Razorpay Software Private Limited

1st Floor, SJR Cyber 22, Hosur Road, Adugodi, Opp Adugodi Police Station,
Bengaluru, Karnataka - 29AAGCR4375J1ZU

↑Razorpay

Purchase Order

VENDOR DETAILS
CONNECTIVITY IT SOLUTIONS PVT LTD (VEN043)
NO. 1877, 1st floor, 31st cross, 10th main, Banashankari 2nd
stage
Bengaluru
Karnataka
560070
GSTIN: 29AAGCC1283L1ZC

Budget Code
RZP/BUD/22-23/183

Bill Location
Razorpay Software Private Limited
SALAR(000004000)
Salarpuria Arena - No 24, 3rd & 4th Floor, Laskar Hosur
Road, Adugodi, Bengaluru, Karnataka 560029
Bengaluru, Karnataka - 560029
GSTIN: 29AAGCR4375J1ZU

Ref Quote Date
02 Jun 2022

PO: RZP/PO/JUN22/013
Date: 03-06-2022
Razorpay Software Private Limited
Ship Location: SJR-Engg Infra(000001096)
1st Floor, SJR Cyber 22, Hosur Road, Adugodi, Opp Adugodi
Police Station
Bengaluru, Karnataka - 560030
GSTIN: 29AAGCR4375J1ZU

Ref Quote #
CS-SQ-BLR-2022-23-000100-R1

No	Item	Qty	Unit Type	Unit Price	Required By	CGST	SGST	Total Amount	Remarks
1	Network Hardware-New Office (PRD592)	1.00	Nos	29,145,454.00	03-06-2022	2,623,090.86	2,623,090.86	29,145,454.00	BOQ as per annexure A
2	Implementation-Hardware (PRD593)	1.00	Nos	2,300,000.00	03-06-2022	207,000.00	207,000.00	2,300,000.00	BOQ as per annexure A

Total Amount	**31,445,454.00**
CGST	**2,830,090.86**
SGST	**2,830,090.86**
GST Amount	**5,660,181.72**
Grand Total:	**37,105,635.72**
Round Off Total:	**37,105,635.72**

Amount In words: Three Crore Seventy One Lakh Five Thousand Six Hundred Thirty Five and Seven Two Paise

Payment Terms: Within 30 Days Due Net

Terms & Conditions:

1. Delivery terms:
   a. N9K-C93180YC-FX, N9K-C93108TC-FX-24, C9300L-24T-4X-A: 7 Months.
   b. MS355-24X-HW, MS250-48FP-HW, MS250-48-HW, MA-SFP-10GB-SR : 1.5 Months.
   c. SFP-10G-SR-S= : 2-3 Months
   d. MR56-HW : 5-6 Month
2. Commercials for configuration and customization of extended sow is not included in the quote
3. Standby devices will be provided FOC (Free of Cost) by CONNECTIVITY IT SOLUTIONS PVT LTD for the period of time until the supply and installation of the new devices. Standby BOQ is as per annexure B
4. Standby devices are to be supplied and commissioned and should be in active service immediately at the receipt of a standby provisioning request from Razorpay failing which this PO stands cancelled automatically.
5. Razorpay has the right to amend/modify/cancel any specific line items in the PO by giving a notice before 45 days of EDD (expected delivery date) from Cisco to Connectivity Solutions Pvt Ltd
6. This PO is governed by the SOW and any deviations on the SOW / KPI/SLA will lead to termination of services
7. The general T&C's of the PO will stand final and will superceed any other T&C'

Note*: This is Computer Generated PO and Signature is not Mandatory.

Company Terms :

1. Performance and Delivery : a). Supplier shall supply the Deliverables and perform the Services in accordance with this Order. b). Supplier shall comply with all reasonable instructions provided by RAZORPAY. c). Risk and title in Deliverables/Services shall pass on to RAZORPAY on accepting the Delivery. d). All Deliverables/Services under this Order shall be delivered at place/places designated by Razorpay within the time period specified in the Order. Time shall be the essence. e). All Deliverables shall be securely packed against theft and damage during transportation and such packaging shall confirm to the specific instructions of RAZORPAY, if any. f). RAZORPAY shall not be responsible or liable for any Deliverables/Service that exceed the quantity ordered by RAZORPAY or do not comply with this Order.

2. Price, Invoicing, Payment and Expenses : a). The PO value is inclusive of all taxes (except tax applicable on Supplier's income which Supplier has to pay), costs and expenses of whatever nature unless otherwise stated in the PO. b). Supplier shall send RAZORPAY an invoice for the Price and applicable taxes (meeting

all requirement of relevant tax authorities and RAZORPAY), marked with the PO number together with all required documentary evidence establishing proof of origin of Deliverables as well as the destination for delivery. c). RAZORPAY will pay such invoices to Supplier within the payment terms set out in the PO unless

there has been any material breach of this Order by Supplier in which case RAZORPAY shall be entitled to withhold payment until the breach is rectified. d). If Supplier incorrectly charges any applicable taxes to RAZORPAY, Supplier shall repay such tax amounts to RAZORPAY together with related interest, penalties and costs within 30 days of the error being identified. e).In the event that RAZORPAY is required by law and/or government authority to deduct withholding tax or any other amount including, without limitation, employees provident fund or other statutory dues applicable to Supplier, RAZORPAY shall deduct such amount from the Price and RAZORPAY shall: i). pay the Price less withholding tax and other amounts required to be deducted by law and/or government authority; and ii). provide evidence to Supplier that it has passed the withholding tax on to the relevant authority. f). Supplier shall ensure that the PO number as well as the required statutory tax numbers and date shall be clearly stated on the invoice/ bill raised against the PO. g). RAZORPAY shall not accept any variation in the prices/rates or addition of any extra charges during the subsistence of the Order, unless mentioned in the PO. h). Supplier shall ensure that the PO number as well as the required statutory tax numbers and date shall be clearly stated on the invoice/ bill raised against the PO. i). The invoice to be couriered at: Razorpay Private limited 1ˢᵗ Floor, SJR Cyber 22, Laskar Hosur Road, Adugodi, Bangalore, India – 560030, Above Lee Straus Office Koramangala, Next to Forum Mall Koramangala GST No. 29AAGCR4375J1ZU

3. Warranties: a). Supplier warrants to RAZORPAY that all Deliverables and Services shall comply with all applicable laws. b). Unless otherwise specified in this Order, Supplier warrants that each Deliverable and Service shall be free from defects (save those caused by normal wear and tear) for 24 months (or in the case of software for 12 months) from delivery (or such other period as may be expressly stated in writing in the Order). c). All Deliverables and Services shall be of the best quality and workmanship and shall in all respects confirm to RAZORPAY's requirements and warranties as specified in the Order and the agreement to which this PO relates (or the written correspondence preceding the Order where no requirements are specified in the Order). 4. Termination : a). Where a party materially breaches this Order (e.g. Supplier fails to deliver Deliverable/Service on time or Deliverable/Service are not as per terms of the Order) and fails to remedy the breach within 7 days of receipt of notice of the breach from the nonbreaching party, the non- breaching party may terminate this Order or reject the Deliverable/ Services immediately on notice. Additionally, where Supplier is the breaching party, Supplier shall repay within 7 days any part of the Price which has been paid and RAZORPAY may return any Deliverables to Supplier (at Supplier's expense). b). All rejected goods shall be taken by the Supplier, at its own cost and expense within 10 days of intimation of rejection by RAZORPAY and such rejected goods shall under all circumstances lie at the risk of the Supplier from the moment of such rejection and RAZORPAY shall not be liable in any manner for shortages, quality deterioration or for any reason whatsoever. In such event, the Supplier shall refund the advances if any, made under this Order together with interest @ 18% p.a. c). This Order may be

terminated, whether wholly or in part, immediately on notice if either party becomes unable to pay its debts as they fall due, or by RAZORPAY if a person who controls Supplier ceases to control Supplier

