**TRIPARTITE TRANSPORT AND TRANSIT FACILITATION PROGRAMME (TTTFP): TECHNICAL ASSISTANCE CONTRACT**

**PROJECT OFFICE REQUIREMENTS GABORONE: IT SERVICES**

# 1. SCOPE OF WORK

The following table provides a high-level summary of the equipment and services required:

| # | Description |
| --- | --- |
| **1** | Provide hardware and software architecture for the project team located in dedicated project offices, inclusive of: |
| i. | File server, together with storage device and backup software |
| ii. | Laptops & accessories |
| iii. | Office network/ Wi-Fi |
| iv. | Copying/ printing/ projection in board room |
| v. | Email solution |
| vi. | Internet access |
| vii. | Network security |
| **2** | Establish a cloud storage facility where reference documents can be stored and used by the project team.  |
| i. | These documents must be protected from both accidental and intentional deletion by co-workers. |
| ii. | Stakeholders must be able to receive links, from which they can download reports in order to comment or approve without the need by the sender to attach the reports to an email. |
| **3** | Obtain a standard set of software licences for PMU and admin support staff (between 5 and 10 licences). This will include the following software: |
| i. | Microsoft (MS) Office: Word, Excel, Power Point, Visio, Projects and Outlook |
| ii. | Anti-virus |
| iii. | Anti-malware |

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# 2. SPECIFICATIONS

The following sections provide specifications of the hardware and software required to satisfy the scope of work.

## 2.1 Software

**Office Environment**

The software solution to be supplied which complies with the requirements is **Microsoft (MS) Office 365 Business Premium**.



**MS Office 365 Business Premium** does not include MS Visio and MS Project. These packages therefore are to be supplied in addition to **MS Office 365 Business Premium**.

### Key Features

**MS Office 365 Business Premium** provides *inter alia* the following key features and online services:

* Core products include Microsoft [Word](https://www.pcmag.com/article2/0%2C2817%2C2491864%2C00.asp), [Excel](https://www.pcmag.com/article2/0%2C2817%2C2491994%2C00.asp), [Outlook](https://www.pcmag.com/article2/0%2C2817%2C2492238%2C00.asp), PowerPoint, SharePoint, Publisher, OneDrive, OneNote, [Skype for Business](https://www.pcmag.com/article2/0%2C2817%2C2384989%2C00.asp) and Access (PC only).
* Seamless experience across multiple devices (including personal computers, Macs, tablets, and mobile phones).
* Synchronized email and calendars (Outlook) with access from desktop and web browsers including a 50 GB mailbox per user and attachments up to 150 MB.
* Extensive file sharing and storage (OneDrive for Business) with 1 TB of One Drive storage per user.
* Live online conferencing, as well as messaging, voice calls, and video calls (Skype for Business).
* Team collaboration applications such as a Hub for teamwork (MS Teams), Corporate social network (Yammer).
* Additional online services and applications such as Interactive report generation (Sway) and a robust content search engine (Office Delve).
* Advanced security options.

MS also provides special pricing options for government organizations that include additional features and benefits. Refer to <https://products.office.com/en-ZA/government/compare-office-365-government-plans> for more information about Office 365 Government plans.

The Office 365 Enterprise E3 (Government Pricing) option is recommended. In addition to the features mentioned above, key features of the Office 365 Enterprise E3 (Government Pricing) option include *inter alia*:

* File storage and sharing with unlimited OneDrive storage; and
* Business email, calendar, and contacts with a 100GB mailbox.

To protect the laptops and server from viruses and malware, the following software it to be supplied:

* ESET Secure Business, inclusive of the following:
	+ ESET Endpoint Antivirus for Windows
	+ ESET Endpoint Antivirus for Mac OS
	+ ESET NOD32 Antivirus Business Edition for Linux
	+ ESET Endpoint Security for Android
	+ ESET Mobile Device Management for Apple iOS
	+ ESET Shared Local Cache
	+ ESET Virtualization Security for VMware
	+ ESET File Security for Microsoft Windows Server
	+ ESET File Security for Linux / FreeBSD
	+ ESET File Security VM extension for Microsoft Azure
	+ ESET Endpoint Security for Windows
	+ ESET Endpoint Security for macOS
	+ ESET Mail Security for Microsoft Exchange Server
	+ ESET Mail Security for Linux / FreeBSD
	+ ESET Mail Security for IBM Domino
	+ ESET Security for Kerio
	+ ESET Remote Administrator
	+ ESET Remote Administrator VM for Microsoft Azure
* Malwarebytes Endpoint Security, inclusive of the following:
	+ • Proactive anti-malware/anti-spyware scanning
	+ • Three system scan modes (Quick, Flash, Full)
	+ • Malicious website blocking
	+ • File execution blocking
	+ • Malwarebytes Chameleon technology
	+ • Delete-on-reboot option

**System Environment**

For backup of the server, the following back-up software is to be supplied:

* Veeam® Backup & Replication™

### Key Features

* Built-in management for Veeam Agent for Microsoft Windows: Reduced data protection management complexity and improved usability through the addition of agent-based backup capabilities in the Veeam Backup & Replication console, including a single pane of glass for Availability of virtual, physical and cloud workloads, centralized backup agent deployment, and Windows Server Failover Cluster support.
* Image-level VM backups: Create application-consistent backups with advanced application-aware processing
* Backup from Storage Snapshots: Generate ultra-fast backups with low RPOs from storage snapshots from an ever-growing list of the world’s leading storage providers
* Scale-out Backup Repository™: Create a single virtual pool of backup storage to which backups can be assigned, offering the freedom to easily extend backup storage capacity
* Veeam Cloud Connect: Get backups off site without the cost and complexity of building and maintaining an off-site infrastructure; fast and secure cloud backup to a service provider
* SureBackup®: Automatically test and verify every backup and every virtual machine (VM) for recoverability
* Built-in WAN acceleration: Get backups off site up to 50x faster and save bandwidth
* Direct Storage Access: Perform vSphere backups faster and with reduced impact by backing up via Direct SAN Access and Direct NFS Access

## 2.2 Hardware

The following sections provide a description of the recommended IT infrastructure that is required to operate an office for the TTTFP project with an expected number of 5 users.

### Workstations

It is recommended to use a leading brand with a solid support infrastructure and footprint in the country of residence to ensure good support and honouring of warranties.

#### Project Manager Workstation

The proposed configuration comprises of the following components:

| Component | Specification |
| --- | --- |
| Laptop | Dell Latitude 7390 |
| Processor | 8th Gen Intel® Core™ i7-8650U Processor (Quad Core, 8M Cache, 1.9GHz,15W, vPro) |
| Display | 13.3" Non-Touch FHD (1920X1080) Anti-Glare |
| RAM | 16GB, 1x16GB, 2400MHz DDR4 Memory |
| Storage | M.2 512GB SATA Class 20 Solid State Drive  |
| Graphics | Intel® UHD Graphics 620 with DisplayPort over USB Type-C with Core i7 vPro |
| Network | Intel® Dual-Band Wireless-AC 8265 Wi-Fi + BT 4.2 Wireless Card (2x2) |
| Battery | 60 Whr Long Life Cycle |
| Operating System | Microsoft Windows 10 Professional Licence  |
| Warranty | 3 Year extended warranty on Next Business Day basis |

The following additional components are to be supplied:

|  |  |
| --- | --- |
| Component | Specification |
| Monitor | 23" Full HD (1920 X 1080) DP VGA monitor |
| Accessories | Dell Wireless Desktop keyboard and mouse |
| Laptop carry case | 12.5" high x 14.5" wide "spinner" mobile office with 4 wheels, retractable handle with 2 locking points, padded computer (up to 15.4") and accessory compartments, separate file section, 100% nylon with fabric lining |

#### Workstations for Project Assistant and visiting Short Term Experts (STEs)

It is proposed to supply the other staff members with mid-range high performance i5 travel laptops. The proposed configuration comprises of the following components:

| Component | Specification |
| --- | --- |
| Laptop | Dell XPS 13 9360  |
| Processor | 7th Generation Intel Core i5-7200U  |
| Display | 13.3” FHD AG (1920 x 1080) Infinity Edge Non-Touch Display |
| RAM | 8GB LPDDR3 1866MHz RAM |
| Storage | 256GB Solid State Drive |
| Graphics | Intel HD Graphics |
| Network | Killer 1535 802.11ac 2x2 WiFi |
| Operating System | Microsoft Windows 10 Professional Licence  |
| Warranty | 3 Year extended warranty on Next Business Day basis |

The following additional components are to be supplied:

| Component | Specification |
| --- | --- |
| Monitor | Dell 23" Full HD (1920 X 1080) DP VGA monitor |
| Accessories | Microsoft Wireless Desktop keyboard and mouse |
| Laptop carry case | Rolling laptop case with 2 wheels, telescopic handle, padded computer (up to 15.4") compartments, separate file section, 100% nylon with fabric lining |

### Network

It is recommended to implement a wireless network in the office. Internet access will be required for e-mail, cloud storage, document collaboration and other project related functions.

For Internet failover it is recommended that the supplied equipment provide cellular technology as a failover option.

