BATCH 2: CLARIFICATION QUESTIONS AND ANSWERS

TENDER DESCRIPTION	**FOR THE PROVISION OF PROCUREMENT OF REDUNDANCY AND BACKUP CONNECTIVITY FOR SD-WAN TRAFFIC FOR A PERIOD OF THREE YEARS ON AS AND WHEN REQUIRED BASIS**
RFP NUMBER	**TCC/2024/09/0002/76777/RFP**

No	CLARIFICATION QUESTIONS	TRANSNET RESPONSE
1.	Kindly Provide us with coordinates For all 50 Sites.	Co-ordinates for all 48 sites on the final list (Updated *site_co-ordinates3.xls)* have been provided (redundant site names were removed from the list reducing count from initial 50) Refer to Updated Site Coordinates Attached
2	As per 7.2 on Annexure A, how many handoff is expected from Secondary SD WAN equipment per site	To clarify there is only one SD-WAN provider (Cisco equipment owned by Transnet and currently managed/maintained by Data Centrix) that will use as primary the TFR Telecoms provided optical fibre links (via Huawei DWDM, OSI layer 2) and as secondary the "new" backup link (the scope of this RFP)
3	Is Transnet asking for 2 links from the Secondary Service Provider	Transnet is requesting for just one backup link per campus to connect to the SD-WAN edge device there. Availability of 99% required
4	As per 7.3 the Service Provider must procure necessary Optic Fibre Cables; hardware, Software, Licenses and services for Redundancy and Backup Connectivity implementation for all the 49 SD- WAN Sites	This is just a general statement; ownership of all SD-WAN equipment resides with Transnet. No SD-WAN software and licensing required from this RFP's backup link provider
5	How does Transnet want the Secondary the Secondary SD- WAN to handle redundancy failover scenarios	There is/will be only one SD-WAN (Transnet-owned) technology solution that will handle all failover and handover

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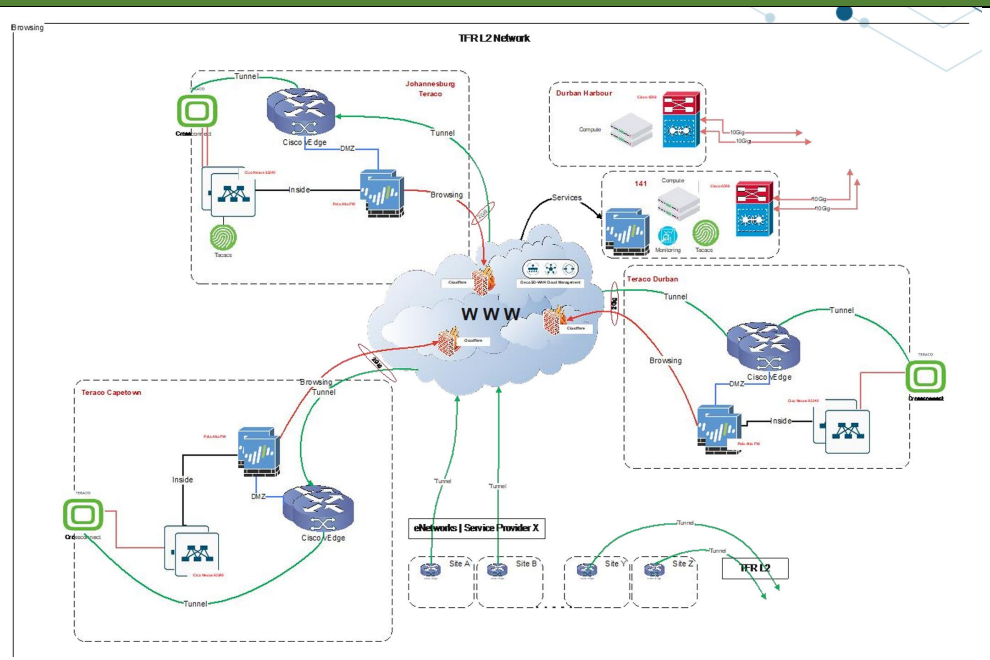
6	Which Service Provider is expected to deliver these requirements, is this expected from the current incumbent / Primary SD WAN provider, Load balancing is the function that need to be executed by the Primary Provider	the incumbent SD-WAN service provider will manage load balancing between the primary link (TFR-Telecoms provided) and the backup link (as per this RFP).
7	My understanding is that we sre required to provide a single hand off from CPE to the SD WAN equipment. Our CPE should have 2 links to the TFR Primary Link and another acting as tertiary link. Please clarify	Only one backup link will be required in addition to the TFR primary link, i.e. no tertiary link
8	As the customer will be using the SD WAN, Qos should be activated on the SD WAN tunnel instead of the SP's underway network. Transnet to confirm.	Quality of Service will be activated on the SD-WAN tunnels
9	Does Transnet have a Secondary SD WAN network equipment in place?	Transnet only has one SD-WAN network equipment in place (Cisco) currently managed and maintained by Data Centrix.
10	how does the current SD WAN devices access controller and breakout to the internet?	Please refer to the diagram below, breakouts at the 3 Terracos

