

GLOBAL STANDARDS AND PUBLICATIONS

Global Standards and Publications

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You and we are well aware that we live in a Volatile, Uncertain, Complex, and Ambiguous (VUCA) environment. As a result, more and more professionals choose to apply agile approaches, but also many of them agree that there is still a need for standardization and collecting and applying best practices. In the first place because this helps communication with other professionals, referring to globally accepted terminology. And also, because it helps to apply a high-level approach for professional discussion.

Van Haren Publishing publishes easy to access publications on Best Practices that are developed by professionals and quality-reviewed by many other experts. This provides you with information summarizing years of experience by the best in the profession. It is an honor for us to collaborate with knowledge partners like ASLBiSL Foundation, IACCM, IPMA, ITSMF, ITWNET, IVI and The Open Group, to support their Best Practices and standards. Not only do we publish books on Best Practices, we also actively and independently promote the standards and frameworks via many partners.

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The application of these best practices and standards is not more than a tool that enables professionals to get to better results. We understand that this is mainly about knowledge and skills. We also realize that the human factor is more important, since without people all these things don't evolve at all. Partly we also address this area through our publications that are based on competence, but we admit that we only cover a small area in the products we provide.

Anyway, we do our best to play a part in sharing the knowledge and skills from Best Practice and standards with our customers. The rest is up to you.

Kind regards,
The publishing team of Van Haren Publishing

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1 Title/current version

ASL®2 (Application Services Library)

2 The basics

ASL (Application Services Library) is a framework and collection of best practices for application management.

3 Summary

ASL (Application Services Library) was developed by a Dutch IT service provider, PinkRocade, in the 1990s and was made public in 2001. Since 2002 the framework and the accompanying best practices have been maintained by the ASL BiSL Foundation. The current version is ASL2, published in 2009.

ASL is concerned with managing the support, maintenance, renewal and strategy of applications in an economically sound manner. The library consists of a framework, best practices, standard templates and a self-assessment. The ASL framework provides descriptions of all the processes that are needed for application management.

The framework distinguishes six process clusters, which are viewed at operational, managing and strategic levels see Figure.

The *application support cluster* at the operational level aims to ensure that the current applications are used in the most effective way to support the business processes, using a minimum of resources and leading to a minimum of operational disruptions. The *application maintenance and renewal cluster* ensures that the applications are modified in line with changing requirements,

usually as a result of changes in the business processes, keeping the applications up-to-date. The connecting processes form the bridge between the service organization cluster and the development and maintenance cluster.

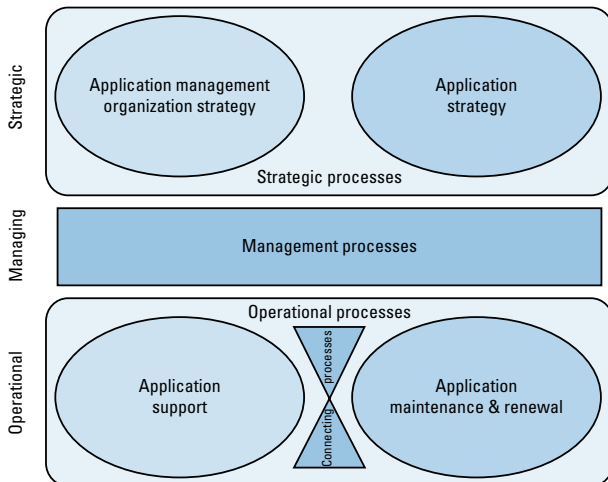


Figure: The ASL framework

The management processes ensure that the operational clusters are managed in an integrated way.

Finally, there are two clusters at the strategic level. The aim of the *application strategy cluster* is to address the long-term strategy for the application(s). The processes needed for the long-term strategy for the application management organization are described in the *application management organization strategy cluster*.

4 Target audience

The target audience for ASL consists of everyone who is involved in the development and management of applications: application support personnel, application architects and designers, programmers, testers, and managers with responsibility for application development or application management.

