|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Background** | | | | |
| **Cause** | Existing network architecture is not enough to meet the user's application experience  **Ref: Edge Computing: Vision and Challenges, II,A,1** | It takes a lot of resources to complete all computing tasks by the cloud computing center alone.  **Ref: Edge Computing: Vision and Challenges, II,A,2** | The number of objects is too large, the resulting data stream is too large, and the cloud center cannot process all the data.  **Ref: Edge Computing: Vision and Challenges, II,A,2** |  |
| **Concept** | The computing task is resolved as close as possible to the data producer.  **Ref: Edge Computing: Vision and Challenges, II,B** | “Mobile edge computing provides an IT service environment and cloud computing capabilities at the edge of the mobile network, within the radio access network (RAN) and in close proximity to mobile subscribers.”  **Ref: Mobile Edge Computing: A Survey,II,A** |  |  |
| **Benefits** | Cloud Offloading: offloading the computing tasks of the cloud center to the edge node of network, divert data, and free up computing resources.  **Edge Computing: Vision and Challenges, III,A** | Low latency: close to the data producer, less time to transport data.  **Edge Computing: Vision and Challenges, II,C** |  |  |
| **Instance** | 1.Cloud Offloading  **Edge Computing: Vision and Challenges, III,A** | Video Analytics  **Edge Computing: Vision and Challenges, III,B** | Smart Home  **Edge Computing: Vision and Challenges, III,C**  Smart City  **Edge Computing: Vision and Challenges, III,D** | Collaborative Edge( share data)  Price competition  By stakeholders  **Edge Computing: Vision and Challenges, III,E** |
| **Challenges** | Privacy and Security:  1.the wireless  2.things collected data, user leaved data at edge, storage safe?  3.edge nodes maybe don’t have enough resource to provide protect for data. | Distribute work for each part/layer. |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |