

*Open Group Guide*

## **Business Capabilities**

Prepared by The Open Group Architecture Forum Business Architecture Work Stream



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Comments relating to the material contained in this document may be submitted to:

The Open Group, Apex Plaza, Forbury Road, Reading, Berkshire, RG1 1AX, United Kingdom

or by electronic mail to:

[ogspeccs@opengroup.org](mailto:ogspeccs@opengroup.org)

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# Preface

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## About the Authors

This guide was developed by the Business Architecture Work Stream of the Architecture Forum, a forum of The Open Group.

### **Alec Blair – Program Lead, Enterprise Architecture, Alberta Health Services**

Alec has been working as an Enterprise Architect and Enterprise Architecture manager/coach for the last 15 of his 28 years in the IT industry. Alec currently leads the Alberta Health Services Enterprise Architecture community of expertise. This virtual team spans more than 40 practitioners working on all dimensions of Enterprise Architecture.

### **Stephen Marshall – Strategy Consultant, IBM**

Stephen Marshall is a Master Certified Architect with The Open Group, a Certified Business Architect (CBA), and a Senior Management Consultant with the IBM Institute for Business Value (IBV). He currently leads the IBV Global C-suite Study program in Asia-Pacific, co-authoring several pieces of thought leadership over the past three decades.

## Referenced Documents

The following documents were referenced in the development of this Open Group Guide.

(Please note that the links below are good at the time of writing but cannot be guaranteed for the future.)

- [1] TOGAF® Version 9.1, Enterprise Edition, Open Group Standard (G116), December 2011, published by The Open Group; available at [www.opengroup.org/bookstore/catalog/g116.htm](http://www.opengroup.org/bookstore/catalog/g116.htm).
- [2] ArchiMate® 2.1 Specification, Open Group Standard (C13L), December 2013, published by The Open Group; available at [www.opengroup.org/bookstore/catalog/c13l.htm](http://www.opengroup.org/bookstore/catalog/c13l.htm).
- [3] Karen Martin, Mike Osterling: Value Stream Mapping, McGraw Hill, 2014, ISBN: 978-0-07-182891-8.
- [4] Ulrich Homann: A Business-Oriented Foundation for Service Orientation, White Paper, February 2006.



# 1 Introduction

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Many organizations struggle with managing the complexity of their business. They want to answer questions about their progress toward realizing their strategic aims. Are their strategic investments targeted appropriately? Are there areas for rationalization of redundancy or duplication? Does the business have what is necessary or too much to succeed?

As the discipline and practice of business architecture has continued to grow and mature, the concept of the “business capability” has emerged to become a fundamental component in the development of a business architecture.

Business capabilities provide an abstraction of the business reality in a way that helps to simplify conversations between interested stakeholders. Defining a business capability’s supporting components (roles, processes, information, and tools) provides a business context for those supporting components. Creating a business capability model for the enterprise promotes more of a common understanding of the business.

Defining business capabilities and a capability model is a means to an end. Business leaders and planners need business capabilities as a foundation to make better business decisions. The insight to make better decisions happens by mapping the business capabilities to different business perspectives and viewpoints. This mapping allows for a more coherent view of the business to emerge.

Business and Enterprise Architects are the primary audiences for this Guide. Business leaders and planners may also find it useful to understand how to leverage business capabilities as part of other business strategy and planning initiatives.

This Guide looks to answer some important questions about what a business capability is and how it is being used to enhance business analysis and planning:

- What exactly do we mean by the term “business capability”?
- Why are business capabilities such an integral part of business and Enterprise Architecture, and the architecture development process?
- How do we describe business capabilities?
- How (and why) should we construct a business capability model?
- How do business capabilities map to other business perspectives?

## 2 What is a Business Capability?

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Within The Open Group, a capability is defined as “an ability to do something”. A *business* capability represents the ability for a *business* to do something. A more formal definition is as follows:

*A business capability is a particular ability or capacity that a business may possess or exchange to achieve a specific purpose or outcome. [4]*

Critically, a business capability delineates *what* a business does without attempting to explain *how*, *why*, or *where* the business uses the capability.