5 Scope and constraints

The scope of ASL is the support, maintenance, renewal, and strategy of applications, and the management of all related activities.

Strengths

- It offers a common language and conceptual framework for application management (maintenance and support)
- It provides an overview of all the activities (from operational to strategic) that are needed to keep applications up-to-date with the changing needs of the organization
- It is usable in various organizations
- It is owned and supported by a not-for-profit, vendor-independent foundation with participation by a wide range of organizations

Constraints

- ASL overlaps partially with other IT Service Management frameworks

6 Relevant website

www.aslbisfoundation.org

Business Relationship Management (BRM)

1 Title/definition

Business Relationship Management (BRM)

2 The basics

Business Relationship Management stimulates, surfaces and shapes business demand for a provider's products and services and ensures that the potential business value from those products and services is captured, optimized and recognized.

The concept of Business Relationship Management (BRM) is related to and employs the techniques and disciplines of Customer Relationship Management (CRM). However, while CRM most often refers to a company's external customers, the BRM typically deals with a company's internal *business partners* or an internal *provider's* products and/or services.

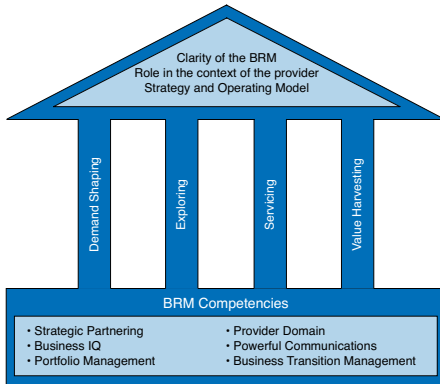
While BRM has its roots in CRM, it has come to mean different things to different people—often depending upon the specific industry context. For example, in banking and finance, the Business Relationship Manager manages and maintains current business relationships and seeks new accounts. Banking BRMs are typically responsible for a portfolio of small to mid-sized businesses. In other industries, the label “BRM” has come to be a euphemism for “account executive” or even “salesperson.”

3 Summary

The BRM Disciplin rests on solid research-based foundations verified and enhanced over a decade of successful implementations in leading organizations across the world. Proven to be equally effective for a wide range of internal providers including Human Resources, Finance, Legal, external service providers and others, BRM practices have enjoyed widespread adaption in IT. BRM implementations rate in IT services has quickened significantly, since 2011, when the BRM role and corresponding processes have been formalized as an Information Technology Infrastructure Library (ITIL®) best practice and an ISO/IEC 20000 IT Service Management international standard requirement.

The Practice of Business Relationship Management embodies a set of competencies (e.g. knowledge, skills, and behaviors) to foster an effective business value-producing relationship between a service provider and its business partners. These competencies can be leveraged through organizational *roles* (e.g. in an IT organization, the CIO typically has a role of BRM for the enterprise), a *discipline* (e.g. all business partner facing service provider roles should be skilled in Business Relationship Management), and an organizational *capability* (e.g. a service provider organization should be effective in shaping and channeling demand to the highest business value opportunities).

The BRM Role is a crucial link between a service provider and the business acting as a connector, orchestrator, and navigator between the service provider and one or more business units.



The House of BRM illustrates three key aspects of Business Relationship Management:

1. The “foundation” supports the BRM role and ensures it has the *competencies* to be effective and deliver value to both the provider organization and its business partners.
2. The “pillars” define the BRM space in terms of Core BRM Disciplines: Demand Shaping, Exploring, Servicing and Value Harvesting.
3. The “roof” of the House of BRM protects Business Relationship Management as a key aspect of provider capability. It does this by ensuring clarity around how the role, discipline and organizational capability of Business Relationship Management in the context of the Provider Strategy and Operating Model.

