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| **TSC Category** | Development and Implementation | | | | | |
| **TSC Title** | Network Slicing | | | | | |
| **TSC Description** | Create logically partitioned networks from a shared infrastructure to provide optimised and customised services for different users based on service level agreements | | | | | |
| **TSC Proficiency Description** | **Level 1** | **Level 2** | **Level 3** | **Level 4** | **Level 5** | **Level 6** |
|  |  |  | **ICT-DIT-4025-1.1** | **ICT-DIT-5025-1.1** |  |
|  |  |  | Design and maintain network slices to fulfil customers’ needs | Configure network slices to support multiple end-user services |  |
| **Knowledge** |  |  |  | * Network Functions Virtualisation (NFV) * Software Defined Networking (SDN) * Virtual Network Function (VNF) * Radio Access Network (RAN) and Core Network (CN) * Enhanced Mobile Broadband (eMBB), massive Machine Type Communication (mMTC), Ultra-Reliable and Low Latency Communication (URLLC) * Network Slice Instance (NSI) and Network Slice Subnet Instance (NSSI), its characteristics, components and service categories * Network resources used to create network slices * Network slice blueprints and catalogue * Benefits and value of network slicing to organisations * Verification tests for network slices * Risks and mitigation measures for verification tests * Network slice requirements of vertical and horizontal industries | * Network slicing optimisation * Guaranteed Quality of Service (QoS) and Key Performance Indicators (KPIs) * Network Functions Virtualisation (NFV) * Software Defined Networking (SDN) * Virtual Network Function (VNF) * Radio Access Network (RAN) and Core Network (CN) * Enhanced Mobile Broadband (eMBB), massive Machine Type Communication (mMTC), Ultra-Reliable and Low Latency Communication (URLLC) * Network Slice Instance (NSI) and Network Slice Subnet Instance (NSSI), its characteristics, components and service categories * Network resources used to create network slices * Network slice blueprints and catalogue * Verification tests for network slices * Risks and mitigation measures for verification tests * Network slice requirements of vertical and horizontal industries |  |
| **Abilities** |  |  |  | * Determine the input parameters to create and configure network slices * Check the catalogue if network slice blueprints exist for the network slices requested for * Design the components for the network slices * Determine resources required for creation of network slices * Conduct regression tests to verify the network slice being created * Upload network slices into production system and validate network slice blueprints * Update network slice blueprint catalogue with newly created network slices * Carry out maintenance of network slices | * Analyse the end-user services to determine the requirements for the network slices * Prepare and configure the corresponding network slices * Create dedicated network slices for end-user services * Select existing network slices which the end-user services share with other services * Arrange network functions to be included into network slices if new network slices are created * Modify network slices to satisfy the end-user services * Monitor the service performance of created network slices * Modify network slices to enhance the service performance |  |
| **Range of Application** |  | | | | | |