Property	Important Qualities	Brief Explanation	Important Transitive Relations
efficient	performance	Perform its functions within specified time and throughput parameters.	efficiency, resource-efficiency, speed
	resource-utilization	Use no more than the specified amount of resources.	efficiency, performance, time-behaviour
	latency	Time delay between cause and effect.	performance, time-behaviour
	throughput	How many units of information a system can process in a given amount of time.	performance, efficiency, speed
	energy-efficiency	Optimize energy consumption.	carbon-emission-efficiency, sustainability
	cost	Value of money used to produce something.	budget-constraint, affordability
	memory-usage	Use no more than the specified amount of memory.	capacity, resource-utilization
	startup-time	Time to become fully operational.	performance, time-behaviour
flexible	scalability	Handle a growing amount of work.	adaptability, elasticity, performance
	extensibility	Ability to add new features.	adaptability, modifiability, changeability
	modularity	Changes to one component don’t affect others.	adaptability, changeability, composability
	configurability	Customize and adapt to various requirements.	changeability, adaptability, versatility
	maintainability	Ease of modification by maintainers.	adaptability, changeability, modularity
	portability	Low effort to make it run on different environments.	compatibility, installability, interoperability
	reusability	Can be used as assets in more than one system.	adaptability, changeability, modifiability
	adaptability	Can be adapted for different environments.	changeability, configurability, maintainability

operable	deployability	Deploy in a predictable and acceptable amount of time and effort.	releasability, operability, testability
	observability	How well internal states can be inferred from external outputs.	analysability, testability
	debuggability	Make defects and undesired behaviors easy to diagnose.	analysability, maintainability, observability
	controllability	Effectively manage, manipulate, and influence system behavior.	usability, autonomy
	DORA	DevOps Research and Assessment metrics.	devops-metrics, deployability, operability
	mean-time-to-recovery	How long it takes to recover from a failure.	controllability, operability, testability
	installability	Can be effectively and efficiently installed.	maintainability, analysability, operability
	updateability	Can efficiently receive, install, and integrate updates.	maintainability, upgradeability, installability
reliable	availability	Accessible and operational when required.	high-availability, robustness, reliability
	fault-tolerance	Operate as intended despite faults.	robustness, reliability, usability
	recoverability	Recover data and re-establish the desired state after a failure.	robustness, reliability, usability
	resilience	Provide and maintain an acceptable level of service in the face of faults.	availability
	robustness	Continue to function under abnormal circumstances.	resilience, dependability, reliability
	data-integrity	Maintenance and assurance of accuracy and consistency of data.	integrity, data-quality, accuracy
	stability	Free from severe errors that cause interruption of system function.	reliability, adaptability, changeability
	durability	Remain useful and meet user needs over a long period.	reliability, availability, robustness
safe	safety	Freedom from unacceptable risks.	availability, robustness
	fail-safe	Automatically place itself in a safe operating mode in the event of a failure.	safety, robustness
		Identify which component is	safety, fail-safe, fault-

	fault-isolation	responsible for a fault.	tolerance
	hazard-warning	Provide warnings of unacceptable risks.	safety, robustness
	risk-identification	Identify events that can expose life, property or environment to unacceptable risk.	safety, analysability
	patient-safety	The absence of preventable harm to a patient.	safety, robustness
	safe-integration	Maintain safety during and after integration with other components.	safety, robustness
	operational-constraint	Constrain its operation to within safe parameters.	availability, robustness, flexibility, safety
secure	confidentiality	Data are accessible only to those authorized to have access.	integrity, accountability
	integrity	Protected from unauthorized modification or deletion.	confidentiality, security
	availability	Accessible and operational when required for use.	high-availability, robustness, reliability
	authenticity	Prove that the identity of a subject or resource is the one claimed.	integrity, security, non-repudiation
	access-control	Who is authorized to access to the product.	security, accessibility, confidentiality
	non-repudiation	Prove that actions or events have taken place.	integrity, authenticity, security
	privacy	The right to have some control over how your personal information is collected and used.	security, confidentiality
	vulnerability	A defect in software that could allow an attacker to gain control of a system.	reliability, availability, fault-tolerance
suitable	functional-suitability	Provide functions that meet stated and implied needs of intended users.	usability, functionality, functional-completeness
	correctness	Provide accurate results when used by intended users for intended functions.	usability, functionality, functional-suitability
	functional-completeness	Provide a set of functions that covers all the specified tasks and user objectives.	usability, functionality, functional-suitability
	functional-appropriateness	Provide functions that avoid irrelevant behaviours or interactions.	usability, functionality, functional-suitability
	data-quality	The state of qualitative or	accuracy, correctness,

		quantitative pieces of information.	precision
	compliance	How well does the system or product obeys the rules of a given standard.	security, safety, usability
	affordability	The state of being cheap enough for people to be able to buy.	budget-constraint, cost, changeability
	budget-constraint	The budget for the project, expressed in money or available resources.	affordability, cost
usable	usability	Can be used by specified users to exchange information.	functionality, attractiveness, operability
	accessibility	Usable by people with the widest range of characteristics and capabilities.	usability, inclusivity, interaction-capability
	learnability	Can be learned to use within a specified amount of time.	usability, user-error-protection, user-engagement
	ease-of-use	How easily users can use a product.	attractiveness, operability, user-error-protection
	user-experience	How a user interacts with and experiences a product, system or service.	usability, user-interface-aesthetics, user-error-protection
	intuitiveness	The degree to which a system’s interface and behavior align with users' expectations.	usability, learnability, user-experience
	simplicity	Easy to read, understand, and correctly modify.	efficiency, modularity
	discoverability	The ease with which users can find new or unknown features.	learnability, usability, intuitiveness