No	CLARIFICATION QUESTIONS	TRANSNET RESPONSE
		
11	Is the Secondary SD WAN Provider expected to take over management of SD WAN management	There will only be one SD-WAN provider as per network diagram provided
12	As per 11.1.2. Achieve uptime 99% for all SD WAN Links. Is this SLA expected on a single SD WAN?	99% uptime expected per single backup link. Only one backup link per site required for this RFP.
13	Kindly advise who owns the current SD WAN appliances in place?	The SD-WAN appliances are owned by Transnet-TCC

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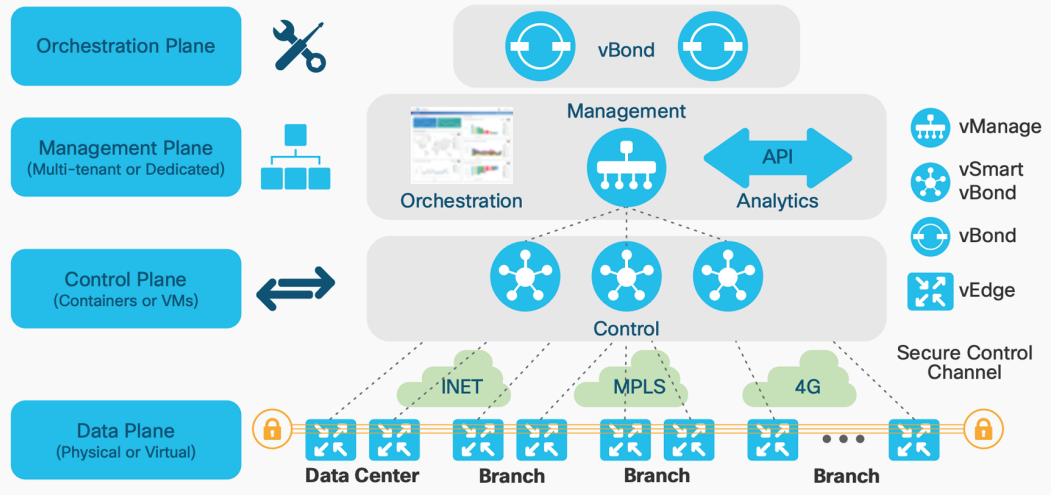
14	Which SD WAN technology are you currently using?	Cisco Viptela using Cisco Catalyst 8500/8300/ISR1100 Series Edge platforms together with vManage, vSmart, vBond and vAnalytics. A generic overview provided of Cisco SD-WAN solution utilised shown below. The Cisco SD-WAN solution is comprised of separate orchestration, management, control, and data plane components as shown in the following figure. 
15	Is the ISP required to be in control of the fall over and cutbacks on this links?	The failover and cutback of the links will be controlled via the SD-WAN
16	The Service Provider must procure necessary Optic Fibre Cables; hardware, Software, Licenses and services for Redundancy and Backup Connectivity implementation for all the 49 SD- WAN Sites.	The scope of work should only include all the requirements for the provision of the single backup link to be plugged into SD-WAN edge device