As part of the practice of business architecture, we separate the concern of what we do from who does it within the organization and from how the business achieves value from that activity. A business capability can be something that exists today or something that is required to enable a new direction or strategy. When integrated into a business capability model, business capabilities represent all of the abilities that an enterprise has at its disposal to run its business.

### 2.1 Defining a Business Capability

Defining a business capability involves identifying and describing what needs to be done by the business in support of its overall mission. A business capability description does not imply how *well* something needs to be done, simply that it needs to exist. The following guidelines explain how to define an individual business capability.

#### 2.1.1 Name

Naming the business capability is the first step in the capability definition process. It establishes a clear need for the existence of the business capability and helps to ensure that it is clearly distinguishable from other business capabilities. The correct naming convention involves expressing the business capability as a noun (“this is what we do”) as opposed to a verb (“this is how we do it” – usually associated with processes). In practice, business capabilities are most often written as compound nouns; e.g., “Project Management” or “Strategic Planning”.

The most important consideration is to adopt names that will resonate with business leaders and stakeholders. Commonly understood names enable better understanding and improve communication across different stakeholder groups. However, resist the urge to repeat simply the organizational department names. Unlike business capabilities (which are inherently stable), organizational structures are not enduring and frequently change in most organizations. Also, appending “Management” to the end of a term does not suddenly make it a capability.

### 2.1.2 Description

A brief description helps to clarify the scope and purpose of the business capability and to differentiate it from other business capabilities. A useful syntax is to phrase the description of each business capability as “the ability [or capacity] to ...”. For example, a business capability named “Strategic Planning” might be described as “the ability to develop and maintain the strategic plan and overall direction of the organization”.

As with the business capability name, write all descriptions using language that is relevant and appropriate to the business stakeholders. Two important considerations are to:

1. **Be concise:** Provide just enough detail over one or two sentences to enable greater understanding than can be gained from the business capability name alone.
2. **Be precise:** Do not simply repeat the name of the business capability in the description, such as “the ability to manage projects” when describing “Project Management”.

## 2.2 Components of a Business Capability

A combination of roles, processes, information, and tools enable a business capability. The process of reviewing each of the business capability components helps refine the business capability name and description and supports the subsequent analysis of business capability gaps, duplications, and redundancies. This decomposition can be used as a test to check that the capability definition is, in fact, a business capability (rather than a process, organizational function, or service).

Business capabilities are coarse-grained concepts that enable business planning from different viewpoints. Business capabilities are built to focus on what the business does rather than how the businesses use business capabilities to deliver business value. That said, in order for a capability to be defined, we need to understand how the capability is realized in the form of roles, processes, information, and tools. The key distinction is that the business capability components will change regularly, but the business capability endures over longer planning horizons. The *how* of a capability must be self-contained within the capability.

### 2.2.1 Roles

Roles represent the individual actors, stakeholders, business units, or partners involved in delivering the business capability. A single organizational group or team may be wholly responsible for delivering the capability, or multiple business entities may share the delivery of a particular business capability. Do not describe roles in a way to be organizationally specific. Similarly, role-specific business capabilities should be reviewed as they may be just a component of another business capability, or need more elaboration to become a more fully described business capability.

### 2.2.2 Processes

Individual business capabilities are usually enabled or delivered through a range of business processes. Identifying and analyzing the efficiency of the core processes helps to optimize the business capability’s effectiveness. By identifying just the processes within a business

capability, it provides a focus to mature the capability in concert with the other capability components.

It may seem contradictory to have the *how* of processes as a way to define a capability. In Section 4.2.2, which talks about value streams, we describe a technique to look at how to sequence capabilities in a way to develop the context of how using the business capability contributes to delivering stakeholder value.

### 2.2.3 Information

Information (in this context) represents the business information and knowledge required or consumed by the business capability (as distinct from IT-related data entities). There may also be information that the capability exchanges with other capabilities to support the execution of value streams. Examples include information about customers and prospects, products and services, business policies and rules, sales reports, and performance metrics.

### 2.2.4 Tools

Business capabilities rely on a range of tools, resources, or assets for successful execution. These tools may include:

- Information technology systems and applications
- Physical, tangible assets like buildings, machinery, and vehicles
- Intangible assets like money and intellectual property

## 2.3 Business Capability Example: Recruitment Management

This business capability example is called “Recruitment Management” and follows the structure described above.

Name		Recruitment Management
Description		The ability to solicit, qualify, and provide support for hiring new employees into the organization.
Components	Roles	User: <ul style="list-style-type: none"><li>• Recruiter</li></ul> Stakeholders: <ul style="list-style-type: none"><li>• Manager</li><li>• Candidate Employee</li></ul>
	Processes	Evaluate New Hire Requisitions Recruit/Source Candidates Screen and Select Candidates Hire Candidate

Name		Recruitment Management
	Information	Candidate/Applicant Details Position Descriptions Recruitment Agency Data Industry standard role definitions
	Tools	Recruitment Management Application HR Application Social Media Application

## 3 Business Capability Modeling

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A business capability model represents the complete, stable set of business capabilities (along with all of their defining characteristics) that covers the business, enterprise, or organizational unit in question. The end product of the modeling process is typically a business capability map, which provides the visual depiction (or blueprint) of all the business capabilities at an appropriate level of decomposition, logically grouped into different categories or perspectives to support more effective analysis and planning.

Once defined, the business capability model provides a self-contained view of the business that is independent of the current organizational structure, business processes, IT systems and applications, and the product or service portfolio. However, mapping the business capabilities back to organizational units, value streams, IT architecture, and the strategic and operational plans will provide greater insight into the alignment and optimization of each of those domains.

### 3.1 Approach

The first goal of business capability modeling is to capture and document all of the business capabilities that represent the full scope of what the business does today (irrespective of how well it does it) or what it desires to be able to do in the future. The second step is to organize that information in a logical manner; this activity is discussed further in Section 3.2.

There are two basic approaches for identifying a starter set of business capabilities: top-down or bottom-up:

- **Top-down:** A top-down business capability model approach starts by identifying (from an enterprise-level perspective) the 20 to 30 highest-level business capabilities, each of which can decompose into more detailed levels. Senior business leaders can ratify if not help to develop the top-level business capabilities in the first instance. In practice, developing a draft business capability model from the top down is a more efficient use of time, but only succeeds by meaningfully involving senior executives.
- **Bottom-up:** When more time is available, business capabilities can be defined from within different parts of the business and built from the bottom up. However, this approach can be more difficult to reconcile across the business without strong governance and senior leadership support toward ultimately developing an enterprise-wide business capability model.

Usually, a combination of top-down and bottom-up approaches allows for the refinement of the business capability model. Regardless of the approach, there are three good sources of information with which to create an initial draft of the business capability model:

- The organizational structure
- The business model

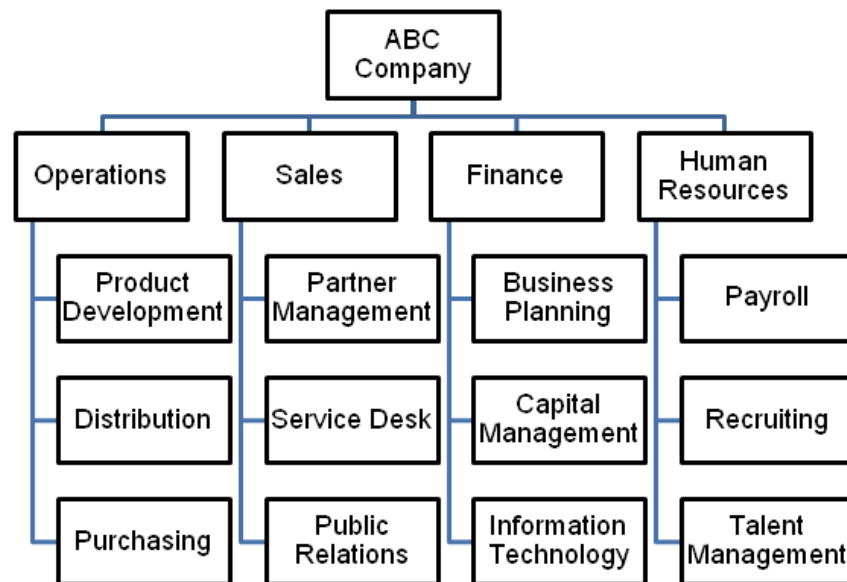
- Current strategic, business, and financial plans

### 3.1.1 Organizational Structure

Often, organizations are structured in ways that closely align to business capabilities. People execute processes and allocate resources or tools like money, information technology, or other company assets. The organizational structure of a business can thus be used to *inform* the capability model.

