

Proceedings of the Technical Advisory Panel Meeting of DPAR(e.Gov) held on 3rd Nov 2018 at 12.30PM at Conference Hall, DPAR(e.Gov) MS Building, Bangalore, under the Chairmanship of Additional Chief Secretary to Government, DPAR(e-Governance).

Members Present:

1. Sri. Rajeev Chawla, Additional Chief Secretary to Government DPAR(e-Governance) – In Chair
2. Mr.K N Ramesh , Chief Executive Officer, Centre for e-Governance.
3. Prof Debabrata Das, Dean, IIIT-Bangalore
4. Sri.Vinay, DDG & SIO, NIC. Bangaluru
5. Sri.G K Sutar, Project Director, KSWAN, Centre for e-Governance
6. Sri.Prabhakar H.L , Project Director, UID & KRDI, Centre for e-Governance
7. Smt. Suma K, Under Secretary, Finance Department
8. Sri. Sripad Hegde, Director, Planning, Program monitoring & Statistics department
9. Sri. KRS Reddy , Sr. Technical Director, NIC
10. Sri. Gangadhar Datnal , Sr IT Consultant, Centre for e-Governance
11. Sri.Shivakumar Talwar, System Analyst, DPAR(e.Gov)
12. Sri. Sowmya Swarup, Project Manager, SDC Composite Team.

At the outset, System Analyst, DPAR(e.Gov) welcomed the members of the Technical Advisory Panel (TAP) Committee and explained that this meeting is to explain the various proposals of DPAR(e.Gov) for procurement IT Hardware and software licenses.

1 HSM Procurement for Aadhaar Authentication Services

1.1 Need of HSM:

project director, UID & KRDI explained to the committee and submitted for approval.

- i. As per the Aadhaar guidelines Circular File No: k-11020/204/2017-UIDAI (Auth – I) Dated : 22.06.2017, Implementation of HSM in Aadhaar Authentication Services should be completed before 31st August 2017. Any non-compliance in this regard will amount to violation of Aadhaar Act, 2016, where AUA/ASA will be appropriate penal action which shall be in addition to any other legal actions.
- ii. HSM is a physical computing device that safe guards and manages digital keys for Storing, Authentication and Provides Crypto processing. The keys which are used for encryption shall be stored in the HSM.
- iii. UIDAI offers two types of Authentication facilities Yes/No Authentication and e-KYC Authentication. Authentication users Agency/e-KYC User Agency (AUA/KUA) request and create a Personal Identity (PID) block and before forwarding to Authentication Server of AUA/KUA of domain specific transactions. Further receiving the Auth XML from AUA, ASA Non repudiation Authentication Server at CIDR as mandatory requirements accepts only digital signed Auth XML through ASA, HSM is required.
- iv. To further enhances the Security of Aadhaar Authentication eco-system under regulation act 14(n) and 19(o)
- v. 14(n) shall at all time comply with any contractual terms and all Rules, Regulations, Policies, Manuals, Procedures, Specifications, Standards and Directions issued by the Authority.
- vi. 19(o) shall at all time, comply with any Contractual terms and all Rules, regulations, Policies, Manuals, Procedures, Specifications, Standards and Directions issued by the Authority.



1.1 Decision :

After discussion The committee approved the HSM Procurement for Aadhaar Authentication Services.

2 GP Level Software VC:

2.1 Committee accorded in principle approval for the 'GP level software VC' technical requirements and specifications, with the following recommendations:

2.2

1. 256 GB RAM was mentioned. The same shall be modified as 2 GB RAM
2. The solution shall work with Linux environment as well
3. Instead of "The client should support more than one camera", it shall be mentioned as "The client should support upto 2 cameras"
4. The archival timeframe of the Video conference recordings shall be reduced to 7 days from 60 days. A VC recording policy shall be drafted and adhered.
5. Active directory implementation as part of Software based VC solution shall be removed
6. Regarding Frames Per Second (FPS), Committee recommended to frame the question and get it answered by the 3 parties who performed the PoC

