

WHAT IS A DIGITAL SERVICE?

Authors and date

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SUMMARY

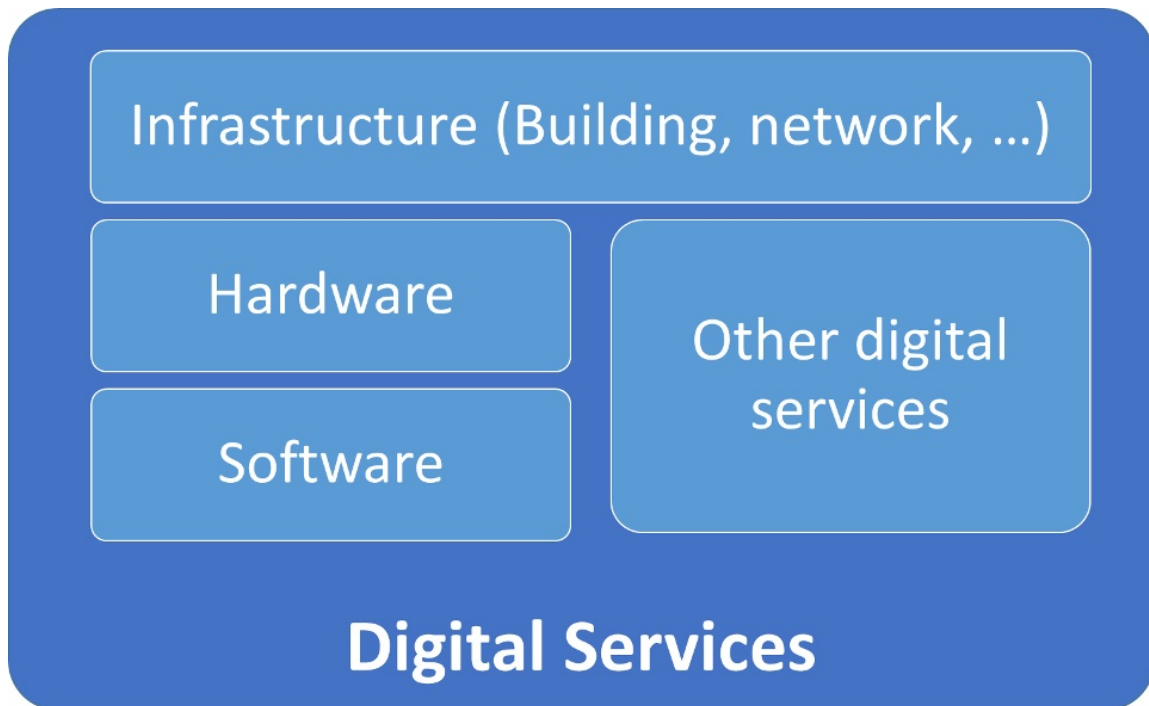
The digital sector is based on 6 pillars: equipment, networks, data centers, human resources, software and services. For a long time, digital services have been confused with software. However, software is not defined by its materiality but is defined as a set of programs and procedures necessary for the operation of a computer system [Le Robert].

Digital services are defined according to the needs they meet and are made up of a set of human, hardware and software resources. A digital service has its own materiality, its own life cycle and often depends on a complex set of actors.

WHAT IS A DIGITAL SERVICE?

A digital service refers to all the human, software and hardware resources required to provide a service. For example, the provision of an email service, the viewing of a video on Youtube, the realization of high performance computing, the realization of a financial transaction in cryptocurrency, the display of a web page... The industry standard [ITU L.1410](#) presents digital services as the use of digital equipment and/or telecommunication networks to provide value to one or more users.

Thus, the digital service is made up of a set of software, hardware, networks and infrastructures, and other digital services operated by various actors (human resources) (publishers, designers, architects, network and service operators, Internet access providers, users, ...). This articulation through a digital service makes it possible to meet one or more needs.