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	Does this only refer to the connectivity portion as the S?	
17	Kindly share the KML files for the current architecture	KML files not available to be shared
18	Are Physical survey required before bid Submission	No, physical site surveys not required before bid submission
19	a. Please share coordinates sites and provide routes plan for us to be able plan diversity. b. Please share last miles providers for Primary Links. c. Please advice on the SLA further, RFP states that SLA required is 99%	a. Co-ordinates for final list of 48 campus sites (site_co-oridinates2.xls) have been provided b. Assume TFR Telecoms provide all primary links c. Required SLA per backup link is 99%
20	Kindly provide the bill of quantities.	Requirement is for one backup link per site
21	please clarify if all sites will have 2x CPE's 1 for the current link and 2 for the new provider to connect to?	There will be sufficient connection capacity on the SD-WAN edge device for connecting the backup link (will replace current TFR Telecoms backup link)
22	Please can we re-look at the 99.99% Link SLA, as it would require us to provide dual links to achieve that, meaning Transnet will end up with 3x links per site?	Requirement for the backup link is 99% availability, only one backup link per site required.

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23	Are we providing L2 links to the Teraco's since there already is internet breakout there or internet too?	Are we providing L2 links to the Teraco's since there already is internet breakout there or internet too?
24	QoS and Link testing, since this is a SD-WAN solution wouldn't the team providing and managing the SD-WAN look after that and the new service provider to provide stats on the backup links quality of service only?	The new SP will have to provide SLA stats on the backup links. The active management including Qos will be done at the SD-WAN equipment level
25	Can you please share the coordinates for these locations as its not on the updated site list. Can you please share the coordinates for these locations. Bayhead (Including Queens WH)	Co-ordinates for all 48 sites on the final list (Updated Site Coordinates*.xls)* have been provided (redundant site names were removed from the list reducing count from initial 50) **CO-ORDINATES** Bayhead (Including Queens WH): 13 | Bayhead (including Queens WH) | 29 84'54.5"S 31 02'15.0"E
26	Thank you for the Decimal GPS, Coordinates for all the sites, as we now need to do hard feasibility (Which requires us to engage the various planning teams to confirm the fibre routes) study based on the requirement received from Transnet. We also would like to request for an extension on the above RFP as it takes us approximately 2 weeks to do hard feasibility so that we respond with a	Closing Date have been extended from **24 February 2025 to 10 March 2025** **REFER TO THE PUBLISHED ADDENDUM**

No	CLARIFICATION QUESTIONS	TRANSNET RESPONSE
	firm pricing as opposed to desktop feasibility which will require site survey during project deployment and might have incremental impact on the pricing	
27	Kindly note that we have noticed that on the new amend documentation that on the below Annextures it requires correction. **Annexure K** should be **Annexure M** That **Annexure A**- is the Scope of Requirements – fibre and yet under the essential returnable documents it is referred to as **ANNEXURE A**: Scope of Work SAP Modernisation	Refer to the Published Addendum to the RFP: Page on page 28 under Mandatory Returnable And Essential document has since been amended and the amended area is highlighted in RED
28	Does Transnet require a Backup Connectivity solution ONLY in terms of last mile medium with internet access that will plug into Transnet current SD-WAN solution	Yes, that is correct
29	This is with reference to Annexure A, section 10.3. Which includes reference further in the document with regards to SDWAN SLA, Failover, etc.	No clear what the question is? But for SLA refer stats or document provided
30	Can you provide us with the precise co-ordinates, or do we assume for now that we	Assume the provided GIS co-ordinates

No	CLARIFICATION QUESTIONS	TRANSNET RESPONSE
	use these GIS co-ordinates to calculate the cost of the routes	
31	Confirmation that the SD-WAN is Viptela OR Huawei OR a combination of the two	Viptela for SD-WAN, Huawei DWDM for primary link
32	Breakdown of per site, the Cisco devices and Huawei device (Make and Model and Software) deployed at the 49 sites	See Table provided below
33	Confirm SLA - Do Transnet require a Service Availability or Site or Link availability	Link availability of 99% required: prime goal is to achieve better combined availability and route diversity in conjunction with TFR-provided primary link.
34	Fiber link maps, can we please have a copy of this fibre design.	Have shared a high-level view of TFR-Telecoms DWDM ring network
35	Please see attached document based on our site survey that we have conducted, the provided co-ordinates is not precise and can result in additional cost post award. (Please see below)	The list have been updated with the best available co-ordinates.
37	Can you provide more information with regards the connectivity of the current sites to the OT/DWDM equipment - Interfaces, Speed and Bandwidth	This information is not regarded as relevant as the backup link should be totally independent from the primary link and associated equipment and configuration
38	Traffic breakdown per site and breakdown per services, i.e. Voice, Data and Internet access	This level of information is not available

