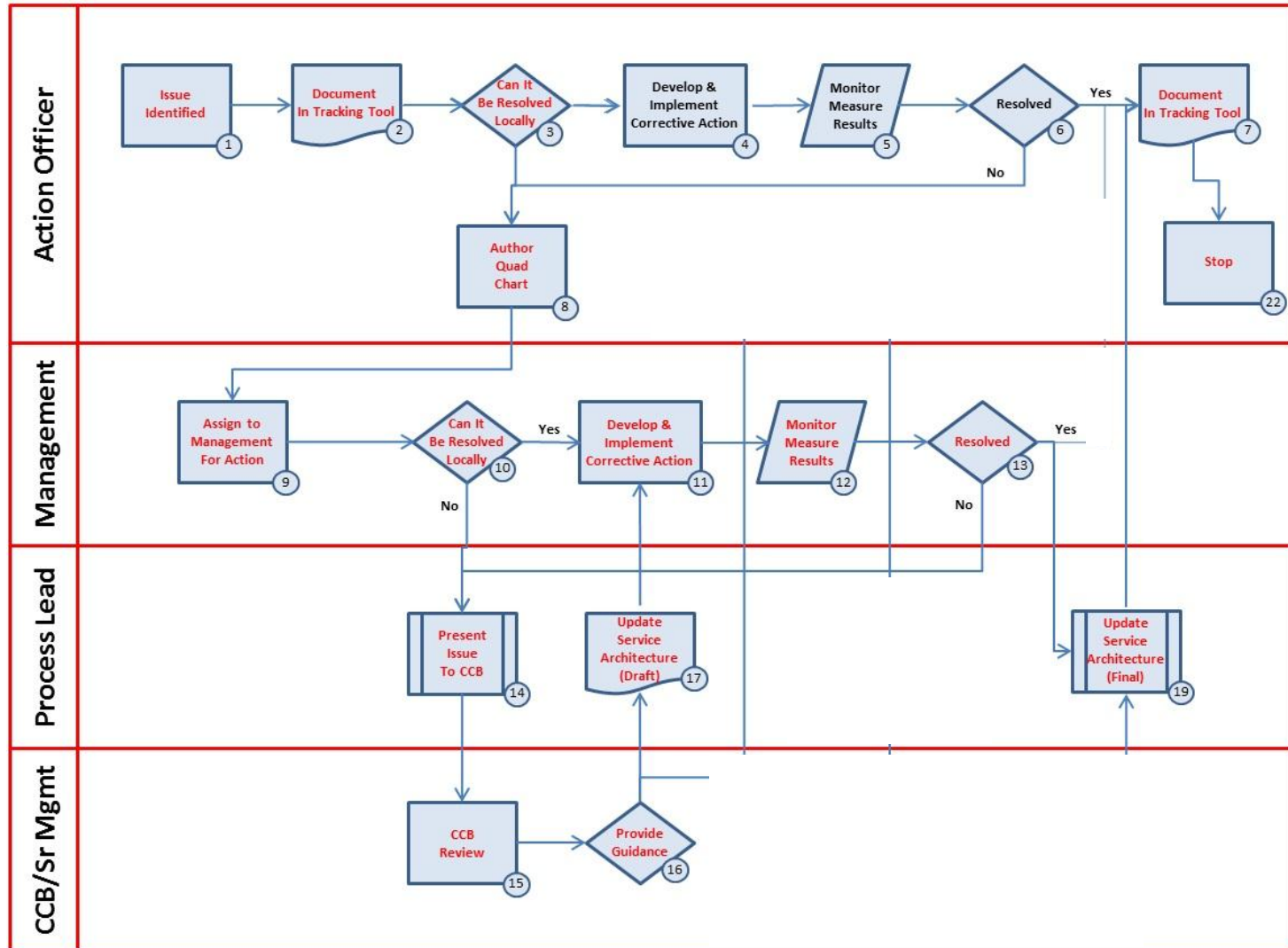
Issues Requiring Detailed Analysis - 1

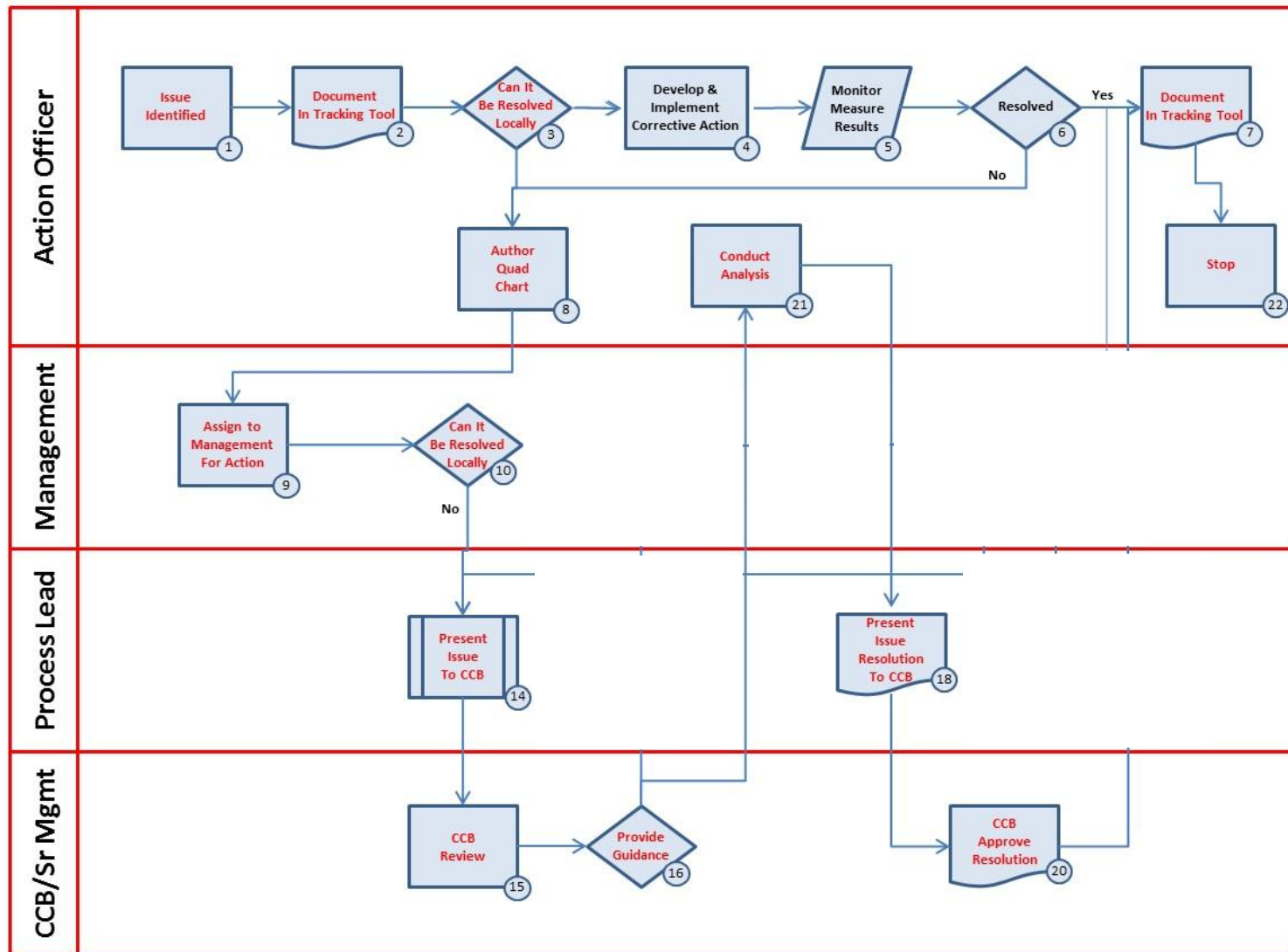▸ **An issue is forwarded to senior management for consideration and to determine next steps. Senior management may determine that the issue requires detailed analysis and recommendations.**
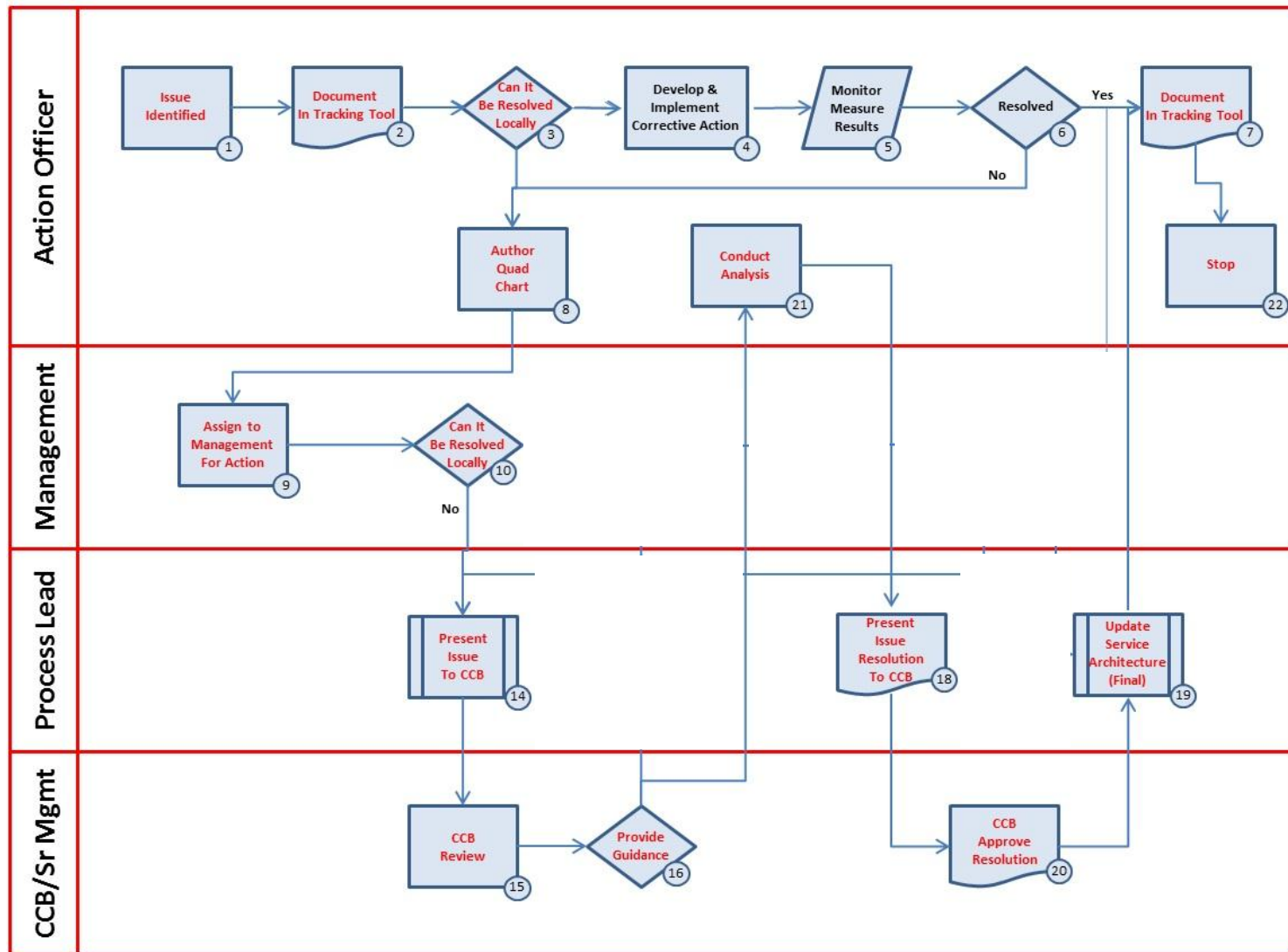