4.The Service / Goods Provider shall, in the invoice raised on Razorpay Software Pvt Ltd ("RSPL"), separately show GST payable on the service rendered and shall also show other necessary details such as GST registration number, GST charged, SAC / HSN and all other information required under Rule 46 of CGST Rules,2017 or any other Rule as may be applicable at the time of raising invoice so as to enable RSPL to claim credit of the same as per the applicable law. The Service Provider shall, further, every month or as and when demanded by RSPL, provide all the necessary documentary proof including without limitation to copy of GST returns, payment challans etc evidencing payment of GST and/or any other tax paid by the Service Provider to the Government in respect of Services rendered to RSPL under this Agreement. In case of any discrepancies in the invoice due to which the RSPL is denied or is unable to avail GST credit, the same shall be reimbursed by the Service Provider to RSPL or RSPL shall recover the same from the future payment of invoices to be made to the Service Provider under this agreement. The Service Provider shall also ensure that GST collected from the RSPL shall be deposited in a Government account within due date. In the event of denial of Input Tax Credit (in short 'ITC') to the RSPL for non-compliance at the service provider's end, RSPL shall be entitled to recover the GST paid to the Service Provider to the extent of ITC denied to the RSPL along with interest & penalty (if any levied on Razorpay Software Pvt Ltd by concern authority/ies.)".

Note*: This is Computer Generated PO and Signature is not Mandatory.