Four Core BRM Disciplines

- ***Demand Shaping*** stimulates, surfaces and shapes business demand for provider services, capabilities and products. It ensures that business strategies fully leverage provider

capabilities, and that the provider service portfolio and capabilities enable business strategies. Most importantly, Demand Shaping is focused on optimizing the business value realized through provider services, capabilities and products—that low value demand is suppressed while higher value demand is stimulated.

- **Exploring** identifies and rationalizes demand. Business Relationship Management helps sense business and technology trends to facilitate discovery and demand identification. Exploring is an iterative and ongoing process that facilitates the review of new business, industry and technology insights with potential to create value for the business environment. The key benefit of this discipline is the identification of business value initiatives that will become part of the provider portfolio of services, capabilities and products.
- **Servicing** coordinates resources, manages Business Partner expectations, and integrates activities in accordance with the business partner-provider partnership. It ensures that business partner-provider engagement translates demand into effective supply requirements. Servicing facilitates business strategy, Business Capability Roadmapping, portfolio and program management.
- **Value Harvesting** ensures success of business change initiatives that result from the exploring and servicing engagements. Value harvesting includes activities to track and review performance, identify ways to increase the business value from business-provider initiatives and services, and initiates feedback that triggers continuous improvement cycles. This process provides stakeholders with insights into the results of business change and initiatives.

4 Target audience

Any business professional or organization wishing to better stimulate, surface and shape business demand for a provider's products and services and ensure that the potential business value from those products and services is fully captured, optimized, and recognized.

5 Scope and constraints

With its focus on improving relationships among business partners and maximizing business value, the principles of the art and practice of Business Relationship Management are equally relevant to anyone engaged in business—anyone from rank-and-file employees to C-level executives. If maximizing business value realization of resources spent is of any concern to you, BRM is a discipline, which will help you to achieve your objectives.

Constraints

Although 2011 editions of ISO/IEC 20000 standard and ITIL® best practices rekindled the public interest in Business Relationship Management, their scope is limited to IT and the guidance they provide is most effective in the initial stages of BRM capability implementations and at the lower levels of its maturity. To be truly successful in rolling out and maximizing the potential of BRM capability, organizations should follow a much more holistic approach, one developed, promoted, and constantly refined by Business Relationship Management Institute.

Relevant links website

Official Business Relationship Management Institute's website: www.brminstitute.org

APMG is responsible for facilitating the delivery of Business Relationship Management Professional (BRMP®) training and certification.



1 Title/current version

CMMI® (Capability Maturity Model® Integration) Version 1.3.

2 The basics

CMMI is an internationally recognized process improvement approach that helps organizations to identify where to focus their improvement efforts along an evolutionary maturity path from ad hoc and chaotic to mature disciplined processes.

3 Summary

CMMI is owned and supported by the Carnegie Mellon® Software Engineering Institute (SEI). Version 1.0 of the CMM for Software (SW-CMM) was published in 1991; it was upgraded to CMM Integration (CMMI) in 2000 and the current version is Version 1.3, released in November 2010. An important change in Version 1.3 is the addition of Agile.

CMMI integrates traditionally separate organizational functions, sets process improvement goals and priorities, provides guidance for quality processes, and provides a point of reference for appraising current processes. The CMMI models are collections of best practices that help organizations to improve their processes:

- The CMMI for Acquisition (CMMI-ACQ) model provides guidance on managing the supply chain to meet the needs of the customer
- The CMMI for Development (CMMI-DEV) model supports improvements in the effectiveness, efficiency, and quality of product and service development

- The CMMI for Services (CMMI-SVC) model provides guidance on establishing, managing, and delivering services that meet the needs of customers and end users
- The People CMM provides guidance on managing and developing the workforce

An organization appraises its processes against the CMMI best practices:

- To determine how well its processes compare to CMMI best practices, and to identify areas where improvement can be made
- And/or to inform external customers and suppliers of how well its processes compare to CMMI best practices
- And/or to meet the contractual requirements of one or more customers