2.3 Last mile Connectivity at Gram Panchayat level offices – using Radio connections:

Committee accorded in principle approval for the 'Last mile Connectivity at Gram Panchayat level offices – using Radio connections' technical requirements and specifications, with the following recommendations:

1. Request for the definition of 'Near LoS' from the OEM and verify if it is in line with our understanding
2. Seek the guaranteed bandwidth of P2P for 500 meters, 1 KM, 2 KM, 5 KM and 10 KM
3. Need to check if the APs are solar panel chargeable
4. Need to confirm if the APs are rugged and having protection (from monkeys etc)

2.4 Decision :

The committee after discussions and deliberations Committee approved in principle for the proposal of 'GP(Gram Panchayat) level software VC' technical requirements and specifications.

3 Procurement of 10 Gig Switches for Internet Link termination at KSDC:

3.1 Currently we have a 1Gig internet link from NKN catering to the requirements of KSDC Data center where critical applications are hosted for various Government departments. The enhancement in internet link capacity will help cater to more applications in future and also improve the application performance for citizens accessing the same over internet.

3.2 The other components like Firewall, Load balancers available in the Data Center are all 10 Gig ready and we will only need to procure switches and the required numbers of-SFP-modules to build the

network and enhance performance.

3.3 The technical/functional specification for the L2 switches are as below (2 Nos switch to be procured for KSDC) :

S. No	Description of Requirement
1	Architecture
1.1	Shall be 1RU, 19" Rack Mountable
1.2	24 ports 10 GiG, with compatible 1 GiG SFP+ and RJ-45 1 GiG autosensing modules
1.3	The switch shall support at least 12 numbers of 10-Gigabit fiber ports & 12 numbers of RJ-45 1 GiG autosensing ports ,Necessary multimode transceivers shall be provided from day one.
1.4	1 RJ-45 serial console port
1.5	Minimum 256 MB SDRAM and Minimum 256 MB flash
1.6	Shall have switching capacity of 1.2 Tbps
1.7	Shall have up to 130 million pps switching throughput
2	Resiliency
2.1	Shall have the capability to extend the control plane across multiple active switches making it a virtual switching fabric, enabling interconnected switches to perform as single Layer-2 switch and (Minimum routing functionality).
2.2	Shall support virtual switching fabric creation across four switches. The ports for virtual fabric creation shall be in addition to the uplink ports mentioned above
2.4	Shall support internal redundant power supply
2.5	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol
2.6	IEEE 802.3ad Link Aggregation Control Protocol (LACP)
3	Layer 2 Features
3.1	Shall support up to 16K MAC Address Table
3.2	Shall support IEEE 802.1Q-based VLANs (4,094 VLAN IDs)
3.3	Shall support Jumbo frames on GbE and 10GbE ports
3.4	Internet Group Management Protocol (IGMP)

3.5	Multicast Listener Discovery (MLD) snooping
3.6	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
3.7	Shall support Voice VLAN feature to automatically assigns VLAN and priority to devices like IP phones
4	Layer 3 Features (any additional licenses required should be included)
4.1	Static Routing for IPv4
4.2	Static Routing for IPv6
4.3	The switch Latency should be less than 3.5 Microseconds.
5	QoS and Security Features
5.1	Access Control Lists for Layer 2 to Layer 4 traffic filtering
5.2	Traffic classification using multiple match criteria based on Layer 2, 3, and 4 information
5.3	Powerful QoS feature supporting strict priority (SP) queuing, weighted round robin (WRR)
5.4	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port
5.5	Media access control (MAC) authentication to provide simple authentication based on a user's MAC address
5.6	Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers
5.7	Port security and port isolation
6	Management Features
6.1	Configuration through the CLI, console, Telnet, SSH and Web Management
6.2	SNMPv1, v2, and v3 and Remote monitoring (RMON) support
6.3	sFlow (RFC 3176) or equivalent for traffic analysis
6.4	Management security through multiple privilege levels
6.5	FTP, TFTP, and Secure FTP support
6.6	Port mirroring to mirror ingress/egress ACL-selected traffic from a switch port or VLAN to a local or remote switch port