The proposed equipment should provide industry leading security technology to protect both the wireless network as well as providing firewalling for the perimeter of the network. It is recommended to use equipment with the added feature of protecting the network against exploits, malware, malicious web sites and other threats.

The proposed configuration comprises the following components:

* WatchGuard XTM 5 series Wi-Fi router, access point and firewall.
* 300Mbps Wireless N Micro USB Adapter

### Server

It is recommended that a small server be installed for the purpose of providing local storage to enable document sharing in the event where there is no internet connectivity. For backup of the server, a NAS device is to be provided together with backup software.

* Small Server

|  |  |
| --- | --- |
| **Component** | **Specification** |
| Server | Dell PowerEdge T130 Tower Server |
| Processor | E3-1220v6 3.0GHz Intel Processor |
| RAM | 16GB  |
| Storage | 4x 2TB NLSAS HDD (RAID-5 total usable storage 6TB) – Expandable in future |
| PERC H330 RAID Controller |
| DVD-RW |
| Warranty | 3 Year Next Business Day Warranty |
| Operating System | Windows 2016 Standard Edition with 5 CALs |

* NAS Device:

|  |  |
| --- | --- |
| **Component** | **Specification** |
| NAS Device | RS816 4-BAY MAX 40TB |
| RAM | 2GB |
| Processor | DC1.8GHZ |
| Internal Storage | BAREBONE with 4x 2TB Internal storage – Expandable in future |
| Accessories | Rackmount Chassis |
| Warranty | 3 Year Next Business Day Warranty |

In addition, a server rack will be required to mount the server/ NAS device and the router/firewall combo device in the server room. The recommended specification is 25U Server Rack 800 x 600.

## 2.3 Office Equipment

The following sections provide recommendations for the hardware components to enable paper processing (copying, printing, etc.) and presentations (projection).

### Presentations

Four Dell 1650 DLP - 3D projectors are recommended to allow for 2 teams to concurrently engage in meetings and workshops or to project multiple language presentations simultaneously. The proposed configuration comprises the following features and components:

| **Component** | **Specification** |
| --- | --- |
| Weight | 3.5 kg |
| Dimensions | 32 cm x 25 cm x 9.5 cm |
| Lumens | 3800 ANSI lumens |
| Projection technology | DLP HD 720p |
| Projector Resolution | WXGA (1280 x 800) |
| Contrast Ratio | 2,200:1 |
| Aspect Ratio | 16:10 |
| Graphics Resolution | 1280 x 800,1280 x 720 (HD 720),1920 x 1080 (HD 1080) |
| Lamp life | 3000 h |
| Projection distance | f=18.2~21.8 mm |
| Noise level | 37dBA |
| Video modes | 480p, 720p, 1080i, 1080p, 480i, 576i, 576p |
| Warranty | 2 years warranty |
| Projector brightness | 3500 ANSI lumens |
| Projection technology  | DLP |
| Projector native resolution | WXGA (1280x800) |
| Service life of lamp | 3000 h  |
| Bulb power | 225 W |
| Service life of lamp (economic mode) | 4000 h |
| Focal length range (f-f)  | 18.2 - 21.8 mm |
| Aperture range (F-F) | 2.4 - 2.66 |
| Throw ratio | 1.28 -1.536 |
| Analog signal format system | NTSC,NTSC 4.43,NTSC J,NTSC M,PAL,PAL B,PAL D,PAL G,PAL H,PAL L,PAL M,PAL N,PAL Nc, SECAM |
| Supported graphics resolutions | 1280 x 800,1280 x 720 (HD 720),1920 x 1080 (HD 1080) |
| Supported video modes | 1080i, 1080p, 480i, 480p, 576i, 576p, 720p |
| HDMI connector type | Full-size |

### Paper processing

It is recommended to use a commercial colour laser multi-function printer for paper processing tasks – scan, copy and print. The device must be capable of scanning to e-mail, cloud and network. It must provide for high printing and other document handling volumes. It is recommended to provide an additional colour laser printer capable of handling paper sizes of up to A3.

The proposed configuration comprises the following features and components:

* HP LaserJet Pro 500 colour M570dw 4in1 – Print, Copy, Scan, Fax;
* HP Colour LaserJet 500-sheet Paper and Heavy Media Tray; and
* HP Colour LaserJet CP5225DN – Print only, including A3 page sizes.