SL	Name	Description	Srvc Dur.	Qty	Unit Price	Total	CGST %	CGST Amount	SGST %	SGST Amount	Total (+Tax)
1	N9K-C93180YC-FX	Nexus 9300 with 48p 10/25G SFP+, 6p 100G QSFP, MACsec, UP	--	2	545,273.18	1,090,546.35	9	98,149.17	9	98,149.17	1,286,844.70
2	CON-SNTP-N93YCFX	SNTC-24X7X4 Nexus 9300 with 48p	36	2	174,288.05	348,576.10	9	31,371.85	9	31,371.85	411,319.80
3	MODE-NXOS	Dummy PID for mode selection	--	2	0.00	0.00	9	0.00	9	0.00	0.00
4	NXK-AF-PE	Dummy PID for Airflow Selection Port-side Exhaust	--	2	0.00	0.00	9	0.00	9	0.00	0.00
5	NXOS-9.3.4	Nexus 9500, 9300, 3000 Base NX-OS Software Rel 9.3.4	--	2	0.00	0.00	9	0.00	9	0.00	0.00
6	NXK-ACC-KIT-1RU	Nexus 3K/9K Fixed Accessory Kit, 1RU front and rear removal	--	2	0.00	0.00	9	0.00	9	0.00	0.00
7	NXA-PAC-500W-PE	Nexus NEBs AC 500W PSU - Port Side Exhaut	--	4	0.00	0.00	9	0.00	9	0.00	0.00
8	NXA-FAN-30CFM-F	Nexus 2K/3K/9K Single Fan, port side exhaust airflow	--	8	0.00	0.00	9	0.00	9	0.00	0.00
9	QSFP-H40G-CU4M	40GBASE-CR4 Passive Copper Cable, 4m	--	4	6,961.65	27,846.60	9	2,506.19	9	2,506.19	32,858.98
10	CAB-C13-C14-3M-IN	Power Cord Jumper, C13-C14 Connectors, 3 Meter Length, India	--	4	0.00	0.00	9	0.00	9	0.00	0.00
11	C1E1TN9300XF-3Y	Data Center Networking Essentials Term N9300 XF, 3Y	--	2	295,459.25	590,918.50	9	53,182.67	9	53,182.67	697,283.84
12	SVS-B-N9K-ESS-XF	EMBEDDED SOLN SUPPORT SWSS FOR ACI NEXUS 9K	--	2	0.00	0.00	9	0.00	9	0.00	0.00
13	N9K-C93108TC-FX-24	Nexus 9300-FX w/ 24p 100M/1/10GT & 6p 40/100G	--	3	487,531.70	1,462,595.10	9	131,633.56	9	131,633.56	1,725,862.22
14	CON-SNTP-N9KC931F	SNTC-24X7X4 Limited orderability, Nexus 9K w/ 24p 10	36	3	156,377.03	469,131.09	9	42,221.80	9	42,221.80	553,574.69
15	NXK-AF-PE	Dummy PID for Airflow Selection Port-side Exhaust	--	3	0.00	0.00	9	0.00	9	0.00	0.00
16	MODE-NXOS	Dummy PID for mode selection	--	3	0.00	0.00	9	0.00	9	0.00	0.00
17	NXOS-9.3.2	Nexus 9500, 9300, 3000 Base NX-OS Software Rel 9.3.2	--	3	0.00	0.00	9	0.00	9	0.00	0.00
18	NXK-ACC-KIT-1RU	Nexus 3K/9K Fixed Accessory Kit, 1RU front and rear removal	--	3	0.00	0.00	9	0.00	9	0.00	0.00
19	NXA-PAC-500W-PE	Nexus NEBs AC 500W PSU - Port Side Exhaut	--	6	0.00	0.00	9	0.00	9	0.00	0.00
20	CAB-250V-10A-ID	AC Power Cord - 250V, 10A , India	--	6	0.00	0.00	9	0.00	9	0.00	0.00
21	NXA-FAN-30CFM-F	Nexus 2K/3K/9K Single Fan, port side exhaust airflow	--	12	0.00	0.00	9	0.00	9	0.00	0.00
22	C1E1TN9300XF-3Y	Data Center Networking Essentials Term N9300 XF, 3Y	--	3	295,459.25	886,377.75	9	79,774.00	9	79,774.00	1,045,925.75
23	SVS-B-N9K-ESS-XF	EMBEDDED SOLN SUPPORT SWSS FOR ACI NEXUS 9K	--	3	0.00	0.00	9	0.00	9	0.00	0.00
24	MS355-24X-HW	Meraki MS355-L3 Stck Cld-Mngd 24GE, 8xmG UPOE Switch	--	7	321,220.10	2,248,540.70	9	202,368.65	9	202,368.65	2,653,278.02
25	LIC-MS355-24X-3YR	Meraki MS355-24X Enterprise License and Support, 3 Year	--	7	29,549.82	206,848.74	9	18,616.39	9	18,616.39	244,081.52
26	MA-PWR-CORD-IN	Meraki AC Power Cord for MX and MS (India Plug)	--	14	526.89	7,376.46	9	663.88	9	663.88	8,704.22
27	MA-PWR-1025WAC	Meraki 1025WAC PSU	--	7	44,377.26	310,640.82	9	27,957.67	9	27,957.67	366,556.16
28	MS250-48FP-HW	Meraki MS250-48FP L3 Stck Cld-Mngd 48x GigE 740W PoE Switch	--	14	326,294.07	4,568,116.98	9	411,130.53	9	411,130.53	5,390,378.04
29	LIC-MS250-48FP-3YR	Meraki MS250-48FP Enterprise License and Support, 3YR	--	14	27,507.87	385,110.18	9	34,659.92	9	34,659.92	454,430.02
