Capabilities Based Planning:
A Methodology for Deciphering Commander’s Intent

Peter Kossakowski
Evidence Based Research, Inc.
• **What is Capabilities Based Planning?**

  • An analytic methodology that enhances the quality of information available to decision makers by decomposing the commander’s vision into actionable capabilities.

  • The capabilities define the future effects needed for agencies to meet their mission and transform into a more agile and adaptable force.

  • Asks the question: *what do we need to do rather than what equipment are we replacing?*

  • Focuses on end states as opposed to material solutions and has the power to create an agency that is more agile, has less stovepipes, and shares information more effectively.

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EBR’s Analytic Methodology

- Was created for an agency of the US intelligence community to decompose complex strategic plans
- Is a systematic, repeatable, and JCIDS compliant process based on federal mandates
- Defines future organizational needs that are not just material or IT solutions.
- Uses a database and visualization tool to view
  - Federal Mandates
  - Strategic Objectives
  - Effects
  - Inferred Capabilities
  - Capability Gaps
Analysis Process and Information Flow

FAA: “Have to Do” = “Capabilities”

1. Federal Mandates (5000+)

2. Strategic Plan

3. Federal Mandates Grouped by Sub-segments

4. Expectations
   - OFT Dimensions
     - Physical
     - Social
     - Information
     - Cognitive

5. Measures

6. Capabilities
   - As Is Baseline
   - Programmed Capabilities

7. Capabilities Gap Dashboard

8. Solution Options Dashboard

9. Support for Investment Decisions
   - Trade Offs Needed to Close Gaps
   - Solutions
   - Schedule
   - Milestones
   - Funding

10. Solution Options
   - ABC
   - MNO
   - XYZ

11. Prioritization of Gaps
   - 1
   - 2
   - 3
   - 4
   - 5

12. Monitoring Dashboard

FSA: “How do we close the Gap(s)?”

FNA: “Have to Do” = “Can Do” = “Capability Gaps”
Thousands (appr. 5000) of federal mandate documents were compiled and loaded into a database. Some of the mandates were:

- OMB Circular A-11, A-123
- DoD BEA
- President’s Management Agenda

The federal mandates related to six key areas: Supply chain, Infrastructure protection, human resources, financial management, strategic planning, and technology assurance
Goals and objectives from the agency’s strategic plan were extracted, organized, and then linked to mandates.

To facilitate the linking, Effects for each business domain were linked to the mandates. The effects were extracted from the DoD BMMP and answers:

“what would be the effect or result of achieving the mandate?”

A sample effect is:

“Establish common business practices across DoD – improved capability to share and use data across the enterprise”
Analysis Process and Information Flow

After the linking process, the plan objectives and federal mandates were used to create expectations that answer:

“When we achieve the objective we will be/have ____.”

The expectations were created using four Office of Force Transformation domains: Physical, Social, Information, and Cognitive.

These four domains provided more structure to the analysis and allowed the team to infer capabilities that were not focused on IT solutions.
Office of Force Transformation (OFT) domains (Physical, Information, Cognitive, and Social) that provide structure for analysis

DEFINITIONS

<table>
<thead>
<tr>
<th>PHYSICAL</th>
<th>INFORMATION</th>
<th>COGNITIVE</th>
<th>SOCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices, tools, and networks that enable information to be distributed to permit interaction with information</td>
<td>Documents and databases that contain the information that enables people to understand what they need to understand</td>
<td>Knowledge that allows people to carry out the tasks needed to achieve goals, including knowing what information needs to be shared</td>
<td>Organizational culture that motivates and enables people to share information</td>
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</table>

METRICS

| Extent to which the network and tools enable people to get and use information they need | Completeness and intelligibility of information to support cognitive needs | Extent to which people know what they need to know | Extent to which people are able and willing to share information |
DOMAIN DEPENDENCIES

- **SOCIAL**
  - Enables information sharing

- **COGNITIVE**
  - Defines information to support knowledge req'ts
  - Defines required knowledge for teamwork
  - Defines information acquisition storage req'ts
  - Provides information to support knowledge requirements

- **PHYSICAL**
  - Enables information storing and display

- **INFORMATION**
  - Enables information sharing

- **SOLUTION**
  - Defines requirements for network connectivity

- **TASK REQUIREMENTS**
  - Defines the culture and business rules for sharing information
Expectations by OFT domains

OBJECTIVE 2: Integrate budgeting with performance management

When we achieve the objective we will be/have:

<table>
<thead>
<tr>
<th>PHYSICAL</th>
<th>INFORMATION</th>
<th>COGNITIVE</th>
<th>SOCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Able to access verifiable, trusted financial data</td>
<td>-Produce timely and accurate financial information</td>
<td>Knowledgeable of:</td>
<td>-Managing the change process at organization and employee levels</td>
</tr>
<tr>
<td>-Using a suite of visualization tools that enable planning for and tracking the development of essential capabilities</td>
<td>-Data in standard format</td>
<td>-effective business management processes</td>
<td>-Members of integrated teams sharing information and expertise</td>
</tr>
<tr>
<td>-Able to collaborate within the agency and within the DoD community.</td>
<td>-Monthly CFO reports tracking investment performance and disclosing full cost</td>
<td>-Standardized capabilities implementation and tracking methods</td>
<td>-Managing the risk associated with new internal and external alliances.</td>
</tr>
<tr>
<td>-Comply with OMB and DoD Reporting requirements Automatically.</td>
<td>-DoD and OMB policies, guidance, and procedures.</td>
<td>-Procedures to implement expenditure center-level objectives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Data for visualizations to include; programs, expenditure center-level objectives Integrated Master Schedule.</td>
<td>-teamwork and collaboration enabling strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Mission accomplishment objectives</td>
<td>-Mission support needs</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>-managing new alliance risks in a complex collaborative environment</td>
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</tbody>
</table>
Analysis Process and Information Flow

Capabilities were inferred using the expectations, federal mandates, metrics, and domain dependencies.

Capabilities answer the question:

“In order to achieve our expectations, then we must have: ___.”
OBJECTIVE 2: Integrate budgeting with performance management

**PHYSICAL EXPECTATIONS**
- Able to access verifiable, trusted financial data
- Using a suite of visualization tools that enable planning for and tracking the development of essential capabilities
- Able to collaborate within the agency and within the DoD and intelligence communities.
- Comply with OMB and DOD Reporting requirements Automatically.

**INFORMATION EXPECTATIONS**
- Produce timely and accurate financial information
- Data in standard format
- Monthly CFO reports tracking investment performance and disclosing full cost
- DoD and OMB policies, guidance, and procedures.
- Data for visualizations to include: programs, expenditure center-level objectives Integrated Master Schedule.
- Mission accomplishment objectives

**SOCIAL EXPECTATIONS**
- Managing the change process at organization and employee levels
- Members of integrated teams sharing information and expertise
- Managing the risk associated with new internal and external alliances.

**INFERRED PHYSICAL CAPABILITIES**
- Network enabled sharing of information and expertise among executives to plan & prioritize investments
- Common operating picture displaying strategic plan goal and objectives, capabilities, mandates and investment decisions.
- Methods to authorize persons to access budget and financial data integrated with performance measures
- Earned value management tools to support integration of budget, performance measures, and milestones
Analysis Process and Information Flow

The generated capabilities were tested and refined by using:

defined metrics, best practices, and scenarios.

Metrics were created to validate that implementing such a capability could be measured

Best practices were extracted from industry and government and were used to ground the capabilities.

Agency scenarios were used to verify that the capabilities were within the scope of the agency.
Examples of Metrics for Collaboration Effectiveness

- **Adequacy of knowledge to support effective collaboration**
  - Completeness of team member knowledge of the plan
  - Correctness of team member knowledge of information sharing requirements
  - Correctness of understanding team goals

- **Effectiveness of collaborative behaviors**
  - Frequency at which team members needed to ask for information from others
  - Frequency at which team members ask team members to redo work
  - Frequency that team tasks are late

- **Quality and Cost Effectiveness of Team Products**
  - Quality of team product as rated by team client
  - Person hours required to create team product
  - Timeliness of team product
Case Study: Belgian Post Group

- Belgian Post Group is one of the largest civilian employers in Belgium.
- It provides postal, courier, direct marketing, banking, insurance, and electronic services in European market.
- Transformation project affected more than 800 post offices and more than 3,000 users

Problem: The Group needed to transform culture and business processes to coordinate activities, reduce cost, and increase operational effectiveness

Implementation:
The project had two phases:

- 1st Phase: Prepare Belgian Postal Group for change, and redefine the required processes, systems, and organization. This was implemented through a large number of workshops that were held to identify the improvement potential and determine vision.