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39	Or, does Transnet require a full SD-Wan solution with a hub spoke solution, with local or HUB internet breakout and an appliance to manage the traffic shaping, this is a parallel managed SDWAN network	Transnet will supply and manage the SD-WAN (cisco Viptela) network and the primary link (using DWDM). The scope for this RFP is only the provision of a backup link. No need for additional SD-WAN networks or
40	Can you provide us more detail with regards to the LAN environment (Diagrams, Make and Model Type and Software).	LAN equipment are in the process of being renewed: depending on site size following are used CISCO Catalyst 9136i series, Catalyst 9000 compact 12 port, Catalyst 9300 24/48 ports. Catalyst 9300X 12/24X25 G fiber port switches. Examples of legacy (Almost all End of service) equipment being replaced:
41	Can you kindly assist with providing revised coordinates for the below sites as they are incorrect when conducting our feasibility planning • Ermelo • Empangeni • Ladysmith • Bayhead (including Queens WH) • Heidelberg	Refer to updated sites coordinates
42	Scope of work is defined as in Question 4:"Please confirm Scope does not include management of any other device other than links" which was answered as: "Only management of the backup links up to connection with the SD-WAN edge device",	No additional CPE hardware required.

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	This requires the Service Provider to either insert a CPE device for monitoring purposes -which creates a further single point of failure or have SNMP / UPD access to the SDWAN router. Read in conjunction with Question 42's answer, which states that the new links can terminate on the existing SDWAN equipment, which means no additional CPE hardware is required	
43	Question (a) Is it correct that Transnet prefers the links to terminate on the SDWAN router directly? Question (b) Will Transnet provide SNMP read-only access on the SDWAN router for the Service Provider to measure up-time, latency, jitter and other performance criteria?	Yes, links to terminate SD-WAN router directly. SNMP read-only access will be provided for QOS measurements.
44	Question 46 dealing with QoS, includes in the answer "Failover time of <10 ms to be measured in terms of backup link providers contribution in not being able to failover". This function is reliant on the SDWAN equipment, and not on the link itself.	The backup-link SP will be held liable only to the extent that it can be proven that its performance or non-performance directly contributed to the inability to switch the link (i.e. not including SD-WAN equipment performance) over within 10 ms.

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	Question (c) Can you please clarify this statement.	
45	Question 46 dealing with QoS also refers to failover links in general. Best practice on SDWAN is to run Active/Active, and not Primary/Failover. When running Active/Active, this removes the need for failover testing and failover latency. Question (d) Is the intent of Transnet to run the links as Active/Active, or in a Primary/Failover configuration?	Transnet would like the flexibility of running in either mode (Active/active or Primary/Failover). In the case where active/active mode is selected the failover testing, latency etc methodology can be adjusted accordingly.