30	MA-PWR-CORD-IN	Meraki AC Power Cord for MX and MS (India Plug)	--	14	544.45	7,622.30	9	686.01	9	686.01	8,994.32
31	MA-PWR-1025WAC	Meraki 1025WAC PSU	--	14	44,377.26	621,281.64	9	55,915.35	9	55,915.35	733,112.34
32	MS250-48-HW	Meraki MS250-48 L3 Stck Cld-Mngd 48x GigE Switch	--	21	266,353.88	5,593,431.48	9	503,408.83	9	503,408.83	6,600,249.14
33	LIC-MS250-48-3YR	Meraki MS250-48 Enterprise License and Support, 3YR	--	21	22,654.86	475,752.05	9	42,817.69	9	42,817.69	561,387.44
34	MA-PWR-CORD-IN	Meraki AC Power Cord for MX and MS (India Plug)	--	21	540.06	11,341.26	9	1,020.71	9	1,020.71	13,382.68
35	MA-PWR-250WAC	Meraki 250WAC PSU	--	21	14,001.78	294,037.38	9	26,463.36	9	26,463.36	346,964.10
36	C9300L-24T-4X-A	Catalyst 9300L 24p data, Network Advantage ,4x10G Uplink	--	2	136,986.19	273,972.38	9	24,657.51	9	24,657.51	323,287.40
37	CON-SNTP-C00L2XAL	SNTC-24X7X4 Catalyst 9300L 24p data, Network Advanta	36	2	95,933.69	191,867.38	9	17,268.06	9	17,268.06	226,403.50
38	C9300L-NW-A-24	C9300L Network Advantage, 24-port license	--	2	0.00	0.00	9	0.00	9	0.00	0.00
39	PWR-C1-BLANK	Config 1 Power Supply Blank	--	2	0.00	0.00	9	0.00	9	0.00	0.00
40	C9300L-STACK-BLANK	Catalyst 9300L Blank Stack Module	--	4	0.00	0.00	9	0.00	9	0.00	0.00
41	TE-C9K-SW	TE agent for IOSXE on C9K	--	2	0.00	0.00	9	0.00	9	0.00	0.00
42	FAN-T2	Cisco Type 2 Fan Module	--	6	0.00	0.00	9	0.00	9	0.00	0.00
43	S9300LUK9-173	Cisco Catalyst 9300L XE 17.3 UNIVERSAL	--	2	0.00	0.00	9	0.00	9	0.00	0.00
44	PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	--	2	0.00	0.00	9	0.00	9	0.00	0.00
45	C9300L-SPS-NONE	No Secondary Power Supply Selected	--	2	0.00	0.00	9	0.00	9	0.00	0.00
46	CAB-TA-IN	India AC Type A Power Cable	--	2	0.00	0.00	9	0.00	9	0.00	0.00
47	C9300L-SSD-NONE	No SSD Card Selected	--	2	0.00	0.00	9	0.00	9	0.00	0.00
48	C9300L-DNA-A-24	C9300L Cisco DNA Advantage, 24-port Term Licenses	--	2	0.00	0.00	9	0.00	9	0.00	0.00
49	C9300L-DNA-A-24-3Y	C9300L Cisco DNA Advantage, 24-port, 3 Year Term license	36	2	43,441.57	86,883.14	9	7,819.48	9	7,819.48	102,522.10
50	TE-EMBEDDED-T	Cisco ThousandEyes Enterprise Agent IBN Embedded	--	2	0.00	0.00	9	0.00	9	0.00	0.00
51	TE-EMBEDDED-T-3Y	ThousandEyes - Enterprise Agents	36	2	0.00	0.00	9	0.00	9	0.00	0.00
52	PI-LFAS-T	Prime Infrastructure Lifecycle & Assurance Term - Smart Lic	--	2	0.00	0.00	9	0.00	9	0.00	0.00
53	PI-LFAS-AP-T-3Y	PI Dev Lic for Lifecycle & Assurance Term 3Y	36	2	0.00	0.00	9	0.00	9	0.00	0.00
54	D-DNAS-EXT-S-T	Cisco DNA Spaces Extend Term License for Catalyst Switches	--	2	0.00	0.00	9	0.00	9	0.00	0.00
55	D-DNAS-EXT-S-3Y	Cisco DNA Spaces Extend for Catalyst Switching - 3Year	36	2	0.00	0.00	9	0.00	9	0.00	0.00
56	NETWORK-PNP-LIC	Network Plug-n-Play License for zero-touch device deployment	--	2	0.00	0.00	9	0.00	9	0.00	0.00
57	MA-SFP-10GB-SR	Meraki 10G Base SR Multi-Mode	--	28	17,717.60	496,092.80	9	44,648.35	9	44,648.35	585,389.50
58	SFP-10G-SR=	10GBASE-SR SFP Module, Enterprise-Class	--	28	12,477.17	349,360.76	9	31,442.47	9	31,442.47	412,245.70
59	MR56-HW	Meraki MR56 Wi-Fi 6 Indoor AP	--	112	65,181.58	7,300,336.95	9	657,030.33	9	657,030.33	8,614,397.62
60	LIC-ENT-3YR	Meraki MR Enterprise License, 3YR	--	112	7,507.58	840,848.96	9	75,676.41	9	75,676.41	992,201.78
61	Installation	Basic Implementation of Cisco Network equipments, paloalto firewalls and software implementation of Cisco ISE and umbrella till the knowledge transfer		1	2,300,000.00	2,300,000.00	9	207,000.00	9	207,000.00	2,714,000.00