6.7	RADIUS/TACACS+ for switch security access administration
6.8	Network Time Protocol (NTP) or equivalent support
6.9	Shall have Ethernet OAM (IEEE 802.3ah) or 802.1ag management capability
6.10	Software Defined Networking Ready with Openflow or equivalent protocol support
7	Environmental Features
7.1	Shall provide support for RoHS and WEEE regulations
7.2	Shall have features to improve energy efficiency like variable-speed fans, shutoff unused ports etc
7.3	Operating temperature of 0°C to 45°C
7.4	Maximum power rating of 150 Watts
7.5	Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A; EN 55022 Class A
7.6	Each Switch should be populated with 6nos of 10GiG modules and 6 Modules of 1 GiG RJ-45 modules.

3.4 Decision:

The committee after discussions approved the procurement of 10 Gig Switches for Internet Link termination at KSDC.

4 Proposals of DPAR(e.Gov) :

System analyst briefed the committee that as per requirements of the secretariate/ministers departments, DPAR(e.Gov) proposed to procure following hardware & softwares and requested the committee for approval.

4.1 Ratification of Specification of All-in One Desktops held on 6th July 2018 TAP meeting purchased for secretariate.

Sl No	Description	All-in One Desktops Technical Specification
1.	Make & Model	<Specify>
2.	Processor	(x86 based Intel 8th Generation hexa core i5, with 1.6GHz speed or higher) OR equivalent.
3.	Chipset	Chipset Compatible to the above Processor
4.	Motherboard	OEM Motherboard
5.	RAM	4 GB DDR4 RAM or higher
6.	Hard Drive	1TB SATA HDD with 7200 RPM or higher
7.	Audio	Integrated HD Audio with internal speakers.

8.	WiFi	802.11 b/g/n/ac
9.	Ethernet	Integrated Gigabit Ethernet Connection (10/100/1000Mbps)
10.	Display Monitor	21.5" Full HD (1920x1080), LED backlight, Anti-Glare Display or higher
11.	Keyboard	USB Keyboard (Same make as PC)
12.	Mouse	USB 2 button Optical Scroll mouse (Same make as PC)
13.	Ports	Minimum 4 USB with atleast 2 USB 3.1/3.0, 1 No. Ethernet (RJ-45), 1 No. Display Port/HDMI ,one headphone / microphone combo jack
14.	Webcam & Mic	Integrated HD Webcam with Microphone
15.	Certifications	For OEM : ISO 9001 : 2008 or Latest
		For PC : MS Windows, Lunux, Energy Star, EPEAT
16.	Operating System	Preloaded Genuine Microsoft Windows 10 Professional 64 Bit
17.	Power Supply	Internal/External Power Adapter with Minimum 85% Power Efficiency or higher
18.	Accessories	With required connecting cables and driver media should be supplied
19.	Warranty	3-Years Onsite comprehensive warranty.

4.2 Ratification of laptops for secretariate approximately 100 nos.:

LAPTOP specifications

Sl. No	Description	Specifications Required
1		<Specify>
2	Processor	Intel Core i5-8250U (1.6GHz, 6MB Cache, Turbo Frequency Upto 3.4GHz) or AMD equivalent or Higher
3	Chipset	Compatible Intel / AMD Chipset
4	Motherboard	OEM Motherboard with TPM 2.0
5	Display	14 inch HD (1366x768), Anti-glare, LED backlight Display or Higher
6	RAM	4GB DDR4 RAM-2400MHz or higher
7	Hard Drive	1TB SATA HDD or higher with 7200 RPM or higher
8	Audio	Integrated HD Audio, with stereo speakers, dual array microphone, combo audio / microphone jack
9	Laptop Casing	Strong Hinges with PC/ABS Casing for longer durability and stability for good quality support structure
10	WLAN	Wireless Card with Bluetooth 4.0 or Higher
11	Network Interface	Integrated Gigabit Ethernet
12	Graphics controller	Integrated Intel HD Graphics
13	Keyboard & Touch Pad	Spill Resistant Key board with Touch Pad

