BizDevOps Reference Architecture

7 nov 2024 10:06:03

Purpose

The "BizDevOps Reference Architecture" aims to provide a comprehensive and structured guide for integrating BizDevOps practices within an organization. This architecture facilitates the alignment of IT initiatives with strategic business objectives, ensuring agile and efficient delivery of software products that provide significant value.

Key views such as the "BizDevOps Alignment View", "BizDevOps People View", "BizDevOps Principles View", and "BizDevOps Process View" contain essential architectural building blocks that outline business capabilities, business processes, critical roles, and fundamental principles guiding the implementation of BizDevOps. These views ensure that all activities in the software development lifecycle are aligned with business objectives and promote agility and continuous collaboration.

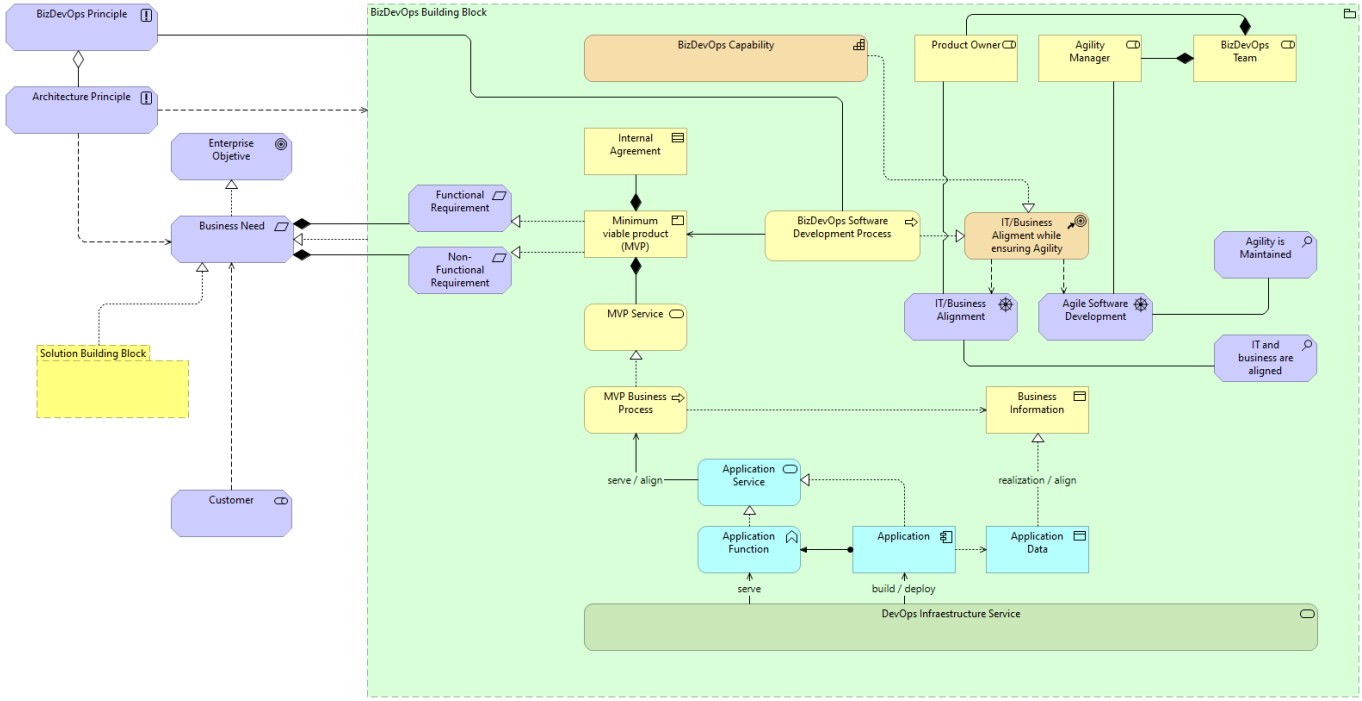
Additionally, the proposed viewpoints, "Viewpoint: DevOps Ecosystem" and "Viewpoint: Managing BizDevOps Projects", enhance the understanding and management of the DevOps ecosystem and facilitate decision-making within project teams. The "Viewpoint: DevOps Ecosystem" provides a holistic view of the DevOps environment, while the "Viewpoint: Managing BizDevOps Projects" focuses on improving communication and coordination among teams to ensure continuous alignment with business goals.

Together, this reference architecture is an artifact that could be useful for adopting BizDevOps practices, enabling organizations to achieve efficient integration of business, development, and operations functions. This results in greater operational efficiency, better team collaboration, and improved responsiveness to changing market need.

Views

BizDevOps Alignment View

No viewpoint



Documentation

Narrative:

The [Business Need] are composed of [Functional Requirement] and [Non-Functional Requirement], which are fulfilled by a [Minimum Viable Product (MVP)]. This MVP is designed, built, and delivered to its users considering the [BizDevOps Software Development Process]. This software development process complies with the course of action [IT/Business Alignment while ensuring Agility], which represents how the organization has decided to build the software and is also supported by the [Business Capability]. This course of action is influenced by the drivers [IT/Business Alignment] and [Agile Software Development], which are assessed by [IT and Business are Aligned] and [Agility is Maintained], respectively.

The [Minimum Viable Product (MVP)] is represented with a service orientation. This product is composed of contracts called [Internal Agreement] and business services [MVP Service]. Considering the service orientation, the business service is executed by business processes [MVP Business Process], which can access [Business Information]. The [MVP Business Process] is served by [Application Service], which exposes the services offered by [Application Function]. The [Application] can access [Application Data] and provides everything necessary for the [Application Function] to offer its functions. The [Application] and [Application Function] uses [DevOps Infrastructure Service] to enable Continuous Integration, Continuous Delivery, and others tasks, as well as to provide the necessary infrastructure to support the use of [Application]. This service orientation allows us to align the business ([MVP Business Process]) with information technologies [Application Service]. Additionally, it enables the alignment of information and data.

The role [BizDevOps Team] includes roles such as [Product Owner] and [Agility Manager], who are associated with the drivers of [IT/Business Alignment] and [Agile Software Development], respectively. This ensures that the roles are aware of the tasks that will keep IT aligned with the business while developing software in an agile manner.

The [Business Need] fulfill the [Enterprise Objective], allowing organizations to achieve their goals using the BizDevOps approach. Furthermore, the [Business Need] are influenced by architectural principles, which consider the [BizDevOps Principle], such as [Alignment], [Agility], among others.

Properties

dct:title	BizDevOps Alignment View

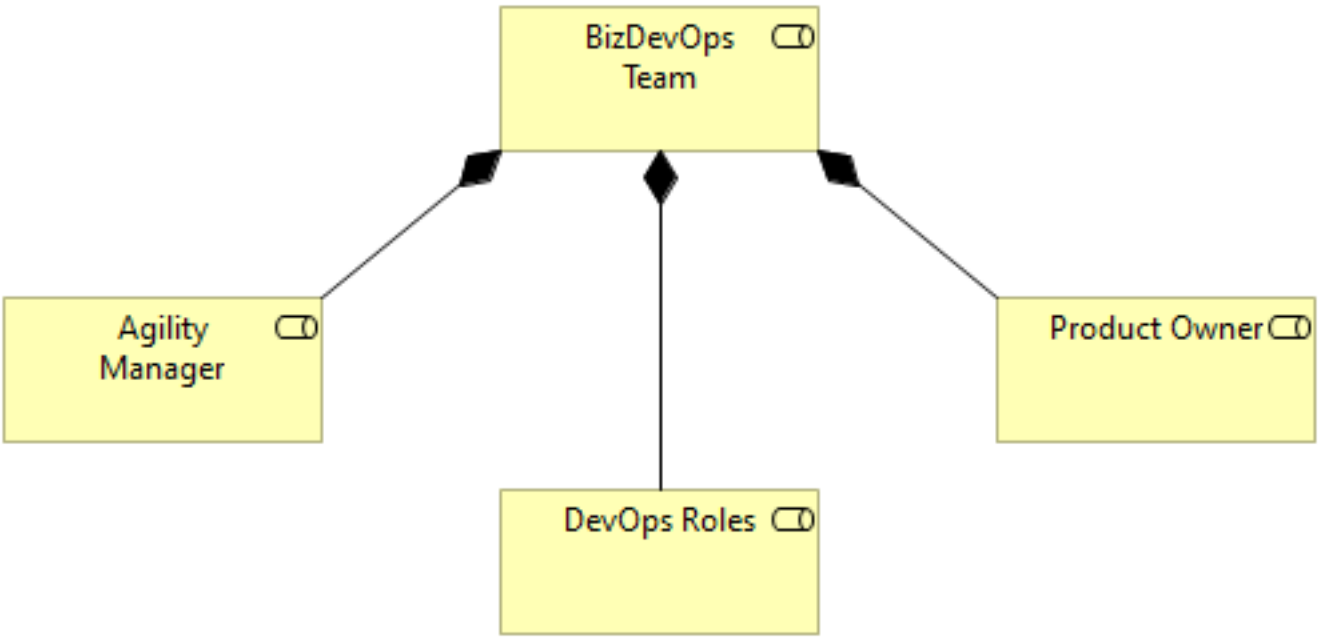
Elements

Element	Type
Agile Software Development	Driver
Agility is Maintained	Assessment
Agility Manager	Business Role
Application	Application Component
Application Data	Data Object

Element	Type
Application Function	Application Function
Application Service	Application Service
Architecture Principle	Principle
BizDevOps Building Block	Grouping
BizDevOps Capability	Capability
BizDevOps Principle	Principle
BizDevOps Software Development Process	Business Process
BizDevOps Team	Business Role
Business Information	Business Object
Business Need	Requirement
Customer	Stakeholder
DevOps Infraestructure Service	Technology Service
Enterprise Objetive	Goal
Functional Requirement	Requirement
Internal Agreement	Contract
IT and business are aligned	Assessment
IT/Business Aligment while ensuring Agility	Course of Action
IT/Business Alignment	Driver
Minimum viable product (MVP)	Product
MVP Business Process	Business Process
MVP Service	Business Service
Non-Functional Requirement	Requirement
Product Owner	Business Role
Solution Building Block	Grouping

BizDevOps People View

No viewpoint



Documentation

Narrative:

The [BizDevOps Team] includes roles such as [Product Owner] and [Agility Manager], who are essential for maintaining the alignment of IT with business objectives and fostering an agile environment. The [Product Owner] is responsible for defining the product vision and ensuring it meets the business needs and adds value. This role is critical in bridging the gap between business experts and the IT team, ensuring that the product delivers maximum value.