Gross Total: Indian Rupee 31,445,453.88
Net Total: Indian Rupee 37,105,635.58

Serial No.	Product	Products Description	QTY
1	**WS-C4507R+E**	Catalyst 4500E 7 slot chassis for 48Gbps/slot - Supervisor Engine redundancy - Power redundancy	4
2	**WS-X45-SUP8-E**	Cisco 4500 E-Series Supervisor WS-X45-SUP8-E, up to 928 Gbps system bandwidth	8
3	**WS-X4748-RJ45V+E**	Cisco 4500 Line Card WS-X4748-RJ45V+E Catalyst 4500E 48-Port PoE 802.3at 10/100/1000(RJ45)	20
4	**MR53-HW**	Meraki MR53 Wi-Fi 6 Indoor AP	30

RAZORPAY SCOPE OF WORK
Umbrella, ISE and PaloAlto Firewall

Table of Contents

1. **Document Purpose**

   This SOW is made on the 02nd day of June, 2022 between Razorpay and Connectivity Solutions and sets forth the specific terms and conditions relating to deployment of Basic Radius Server using Cisco ISE - NAC security, Cloud DNS Security using Cisco Umbrella and Palo Alto Firewall.

   This document outlines project scope, Connectivity Solutions responsibilities, Razorpay team responsibilities, other vendor responsibilities, assumptions and timeline estimates for the project. Any change to this document will be handled through the project change request (PCR) procedure outlined in this SOW. If a service or scope is not listed in this document, it is not considered to be part of this project.

   This SoW is intended solely for Razorpay and Connectivity Solutions only. As such, it cannot be distributed to anyone who is not directly involved with this project without express written consent of both parties.

2. **Background**

   Razorpay is looking to get visibility and security for the network and control the devices connected to access network through the implementation of Cisco ISE, Umbrella and Palo Alto Firewall.

   - The primary requirement of Razorpay is to restrict the guest trying to connect to a wired connection should not get an IP address.
   - Connectivity Solutions will provide implementation services of Cisco ISE solution by validating the solution design, deploying it correctly, and configuring and tuning it.
   - Connectivity Solutions subject matter experts work closely with Razorpay team to ensure the deployment reduces risk, satisfies compliance requirements, and makes security operations more efficient.
   - Razorpay also wants to secure inside to outside traffic using DNS Security(Umbrella)
   - The Firewall will be extension to their existing Firewall which is already configured. CS SME will audit and optimize the same. Will migrate the policy of the existing firewall to the new firewall for the new campus

3. **Objective**

   - Establishes quick, effective, and comprehensive deployment of the Cisco ISE solution.
   - Enhance security and take advantage of existing investments with optional integration of other Cisco and third-party networking and security solutions. The proposed fully integrated solution allows other security components to contribute as context, telemetry, and intelligence sources.
   - Meet audit requirements with best practices based on regulatory, industry, and governance frameworks.
   - Frees IT resources to focus on core business initiatives.

4. **Estimated Value**

   - Not Applicable

5. **Technical Environment**

   The Proposed Cisco ISE solution will be integrated in the customers network and will be configured to integrate with switches & wireless devices, the solution will be configured to handle the new age requirements and the automated corporate and guest user management, configured as a VM component in the network.

   A comprehensive network infrastructure information, and the detailed Implementation plan will be arrived with an exhaustive checklist while concluding meeting on mutually agreed set of criteria for the successful implementation

   As per discussion in last meeting it was understood that Razorpay wants to restrict the unauthorized access for users & devices. Any users connecting to LAN or WLAN, should not be assigned corporate or guest access until they are compliant.

6. Scope of Work

Cisco Umbrella provides Pervasive DNS Security for inside- outside traffic giving insights on usage.

Cisco ISE is designed to help organizations to gain enterprise-wide visibility into their network, allowing authentication, authorization, accounting, posture profiling gathering real-time contextual information from network, users, and devices; and making proactive governance decisions by enforcing policy across the network infrastructure.