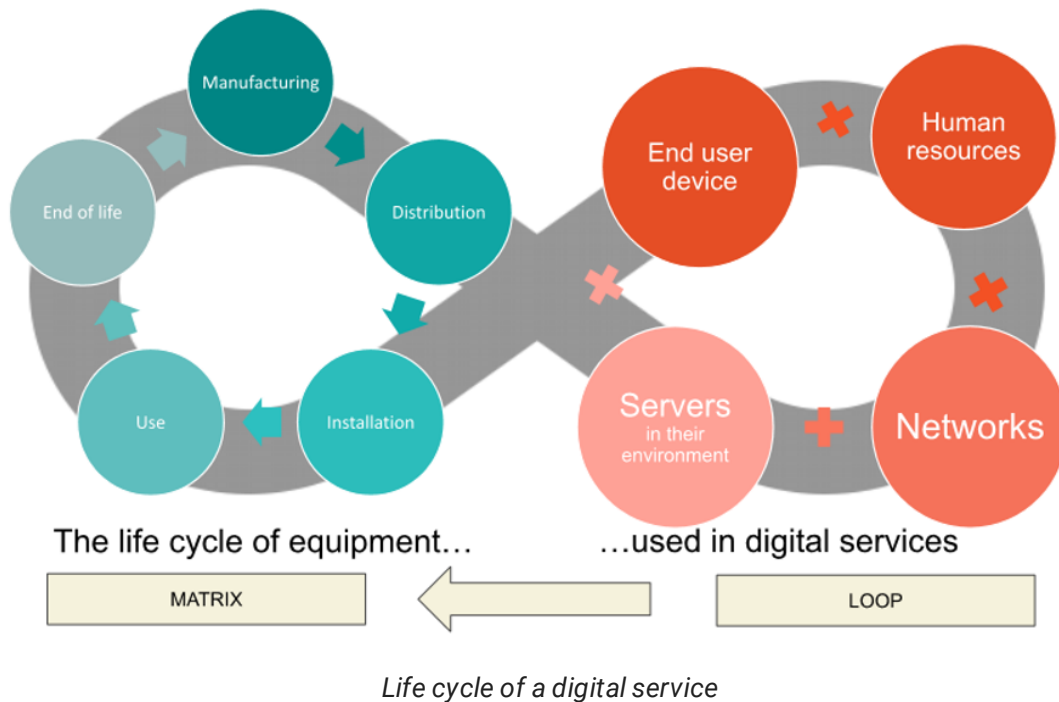


Structure of a digital service [Source: From Green IT to responsible digital - Glossary of terms - 2018 - Club GreenIT]

To characterize the need to which the service responds (i.e. the service rendered), we speak of a functional unit. This concept is defined in the ISO 14 040:2006 standard on life cycle assessment and refers to the quantified performance of a product or service. It is used as a basis for comparison with equal service. This functional unit can be: "book a seat on a train", "make an appointment with a doctor", "send an e-mail to friends", "read a smart meter", "check up on my relatives once a week for 10 minutes" etc.

WHAT IS THE LIFE CYCLE OF A DIGITAL SERVICE?

The life cycle of a digital service is made up of two dimensions. First, the life cycle of the digital service itself, which goes from the design phase to the end-of-life phase, including implementation, deployment, use, maintenance and end-of-life. At each of these stages, human and material resources are mobilized, each with its own life cycle, from the extraction of natural resources to distribution, use and end of life. We have a "matrix" life cycle.



WHO ARE THE ACTORS INVOLVED IN THE DEPLOYMENT OF A DIGITAL SERVICE?

The following is a non-exhaustive list of actors involved in the life cycle of a digital service:

- **User:** the person for whom the digital service is intended, who may or may not use it to meet their needs
- **Service Operator:** an actor who operates a service
- **Developer:** actor who develops a digital service (from specifications to technical solution)
- **Architect:** an actor in charge of the technical analysis required to design the architecture diagram, i.e. the construction plan for a software, a network, a database, etc.
- **Hosting company:** entity that offers as a service the hosting of a digital service (website, application, ...) in datacenters
- **Network operator:** entity in charge of the operation of the telecommunication network

This list is not complete, but is intended to show the diversity and multiplicity of the chain of actors that will be necessary to federate in order to achieve an ideal of responsible digital.

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