The [Agility Manager] ensures that the team remains agile across all phases of the approach. They create an environment for efficient and productive work, often filling the role of Scrum Master in Scrum and similar frameworks. The [Agility Manager] plays a key role in maintaining flexibility and responsiveness, helping the team adapt quickly to changing business needs and market conditions.

In addition to these roles, the [BizDevOps Team] includes [DevOps Roles], which encompass IT development and operations, DevOps Architect, and other roles defined within the organization. These roles focus on automating and streamlining the integration and deployment processes, ensuring continuous delivery and operational efficiency. The collaboration among these roles is vital for achieving seamless software development and delivery.

The [BizDevOps Team] operates under the influence of the drivers [IT/Business Alignment] and [Agile Software Development], ensuring that their efforts align with the broader business goals and agile practices. The effectiveness of these roles is assessed by the metrics [IT and Business are Aligned] and [Agility is Maintained], respectively, ensuring continuous improvement and alignment with business needs.

This structure enables the [BizDevOps Team] to effectively fulfill the [Business Need], ensuring that the organization achieves its [Enterprise Objective] through the BizDevOps approach. The principles of [Alignment] and [Agility] guide the roles and responsibilities within the team, fostering a collaborative environment that supports the strategic goals of the organization.

Properties

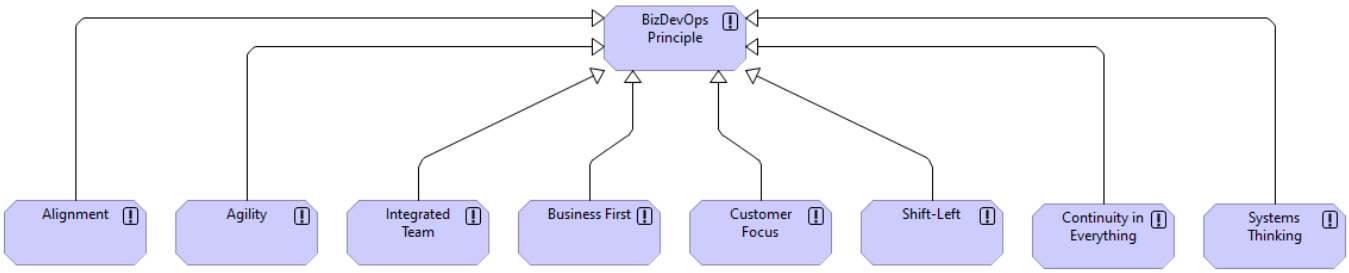
dct:title	BizDevOps People View

Elements

Element	Type
Agility Manager	Business Role
BizDevOps Team	Business Role
DevOps Roles	Business Role
Product Owner	Business Role

BizDevOps Principles View

No viewpoint



Documentation

Narrative:

The [BizDevOps Principles] are fundamental guidelines that integrate business, development, and operations practices to enhance collaboration, accelerate delivery, and align IT efforts with business objectives. These principles are crucial for ensuring that all activities within the BizDevOps framework contribute to the overarching goals of the organization.

[Alignment]: This principle ensures continuous alignment of IT initiatives with business objectives. It emphasizes the importance of aligning IT services and capabilities with the strategic goals of the organization, thereby enhancing efficiency and creating value.

[Agility]: Incorporating agility throughout all operational cycles is essential. This principle promotes flexibility and responsiveness, enabling the organization to adapt quickly to changes in business needs and market conditions. It fosters an environment where iterative development and continuous improvement are standard practices.

[Integrated Team]: Rather than having separate teams, BizDevOps involves a unified team with roles spanning business, development, and operations to collaboratively meet software needs. This principle promotes a collaborative approach, breaking down silos and ensuring that all team members work towards common objectives.

[Business First]: This principle prioritizes organizational objectives over technical details. It ensures that all development and operational activities are driven by business goals, ensuring that the outcomes deliver maximum value to the organization.

[Customer Focus]: Adopting a customer-centered approach is key to delivering maximum value. This principle emphasizes prioritizing tasks based on customer needs and managing risks effectively, ensuring that the end product meets or exceeds customer expectations.

[Shift-Left]: Anticipating tasks typically performed at the later stages of development, such as quality and security testing, and addressing them earlier in the lifecycle is crucial. This principle ensures that potential issues are identified and resolved early, reducing risks and improving overall quality.

[Continuity in Everything]: Utilizing automated practices across business, development, and operations to maintain continuous process flow is essential. This principle supports continuous integration, continuous delivery, and other automated processes that enhance efficiency and reduce time-to-market.

[Systems Thinking]: Promoting a comprehensive understanding of the system from start to finish helps in resolving complex issues that may arise. This principle encourages considering the broader impact of decisions and actions, ensuring that all components work together harmoniously.

These principles collectively ensure that the BizDevOps framework is robust, flexible, and aligned with the strategic goals of the organization. By adhering to these principles, the organization can achieve better collaboration, faster delivery, and a stronger alignment of IT efforts with business objectives, ultimately leading to the successful fulfillment of the [Business Need] and achievement of the [Enterprise Objective].

Properties

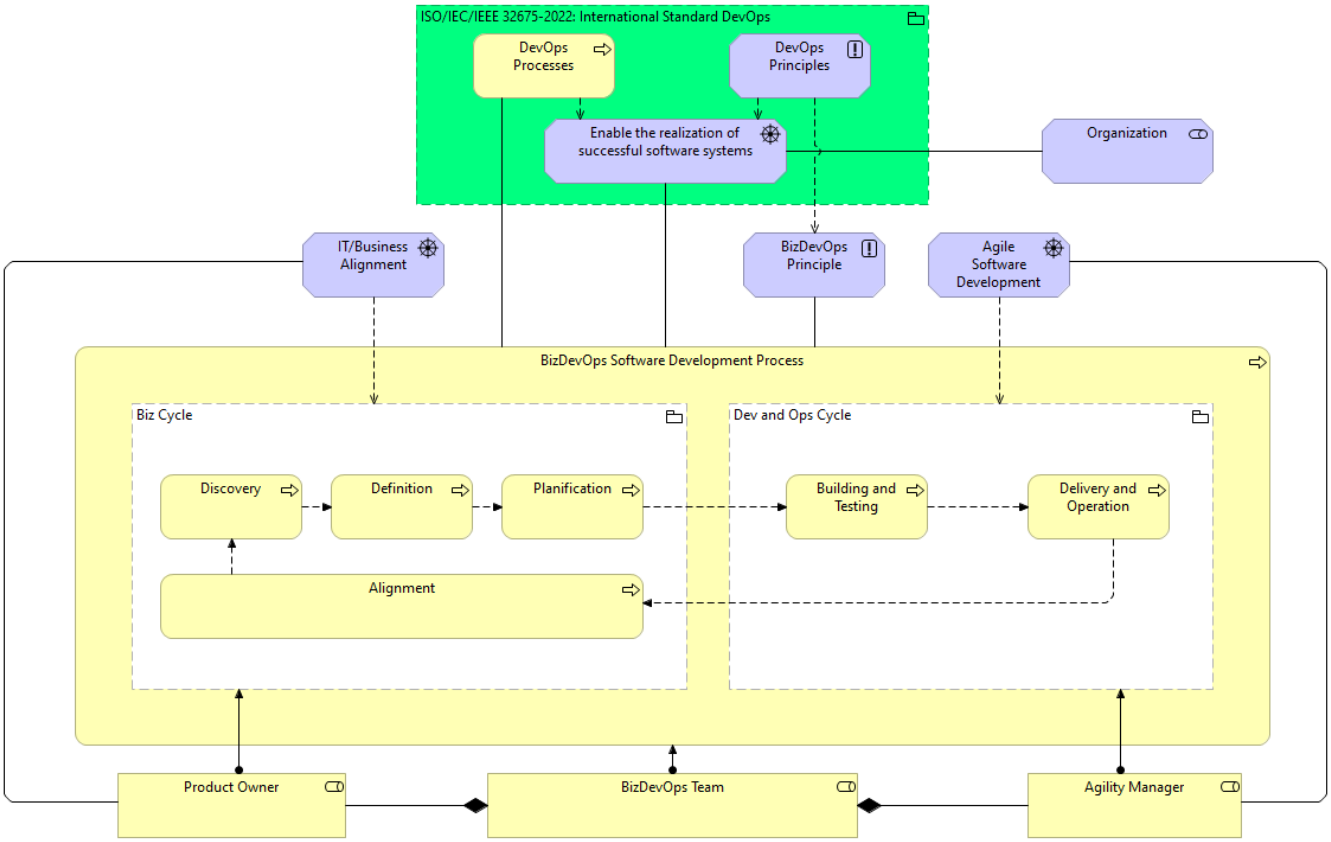
dct:title	BizDevOps Principles View

Elements

Element	Type
Agility	Principle
Alignment	Principle
BizDevOps Principle	Principle
Business First	Principle
Continuity in Everything	Principle
Customer Focus	Principle
Integrated Team	Principle
Shift-Left	Principle
Systems Thinking	Principle

BizDevOps Process View

No viewpoint



Documentation

Narrative:

The [BizDevOps Process View] presents the processes that guide the development of a software product with BizDevOps. These processes ensure that the software development lifecycle is aligned with business objectives, promotes agility, and fosters continuous collaboration.