CISCO SD-WAN devices installed

Site #		PHYSICAL ADDRESS	SDWAN Devices installed
	RING 1		
1	Newcastle	8 CTC Building, Madadeni Road, Newcastle	2 X ISR1100-4G; 2 X Teltonika
2	Springs	1 Appel Ave, Geduld, Springs	2 X ISR1100-4G; 2 X Teltonika
3	Sentrarand	1 Du Randt Rd, Sentrarand, Benoni	2 X C8300-1N1S-6T; 2 X Teltonika
4	Ermelo	CTC Ermelo - Infra Telecoms Workshop	2 X C8300-1N1S-6T; 2 X Teltonika
5	Vryheid	Side East CTC Building, Hlobane Road Number 2, Vryheid	2 X C8300-1N1S-6T; 2 X Teltonika
6	Ogies	No 1 Main Road, Transnet Building	2 X C8300-1N1S-6T; 2 X Teltonika
7	Standerton	Room 1 Walter Sisulu Road, Standerton Station	2 X ISR1100-4G; 2 X Teltonika
8	Empangeni	1 Station Rd, Empangeni Rail, Empangeni	2 X C8300-1N1S-6T; 2 X Teltonika
9	Richards Bay	Nsezi CTC, Nsezi Rd, Richards Bay	2 X C8300-1N1S-6T; 2 X Teltonika
10	Pietermaritzburg	16 Devenshire Road, Pietermaritzburg	2 X ISR1100-4G; 2 X Teltonika
11	Ladysmith	7 Albert Str, Ladysmith	2 X ISR1100-4G; 2 X Teltonika
12	Durban	Transnet Durban CTC, Stamford Hill, Durban	2 X C8300-1N1S-6T; 2 X Teltonika
13	Bayhead	Loliwe House, 151 South Coast Rd, Rossburgh	2 X C8300-1N1S-6T; 2 X Teltonika
14	Isando	114 Pretoria Rd, Kempton Park	2 X C8300-1N1S-6T; 2 X Teltonika
15	Heidelberg	10 Van Zyl Street, Heidelberg	2 X ISR1100-4G; 2 X Teltonika
16	Esselen Park	Essellen Server Rm, 1st Flr, Church St, Tembisa	2 X C8300-1N1S-6T; 2 X Teltonika
17	Vooruitsig	R23, Vooruitsig train Station	2 X ISR1100-4G; 2 X Teltonika
	RING 2		
18	Kroonstad	01 Sterley St, Kroonstad, 9501, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
19	Bethlehem	101 Joubert St, Bethlehem, 9701, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
20	Bloemfontein	2 Harvey Rd, Bloemfontein, Free State	2 X C8300-1N1S-6T; 2 X Teltonika
21	Klerksdorp		2 X C8300-1N1S-6T; 2 X Teltonika
22	Potchefstroom	Stasie Road, Potchefstroom, 2520, South Africa	2 X ISR1100-4G; 2 X Teltonika
23	Langslaagte	103 Pomeroy Ave, Johannesburg, 2092, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
24	Krugersdorp		2 X ISR1100-4G; 2 X Teltonika
25	Vereeniging	56C Union St, Vereeniging, 1936, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
26	Germiston	4 Railway Str, Georgetown, Germiston	2 X C8300-1N1S-6T; 2 X Teltonika
27	Johannesburg	JCC, Rissik St, Johannesburg, 2000, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika

28	Kimberley	35 Knight St, Kimberley, 8300, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
	RING 3		
29	Bellville	01 Caledon St, Transnet, Cape Town	2 X C8300-1N1S-6T; 2 X Teltonika
30	Worcester	18 Bains St, Worcester, 6850, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
31	Saldanha	Fisheagle Rd, Durban, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
32	Beaufort West	Kerk St, Beaufort West, 6970, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
33	Cape Town	McDonald Rd, Transnet, Cape Town, 7505, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
	RING 4		
34	Witbank	2 Langermann St, Emalahleni, 1035, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
35	Middelburg		2 X C8300-1N1S-6T; 2 X Teltonika
36	Rustenburg		2 X C8300-1N1S-6T; 2 X Teltonika
37	Polokwane	Forssman St, Modimolle, 0510, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
38	Pretoria North	Ou Warmbadpad Rd, Pretoria, 0110, South Africa	2 X ISR1100-4G; 2 X Teltonika
39	Nelspruit	1 Andrew Str, Nelspruit	2 X C8300-1N1S-6T; 2 X Teltonika
40	Hoedspruit	Klaserie Rd, Hoedspruit, 1380, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
41	Nzasm	2677 Skietpoort Ave, Pretoria, 0002, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
42	Pretoria	340 Koos De La Rey St, Pretoria	2 X C8300-1N1S-6T; 2 X Teltonika
43	Koedoespoort	313 Moreleta St, Pretoria, 0184, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
	RING 5		
44	East London	1A Cambridge St, East London	2 X C8300-1N1S-6T; 2 X Teltonika
45	PE North	Broad Serv Rd, North End, Gqeberha	2 X C8300-1N1S-6T; 2 X Teltonika
46	Noupoort	18 Shaw St, Noupoort, 5950, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika
47	Mossel Bay	40 Bland St, Mossel Bay, 6500, South Africa	2 X C8300-1N1S-6T; 2 X Teltonika