

Annex 2.2. The list of Microsoft software licenses and technical specifications of the CEC existing hardware

1. The list of Microsoft software licenses that are necessary for the deployment of hyperconverged infrastructure based on existing hardware is provided in Table 1.

Table 1 Requested Microsoft Software

Type of agreement	Term of validity	Item	Number	Type of license
<i>Set of licenses CIS Suite Datacenter (Windows Server Datacenter and System Center Datacenter) to cover an existing physical servers (8 servers Lenovo and 3 servers Dell)</i>				
Server and Cloud Enrollment (SCE), Government	36 months	CIS Suite Datacenter Core ALng LSA 16L	36	License and Software Assurance Pack
<i>Set of licenses CIS Suite Datacenter (Windows Server Datacenter and System Center Datacenter) to cover additional needed physical servers</i>				
Server and Cloud Enrollment (SCE), Government	36 months	CIS Suite Datacenter Core ALng LSA 16L	1	License and Software Assurance Pack
Server and Cloud Enrollment (SCE), Government	36 months	CIS Suite Datacenter Core ALng LSA 16L w/o SysCtrSvr	1	License and Software Assurance Pack
<i>Set of licenses to cover a user access</i>				
Microsoft Products and Services Agreement (MPSA) Government	36 months	Win Server User CALSA	300	Client Access, License and Software Assurance Pack

2. Specification of existing server and network equipment, for the deployment of hyperconverged infrastructure, is provided in Table 2.

Table 2 Existing physical servers Lenovo and network equipment

Manufacturer of server equipment	Lenovo;
Number of servers per cluster:	8 servers;

Server model:	ThinkSystem SR645 V3;
Number of engaged CPU sockets per 1 server:	2 sockets;
Model of CPU:	AMD EPYC 9354, 32 cores, 3.25 GHz, 256 Mb L3-cash;
Number of engaged DIMM sockets RAM per 1 server:	16 sockets;
Model of RAM modules:	ThinkSystem RDIMM-A 32 GB ThruDDR5 4800 MHz;
Number of storage devices for the OS per 1 server:	2;
Model of storage devices for the OS:	ThinkSystem SSD M.2 5400 PRO 480 GB SATA 6 Gbps;
RAID-controller for the storage devices for the OS:	ThinkSystem Raid 5350-8i for M.2 SATA boot Enablement;
Number of storage devices for S2D per 1 server:	8 board;
Model of storage devices for S2D:	ThinkSystem SSD 2.5'' U.2 P5620 3.2 TB NVMe;
Number of network adapter cards per 1 server:	2 boards;
Model of board of network adapters:	ThinkSystem MellanoxConnectX-6 Lx 2-port 10/25 GbE SFP28 in OCP and PCIe form-factors;
Number of network adapters per 1 server:	4 adapters;
Number of power supplies per 1 server:	2;
Model of power supplies:	ThinkSystem Gen2 Platinum 1800 W 230 V;
Manufacturer of ToR-switches:	NVIDIA;
Number of ToR-switches:	2;
Model of ToR-switches:	SN2410 48 ports – 25 GbE 8 ports – 100 GbE Managed Switch with Cumulus OS.

3. Specification of other existing server equipment to ensure the availability and fault tolerance of the CEC IT-infrastructure (for the deployment and/or migration of Microsoft AD DS, Microsoft CA and other services), is provided below Table 3 and Table 4:

Table 3 Other CEC existing server equipment

Manufacturer of server equipment:	Dell;
Number of servers:	2 servers;
Server model:	Dell PowerEdge R550;
Number of engaged CPU sockets per 1 server:	2 sockets;
Model of CPU:	Intel(R) Xeon(R) Silver 4314 CPU @ 2.40GHz, 16 cores, 24 MB L3-cash;
Number of engaged DIMM sockets RAM per 1 server:	12 sockets;
Model of RAM modules:	DRAM DDR4 32 GB 2666 MT/s;
Number of storage devices for the OS per 1 server:	2;
Model of storage devices for the OS:	SSD SATA 223Gb;
RAID-controller for the storage devices for the OS:	BOSS-S2, max capable speed 6Gbps;
Number of storage devices for S2D per 1 server:	6 board;
Model of storage devices for S2D:	SAS SSD 893Gb;
Number of network adapters per 1 server:	3 adapters;
Number of power supplies per 1 server:	2;
Model of power supplies:	0C8T2PA04 800Wt;

Table 4 Other CEC existing server equipment

Manufacturer of server equipment:	Dell;
Number of servers:	1 servers;
Server model:	Dell PowerEdge R740;
Number of engaged CPU sockets per 1 server:	2 sockets;
Model of CPU:	Intel(R) Xeon(R) Gold 6134 CPU @ 3.20GHz, 24 MB L3-cash;
Number of engaged DIMM sockets RAM per 1 server:	6 sockets;
Model of RAM modules:	DRAM DDR4 32 GB 2666 MT/s;
Number of storage devices for the OS per 1 server:	1;
Model of storage devices for the OS:	SSD SATA 223Gb;
RAID-controller for the storage devices for the OS:	PERC H740P Adapter;
Number of storage devices for S2D per 1 server:	2 board;
Model of storage devices for S2D:	SAS HDD 558Gb;
Number of network adapters per 1 server:	2 adapters;
Number of power supplies per 1 server:	2;
Model of power supplies:	900W, 230V.