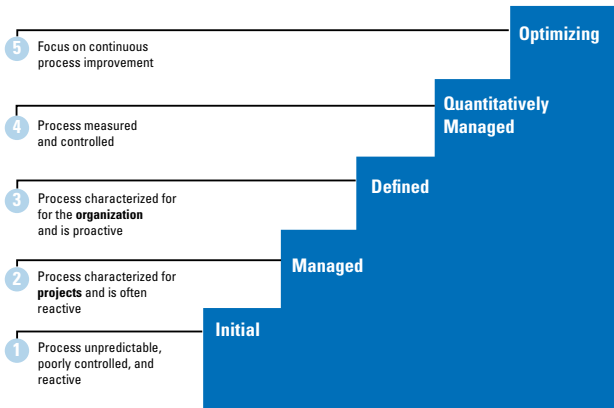


Figure: CMMI maturity levels

Source: *SCI*

Organizations can use a **staged** approach to appraisal to identify process maturity levels from 1 to 5 (see Figure). They can also

take a more flexible **continuous** approach to appraisal, measuring capability maturity in individual process areas. The appraisal results can then be used to plan process improvements for the organization.

4 Target audience

Managers responsible for process improvement programmes, project managers, process improvement specialists, project team members, appraisals teams.

5 Scope and constraints

- CMMI applies to teams, work groups, projects, divisions, and entire organizations
- CMMI works best in combination with Agile, Scrum, ITIL®, Six Sigma, COBIT®, ISO 9001, RUP®, or Lean
- Provides a common, integrated vision of improvement – or can focus on a specific process area
- Generic descriptions based on industry best practice
- Supporting guidance such as roadmaps help to interpret generic models for specific circumstances

Constraints:

- Aiming for higher maturity levels that will not achieve increased business benefits
- Rigid adherence to a staged approach– trying to move every project in the organization to the next level of maturity can be costly and time-consuming
- Failing to interpret the generic descriptions appropriately for the specific needs of the organization

6 Relevant websites

www.sei.cmu.edu/cmmi



1 Title/current version

COBIT®5

2 The basics

Originally designed for auditors to audit the IT organization, COBIT 5 (Control Objectives for Information and Related Technology) is about linking business goals to IT objectives (note the linkage here from vision to mission to goals to objectives). COBIT 5 (launched April 2012) provides metrics and maturity models to measure whether or not the IT organization has achieved its objectives. Additionally, COBIT identifies the associated responsibilities of the business process owners as well as those of the IT process owners.

3 Summary

COBIT is owned and supported by ISACA. It was released in 1996; the current Version 5.0 (April 2012) brings together COBIT 4.1, Val IT 2.0 and Risk IT frameworks.

The COBIT 5 principles and enablers are generic and useful for enterprises of all sizes, whether commercial, not-for-profit or in the public sector (figures 1 and 2).