The first stage, [Discovery], involves identifying and understanding the business needs, requirements, and constraints. This process sets the foundation for aligning IT services with business goals, ensuring that the subsequent development efforts are focused on delivering value. Following discovery, the [Definition] stage involves detailed specifications of the product, including functional and non-functional requirements. This ensures that the development team has a clear understanding of what needs to be built, aligning with the [Business Need] and organizational objectives.

Planning is crucial in the [Planification] stage, where realistic timelines, resources, and milestones for the project are set. This process involves creating a roadmap that outlines the steps required to deliver the product, ensuring that all team members are aligned and prepared for execution. During the [Building and Testing] phase, the actual development of the product takes place, followed by rigorous testing to ensure quality. Adopting agile practices, this stage emphasizes iterative development, continuous integration, and automated testing to identify and fix issues early.

Once the product is built and tested, it moves into the [Delivery and Operation] phase. This process includes deployment, monitoring, and maintenance activities, ensuring that the product is delivered efficiently and operates smoothly, meeting the business requirements. An ongoing [Alignment] process ensures that the product and development efforts remain aligned with the changing business needs and market conditions. It involves regular reviews and adjustments to the project plan, ensuring continuous alignment of IT services with business goals.

The [DevOps Processes] integrate development and operations activities to enable continuous delivery and deployment. These processes include configuration management, infrastructure as code, continuous integration, and continuous deployment, ensuring that the product is delivered quickly and reliably.

Each of these processes is supported by the principles of BizDevOps, such as [Alignment], [Agility], and [Continuous Everything]. The processes are influenced by the drivers [IT/Business Alignment] and [Agile Software Development], ensuring that the development efforts are aligned with business objectives and agile practices.

By following these processes, the [BizDevOps Team] can effectively fulfill the [Business Need], delivering a [Minimum Viable Product (MVP)] that meets business objectives and adds value. The integration of these processes ensures that the development lifecycle is streamlined, efficient, and aligned with the strategic goals of the organization, ultimately leading to the successful achievement of the

[Enterprise Objective].

Properties

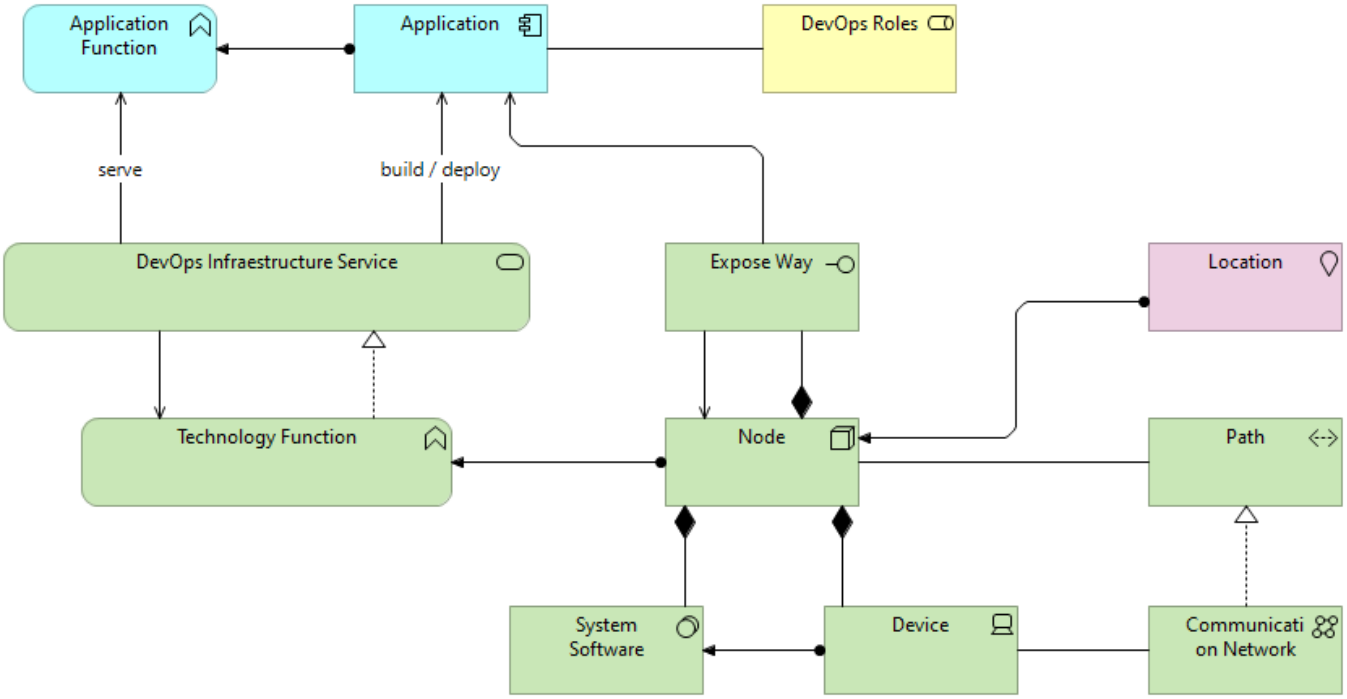
dct:title	BizDevOps Process View

Elements

Element	Type
Agile Software Development	Driver
Agility Manager	Business Role
Alignment	Business Process
Biz Cycle	Grouping
BizDevOps Principle	Principle
BizDevOps Software Development Process	Business Process
BizDevOps Team	Business Role
Building and Testing	Business Process
Definition	Business Process
Delivery and Operation	Business Process
Dev and Ops Cycle	Grouping
DevOps Principles	Principle
DevOps Processes	Business Process
Discovery	Business Process
Enable the realization of successful software systems	Driver
ISO/IEC/IEEE 32675-2022: International Standard DevOps	Grouping
IT/Business Alignment	Driver
Organization	Stakeholder
Planification	Business Process
Product Owner	Business Role

Viewpoint: DevOps Ecosystem

DevOps-AV viewpoint



Documentation

This viewpoint facilitates documentation, communication and decision making within the DevOps team.

Stakeholders: DevOps team, including IT Development and Operations; DevOps Architect; Other DevOps roles defined in the organization.
Concerns: Share the DevOps ecosystem between development and operations; understand all the how, with what, who, and why.
Porpurse:

- Decide
- Inform
- Design

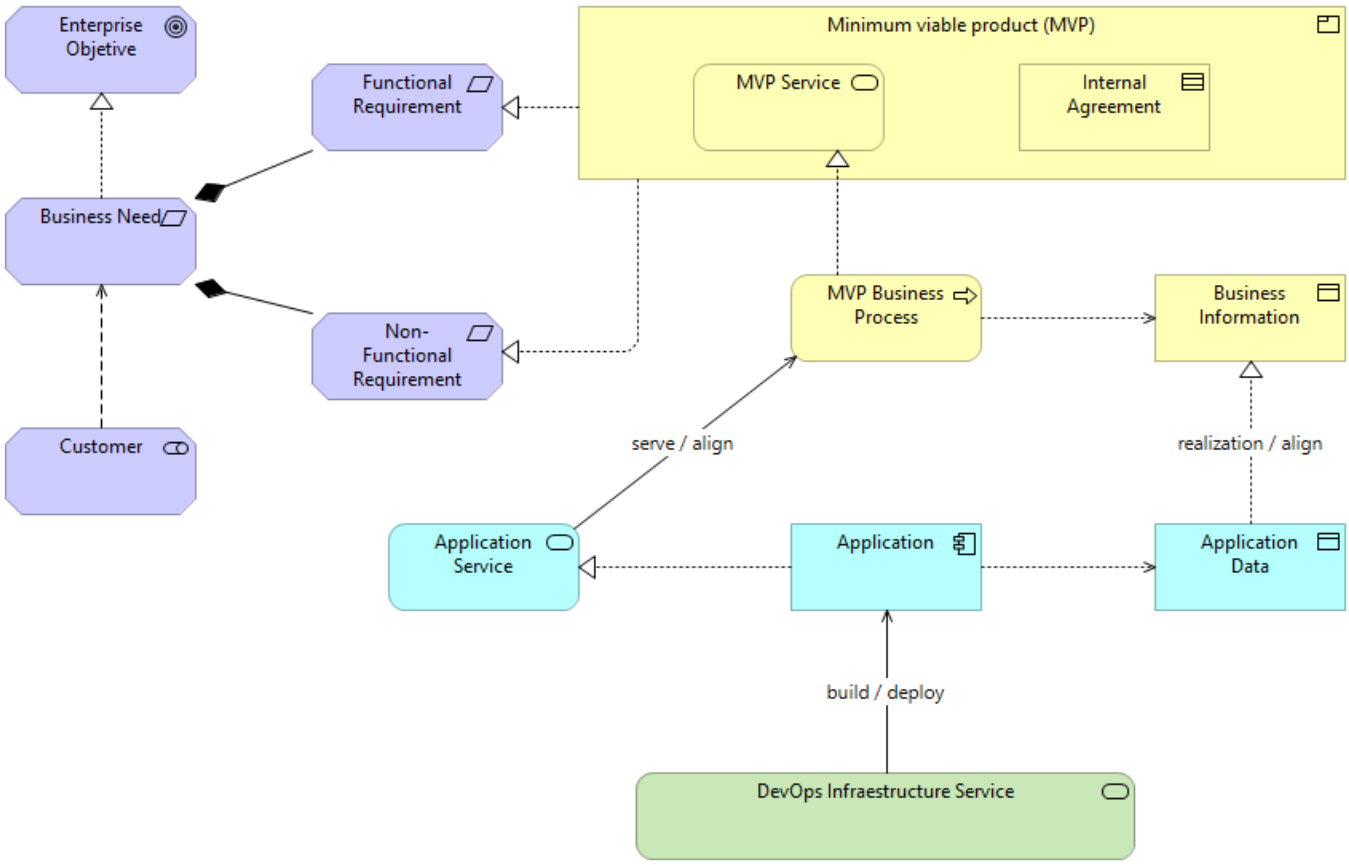
Narrative: An essential aspect in DevOps is the high importance of automation through a software toolchain (toolchain), for example, for code repository and versioning, testing, continuous deployment, or infrastructure as code. With DevOps-AV, all this type of software is managed and represented in two complementary ways: i) standard software acquired from suppliers (e.g. Jenkins) is considered IT infrastructure (expressed as instances of the 'system software' element); and ii) adaptations, extensions or integrations in which we incorporate our own business logic are considered systems of our DevOps ecosystem (expressed as instances of the 'application component' element). This difference is justified because in organizational terms, an essential aspect in EA, it is important to know if something is easy to replace (infrastructure) or not (information systems) because inside it has things made or added by us.