- Optimize and migrate the policies on the existing firewall to the new firewall and perform HA
- Configure Umbrella
- Deploy ISE Primary and Secondary virtual Instance.
- License Installation.
- ISE HA Distribution Configuration.
- Integration with Meraki Cloud.
- Integration with switches.
- Configuration and documentation of Cisco ISE solution.
- Provides context-aware identity-based network access.
- Manages various deployment scenarios across enterprise infrastructure, supporting 802.1X wired, wireless, and virtual private networks (VPN).
- Provides basic authentication and authorization.
- Enforces endpoint compliance by providing comprehensive client provisioning measures and accessing device posture for all endpoints that access the network, including 802.1X environments.
- Provides comprehensive guest access management.
- Enables consistent policy in centralized and distributed deployments that allow services to be delivered where they are needed.
- Knowledge transfer.

7. Deliverables Checklist

Sr. No.	Activity	Category
1	Optimize and Migrate Pocies from Existing PA device to New PA Device	Initial Setup
2	Setup your Cisco Umbrella portal	
3	Set your security and content settings	
4	Install the Cisco DNS appliance on all sites where you have internal DNS	
5	Point your internal DNS to the appliance	
6	Roll out the Cisco Umbrella Roaming agents	
7	Portal Setup	
8	Install ISE 3.0.0 + latest Patch on the Customer provided VM	
9	License installation	
10	High Availability of Cisco ISE	
11	Integrate Customer AD to Cisco ISE for user & device authentication	
12	Integrate Cisco Access Switch & Wireless Controller	
13	ISE portals (Administration, Sponsor, My devices) to be accessible via DNS resolved names	

8. Pre-requisites

- Cisco Switch Access to be provided by Customer
- VM Infra with below spec

OVA Template Type	CPU	RAM	DISK
Small	16	32	300
Medium	24	96	600
Large	24	256	1200

- Endpoint Considered
  - Windows 7/8/10 for 802.1x
  - VOIP Phones/IP Cameras – for MAC Based Authentication – if required
  - Android/Ip phone for BYOD
  - Two domain joined laptops for testing
  - Two test users from two different groups should be provided for testing
  - One time activity, Admin user (AD) to be keyed in for integrating ISE with AD

- DNS resolution for below to be mapped for ISE VM IP addresses
  - **ise.customerdomain.com**
  - **sponsor.customerdomain.com**
  - **mydevices.customerdomain.com**

- IP & DNS information to be filled up and should be updated below: -
  - Active Directory
  - Free IP's for Two VM's of ISE (Uninterrupted internet access)
  - NTP Server
  - DNS Server
  - DHCP Server
  - SMTP Server
  - SMS Server (if required) – dual factor for guest authentication

Network ports that must be open for communication

9. Approach and Methodology

Connectivity Solutions takes a structured approach implementing your infrastructure solution. Our methodologies cover Pre-Deployment, Deployment, and Post-Deployment phases. The service provides detailed planning, careful change management, tuning of the solution, and a final deployment summary report. Our skilled team of professionals helps ensure that Security Deployment Services for Palo Alto Firewall, Umbrella and ISE deliver a smooth, results-driven deployment of the products.

10. Pre-Deployment

During this phase Connectivity Solutions and Customer will conduct a call to review the project plan, identify key stake holders, and create a timeline of activities. The team will also review the policies for the security solution. To conclude this phase, the team will create and deliver deployment profile detailing the configuration to be implemented at Customer site.

11. Deployment

Connectivity Solutions team configures the targeted systems on Customer premises during the deployment phase as defined in the Deployment Profile. secure access (Wired and Wireless Dot1x), guest access services, MAB, Posture services for network compliance and Device administration (TACACS+). The team will then conduct tests