- 2nd Phase: Actual implementation of IT applications. This functionality included financial modules, costing and reporting as well as logistics, order management, and purchasing. Implementation was done using a conference room pilot approach, where a representative model was built. After testing, the model was gradually migrated in a phased approach to day-to-day operations. Extensive training of project members, product managers, and users was used to support a smooth roll-out. The training team was responsible for:
  - Communication and change leadership
  - Documentation management
  - Project team training and coaching
  - End-user training coordination and development
  - Post-implementation support and helpdesk
  - Final knowledge and ownership transfer

Benefits:
- Reduced cost and increased operational performance.
- Greater transparency and elimination of ‘walls’ between the various entities
- Introduction of a fully integrated (absolute) budgetary control system, from requisition to GL-entry of the ‘actuals’
- End of Month reporting out of a consolidated set of books, replacing Excel based reporting
- Integrated Procure to Pay cycle
- Centralization of +/-21 physical data entry locations (AP departments) to one
- Introduction of catalogue based internet procurement for office supplies
- Electronic payment of invoices
- Single supplier database.

Source: IBM Business Consulting Case Studies
Analysis Process and Information Flow

The inferred capabilities were compared to the agency As-Is baseline.

By aligning the capabilities inferred by the team to the capabilities in the As-Is baseline, the team derived capability gaps.
### Capability Gaps:
**Objective 2: Integrate budgeting with performance management**

<table>
<thead>
<tr>
<th>PHYSICAL CAPABILITIES</th>
<th>GAPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Network enabled sharing of information and expertise among executives to plan &amp; prioritize investments</td>
<td>Some collaboration tools are available but training program not yet implemented</td>
</tr>
<tr>
<td>- Common operating picture displaying strategic plan goal and objectives, capabilities, mandates and investment decisions.</td>
<td>COP exists, but data needs have to be defined</td>
</tr>
<tr>
<td>- Permit authorized persons to access budget and financial data integrated with performance measures</td>
<td>Access exists but budget and management not integrated</td>
</tr>
<tr>
<td>- Earned value management to support integration of budget, performance measures, and milestone</td>
<td>EVM program not implemented agency wide</td>
</tr>
</tbody>
</table>

**CAPABILITY DOES NOT EXIST AND NOT PLANNED = GAP**

**CAPABILITY DOES NOT EXIST BUT IS A PLANNED ACQUISITION**

**CAPABILITY EXISTS**
Analysis Process and Information Flow

The capability gaps were displayed in a strategic dashboard that allows senior agency executives to:

- assess agency compliance with federal mandates,
- track actions taken to mitigate gaps,
- use a Web interface and intuitive critical indicators,
- view relationships by linking thousands of federal mandates, best practices, and case studies to an organization’s strategic goals, and tracks and monitors investment decisions.
## Capability Gaps

**Objective:** Integrate Budgeting with Performance Management

<table>
<thead>
<tr>
<th>Capability</th>
<th>Gaps</th>
<th>Strategic Priorities</th>
<th>Mandates</th>
<th>Scenarios</th>
<th>Implementation Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.1</td>
<td>- Network enabled sharing of information and expertise among executives to plan &amp; prioritize investments</td>
<td>Priority #1</td>
<td>PMA/OMB A-11</td>
<td>Business Planning</td>
<td>Best Practices &amp; Metrics</td>
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<tr>
<td></td>
<td>- Some collaboration tools are available but training program not yet implemented</td>
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<tr>
<td>2.2.2</td>
<td>- Common operating picture displaying strategic plan goal and objectives, capabilities, mandates and investment decisions.</td>
<td>Priority #2</td>
<td>PMA/BEA</td>
<td>Asset Management</td>
<td>Best Practices &amp; Metrics</td>
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<td></td>
<td>- COP exists, but data needs to be defined</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2.2.3</td>
<td>- Permit authorized persons to access budget and financial data integrated with performance measures</td>
<td></td>
<td>OMB A-T1/BEA</td>
<td>Growth</td>
<td>Best Practices &amp; Metrics</td>
</tr>
<tr>
<td></td>
<td>- Access exists but budget and management not integrated</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2.2.4</td>
<td>- Earned value management to support integration of budget, performance measures, and milestone</td>
<td></td>
<td>PMA/BEA</td>
<td>Major System Acquisition</td>
<td>Best Practices &amp; Metrics</td>
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<td>- EVM program not implemented agency wide</td>
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**Legend:**
- Red: Capability does not exist and not planned = gap
- Yellow: Capability does not exist but is a planned acquisition
- Green: Capability exists
Final Remarks:

Our methodology produces a process that is repeatable, traceable, and can be incorporated into a visual strategic dashboard to make sense of the large amounts of data.

Capabilities-based planning methodology creates capabilities and expectations that allow the commander’s staff to perform their duty and to achieve the visionary goal.
Questions and Comments