Elements

Element	Type
Application	Application Component
Application Function	Application Function
Communication Network	Communication Network
Device	Device
DevOps Infraestructure Service	Technology Service
DevOps Roles	Business Role
Expose Way	Technology Interface
Location	Location
Node	Node
Path	Path
System Software	System Software
Technology Function	Technology Function

Viewpoint: Managing BizDevOps Projects

Managing BizDevOps Projects v2 viewpoint



Documentation

This viewpoint aims to improve communication and decision making within project teams, thereby effectively achieving designated objectives.

Stakeholders: The BizDevOps team, composed of the following roles: (i) Product Owner, (ii) Scrum Master (or 'Agility Responsible' if not following SCRUM), and Other DevOps roles.
Concerns: Managing a software project with BizDevOps while aligning IT/Business without sacrificing agility.
Porpurse:

- Decide: Because it's in the interest of the BizDevOps team to make decisions regarding this perspective. This is considering that the perspective aims to facilitate alignment while maintaining agility and managing the project, and this could involve making decisions.
- Inform: Because it's in the interest of the BizDevOps team that the software project management with BizDevOps can be clearly communicated among all team members.

Elements

Element	Type
Application	Application Component
Application Data	Data Object

Element	Type
Application Service	Application Service
Business Information	Business Object
Business Need	Requirement
Customer	Stakeholder
DevOps Infraestructure Service	Technology Service
Enterprise Objetive	Goal
Functional Requirement	Requirement
Internal Agreement	Contract
Minimum viable product (MVP)	Product
MVP Business Process	Business Process
MVP Service	Business Service
Non-Functional Requirement	Requirement

Strategy Layer

BizDevOps Capability

Type	Capability
dct:type	BDO:BizDevOpsCapability
dct:modified	10/04/2024
skos:definition	This Capability represent the organization's ability or capacity to develop software with BizDevOps. This capability ensures an agile alignment of IT with the business and preserves the benefits and characteristics of DevOps.

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>
> ABB Name: BDO:BizDevOpsCapability

IT/Business Aligment while ensuring Agility

Type	Course of Action
dct:type	BDO:AgileITBusinessAlignment
dct:modified	10/06/2024
skos:definition	IT/Business Alignment while Ensuring Agility involves implementing strategies and practices that align IT services with business objectives, while maintaining flexibility and responsiveness. This approach includes adopting agile way of work, fostering continuous collaboration, and ensuring rapid adaptation to changing business needs and market conditions.

> Definition: IT/Business Alignment while Ensuring Agility involves implementing strategies and practices that align IT services with business objectives, while maintaining flexibility and responsiveness. This approach includes adopting agile way of work, fostering continuous collaboration, and ensuring rapid adaptation to changing business needs and market conditions.
>
> ABB Name: BDO:AgileITBusinessAlignment

Business Layer

Agility Manager

Type	Business Role
dct:type	BDO:AgilityManager
dct:modified	10/04/2024
skos:definition	In BizDevOps, this role ensures the team remains agile across all phases of the approach. They create an environment for efficient and productive work. In Scrum and similar frameworks, this role is often filled by the Scrum Master.

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Alignment

Type	Business Process
dct:type	BDO:AlignmentProcess
dct:modified	11/07/2024
skos:definition	The Alignment Process in BizDevOps is fundamental to ensuring that software development activities are continuously synchronized with business objectives. This process addresses the challenge of integrating business and IT domains, ensuring that the strategies, goals, and practices of both are aligned to maximize the value delivered to end users and maintain business agility.

> Definition: The Alignment Process in BizDevOps is fundamental to ensuring that software development activities are continuously synchronized with business objectives. This process addresses the challenge of integrating business and IT domains, ensuring that the strategies, goals, and practices of both are aligned to maximize the value delivered to end users and maintain business agility.
>
> Alignment in BizDevOps focuses on two essential components: people and processes. Regarding people, it involves ensuring that all actors involved, both from business and IT, work towards the same goals. This is achieved by forming cross-functional and autonomous BizDevOps teams, where each member possesses skills both in their specialty and in other areas of the team, promoting closer collaboration and a better understanding between different roles. Process alignment involves integrating agile and DevOps practices with business strategies, facilitating continuous and effective communication between business stakeholders and development teams.
>
> A crucial aspect of the alignment process is the implementation of short and frequent feedback cycles, which allow the BizDevOps team to receive valuable insights from end users and make necessary adjustments to continuously improve the product. This iterative and data-driven approach ensures that software development not only meets technical requirements but also aligns with market expectations and needs. Additionally, the use of specific metrics and KPIs helps evaluate the performance of the team and the product, ensuring that decisions are made based on accurate and up-to-date information.
>
> Finally, continuous alignment in BizDevOps not only focuses on delivering high-quality software but also on creating a collaborative and adaptable environment

that can quickly respond to changes in business and market demands, always maintaining a user-centered vision.

ABB Name: BDO:AlignmentProcess

BizDevOps Software Development Process

Type	Business Process
dct:type	BDO:SwDevelopmentProcess
dct:modified	10/07/2024
skos:definition	The BizDevOps Software Development Process is a comprehensive building block that integrates business, development, and operations activities throughout the software lifecycle to ensure that delivered products effectively meet business and end-user needs. This process begins with the exploration and identification phase, where business stakeholders are engaged to define needs and requirements. This initial phase produces prototypes and a business backlog that guide subsequent development activities. Then, during the development and operation phase, product development is carried out using agile and DevOps practices, facilitating continuous delivery and the rapid integration of changes and improvements. This collaborative and iterative approach ensures that the software is developed in an agile manner, with a strong emphasis on constant collaboration between business, development, and operations teams, thus ensuring continuous alignment with business objectives and user expectations.

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ABB Name: BDO:SwDevelopmentProcess

BizDevOps Team

Type	Business Role
dct:type	BDO:BizDevOpsTeam
dct:modified	08/07/2024
skos:definition	

Building and Testing

Type	Business Process

dct:type	BDO:BuildingAndTestingProcess
dct:modified	11/07/2024
skos:definition	The Building and Testing Process in BizDevOps is a crucial phase that focuses on the iterative development of the product and rigorous testing to ensure its quality. During this phase, the BizDevOps team employs continuous integration (CI) practices to develop, test, automatically integrate code, and validate product increments, enabling safe and satisfactory deployment into production. This incremental approach means that several iterations will take place, depending on the complexity of end-user needs. In the initial product increment rounds, the goal is often to turn the prototype into a working version of the software, known as the minimum viable product (MVP). The MVP contains the minimum necessary features to obtain user feedback and continue improving the software.

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>
> Once the code has been integrated into a build using continuous deployment, the software is moved into the testing environment where a series of automated and manual tests, such as unit testing, integration testing, system testing, and user acceptance testing (UAT), are conducted. An important phenomenon in testing is the concept of Shift-left testing, which emphasizes early testing in the process, test automation, test data management, and the removal of test constraints to resolve defects early and accelerate time-to-market. This approach ensures that issues are identified and resolved as early as possible, guaranteeing the final product's quality and its alignment with user expectations and business objectives.
> .
> ABB Name: BDO:BuildingAndTestingProcess

Business Information

Type	Business Object
dct:type	BDO:BizInformation
dct:modified	10/06/2024
skos:definition	Business information associated with an MVP includes key data and insights gathered from the MVP's performance, user interactions, and feedback. This information helps validate the MVP's assumptions, guide further development, and inform strategic decisions to improve the product and meet market needs effectively.

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ABB Name: BDO:BizInformation

Definition

Type	Business Process
dct:type	BDO:DefinitionProcess
dct:modified	11/07/2024
skos:definition	The Definition Process in BizDevOps is a critical phase that focuses on the detailed specification of the product, encompassing both functional and non-functional requirements. This stage is essential to ensure that the development team has a clear and precise understanding of what needs to be built. During this phase, specific product goals are established and the necessary features and functionalities to meet these goals are precisely defined. The collaboration between business stakeholders and development teams is intense, allowing business requirements to be translated into detailed technical specifications. This process ensures that all members of the development team are aligned with the product's vision and objectives, minimizing the possibility of misunderstandings and errors during subsequent development and operation phases. Clarity and specificity in this phase are crucial for the efficiency and effectiveness of software development, ensuring that the final product meets business and end-user expectations.

Definition: The Definition Process in BizDevOps is a critical phase that focuses on the detailed specification of the product, encompassing both functional and non-functional requirements. This stage is essential to ensure that the development team has a clear and precise understanding of what needs to be built. During this phase, specific product goals are established and the necessary features and functionalities to meet these goals are precisely defined. The collaboration between business stakeholders and development teams is intense, allowing business requirements to be translated into detailed technical specifications. This process ensures that all members of the development team are aligned with the product's vision and objectives, minimizing the possibility of misunderstandings and errors during subsequent development and operation phases. Clarity and specificity in this phase are crucial for the efficiency and effectiveness of software development, ensuring that the final product meets business and end-user expectations.

ABB Name: BDO:DefinitionProcess

Delivery and Operation

Type	Business Process
dct:type	BDO:DeliveryaAndOperationProcess
dct:modified	11/07/2024
skos:definition	The Delivery and Operation Process in BizDevOps is a critical phase that focuses on the efficient deployment, monitoring, and maintenance of the product. During this stage, it is ensured that the developed product is delivered efficiently and operates smoothly, meeting business requirements and end-user expectations. This process includes several key activities such as continuous deployment, real-time monitoring, and product operation in the production environment.

Definition: The Delivery and Operation Process in BizDevOps is a critical phase that focuses on the efficient deployment, monitoring, and maintenance of the product. During this stage, it is ensured that the developed product is delivered efficiently

and operates smoothly, meeting business requirements and end-user expectations. This process includes several key activities such as continuous deployment, real-time monitoring, and product operation in the production environment.

Continuous deployment allows new software versions to be released frequently and reliably, minimizing downtime and ensuring that improvements and fixes reach users quickly. Techniques like Blue-Green deployments and A/B testing are used to manage the release of new features, allowing experimentation and validation of changes with specific user groups before a full rollout.

Real-time monitoring is essential to maintain system stability and performance. Telemetry data, such as events, logs, and metrics, are collected to monitor the health and usage of the application as well as its business performance. This technical feedback enables the BizDevOps team to identify and resolve issues quickly, continuously optimizing the system to maximize the value delivered to the end user.

In the operation phase, the BizDevOps team is responsible for keeping the system running, making necessary adjustments, and ensuring that the product continues to meet business goals and user expectations. This user-centered and data-driven approach ensures that the product is not only technically sound but also provides tangible and meaningful value to users and the organization.

ABB Name: BDO:DeliveryaAndOperationProcess

DevOps Processes

Type	Business Process
dct:modified	11/07/2024
skos:definition	DevOps is sometimes viewed as being mostly focused on systems and applications deployment, and thus applicable mainly at the end of the life cycle. In practice, DevOps is a full life cycle endeavor which gives equal consideration to each stage. DevOps is a set of principles and practices which enable better communication and collaboration between relevant stakeholders for the purpose of specifying, developing, continuously improving, and operating software and systems products and services. It is not just a matter of technical practices affecting other life cycle processes. Teams using DevOps typically start a systems or applications effort by creating a continuous delivery pipeline (set of tools and procedures) that takes the code from the source code management system and automates the complete application build, package, deployment (including transitions to other environments), operations, and sustainment workflow. Contributors often start with a simple program, write the pipeline, and then iteratively (and rapidly) develop their code. In development, multiple teams often integrate code continuously, automatically deliver the code to a test automation framework, and on to subsequent workflow participants. Transitions to other contexts in the workflow can require special enhancements to the workflow (e.g., simulation-based training or shadow operations) so that quality and velocity are not compromised during and after any transition. DevOps is suitable for most life cycle process models, and particularly appropriate when teams adopt agile methodologies. DevOps can be just as valuable in an iterative waterfall approach.

DevOps is sometimes viewed as being mostly focused on systems and applications deployment, and thus applicable mainly at the end of the life cycle. In practice, DevOps is a full life cycle endeavor which gives equal consideration to each stage. DevOps is a set of principles and practices which enable better communication and collaboration between relevant stakeholders for the purpose of specifying, developing, continuously improving, and operating software and systems products and services. It is not just a matter of technical practices affecting other life cycle processes.

Teams using DevOps typically start a systems or applications effort by creating a continuous delivery pipeline (set of tools and procedures) that takes the code from the source code management system and automates the complete application build, package, deployment (including transitions to other environments), operations, and sustainment workflow. Contributors often start with a simple program, write the pipeline, and then iteratively (and rapidly) develop their code. In development, multiple teams often integrate code continuously, automatically deliver the code to a test automation framework, and on to subsequent workflow participants. Transitions to other contexts in the workflow can require special enhancements to the workflow (e.g., simulation-based training or shadow operations) so that quality and velocity are not compromised during and after any transition.

DevOps is suitable for most life cycle process models, and particularly appropriate when teams adopt agile methodologies. DevOps can be just as valuable in an iterative waterfall approach.

Source: ISO/IEC/IEEE 32675-2022: International Standard DevOps

DevOps Roles

Type	Business Role
dct:type	BDO:DevOpsRoles
dct:modified	08/09/2024
skos:definition	DevOps roles, including IT Development and Operations; DevOps Architect; Other DevOps roles defined in the organization.

Definition: DevOps roles, including IT Development and Operations; DevOps Architect; Other DevOps roles defined in the organization.

Discovery

Type	Business Process

dct:type	BDO:DiscoveryProcess
dct:modified	11/07/2024
skos:definition	The Discovery Process in BizDevOps is a fundamental phase that focuses on identifying and understanding customer needs and problems, as well as exploring new market opportunities. This initial process is crucial for establishing alignment between business objectives and technical capabilities, ensuring that subsequent software development efforts are geared towards delivering maximum value to the end user. During this phase, the BizDevOps team gathers information from multiple sources, including insights from business experts, analysts, and key users, to form a detailed understanding of the underlying problem and market needs. Defining high-level business goals and creating a clear product vision are critical activities in this phase, allowing for the establishment of hypotheses that will guide further experimentation and validation with user feedback. This iterative and user-centered approach ensures that development efforts are continuously aligned with business and market expectations, minimizing risks and costs associated with unexpected changes and failures in later stages

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>
> ABB Name: BDO:DiscoveryProcess

Internal Agreement

Type	Contract
dct:type	BDO:InternalAgreement
dct:modified	10/06/2024
skos:definition	Internal agreements are understandings and commitments among team members to ensure efficient and effective collaboration. These agreements cover shared objectives, communication protocols, roles and responsibilities, CI/CD practices, incident management, quality standards, documentation, and team culture. They align expectations and responsibilities across business, development, and operations teams to achieve seamless software development and delivery.

> Definition: Internal agreements are understandings and commitments among team members to ensure efficient and effective collaboration. These agreements cover shared objectives, communication protocols, roles and responsibilities, CI/CD practices, incident management, quality standards, documentation, and team culture. They align expectations and responsibilities across business, development, and operations teams to achieve seamless software development and delivery.

ABB Name: BDO:InternalAgreement

Minimum viable product (MVP)

Type	Product
dct:type	BDO:MVP
dct:modified	10/06/2024
skos:definition	MVP (Minimum Viable Product) refers to the initial version of a product that includes the minimum set of features necessary to meet the core business needs and allow for early user feedback. This approach aims to quickly deliver a functional product to the market, validate assumptions, and gather data to inform further development and enhancements. The MVP aligns development and operational efforts with business goals, ensuring rapid iteration and continuous improvement based on real user experiences and feedback.

Definition: MVP (Minimum Viable Product) refers to the initial version of a product that includes the minimum set of features necessary to meet the core business needs and allow for early user feedback. This approach aims to quickly deliver a functional product to the market, validate assumptions, and gather data to inform further development and enhancements. The MVP aligns development and operational efforts with business goals, ensuring rapid iteration and continuous improvement based on real user experiences and feedback.

ABB Name: BDO:MVP

MVP Business Process

Type	Business Process
dct:type	BDO:MVPBizProcess
dct:modified	10/06/2024
skos:definition	An MVP (Minimum Viable Product) business process is the simplest, most streamlined version of a business process that achieves its primary objectives. It includes only the essential steps and elements needed to validate the process's effectiveness, gather feedback, and make iterative improvements with minimal resources and risk.

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ABB Name: BDO:MVPBizProcess

MVP Service

Type	Business Service

dct:type	BDO:MVPService
dct:modified	10/06/2024
skos:definition	An MVP (Minimum Viable Product) business service is the simplest version of a service that delivers core functionality to meet initial business goals and customer needs. It includes only essential features to validate the service concept, gather user feedback, and iterate on improvements with minimal investment and risk.

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>
> ABB Name: BDO:MVPBizService

Planification

Type	Business Process
dct:type	BDO:PlanificationProcess
dct:modified	11/07/2024
skos:definition	The Planification Process in BizDevOps is a crucial stage where realistic timelines, resources, and project milestones are set. This phase involves creating a detailed roadmap that outlines the necessary steps to deliver the product, ensuring that all team members are aligned and prepared for execution. During planning, the BizDevOps team estimates and plans the product increments to be developed in the upcoming period. Continuous planning practice is common in many organizations, and incremental planning events (PI) serve as essential alignment loops to create a unified vision of product features, planning, team dependencies, and other necessary components to add value to the end user. In this process, product backlog management is conducted continuously and incrementally, with constant updates at various levels of granularity, from high-level solutions to team-level user stories. The Product Owner is responsible for defining and prioritizing what will be built in the upcoming product increments.