The table below provides technical specifications for the abovementioned hardware components.

| Component | Specification |
| --- | --- |
| **HP LaserJet Pro 500 colour M570dw 4in1 - Print, Copy, Scan, Fax** |
| Number of users | 5-15 Users |
| Print Speed | Print up to 30 ppm Black & up to 30 ppm Colour |
| Print Resolution | Print up to 600 x 600 dpi |
| Copy Resolution | Copy up to 300 x 300 dpi |
| Scan Speed | Scan up to 35.5 ipm (black & white) & up to 13.5 ipm (colour) |
| Fax Memory | Fax Memory up to 250 pages |
| Duplex printing | Automatic (standard) |
| Control Panel | 8.89 cm touchscreen, LCD (colour graphics) |
| Scanner Head | Dual Head scanner |
| Scanner Advanced Features | Scan to: email, network folder, cloud, USB |
| Network Capabilities | Built-in 10/100/1000 Fast EthernetWireless card, Wireless Direct Printing |
| Supplies: | HP 507A Black Laser Jet Toner Cartridge - CE400A |
| HP 507A Cyan Laser Jet Toner Cartridge - CE401A |
| HP 507A Magenta Laser Jet Toner Cartridge - CE403A |
| HP 507A Yellow Laser Jet Toner Cartridge - CE402A |
| HP Care Pack Services | U6Y78E – HP 3 year Next Business Day Colour Laser Jet M470 Multifunction printer Hardware Support |
| Durability ratings | Duty Cycle up to 75000 ppm |
| Accessories | CF084A – H P Colour LaserJet 500-sheet Paper and Heavy Media Tray |

| Component | Specification |
| --- | --- |
| **HP Colour LaserJet CP5225DN** |
| Number of users | 5-15 Users |
| Print Speed | Print Up to 20 ppm Black & Up to 20 ppm Colour |
| Maximum Paper Size | A3 |
| Memory | DDR2 144-pin SDRAM DIMM |
| Printing Resolution | Black and Colour printing up to 600 x 600 dpi |
| Image resolution technology | HP ImageREt 3600  |
| Languages | HP PCL 6, HP PCL 5c, HP Postscript level 3 emulation |
| Number of sheets per tray | 100 sheets tray 1, 250 sheet trays 2 |
| Network | Built-in Fast Ethernet 10/100 Base-T networking, |
| Printing Features | Built-in automatic two-sided printing |
| Supplies: | HP 507A Colour Laser Jet Black Print Cartridge - CE740A |
| HP 507A Colour Laser Jet Toner Cyan Print Cartridge - CE741A |
| HP 507A Colour Laser Jet Toner Yellow Print Cartridge - CE742A |
| HP 507A Colour Laser Jet Toner Magenta Print Cartridge - CE743A |
| HP Care Pack Services | UT431E – HP 3 year Next Business Day Support |

### Transport Cases

It is recommended to supply four (4) cases with wheels and extension handle to be used for safe transportation of equipment such as the presenting laptop, projectors and banners. Cases must have a lockable outer shell from either Aluminium or Hard Plastic with foam inserts to enable packing of equipment as required. The interior dimensions must be as follow:

2 units of 34.0 x 24.0 x 12.5" / 86.4 x 61.0 x 31.8 cm

2 units of 19.8 x 11.0 x 7.6" / 50.3 x 27.9 x 19.3 cm

Examples of cases with a Hard Plastic shell are the Pelican 1510M Case or SKB series with the following recommended features:

* Water and dust resistant,
* Automatic Pressure Equalization Valve that balances interior pressure,
* Retractable extension handle, and
* Quiet rolling stainless-steel bearing wheels.

## 3. SCHEDULE OF QUANTITIES

## 3.1 Software

#### MS Office 365 Business Premium

The cost of **MS Office 365 Business Premium** is expressed as a rate per user per month. The product can be purchased either via a monthly commitment or an annual commitment and government pricing (Office 365 Enterprise E3) must be supplied for both options.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description | Number of users | Price per Unit | No of Months or Years | Total Cost for all user and period |
| MS Office 365 Business Premium (Monthly commitment) | 6 |  | 36 |  |
| MS Office 365 Business Premium (Annual commitment) | 6 |  | 3 |  |

#### MS Visio

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description | Number of users | Price per Unit | No of Years | Total Cost for all user and period |
| Plan 1 (Annual commitment) | 5 |  | 3 |  |

#### MS Project

The Project Manager and at least one other member will need the Online Professional licence to manage the project, whilst all other members need the Online Essentials licence to view the project and manage their own tasks.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description | Number of users | Price per Unit | No of Months or Years | Total Cost for all user and period |
| Online Professional licence (Monthly commitment) | 2 |  | 12 |  |
| Online Essentials licence (Monthly commitment) | 3 |  | 3 |  |