A common mistake is to transpose the organizational chart onto the frame of the business capability model itself. Quite often, multiple business units are involved in creating or delivering a single business capability. Organizational structures are also far more transient by nature than business capabilities. Avoid where possible a tight alignment between the functional names that denote business units, and the top-level business capabilities.

For example, ABC Company has four main functional areas, each with smaller departments that report up to the parent business unit, as shown in the following diagram:



An initial investigation with the managers responsible for each of the business units in the organization chart yields the following starter set of business capabilities:<sup>1</sup>

- Sales:
  - Account Management
  - Customer Management
  - Marketing
  - Channel Management

<sup>1</sup> This chart is not a complete list of possible business capabilities, much like any first pass where there is not enough time to meet with all stakeholder groups or there is not enough information to define a particular capability.

- Partner Management
- Agent Management
- Finance:
  - Financial Management
  - IT Management
- Human Resources:
  - HR Management
- Operations:
  - Capital Management
  - Policy Management
  - Product Management
  - Government Relations Management
  - Distribution Management
  - Procurement Management
  - Operations Management
  - Training

### **3.1.2 Business Model**

Business capabilities provide the building blocks upon which to execute an organization's business model. If an overarching business model exists (in whatever format that may take, including industry reference models), individual business capabilities (which support each of the core business model elements) can be derived. Mapping individual business capabilities back to the business model also ensures that the organization's activities and investments are tightly aligned or targeted in support of the overall enterprise vision and strategy.

### **3.1.3 Strategic Plans, Business Plans, and Financial Plans**

Use the published strategy and operational business plans to identify any business capabilities that are considered strategic or core to the organization. These represent business capabilities that provide a competitive advantage or that are core competencies, unique to the particular industry and market that the business is targeting.

An assessment of the business' financial plans should also highlight additional business capabilities that are essential for the business to operate, especially those that consume significant financial resources.



## 3.2 Structuring the Business Capability Model

There are two concepts for turning the set of business capabilities into a logical structure that communicates the right amount of detail to different stakeholder groups. Creating these structures will allow them to focus on those capabilities that are most important or relevant to their sphere of influence: stratification and leveling.

### 3.2.1 Level One Capability Stratification

Stratification is the process of classifying, grouping, and aligning business capabilities within (usually three) categories, tiers, or layers. The purpose of stratification is to break the model down to be more easily understood. A collection of 20-30 capabilities without some form of stratification is difficult to read and understand.

Each stratification tier provides a different perspective or focal point for different stakeholder groups, allowing them to organize their analysis and subsequent planning activities in more structured ways. For example, the top tier is often aimed at the executive function's span of control: business capabilities related to strategy and direction-setting. The middle tier typically represents the core, customer-facing elements of the business, while the bottom tier groups those business capabilities that are essential for the business to function but are more behind-the-scenes playing a supporting role.

The following diagram represents an example of a Level 1 business capability model for ABC Company, derived from all the inputs discussed in the previous section:

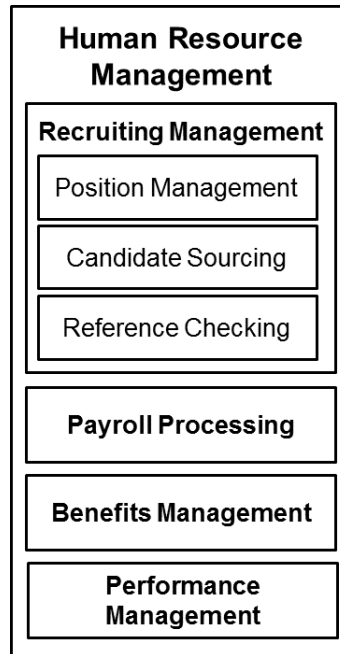
<b>Strategic</b>	Business Planning	Marketing	Partner Management
	Capital Management	Policy Management	Government Relations Management
<b>Core</b>	Account Management	Product Management	Distribution Management
	Customer Management	Channel Management	Agent Management
<b>Supporting</b>	Financial Management	HR Management	Procurement Management
	IT Management	Training	Operations Management

### 3.2.2 Leveling

Leveling is the process of decomposing each top-level (Level 1) business capability into lower levels to communicate more detail – at a level appropriate to the audience or stakeholder group concerned. Some business capabilities intuitively decompose as part of the modeling process. Others only become evident when capabilities are mapped to show other perspectives.

For example, senior executives may only be interested in the Level 1 view of the business capability model. Architects and planners expect to see a much greater degree of granularity. The number of levels of decomposition is limited only by the degree necessary to communicate the information required by the intended audience or to enable the business to make informed decisions about capability gaps. Between three and six business capability levels of decomposition is common in practice.

The diagram below shows the Human Resource Management business capability decomposition. Here, Human Resource Management is the Level 1 business capability. There are four Level 2 business capabilities, including Recruitment Management, which in turn has been decomposed into three Level 3 business capabilities.



## 4 Mapping Business Capabilities to Other Business Perspectives

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Having identified and organized the business capabilities into a business capability model, we can now start to apply the information to business analysis and planning.

There are two aspects to consider:

1. Heat mapping the business capability model itself
2. Mapping the relationships between the business capabilities and other business and IT architecture domains

Heat mapping helps identify opportunities for business improvement or investment. It visually highlights business capabilities that are performing at a sub-optimal level, or that might not exist in a form that is required to meet some future strategic need.

The second approach helps to strengthen alignment across different parts of the business, ensuring that what the business wishes to do is:

- Reflected in the company's strategic and operational plans (the *why*)
- Supported by the appropriate systems, processes, information, and organizational structure (the *how* and *where*)

### 4.1 Heat Mapping

Heat maps can show a range of different perspectives. These include maturity, effectiveness, performance, and the value or cost contribution of each capability to the business. Different attributes determine the colors of each capability on the business capability map. Typically, a spotlight metaphor highlights, at a glance, those capabilities that may need further attention. For example, a business capability maturity heat map shows capabilities at the desired level of maturity as green; one level away as yellow; and two or more levels away as red. Other colors may indicate other status levels; e.g., purple denotes the business capability does not exist today but is desired in the future. Missing capabilities signify a significant gap.

The heat map shown in the following example represents ABC Company's business capabilities when viewed from a capability maturity perspective:

<b>Strategic</b>	Business Planning	Marketing	Partner Management
	Capital Management	Policy Management	Government Relations Management
<b>Core</b>	Account Management	Product Management	Distribution Management
	Customer Management	Channel Management	Agent Management
<b>Supporting</b>	Financial Management	HR Management	Procurement Management
	IT Management	Training	Operations Management

We can see at-a-glance that Marketing, Government Relations Management, and HR Management are in need of immediate attention. Partner Management, Customer Management, and Training have some issues but are of lower priority. Agent Management is a new business capability that the business wishes to develop. Business leaders can take this information and ensure that investments and project initiatives are prioritized and funded at an appropriate level to bring those business capabilities in purple, red, or yellow up to the desired level of maturity.

Different heat maps can be generated from the same business capability model, depending on what criteria, perspective, or lens the business wishes to apply. Other examples include:

- Strategic contribution
- Performance/effectiveness
- Revenue contribution
- Cost contribution
- Coverage (the degree to which each business capability is used by more than one business unit)
- Criticality

## 4.2 Relationship Mapping

Business capabilities have relationships to business units, value streams, information assets, and all other domains of a business and IT architecture. Business capability analysis and business capability-based planning must recognize and evaluate the strength or weakness of each of those relationships to develop a complete view of the business, and to isolate those areas to target for improvement.

The relationships that business capabilities have with other domains can be depicted using relationship mapping techniques. Two of the most common and useful mappings (from a business planning perspective) are capability/organization mapping and capability/value stream mapping.

### 4.2.1 Capability/Organization Mapping

Many business capabilities align to one and only one part of an organization. Business capabilities executed in many different parts of the organization can sometimes lead to inconsistent deployment and inefficiency. In the example we went through earlier looking at the organization chart to identify business capabilities, each business capability aligned to a specific business unit. In that example we did not look at duplicated capabilities. The matrix below uses an example to show how the same business capability exists across different organizational units.

	Organizational Units			
Business Capabilities	Human Resources	Real Estate	Information Technology	Sales and Marketing
Project Management				
Learning Management				

As an added dimension, the capability heat map shows where there may be opportunities to rationalize or otherwise harmonize capabilities across the organization. One option may be to standardize using a consistent set of tools within the capability. Another option may be a complete realignment of the capability to a specific organizational unit to optimize further all components of the capability.

### 4.2.2 Capability/Value Stream Mapping

A value stream<sup>2</sup> represents the sequence of activities (or value stages) that an organization undertakes to deliver on a customer request. In this context, a customer can be an external client or an internal stakeholder that is responsible for *supporting* the delivery of value by the organization.

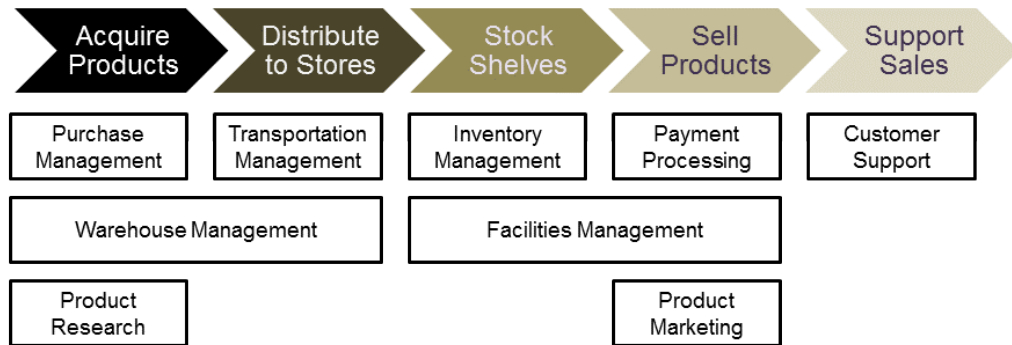
Value streams help organizations identify which specific business capabilities are required to create and deliver value to their customers. The process of mapping business capabilities to each stage in a value stream serves to highlight which ones are more or less critical to the business operation. That, in turn, supports investment prioritization and initiative planning to develop or enhance those business capabilities that provide the greatest contribution to value delivery.

The following example shows a sample retail value stream and the various value stages mapped to different business capabilities. Each capability enables one or more value stages.

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<sup>2</sup> We hope to explore value streams in more detail in another guide in the near future. For further reading on one approach, please refer to p.2 of [3].

# Retail Value Stream



After identifying which business capabilities are needed to fully realize the value stream, further analysis can look at whether each of those business capabilities exists at the required level of maturity, performance, or effectiveness. Once an organization has defined its entire set of value streams, capability/value stream cross-mapping will also highlight which business capabilities are used in multiple value streams and thus have an even higher level of importance to the operation and success of the business.

## 5 Conclusion

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Business capabilities are a key building block for developing and optimizing a business or Enterprise Architecture. Linking business capabilities to their underlying components provides a business context for the underlying roles, processes, information assets, and tools that combine to deliver value in the form of products and services to the stakeholders of a business.

Organizing the business capabilities into a business capability model provides architects and stakeholders with a stable view of the business that is agnostic of the organization's structure. The model describes what the business does, or expects to do at some point in the future. This abstraction also helps business leaders to manage the overall complexity inherent in their business.

Finally, mapping business capabilities to different business perspectives helps business leaders make better decisions.





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