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>
> ABB Name: BDO:PlanificationProcess

Product Owner

Type	Business Role

dct:type	BDO:ProductOwner
dct:modified	10/04/2024
skos:definition	In BizDevOps, this Business Role is key in delivering a product that meets business needs and adds value. Their new focus is on aligning IT with business goals. This adds to their usual role of bridging the gap between business experts and the IT team and maximizing the product's value.

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Application Layer

Application

Type	Application Component
dct:type	BDO:Application
dct:modified	10/06/2024
skos:definition	The Applicatgion is a modular, self-contained unit of software that provides specific functionality required by the service. It is a building block that supports the execution of the MVP business process by delivering essential features and enabling efficient development and deployment.

> Definition: The Applicatgion is a modular, self-contained unit of software that provides specific functionality required by the service. It is a building block that supports the execution of the MVP business process by delivering essential features and enabling efficient development and deployment.
>
> ABB Name: BDO:Application

Application Data

Type	Data Object
dct:type	BDO:ApplicationData
dct:modified	10/06/2024
skos:definition	Application Data associated with an application component refers to the specific data that the component creates, processes, stores, and manages. This data supports the functionality provided by the application component and is crucial for the operation of the application service.

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>
> ABB Name: BDO:ApplicationData

Application Function

Type	Application Function

Application Service

Type	Application Service
dct:type	BDO:ApplicationService
dct:modified	10/06/2024
skos:definition	An application service associated with an MVP business process exposes the services offered by an application, which are necessary to support the initial and optimized version of a business process.

> Definition: An application service associated with an MVP business process exposes the services offered by an application, which are necessary to support the initial and optimized version of a business process.

ABB Name: BDO:ApplicationService

Technology & Physical Layer

Communication Network

Type	Communication Network

Device

Type	Device

DevOps Infraestructure Service

Type	Technology Service
dct:type	BDO:DevOpsInfraestructureService
dct:modified	10/06/2024
skos:definition	A DevOps Infrastructure Service is a foundational technology service that provides the necessary computing, storage, networking, and automation resources. It supports the continuous integration, delivery, and deployment of application components, ensuring efficient and reliable operation of the MVP business process.

> Definition: A DevOps Infrastructure Service is a foundational technology service that provides the necessary computing, storage, networking, and automation resources. It supports the continuous integration, delivery, and deployment of application components, ensuring efficient and reliable operation of the MVP business process.
>
> ABB Name: BDO:DevOpsInfraestructureService

Expose Way

Type	Technology Interface

Node

Type	Node

Path

Type	Path

System Software

Type	System Software

Technology Function

Type	Technology Function

Motivation

Agile Software Development

Type	Driver
dct:type	BDOAgileSwDevelopmentDriver
dct:modified	10/06/2024
skos:definition	An Agile Software Development Driver is a motivating factor that promotes the adoption of agile methodologies to enhance flexibility, speed, and collaboration in software development. It aims to deliver high-quality software incrementally, respond quickly to changes, and meet customer needs effectively through iterative development and continuous feedback.

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>
> ABB Name: BDOAgileSwDevelopmentDriver

Agility

Type	Principle
dct:type	BDO:AgilityPrinciple
dct:modified	10/06/2024
skos:definition	Incorporates agility throughout all operational cycles.

> Definition: Incorporates agility throughout all operational cycles.
>
> ABB Name: BDO:AgilityPrinciple

Agility is Maintained

Type	Assessment
dct:type	BDO:AgilityMaintainedAssessment
dct:modified	10/06/2024
skos:definition	Agility is Maintained is an assessment indicating that the organization continues to operate with flexibility and responsiveness. It ensures that processes, teams, and technologies can quickly adapt to changes, meet evolving customer needs, and support continuous improvement and innovation.

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>
> ABB Name: BDO:AgilityMaintainedAssessment
>
> Metrics Examples:
> 1. Team Velocity: Measures the amount of work a team can complete during a sprint, usually expressed in story points. This metric helps teams forecast the

amount of work they can take on in future sprints.
2. Burndown Chart: A chart that shows the amount of work remaining in the sprint versus time. It's useful for seeing if a team is on track to complete the sprint work on time.
3. Burnup Chart: Similar to the burndown chart, but it shows progress towards a larger goal, like a product release. This chart shows both the completed work and the total planned work, allowing for a clear view of how much remains to reach the final goal.
4. Cycle Time: Measures the time it takes to complete a task from when it starts until it finishes. This metric can help identify bottlenecks in the process.
5. Completion Rate: Calculates the percentage of tasks that are completed compared to the total tasks started. It's useful for evaluating the team's efficiency and delivery capability.
6. Lead Time: Measures the time it takes for the team to start working on a new task or request. A quick response can be indicative of good workflow and agility in the team.
7. Commitment vs. Achievement: This metric compares what the team committed to deliver at the start of a sprint with what they actually delivered at the end. It can help understand planning accuracy and the team's ability to deliver.

Alignment

Type	Principle
dct:type	BDO:AlignmentPrinciple
dct:modified	10/06/2024
skos:definition	Ensures continuous alignment of IT initiatives with business objectives.

Definition: Ensures continuous alignment of IT initiatives with business objectives.

ABB Name: BDO:AligmentPrinciple

Architecture Principle

Type	Principle
dct:type	BDO:ArchitecturePrinciple
dct:modified	10/06/2024
skos:definition	Architecture principles are fundamental guidelines and rules that inform and shape the design, development, and evolution of an organization's systems and structures, ensuring alignment with business goals and effective decision-making.

Definition: Architecture principles are fundamental guidelines and rules that inform and shape the design, development, and evolution of an organization's systems and structures, ensuring alignment with business goals and effective decision-making.

ABB Name: BDO:ArchitecturePrinciple

BizDevOps Principle

Type	Principle

dct:type	BDO:BizDevOpsPrinciple
dct:modified	10/06/2024
skos:definition	BizDevOps principles are fundamental guidelines that integrate business, development, and operations practices to enhance collaboration, accelerate delivery, and align IT efforts with business objectives.

> Definition: BizDevOps principles are fundamental guidelines that integrate business, development, and operations practices to enhance collaboration, accelerate delivery, and align IT efforts with business objectives.
>
> ABB Name: BDO:BizDevOpsPrinciple

Business First

Type	Principle
dct:type	BDO:BusinessFirstPrinciple
dct:modified	10/06/2024
skos:definition	Prioritizes organizational objectives over technical details.

> Definition: Prioritizes organizational objectives over technical details.
>
> ABB Name: BDO:BusinessFirstPrinciple

Business Need

Type	Requirement
dct:type	BDO:BusinessNeed
dct:modified	10/06/2024
skos:definition	Business needs are the essential requirements and demands an organization must fulfill to achieve its strategic and operational goals, such as improving efficiency, increasing profitability, expanding market share, and enhancing customer satisfaction.

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>
> ABB Name: BDO:BusinessNeed

Continuity in Everything

Type	Principle
dct:type	BDO:ContinuityInEverythingPrinciple
dct:modified	10/06/2024
skos:definition	Utilizes automated practices across business, development, and operations to maintain continuous process flow.

> Definition: Utilizes automated practices across business, development, and operations to maintain continuous process flow.
>
> ABB Name: BDO:ContinuityInEverythingPrinciple

Customer

Type	Stakeholder
dct:modified	11/07/2024
skos:definition	The "Customer" stakeholder plays an essential role in the software development process. The customer is the primary stakeholder representing the market's needs, expectations, and demands. Their involvement is crucial to ensure that the products developed are not only technically sound but also provide tangible and meaningful value. The customer is involved in various stages of the software development lifecycle. During the discovery phase, customer feedback is vital for identifying and understanding user needs and market opportunities. This initial feedback helps form a clear product vision and define specific requirements that will guide development. In the definition phase, customers collaborate with BizDevOps teams to refine these requirements, ensuring that product specifications align with their expectations and needs. Throughout development and operation, the customer continues to provide critical feedback, allowing for iterative adjustments and continuous product improvements. This ongoing interaction ensures that software development remains aligned with changing market demands and end-user expectations. The implementation of short and frequent feedback cycles facilitates the incorporation of the customer's perspective at every stage of the development process, promoting greater agility and responsiveness. Additionally, customers use specific metrics and KPIs to evaluate the performance of the product and the team, ensuring that decisions are based on accurate and up-to-date information. This constant collaboration and user-centered focus ensure that the delivered products not only meet technical standards but also satisfy customer expectations and generate the desired value.

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> Additionally, customers use specific metrics and KPIs to evaluate the performance of the product and the team, ensuring that decisions are based on accurate and up-to-date information. This constant collaboration and user-centered focus ensure that the delivered products not only meet technical standards but also satisfy customer expectations and generate the desired value.

Customer Focus

Type	Principle
dct:type	BDO:CustomerFocusPrinciple
dct:modified	10/06/2024
skos:definition	Adopts a customer-centered approach, prioritizing tasks to deliver maximum value and effectively managing risks.