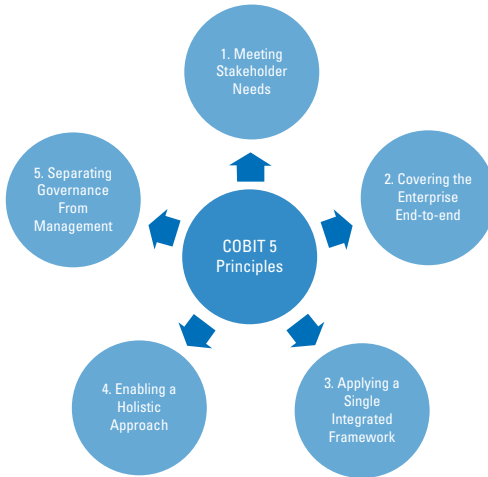


Figure 1: The COBIT 5 Principles

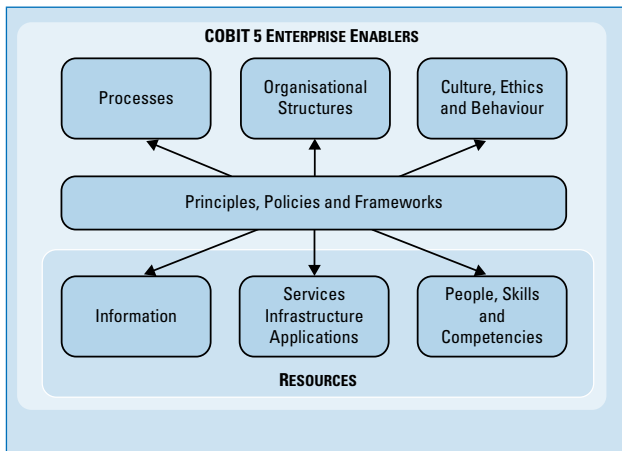


Figure 2: The COBIT 5 Enablers

The process reference model defines and describes in detail a number of governance, and management processes. It represents all the processes normally found in an organization relating to IT activities, thus providing a common reference model understandable to operational IT, and business managers, and their auditors/advisors. The process reference model divides the processes of organization IT into two domains: governance and management.

COBIT 5 provides a set of 36 governance and management processes within the framework.

The governance domain contains five governance processes; within each process, evaluate, direct, and monitor practices are defined.

- EDM1: set and maintain the governance framework
- EDM2: ensure value optimisation
- EDM3: ensure risk optimisation
- EDM4: ensure resource optimisation
- EDM5: ensure stakeholder transparency

The four management domains, in line with the responsibility areas of plan, build, run, and monitor (PBRM) provide end-to-end coverage of IT.

- Align, plan, and organize
- Build, acquire, and implement
- Deliver, service, and support
- Monitor, evaluate, and assess

A casual look at the four management domains of COBIT 5 rapidly illustrates its direct relationship with ITIL.

- The align, plan, and organize domain relates to the service strategy and design phases
- The build, acquire, and implement domain relates to the service transition phase
- The deliver, service, and support domain relates to the service operation phase
- And finally, the monitor, evaluate, and assess domain relates to the continual service improvement phase

All aspects of COBIT 5 are in line with the responsibility areas of plan, build, run and monitor. In other words, COBIT 5 follows the PDCA cycle of Plan, Do, Check, and Act. COBIT has been positioned at a high level, and has

been aligned and harmonized with other, more detailed, IT standards and proven practices such as COSO, ITIL, ISO 27000, CMMI, TOGAF and *PMBOK Guide*. COBIT 5 acts as an integrator of these different guidance materials, summarising key objectives under one umbrella framework that links the proven practice models with governance and business requirements.

4 Target audience

Senior business management, senior IT management and auditors.

5 Scope and constraints

COBIT provides an ‘umbrella’ framework for IT governance across the whole of an organization. It is mapped to other frameworks and standards to ensure its completeness of coverage of the IT management lifecycle and support its use in enterprises using multiple IT-related frameworks and standards.

Some strong points are:

- Value creation through effective governance, management enterprise information and technology (IT) assets
- Business user satisfaction with IT engagement and services by enabling business objectives
- Compliance with relevant laws, regulations and policies

Constraints:

- Treating COBIT as a prescriptive standard when it should be interpreted as a generic framework to manage IT processes and internal controls. Key themes from COBIT must be tailored to the specific governance needs of the organization

- Lack of commitment from top management – without their leadership and support, the IT control framework will suffer and business alignment of IT risks will not happen
- Underestimating the cultural change – COBIT is not just about the technical aspects of IT. The organization needs to have a good understanding of the governance controls for the IT risks

6 Relevant website

www.isaca.org

DevOps

1 Title / definition

DevOps

2 The basics

Literally speaking, DevOps is a joining of development and operations. However, to understand what it truly is, some background is required on its origins. Ignited by Patrick Debois and Andrew Clay Shafer, discussing agile infrastructure at the Agile 2008 conference, it really caught fire after the first DevOps Days in Ghent one year later. Since then, tens of DevOps Days have been organized by a rapidly growing, hands-on community of IT professionals from both development and operations. It has led to a worldwide, bottom-up movement to enable a fast and resilient delivery of IT services. Along with this relevant movement automatically comes the inevitable desire to define and scope DevOps. Leading to semantic, even religious discussions, which in fact do not contribute to its goal (agility, collaboration and empathy across the IT value chain). So, without trying to ringfence it, DevOps aims at an organizational mindset for continuously improving value from the digital value chain by enabling cross-functional collaboration on process, technology and behavior level.