14	Interfaces	4-in-1 reader (MMC, SD, SDHC, SDXC) 2 USB 3.0, one USB 3.1 /Type-C Gen1, 1 VGA, 1 HDMI/Display, Ethernet (RJ-45)
15	Battery	Integrated Battery with Minimum 6 Hours Backup or Higher
16	Webcam	Integrated HD Webcam or Higher
17	Security Features	Power-on password, Hard Disk Password, Supervisor Password, Security Keyhole
18	Operating System	Preloaded Microsoft Windows 10 Pro 64 Bit
19	Weight	Less than 2.0Kg including battery
20	Certifications	For Laptop - Windows 10, FCC, Energy Star, BIS, UL, EPEAT Certified For OEM - ISO 9001, ISO 14001
21	Accessories	With required accessories, connecting cables and driver Case and AC Adaptor should be supplied.
22	Warranty	3 Years Comprehensive Onsite warranty Including OS

4.3 Ratification of Specification of 10 laptops for blind employees working in secretariate.

TECHNICAL SPECIFICATIONS FOR Laptops with screen reader (NVDA)

Sl. No	Feature	Specifications
1	PROCESSOR	Intel core i3-6006U (2.00 GHz, 3MB Cache) OR AMD - A10-9600(2.3GHz, 2MB Cache) OR Higher
2	CHIPSET	Compatible Chip set
3	ELASH MEMORY (SD SLOT)	Card Reader slot for SD/MICRO SD card
4	RAM	Minimum 4 GB DDR3/DDR4 with 2DIMM slot
5	DISPLAY	14.0" or Higher Screen with HD resolution with 1366 x 768 pixel resolution or more, ROHS.
6	HINGES	Metal reinforced hinges
7	GRAPHICS	Integrated Graphics
8	AUDIO	Built in stereo speakers with high definition audio support. Built in microphone
9	BLUETOOTH	Enabled 4.0 or higher
10	WEBCAM	Integrated HD Webcam
11	OPTICAL DEVICE DRIVE	InternalDVDRW
12	HARD DISK	500GB HDD 5400rpm or higher
13	ETHRNET CONTROLLERS	Gigabit Ethernet

14	WIRELESS DEVICE	Wireless 802.11ac Dual band
15	INTERFACES	RJ-45, Min. 3 USB ports of which at least one with 3.0/3.1 & 2 USB 2.0 ports, or Higher Audio Combo port, AC Adapter jack, HDMI port, VGA port, Kensington lock slot
16	KEYBOARD WITH TOUCH PAD	Keyboard with touch pad with multi gesture support
17	ACCESSORIES	Indian 3 pin adapter 45W or higher
18	BATTERY-&BACKUP	Minimum 4 Hr backup or more capacity
19	CARRY CASE	OEM carry Bag or Back pack
20	WEIGH	<=2.50 KGS including battery and DVDRW
21	OPERATING SYSTEM (OS)	Preloaded Microsoft windows 10 professional 64 bit with recovery media or image in the machine compatible with NVDA Screen reader
22	SECURITY	BIOS password
23	MULTIMEDIA	Multimedia headphone
24	CERTIFICATE	Energy Star 6.0/BEE equivalent, EPEAT Registered ISO 9001:2008 Certificate from OEM
25	WARRANTY	3 years onsite warranty for laptop with battery and adapter
26	SOFTWARES	Pre loaded Software: <ol style="list-style-type: none"> 1. NVDA (Screen Reader)- Free. 2. Microsoft Office Indic 2016 3. Adobe Reader (PDF document reader)- Free 4. Microsoft Security Essentials (Anti-Virus)-Free 5. Windows Live Essentials (E-mail Client) -Free 6. Mozilla Firefox (Internet Browser) -Free 7. AMIS (DAISY book Reader)-Free 8. Enable India Spelling Tool (Spelling Tutor)-Free 9. Enable India EYE (Educate Yourself Easily) Tool (Self Learning Computer Tutor)-Free. 10. Nudi font (For Kannada Typing)-Free 11. VLC Media Player (Media Player)-Free

		12. Skype (VOIP and Chat) Free
		13. Word web Dictionary (free trial version)
		14. Zip free

4.4 new Purchase of laptops for offices at secretariat:

Laptop specification		
Sl. No	Description	Specifications Required
1		<Specify>
2	Processor	Intel Core i5-8250U (1.6GHz, 6MB Cache, Turbo Frequency Upto 3.4GHz) or AMD equivalent OR Higher
3	Chipset	Compatible Intel / AMD Chipset
4	Motherboard	OEM Motherboard with TPM 2.0
5	Display	14 inch HD (1366x768), Anti-glare, LED backlight Display or Higher
6	RAM	4GB DDR4 RAM-2400MHz or higher
7	Hard Drive	1TB SATA HDD or higher
8	Audio	Integrated HD Audio, with stereo speakers, dual array microphone, combo audio / microphone jack
9	Laptop Casing	Strong Hinges with PC/ABS Casing for longer durability and stability for good quality support structure
10	WLAN	Wireless Card with Bluetooth 4.0 or Higher
11	Network Interface	Integrated Gigabit Ethernet
12	Graphics controller	Integrated Intel HD Graphics
13	Keyboard & Touch Pad	Spill Resistant Keyboard with Touch Pad
14	Interfaces	Card reader (MMC, SD, SDHC, SDXC) 2 USB 2.0, one USB 3.0/3.1 /Type-C Gen1, 1 VGA, 1 HDMI/Display, Ethernet (RJ-45)
15	Battery	Integrated Battery with Minimum 6 Hours Backup or Higher
16	Webcam	Integrated HD Webcam or Higher
17	Security Features	Power-on password, Hard Disk Password, Supervisor Password, Security Keyhole
18	Operating System	Preloaded Microsoft Windows 10 Pro 64 Bit
19	Weight	Less than 2.0Kg including battery
20	Certifications	For Laptop - Windows 10, FCC, Energy Star, BIS, UL, EPEAT Certified For OEM - ISO 9001, ISO 14001
21	Accessories	With required accessories, connecting cables and driver Case and AC Adaptor should be supplied.
22	Warranty	3 Years Comprehensive Onsite warranty Including OS

4.5 Purchase of color printer for the office of secretary to Chief Minister

Single function A3 colour Printer; Specifications	
Print speed	20 ppm, letter/A4 and black-and-white/colour
Print resolution	600 x 600 dpi
Processor	>500 MHz
Memory	>150 MB
paper Input	100-sheet bypass tray and 250-sheet tray 2
Output	250-sheet face-down
Two-sided printing	yes, automatic
Duty cycle	50,000
Sizes	A4- A3
Connectivity	1 Hi-Speed USB 2.0, built-in Fast Ethernet 10/100 Base-T
Languages	PCL 6, PCL 5c, postscript level 3 emulation
operating systems	Standard: Windows® 2000, Windows XP® Home, Windows XP Professional, Windows Server 2003, Windows Vista®, Mac and Linux.
warranty	Three year comprehensive on site.

4.6 Purchase of 200 MFD's for secretariate.

Technical Specification for Multi-Function Printer:

A4- Mono Laser Multi function Printer with Network and Duplex		
Srl. No.	Specification	
	Functions	Print, scan & copy
1	Printing Method	Mono laser.
2	Print Speed	Minimum 40 PPM(A4) +/- 3PPM.
3	Print Resolution	1200 x 1200 dpi.
4	Duty Cycle	Up to 50,000 pages or higher
5	Processor	600 MHz or more.
6	Memory	256 MB or more..
7	Print Languages	PCL 5 and 6, PS3.
8	Paper Input	250 Sheets Input Tray & 100 pages bypass tray
9	Paper Output	At least 150 Sheets..
10	Paper Size (Max.)	A4; Legal.
11	Duplex Printing	built-in Automatic .
12	Connectivity	USB 2.0 with cable; 1 Ethernet 10/100/1000T network & Wireless 802.11b/g/n.
13	Compatible Operating Systems	Win 7 (32/64 bit), Win 8 (32/64 bit), Windows XP, Windows Visa, Linux.

14	Cartridge Technology	Composite.
15	Warranty	3 year onsite comprehensive.

4.7 Procurement of scanners for e-office implementation at secretariat

Technical specifications for Scanners:

Sl No	Specification	Description
1	Scanner Type	ADF + Flatbed
2	Scan Speed	45+/-5 PPM & above
3	ADF Capacity	Minimum 60 Sheet
4	Scan Size	A4 & legal
5	Daily Duty Cycle	Minimum 3000 Scan
6	Scanning Sensor	CIS/ CCD
7	Scanning Side	Duplex
8	Scanning Modes	256 bit Level Grayscale & 24 Bit Color
9	Scan Resolution	Up to 600 x 600 dpi
10	Interface	USB 2.0
11	OS	Windows 7, 8, 8.*; 10, 32 and 64 bit
12	File Format Outputs	PDF (searchable), TIFF, DOC, WPD, XLS, XML, XPS, HTML, OPF, JPG, BMP
13	Warranty	3 years comprehensive on site.

4.8 purchase of new All-in-one computers for secretariat(approx: 1000 Nos)

Sl No	Description	All-in One Desktops : Technical Specification
1.	Make & Model	<Specify>
2.	Processor	(x86 based Intel 8th Generation hexa core i5, with 1.6GHz speed or higher) OR equivalent.
3.	Chipset	Chipset Compatible to the above Processor
4.	Motherboard	OEM Motherboard
5.	RAM	4 GB DDR4 RAM or higher
6.	Hard Drive	1TB SATA HDD with 7200 RPM or higher
7.	Audio	Integrated HD Audio with internal speakers.
8.	WiFi	802.11 b/g/n/ac
9.	Ethernet	Integrated Gigabit Ethernet Connection (10/100/1000Mbps)
10.	Display Monitor	21.5" Full HD (1920x1080), LED backlight, Anti-Glare Display or higher
11.	Keyboard	USB Keyboard.(Same make as PC)
12.	Mouse	USB 2 button Optical Scroll mouse (Same make as PC)
13.	Ports	Minimum 4 USB with atleast 2 USB 3.1/3.0, 1 No. Ethernet (RJ-45), 1 No. Display Port/HDMI, one headphone / microphone combo jack

14.	Webcam & Mic	Integrated HD Webcam with Microphone
15.	Certifications	For OEM : ISO 9001 : 2008 or Latest
		For PC : MS Windows, Lunux, Energy Star, EPEAT
16.	Operating System	Preloaded Genuine Microsoft Windows 10 Professional 64 Bit
17.	Power Supply	Internal/External Power Adapter with Minimum 85% Power Efficiency or higher
18.	Accessories	With required connecting cables and driver media should be supplied
19.	Warranty	3 Years Onsite comprehensive warranty.

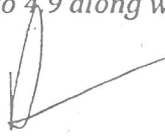
4.9 procurement of 1500 nos of MS office std 2016 licenses for secretariat.

DPAR(e.Gov) already purchased 600 licenses of MS office std 2016 for secretariat and DPAR(e.gov) called tender for procurement of 750 AIO and 110 laptops for-secretariat and will be finalized during jan-2019 and needs to be procure MS office std 2016 licenses for these AIO & Laptops and requested the committee to approve.

4.10 Decision:

After detailed discussion the committee ratified and approved to procure new hardware and software's for secretariat departments mentioned from 4.1 to 4.9 along with specifications.

The meeting concluded with vote of thanks.


 (Rajeev Chawla)
 Addl Chief Secretary to Government,
 DPAR(e.Governance)

No. DPAR 52 EGM 2018.

Copy to: All members present.