#### Anti-Virus & Malware:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description | Number  | Price per Unit | No of Months or Years | Total Cost for all user and period |
| ESET Secure Business Anti-Virus Licence per annum | 6 |  | 12 |  |
| Malware Bytes Anti-Malware Licence per annum | 6 |  | 3 |  |

#### Backup & Replication:

|  |  |  |  |
| --- | --- | --- | --- |
| Description | Number  | Price per Unit | Total Cost |
| VEEAM Backup and Replication Software | 1 |  |  |

### 3.2 Hardware

| Item # | Description | Quantity | Price per Unit | Total Cost |
| --- | --- | --- | --- | --- |
| 1 | Dell Latitude 7390, 8th Gen Intel® Core™ i7-8650U Processor, 13.3" Non-Touch FHD (1920X1080), 16GB, 2400MHz DDR4 Memory, 512GB SATA Class 20 Solid State Drive, Intel® UHD Graphics 620, Intel® Dual-Band Wireless-AC 8265 Wi-Fi, 60 Whr Long Life Cycle battery, Windows 7 Professional (Win10Lic) 3Yr NBD | 1 |  |  |
| 2 | Dell 23 Monitor | E2316H - 23in FHD (1920 X 1080) DP VGA 3Yr NBD | 6 |  |  |
| 3 | Dell executive Wireless Keyboard (QWERTY) and mouse | 1 |  |  |
| 4 | Wireless Desktop 3050 with AES USB Eng IN CD. Device interface: RF Wireless + USB, Recommended usage: Universal, Keyboard layout: QWERTY | 5 |  |  |
| 5 | Dell XPS 13 9360 Notebook 7th Generation Intel Core i5-7200U (3MB Cache, up to 3.1 GHz),13.3” FHD AG (1920 x 1080) Infinity Edge Non-Touch display, Silver, 8GB LPDDR3 1866MHz RAM, 256GB PCIe Solid State Drive, Intel HD Graphics, Killer 1535 802.11ac 2x2 Wi-Fi and Bluetooth 4.1, Windows 10 Professional (64-Bit), 3Yr NBD. | 5 |  |  |
| 6 | WatchGuard XTM 5 series Wi-Fi router, access point and firewall | 1 |  |  |
| 7 | 300Mbps Wireless N Micro USB Adapter | 6 |  |  |
| 8 | Dell PowerEdge T130 Tower Server, incl 3 year warranty | 1 |  |  |
| 9 | Synology RS816 NAS, incl 3 year warranty | 1 |  |  |
| 10 | 25U Server Rack 800 x 600 | 1 |  |  |
| 11 | Dell 1650 DLP Projector, incl warranty | 4 |  |  |
| 12 | HP LaserJet Pro 500 colour M570dw 4in1 - Print, Copy, Scan Fax,  5-15 Users, Print up to 30 ppm Black & up to 30 ppm Colour, Print up to 600 x 600 dpi, Copy up to 300 x 300 dpi, Scan up to 35.5 ipm (black & white) & up to 13.5 ipm (colour), Fax Memory up to 250 pages,  Duplex, Network, 8.89 cm touchscreen, LCD (colour graphics) , Dual Head scanner, Walk up USB, Scan to email, network folder and cloud, Wireless card, – Wireless Direct Printing, Supplies: HP 507A Black Toner - CE400A, Cyan - CE401A, Magenta - CE403A, Yellow - CE402A;  U6Y78E - 3Yr NBD; Duty Cycle up to 75000 ppm | 1 |  |  |
| 13 | HP Colour LaserJet 500-sheet Paper and Heavy Media Tray | 1 |  |  |
| 14 | HP Colour LaserJet CP5225DN - 5-15 Users, Print Up to 20 ppm Black & Up to 20 ppm Colour, A3, slot, 144-pin, DDR2 DIMM , Black and Colour printing up to 600 x 600 dpi, HP ImageREt 3600, HP PCL 6, HP PCL 5c, HP Postscript level 3 emulation, 100 sheets tray 1, 250 sheet tray 2, built-in Fast Ethernet 10/100 Base-T networking, built-in automatic two-sided printing, Supplies: Black -  CE740A , Cyan - CE741A, Magenta - CE743A, Yellow - CE742A; 3Yr NBD | 1 |  |  |
| 15 | Transport Cases – Aluminium/ Hard Plastic with wheels | 4 |  |  |
| 16 | Laptop carry case – 12.5" high x 14.5" wide "spinner" mobile office with 4 wheels, retractable handle with 2 locking points, for up to 15.4" laptop | 1 |  |  |
| 17 | Laptop carry case – Rolling laptop case with 2 wheels, telescopic handle, for up to 15.4" laptop | 1 |  |  |
| **TOTAL** |  |