3 Summary

Organizations worldwide have adopted Lean and Agile ways of working to cope with their current disruptive markets. Lean Startup principles are adopted by large multinational corporations, and Agile methodologies have outgrown the IT department, towards primary processes in lawyer firms, schools and construction agencies. This, however, does not

say that these organizations actually bring new or adapted software to production with the required speed and frequency. Predominantly during this final step (often referred to as “the last mile”) the delivery hampers. The root cause? The organization has too many silos, which are not (enough) connected.

The problem

Who hasn't seen them: IT departments where designers, developers, testers, support and operations live in splendid isolation from each other, with a minimal level of collaboration. The designers cherish their own requirements and methodologies, developers work on their code (possibly in Scrum teams), after which the results are pulled through the test factory, in order to be thrown over the operations wall at the end. Products, as delivered by the development teams (Scrum has named these “potentially shippable products”, or PSP), pile up in front of operations' doorstep. By the way, using the PSP term consistently in Scrum implementation worldwide, has contributed greatly to the divergence of responsibility in the value chain. After all, from the (Scrum) developer point of view, their job was “done” once it was potentially shippable, hence on a pallet, waiting to be shipped. At that time, it still does not deliver any value at all! But the developer considered it done, as their work was done. No relation to value whatsoever.

And when these product increments are eventually implemented in a large release, it takes unacceptably long before errors can be related to their source. Integration problems don't come to the surface before the tester is running the acceptance tests. And what about the customer satisfaction, if users are constantly faced with delays and unavailabilities? In short, DevOps addresses the need for higher user satisfaction, a dynamic balance between

value and risks, shorter time to market, and more efficiency in the end-to-end chain through cross-functional collaboration.

The Three Ways

As beautifully illustrated in the DevOps bible “The Phoenix Project”, the value IT can deliver to an organization is completely dependent on its ability to make the organization collaborate as a whole. Although the name suggests only Development (Dev) and Operations (Ops) will more closely collaborate, the essence is much broader than just that. Bringing together Dev and Ops is referred to as “DevOps Lite” (after Patrick Debois), whereas true DevOps also entails the integration of crucial roles such as the business, testing/QA and security. This holistic thinking is the first principle (The First Way) of DevOps.

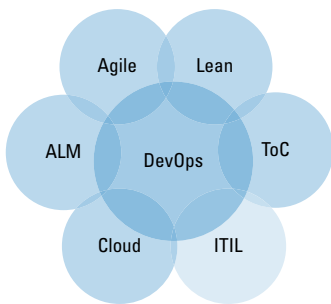
Besides that, it is considered fundamental to DevOps to not only have (mostly Agile) development teams deliver “potentially shippable products”, but to have the target deployment environments available as well (provisioning). Clearly this is where DevOps takes Agile implementations one step further, thereby providing the IT organization more valuable feedback (The Second Way) on the quality of the delivered products. Surely automation plays an essential role here. Without a high degree of automation, it is virtually impossible to provision and synchronize (DTAP) environments in a fast and standardized way.

Probably the most fundamental shift which is part of the DevOps way of working, is the way errors and risks are dealt with. Traditional organizations tend to have a cultural heritage where errors are being punished, hence covered up. DevOps organizations assume that errors and experiments are excellent, as they improve the organization’s resilience (The Third Way).

It enhances the organizational capability to learn, moving these types of organizations towards a state of “antifragility” (Nicholas Taleb). They are known for their ability to absorb disturbances, even grow from them, and continuously adapt to changing circumstances.

