Cognitive Cloud Continuum

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Abstract: Cloud Continuum is the extension of the traditional Cloud towards multiple entities like Internet of Things devices, Edge or Fog nodes that provide analysis, processing, storage, and data generation capabilities [1]. Cognitive Cloud Continuum, i.e. AI-enabled Cloud continuum, aims to automatically adapt to the growing complexity and data deluge by integrating seamlessly diverse computing and data environments by learning from monitoring and management of deployed services or applying AI techniques for dynamic load balancing to optimize energy consumption, resource usage or network traffic. To achieve this aim several efforts are underway. We will focus on the recent results related to coupling federated learning mechanisms and intelligent resource discovery to achieve an adaptive hosting environment capable of running both on Cloud and close to the Edge, machine learning in anomaly detection, or transprecision computing for distributed stream processing [2,3,4].

References:

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