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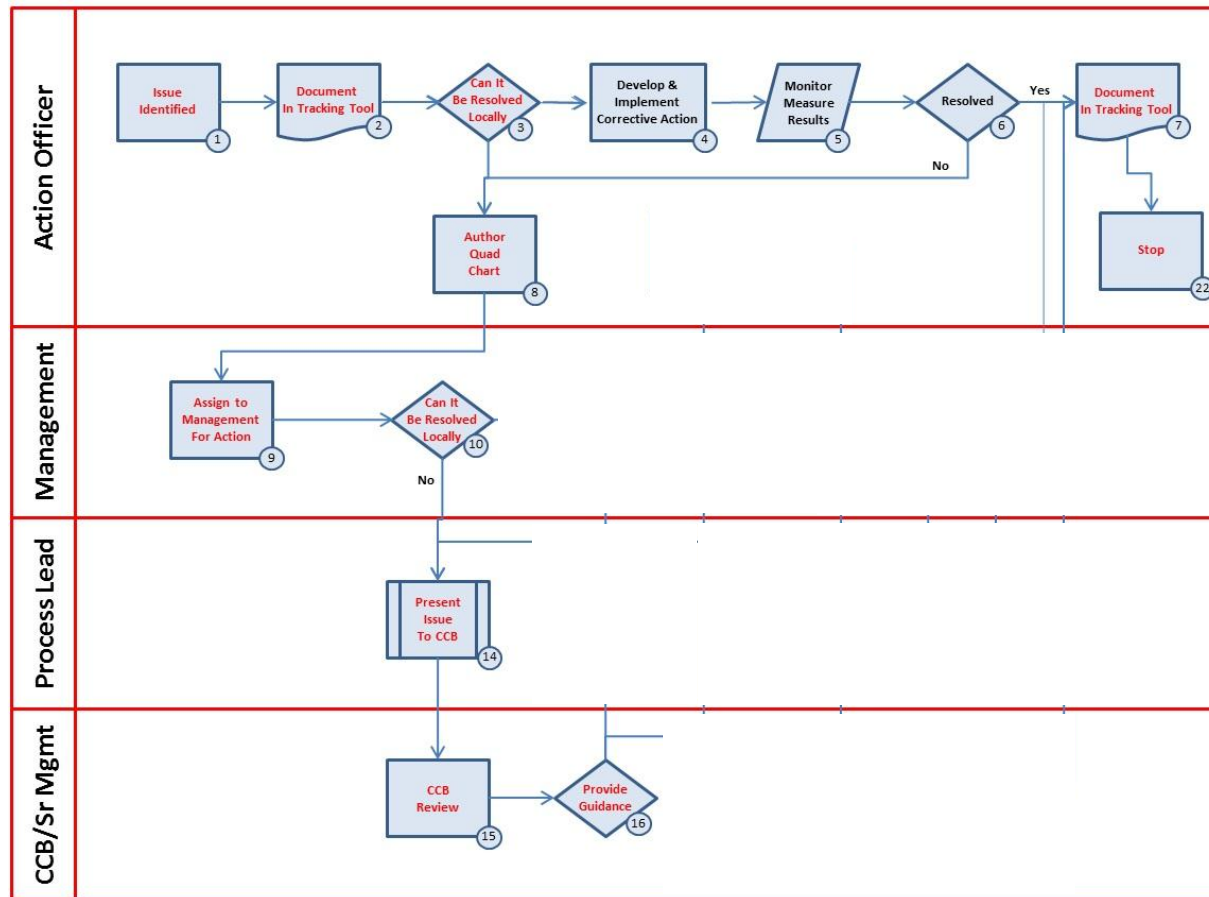
Issues Requiring Detailed Analysis - 2

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Issues Requiring Detailed Analysis - 3

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Lessons Learned

▸ **Management support**

▸ **Dedicated process team - "The PIT Crew"**

▸ **Process ownership**

▸ **Dedicated training**

▸ **Lean and current documentation – "5% fat"; periodic mandatory reviews**

▸ **Use of existing processes and tools**

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Backup Slides

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Decision Analysis and Resolution

▸ **The purpose of Decision Analysis and Resolution (DAR) is to analyze possible decisions using a formal evaluation process that evaluates identified alternatives against established criteria.**

SG 1 Evaluate Alternatives
  SP 1.1 Establish Guidelines for Decision Analysis
  SP 1.2 Establish Evaluation Criteria
  SP 1.3 Identify Alternative Solutions
  SP 1.4 Select Evaluation Methods
  SP 1.5 Evaluate Alternative Solutions
  SP 1.6 Select Solutions

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