Relations

The revolutionary aspect of DevOps is not about the individual components it touches. It is the contextual combination and application of these frameworks, methods and movements. The following essential relations are identified in relation to DevOps:



Agile: Many of the principles applied in organizations that have adopted DevOps, concur with the Agile principles. Think of short feedback loops, minimizing unit size and fast flow of planned work.

Lean: The Lean way of thinking is not only applicable to the factory floor. Lean elements such as Voice of the Customer, Flow, Pull and Kaizen are used more and more in IT organizations. Waste is reduced and errors are identified and solved at the source (“no defects downstream”).

Theory of Constraints: This methodology, related to Lean, is characterized by the elimination of bottlenecks. By consistently searching for essential limitations in your organization's product and service flows, these constraints (or bottlenecks) can be taken away adequately.

ITIL: Without a doubt, ITIL also plays a significant role in DevOps organizations. If well applied, the introduction of Agile and Lean principles and instruments in the entire IT delivery chain (so including operations and support) account for faster and more flexible service management processes. Take Configuration Management, which is crucial in DevOps in sharing information between several roles and domains.

Cloud: Many organizations have started their transformation to the cloud, either partly or full blown. Cloud technology enables fast provisioning, adjustment (scaling up/down) and synchronization of (DTAP) environments and in automating several build, integration, test or deployment tasks.

Themes

Typical patterns we encounter in DevOps environments include:

- **Continuous Delivery**
Delivery pipelines are automated, resulting in practices like continuous integration, continuous deployment, automated testing.
- **Software Defined Anything**
Servers, even entire networks are software defined nowadays. Physical, on-premise hardware is replaced by virtual machines and containers.

- **Agile architecture**
Huge monolithic applications are replaced by microservices, enabling fast feedback, low regression testing and maximizing the use of market standardization.
- **Service flow**
By using Lean processes, a value-driven approach challenging the end-to-end performance of the value stream, continuously optimizing batch size and queues.
- **Functional vs non-functional requirements**
A sound balance between functional and non-functional system behavior requires professional product ownership, but also built-in quality, security and monitoring.
- **Learning culture**
Failure is regarded as valuable learning points instead of opportunities for punishment, resulting in blameless postmortems and rewards for positive experimental behavior.

4 Target audience

DevOps as a theme is relevant for everyone involved in the digital value chain. Whether you are from HR, selling mortgages, develop software, write testscripts or operate infrastructure in the cloud.

5 Recommended website

Whitepaper Gene Kim: [https://www.thinkhdi.com/~media/](https://www.thinkhdi.com/~media/HDICorp/Files/White-Papers/whtppr-1112-devops-kim.pdf)

HDICorp/Files/White-Papers/whtppr-1112-devops-kim.pdf

Blog Rob England: <http://www.itskeptic.org/content/define-devop>

1 Title/current version

e-CF (European e-Competence Framework) - Version 3.0.

2 The basics

The European e-Competence Framework, e-CF, is a reference framework for competences applied within the IT sector and a common language for IT-related knowledge, skills and attitudes.

3 Summary

The e-CF has been developed by the Workshop on IT Skills of the European Committee for Standardization (CEN), with contributions from a large number of IT and HR experts. The development of the e-CF started in 2005 after recommendations from the European e-Skills Forum that national IT framework stakeholders and IT experts should consider developing a European e-competence framework. With the introduction of Version 3.0 in 2014 the CEN started the process to make the e-CF a European standard.

A competence is defined in the e-CF as a *‘demonstrated ability to apply knowledge, skills and attitudes to achieving observable results’*.

Each of the 40 competences in e-CF 3.0 is described in four so called ‘dimensions’:

1. The e-Competence Area taken from a simple IT process model: Plan – Build – Run – Enable – Manage
2. A Generic Description in terms of the behavior showing the competence and the expected contribution at the workplace
3. Proficiency Levels based on a mix of:
 - autonomy (from ‘being instructed’ to ‘making choices’)