> Definition: Adopts a customer-centered approach, prioritizing tasks to deliver maximum value and effectively managing risks.
>
> ABB Name: BDO:CustomerFocusPrinciple

DevOps Principles

Type	Principle

dct:modified	11/07/2024
skos:definition	Business or mission first: DevOps focuses on business and organizational goals ahead of procedural and technical considerations. DevOps utilizes information-rich feedback loops to understand progress and threats to attaining business and mission goals. Taking a business or mission first view helps to balance the concerns of risk and the activities which provide the most value to the customer. Continuously finding a dynamic balance between opportunities and risks and applying risk assessment and treatment at the organizational level enables the realization of DevOps without thrashing and wasted resources. Realizing the full promise of DevOps requires maintaining a strategic balance between honoring today’s commitments while enabling the organization to survive risks and develop the capabilities to move forward. Customer focus: DevOps takes a customer-centric view, prioritizing and designing work to deliver value to the customer, as well as identifying and managing risk. In short, if it makes sense for the customer and meets a customer need, then it is likely to be the right approach from a DevOps perspective. For example, for both customers and suppliers, privacy is a customer focus: not only protection of individuals’ data, but also protection of enterprise data. Privacy may include data categorization (e.g., health data, financial data) and classification-driven methods (e.g., confidential, restricted, internal use, public) as often required by regulatory and legal requirements. Left-shift and continuous everything: The normal DevOps practice is information-driven, risk-based, continuous everything. DevOps continuous everything means using the same practices in development as in operations and sustainment. DevOps practices are founded on automation for continuous integration, delivery and deployment, and operations and sustainment. The approach to DevOps in this document is to build systems to be secure and verifiable from the very beginning. Risk management, quality assurance (QA), and testing are the practices that make accelerated velocity and continuous delivery possible. Systems thinking: ystems thinking counters a myopic approach of utilizing specialists—such as networking professionals, database administrators, and systems administrators—who rarely communicate with either the development or operations teams and lack understanding of the system as a whole. In DevOps, taking a comprehensive view encourages technology professionals to fully understand the system from end to end. Systems thinking can enable resolution of complex and emergent problems that are not easily traceable to a single flaw. Systems thinking should apply to a consistent architecture for the enterprise tools used for DevOps as well as to the system under development.

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Systems thinking: ystems thinking counters a myopic approach of utilizing specialists—such as networking professionals, database administrators, and systems administrators—who rarely communicate with either the development or operations teams and lack understanding of the system as a whole. In DevOps, taking a comprehensive view encourages technology professionals to fully understand the system from end to end. Systems thinking can enable resolution of complex and emergent problems that are not easily traceable to a single flaw. Systems thinking should apply to a consistent architecture for the enterprise tools used for DevOps as well as to the system under development.

Source: ISO/IEC/IEEE 32675-2022: International Standard DevOps

Enable the realization of successful software systems

Type	Driver
dct:modified	11/07/2024
skos:definition	Implementing effective information technology (IT) controls, embracing and managing risk, while enabling more rapid development (higher velocity).

> Implementing effective information technology (IT) controls, embracing and managing risk, while enabling more rapid development (higher velocity).
>
> Source: ISO/IEC/IEEE 32675-2022

Enterprise Objetive

Type	Goal

dct:type	BDO:EnterpriseObjetive
dct:modified	10/06/2024
skos:definition	Enterprise objectives are the strategic goals and targets that an organization aims to achieve to ensure its long-term success and growth.

> Definition: Enterprise objectives are the strategic goals and targets that an organization aims to achieve to ensure its long-term success and growth.
>
> ABB Name: BDO:EnterpriseObjetive

Functional Requirement

Type	Requirement
dct:type	BDO:FunctionalRequirement
dct:modified	10/06/2024
skos:definition	Specifications of the functions a system or component must perform, including inputs, outputs, and behaviors under various conditions.

> Definition: Specifications of the functions a system or component must perform, including inputs, outputs, and behaviors under various conditions.
>
> ABB Name: BDO:FunctionalRequirement
>
> Source: https://www.iso.org/es/contents/data/standard/07/81/78176.html

Integrated Team

Type	Principle
dct:type	BDO:IntegratedTeamPrinciple
dct:modified	10/06/2024
skos:definition	Rather than having separate teams, BizDevOps involves a unified team with roles spanning business, development, and operations to collaboratively meet software needs.

> Definition: Rather than having separate teams, BizDevOps involves a unified team with roles spanning business, development, and operations to collaboratively meet software needs.
>
> ABB Name: BDO:IntegratedTeamPrinciple

IT and business are aligned

Type	Assessment
dct:type	BDO:ITBusinessAlignmentAssessment
dct:modified	10/06/2024
skos:definition	IT and Business are Aligned is an assessment indicating that IT initiatives, resources, and strategies effectively support and enhance business goals. This alignment ensures cohesive operations, maximizes efficiency, and drives organizational success by ensuring that IT contributions are directly aligned with business needs and objectives.

> Definition: IT and Business are Aligned is an assessment indicating that IT initiatives, resources, and strategies effectively support and enhance business goals. This alignment ensures cohesive operations, maximizes efficiency, and drives

organizational success by ensuring that IT contributions are directly aligned with business needs and objectives.

ABB Name: BDO:ITBusinessAlignmentAssessment

Metrics Examples: (source: https://ieeexplore.ieee.org/document/9263839)

1. Number of applications by business process.
2. Number of business process by objetive

IT/Business Alignment

Type	Driver
dct:type	BDO:ITBizAlignmentDriver
dct:modified	10/06/2024
skos:definition	An IT/Business Alignment Driver is a motivating factor that ensures IT strategies and services are integrated with and support business goals. This alignment enhances efficiency, drives competitive advantage, and creates value for the organization by ensuring that IT capabilities directly contribute to business success.

Definition: An IT/Business Alignment Driver is a motivating factor that ensures IT strategies and services are integrated with and support business goals. This alignment enhances efficiency, drives competitive advantage, and creates value for the organization by ensuring that IT capabilities directly contribute to business success.

ABB Name: BDO:ITBizAlignmentDriver

Non-Functional Requirement

Type	Requirement
dct:type	BDO:NonFunctionalRequirement
dct:modified	10/06/2024
skos:definition	Criteria that define the quality attributes of a system, such as performance, usability, reliability, security, compatibility, maintainability, and portability.

Definition: Criteria that define the quality attributes of a system, such as performance, usability, reliability, security, compatibility, maintainability, and portability.

ABB Name: BDO:NonFunctionalRequirement

Source: https://www.iso.org/es/contents/data/standard/07/81/78176.html

Organization

Type	Stakeholder

dct:modified	11/07/2024
skos:definition	The stakeholder "Organization" refers to the overarching entity that includes all stakeholders, structures, and resources involved in delivering value through software development. The organization is responsible for providing the vision, strategy, and necessary resources for BizDevOps teams to function effectively. This stakeholder plays a crucial role in aligning business goals and objectives with IT development and operations practices. The organization establishes the policies and procedures that guide the work of BizDevOps teams, ensuring that software development projects are aligned with the company's strategic objectives. Additionally, the organization facilitates communication and collaboration among different teams and departments, promoting a culture of agile and collaborative work. A key role of the organization is to provide support and resources, including funding, tools, and training, to enable BizDevOps teams to implement continuous development and deployment practices. The organization is also responsible for overseeing and measuring the performance of the team and the product, using specific metrics and KPIs to ensure that software development initiatives are delivering the expected value to the business.

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The organization establishes the policies and procedures that guide the work of BizDevOps teams, ensuring that software development projects are aligned with the company's strategic objectives. Additionally, the organization facilitates communication and collaboration among different teams and departments, promoting a culture of agile and collaborative work.

A key role of the organization is to provide support and resources, including funding, tools, and training, to enable BizDevOps teams to implement continuous development and deployment practices. The organization is also responsible for overseeing and measuring the performance of the team and the product, using specific metrics and KPIs to ensure that software development initiatives are delivering the expected value to the business.

Shift-Left

Type	Principle
dct:type	BDO:ShiftLefttPrinciple
dct:modified	10/06/2024
skos:definition	Anticipates tasks typically performed at the later stages of development, such as quality and security testing, to address them earlier in the lifecycle.

Definition: Anticipates tasks typically performed at the later stages of development, such as quality and security testing, to address them earlier in the lifecycle.

> ABB Name: BDO:ShiftLefttPrinciple

Systems Thinking

Type	Principle
dct:type	BDO:SystemsThinkingPrinciple
dct:modified	10/06/2024
skos:definition	Promotes a comprehensive understanding of the system from start to finish, aiding in the resolution of complex issues that may arise.

> Definition: Promotes a comprehensive understanding of the system from start to finish, aiding in the resolution of complex issues that may arise.
>
> ABB Name: BDO:SystemsThinkingPrinciple

Other

Biz Cycle

Type	Grouping

This view presents the ABBs that guide the development of a software product with BizDevOps.

BizDevOps Building Block

Type	Grouping

Narrative:

The [Business Need] are composed of [Functional Requirement] and [Non-Functional Requirement], which are fulfilled by a [Minimum Viable Product (MVP)]. This MVP is designed, built, and delivered to its users considering the [BizDevOps Software Development Process]. This software development process complies with the course of action [IT/Business Alignment while ensuring Agility], which represents how the organization has decided to build the software and is also supported by the [Business Capability]. This course of action is influenced by the drivers [IT/Business Alignment] and [Agile Software Development], which are assessed by [IT and Business are Aligned] and [Agility is Maintained], respectively.

The [Minimum Viable Product (MVP)] is represented with a service orientation. This product is composed of contracts called [Internal Agreement] and business services [MVP Service]. Considering the service orientation, the business service is executed by business processes [MVP Business Process], which can access [Business Information]. The [MVP Business Process] is served by [Application Service], which exposes the services offered by [Application Function]. The [Application] can access [Application Data] and provides everything necessary for the [Application Function] to offer its functions. The [Application] and [Application Function] uses [DevOps Infrastructure Service] to enable Continuous Integration, Continuous Delivery, and others tasks, as well as to provide the necessary infrastructure to support the use of [Application]. This service orientation allows us to align the business ([MVP Business Process]) with information technologies [Application Service]. Additionally, it enables the alignment of information and data.

The role [BizDevOps Team] includes roles such as [Product Owner] and [Agility Manager], who are associated with the drivers of [IT/Business Alignment] and [Agile Software Development], respectively. This ensures that the roles are aware of the tasks that will keep IT aligned with the business while developing software in an agile manner.

