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# ACCORDION: Architecture finally defined

##### **The H2020 project**[**ACCORDION**](https://www.accordion-project.eu)**will very soon deliver the core modules of its novel platform, with a complete release of the integrated platform to follow soon after.**

Cloud computing played an undoubtedly important role in the digital revolution. It allows consumers and businesses to use and deploy applications without dealing with local installations and the associated complexity. However, a sizeable class of applications is currently being blocked not only because of their dependency on on-premise infrastructures or specialized end-devices but also because they are too latency-sensitive or data-dependent to be moved to the public cloud.

These Next Generation (NextGen) applications would instead benefit from an advanced infrastructure with ubiquitous presence, unblocking them from fixed geographies. Current edge computing implementations are fixed in terms of supported geography and architectures, also blocking the scope of local resources and infrastructures to the particular edge-enabled application needs. Existing solutions lead to user lock-in and, overall, have a negative impact on the open diffusion of edge computing. They in fact hinder the exploitation of the ubiquitous presence of edge infrastructure, limiting the edge-enablement of the NextGen applications.

Enter the [ACCORDION project](https://www.accordion-project.eu). The shift towards edge computing supported and promoted by ACCORDION aims to (1) limit the vendor lock-in situation in which SMEs are tied into the offerings of the big vendors; (2) leverage the vast pool of local, potentially specialized, resources of the SME landscape; and (3) mitigate the slow adoption rate of new technologies among many SMEs.

With this in mind, ACCORDION aspires to provide:

* An open, low-latency, privacy-preserving, secure and robust virtualized infrastructure;
* An application management framework, tailored to the needs of the SME skillset, that will enable the deployment of NextGen applications on top of this infrastructure, reaping the benefits of edge computing while exploiting the set of heterogeneous resources that can embed such computing facilities.

ACCORDION’s key concept is aligned with recent developments on the Multi-Access Edge Computing (MEC) front, extending to both network and computation resources. The project team aims to provide a platform able to address the needs of NextGen applications through a proper exploitation of edge resources. Such a platform is intended to provide an integrated approach dedicated to both developers and local infrastructure owners. It will encompass frameworks for application development, solutions for an adaptive and robust cloud/edge infrastructure continuum, and the abstraction of widely heterogeneous pools.

After starting in early 2020, ACCORDION has just entered its second year. As planned, the first year of the project focused primarily on the analysis of the state of the art, the selection of base technologies and the definition of the overall architecture of the system: moving from the highly-level conceptual one to a more concrete one, in which the key modules of the system, along with the interactions incurring among them, have been defined.

Following release of the integrated ACCORDION platform, a series of use cases will demonstrate how the platform can be tailored to a variety of needs and situations.

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