The [Business Need] fulfill the [Enterprise Objective], allowing organizations to achieve their goals using the BizDevOps approach. Furthermore, the [Business Need] are influenced by architectural principles, which consider the [BizDevOps Principle], such as [Alignment], [Agility], among others.

Dev and Ops Cycle

Type	Grouping

This view presents the ABBs that guide the development of a software product with BizDevOps.

ISO/IEC/IEEE 32675-2022: International Standard DevOps

Type	Grouping
dct:modified	08/07/2024
skos:definition	Technical principles and processes to build, package, and deploy systems and applications in a reliable and secure way are specified. Establishing effective compliance and information technology (IT) controls is the focus. DevOps principles presented include mission first, customer focus, left-shift, continuous everything, and systems thinking. How stakeholders, including developers and operations staff, can collaborate and communicate effectively is described. The process outcomes and activities herein are aligned with the process model specified in ISO/IEC/IEEE 12207:2017 and ISO/IEC/IEEE 15288:2015.

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Location

Type	Location

Solution Building Block

Type	Grouping

Relations

Realization relation

Type	Realization relation
Source	BizDevOps Capability
Target	IT/Business Aligment while ensuring Agility

Aggregation relation

Type	Aggregation relation
Source	BizDevOps Principle
Target	Architecture Principle

Realization relation

Type	Realization relation
Source	Solution Building Block
Target	Business Need

Influence relation

Type	Influence relation
Source	Architecture Principle
Target	Business Need

Realization relation

Type	Realization relation
Source	Minimum viable product (MVP)
Target	Functional Requirement

Realization relation

Type	Realization relation
Source	Minimum viable product (MVP)
Target	Non-Functional Requirement

Serving relation

Type	Serving relation
Source	BizDevOps Software Development Process
Target	Minimum viable product (MVP)

Realization relation

Type	Realization relation
Source	BizDevOps Software Development Process
Target	IT/Business Aligment while ensuring Agility

Composition relation

Type	Composition relation

Source	Minimum viable product (MVP)
Target	MVP Service

Composition relation

Type	Composition relation
Source	Minimum viable product (MVP)
Target	Internal Agreement

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	MVP Service

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	IT/Business Aligment while ensuring Agility

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	DevOps Infraestructure Service

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Agility Manager

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	BizDevOps Software Development Process

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	MVP Business Process

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Internal Agreement

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Product Owner

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	BizDevOps Capability

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Minimum viable product (MVP)

Influence relation

Type	Influence relation
Source	Architecture Principle
Target	BizDevOps Building Block

Realization relation

Type	Realization relation
Source	MVP Business Process
Target	MVP Service

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Application Service

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Application

Realization relation

Type	Realization relation
Source	Application Function
Target	Application Service

Realization relation

Type	Realization relation
Source	BizDevOps Building Block
Target	Business Need

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Business Information

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Application Data

Access relation

Type	Access relation
Source	Application
Target	Application Data

Access relation

Type	Access relation
Source	MVP Business Process
Target	Business Information

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	BizDevOps Team

Composition relation

Type	Composition relation
Source	BizDevOps Team
Target	Agility Manager

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Composition relation

Type	Composition relation
Source	BizDevOps Team
Target	Product Owner

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Agile Software Development

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	IT/Business Alignment

Association relation

Type	Association relation
Source	Agility Manager
Target	Agile Software Development

Association relation

Type	Association relation
Source	Product Owner
Target	IT/Business Alignment

Influence relation

Type	Influence relation
Source	IT/Business Aligment while ensuring Agility
Target	IT/Business Alignment

Influence relation

Type	Influence relation
Source	IT/Business Aligment while ensuring Agility
Target	Agile Software Development

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Agility is Maintained

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	IT and business are aligned

Association relation

Type	Association relation
Source	Agile Software Development
Target	Agility is Maintained

Association relation

Type	Association relation
Source	IT/Business Alignment

Target	IT and business are aligned

Composition relation

Type	Composition relation
Source	BizDevOps Software Development Process
Target	Biz Cycle

Composition relation

Type	Composition relation
Source	Biz Cycle
Target	Planification

Composition relation

Type	Composition relation
Source	Biz Cycle
Target	Definition

Composition relation

Type	Composition relation
Source	Biz Cycle
Target	Discovery

Composition relation

Type	Composition relation
Source	BizDevOps Software Development Process
Target	Dev and Ops Cycle

Composition relation

Type	Composition relation
Source	Dev and Ops Cycle
Target	Building and Testing

Composition relation

Type	Composition relation
Source	Dev and Ops Cycle
Target	Delivery and Operation

Flow relation

Type	Flow relation
Source	Discovery
Target	Definition

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Flow relation

Type	Flow relation
Source	Definition
Target	Planification

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Flow relation

Type	Flow relation
Source	Planification
Target	Building and Testing

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Flow relation

Type	Flow relation
Source	Building and Testing
Target	Delivery and Operation

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Assignment relation

Type	Assignment relation
Source	BizDevOps Team
Target	BizDevOps Software Development Process

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Composition relation

Type	Composition relation
Source	Biz Cycle
Target	Alignment

Flow relation

Type	Flow relation
Source	Alignment
Target	Discovery

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Assignment relation

Type	Assignment relation
Source	Product Owner

Target	Biz Cycle

> This view presents the ABBs that guide the development of a software product with BizDevOps.

Realization relation

Type	Realization relation
Source	Business Need
Target	Enterprise Objetive

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Functional Requirement

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Non-Functional Requirement

Specialization relation

Type	Specialization relation
Source	Alignment
Target	BizDevOps Principle

Specialization relation

Type	Specialization relation
Source	Agility
Target	BizDevOps Principle

Specialization relation

Type	Specialization relation
Source	Integrated Team
Target	BizDevOps Principle

Specialization relation

Type	Specialization relation
Source	Business First
Target	BizDevOps Principle

Specialization relation

Type	Specialization relation
Source	Customer Focus
Target	BizDevOps Principle

Specialization relation

Type	Specialization relation
Source	Shift-Left
Target	BizDevOps Principle

Specialization relation

Type	Specialization relation
Source	Continuity in Everything
Target	BizDevOps Principle

Specialization relation

Type	Specialization relation
Source	Systems Thinking
Target	BizDevOps Principle

Composition relation

Type	Composition relation
Source	Business Need
Target	Functional Requirement

Composition relation

Type	Composition relation
Source	Business Need
Target	Non-Functional Requirement

Assignment relation

Type	Assignment relation
Source	Agility Manager
Target	Dev and Ops Cycle

Influence relation

Type	Influence relation
Source	Customer
Target	Business Need

Composition relation

Type	Composition relation
Source	ISO/IEC/IEEE 32675-2022: International Standard DevOps
Target	DevOps Processes

Composition relation

Type	Composition relation
Source	ISO/IEC/IEEE 32675-2022: International Standard DevOps
Target	DevOps Principles

Flow relation

Type	Flow relation
Source	Delivery and Operation
Target	Alignment

Influence relation

Type	Influence relation
Source	IT/Business Alignment
Target	Biz Cycle

Composition relation

Type	Composition relation
Source	ISO/IEC/IEEE 32675-2022: International Standard DevOps
Target	Enable the realization of successful software systems

Influence relation

Type	Influence relation
Source	DevOps Processes
Target	Enable the realization of successful software systems

Influence relation

Type	Influence relation
Source	DevOps Principles
Target	Enable the realization of successful software systems

Association relation

Type	Association relation
Source	Organization
Target	Enable the realization of successful software systems

Association relation

Type	Association relation
Source	Enable the realization of successful software systems
Target	BizDevOps Software Development Process

Influence relation

Type	Influence relation
Source	Agile Software Development
Target	Dev and Ops Cycle

Composition relation

Type	Composition relation
Source	BizDevOps Team

Target	DevOps Roles

Composition relation

Type	Composition relation
Source	BizDevOps Building Block
Target	Application Function

Assignment relation

Type	Assignment relation
Source	Application
Target	Application Function

Association relation

Type	Association relation
Source	DevOps Roles
Target	Application

Serving relation

Type	Serving relation
Source	Expose Way
Target	Node

Composition relation

Type	Composition relation
Source	Node
Target	Expose Way

Assignment relation

Type	Assignment relation
Source	Node
Target	Technology Function

Composition relation

Type	Composition relation
Source	Node
Target	Device

Composition relation

Type	Composition relation
Source	Node
Target	System Software

Assignment relation

Type	Assignment relation

Source	Device
Target	System Software

Association relation

Type	Association relation
Source	Communication Network
Target	Device

Realization relation

Type	Realization relation
Source	Communication Network
Target	Path

Association relation

Type	Association relation
Source	Path
Target	Node

Assignment relation

Type	Assignment relation
Source	Location
Target	Node

Realization relation

Type	Realization relation
Source	Technology Function
Target	DevOps Infraestructure Service

Serving relation

Type	Serving relation
Source	DevOps Infraestructure Service
Target	Technology Function

Serving relation

Type	Serving relation
Source	Expose Way
Target	Application

Realization relation

Type	Realization relation
Source	Application
Target	Application Service

Association relation

Type	Association relation
Source	BizDevOps Software Development Process
Target	BizDevOps Principle

Influence relation

Type	Influence relation
Source	DevOps Principles
Target	BizDevOps Principle

Association relation

Type	Association relation
Source	DevOps Processes
Target	BizDevOps Software Development Process

build / deploy

Type	Serving relation
Source	DevOps Infraestructure Service
Target	Application

realization / align

Type	Realization relation
Source	Application Data
Target	Business Information

serve

Type	Serving relation
Source	DevOps Infraestructure Service
Target	Application Function

serve / align

Type	Serving relation
Source	Application Service
Target	MVP Business Process