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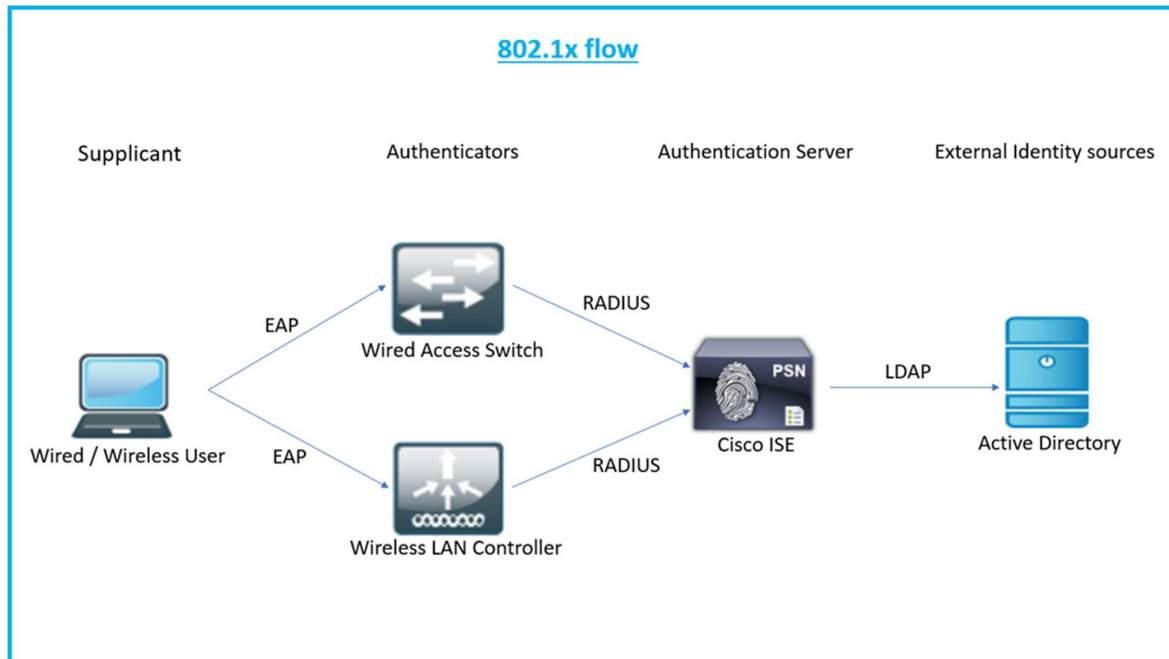
12. Deployment Use Cases

I. Secure Access

A laptop/Desktop of company's employee will be authenticated against the AD and an appropriate VLAN and authorization/access to the network will be assigned dynamically. Ease onboarding and provisioning.

II. Guest Access

Self-registered

A guest user connects to the switch interface and will be redirected to ISE for registration and authentication, Automated Guest lifecycle management & Approvals.

Sponsor-based

A sponsor user from customer will generate and provide the guest credentials, or can be only approve for a registered user.

III. Mac Authentication Bypass

Non-Authenticating devices like IP-Cameras/VOIP Phones of customer network will be identified and will be provided with a right set of access to the network.

IV. BYOD

Give users the flexibility to work with their own devices whenever they want.

V. Device compliance

When device connects to the network it will be authenticated using AD Username and Password then Cisco ISE will check Posture Conditions. If Posture Conditions are matched, then device will get IP address / access as per the policy.

VI. TACACS+

L1, L2, L3 role base access to Network devices.

13. **Risks and Constraints**

End users on the configured switch may temporarily loose the connections to the network Since the Deployment will be conducted in live switch or on a dedicated ports of a switch the possibility of end-users losing connection is less likely.

14. **Connectivity Solutions Responsibilities**
- Providing skilled man power for execution of the project
- Project management and communication
-

15. **Client Support**
- Access to facilities, resources and project stakeholders
- Access to systems and the network
- Laptops with remote connectivity into customer environment

16. **Location of Work & Travel**
- Project location is assumed to be Bangalore. Connectivity Solutions has its presence in Bangalore and does not see a need for travel unless the base location is differed.

17. **Project Timeline**

TO BE DEFINED. PRIMAFACIE IT WILL TAKE 10 DAYS OF DEPLOYMENT TIME TENTATIVELY POST HANDOVER OF SITE WITH PRE-REQUISITE

Note: Defined time line for the activity are assumption as the implementation also involves operation dependencies.

18. **Acceptance Criteria**

Document/agreement needs to be signed by both parties.

19. **Signature**

The parties agree that this SOW will be considered fully executed when signed by both parties by duplicate; each party will keep one of the two signed originals.

Annexures

- **Annexure 1 – Change Request Template**

Project/Opportunity:			
Change Request Number:		Date of Request:	

Description of Change:

More Descriptive Details / Documents Attached to Request Form:		Yes		No

Reasons for Proposed Change: (X)

	Problem/Error/Non-conformance (corrective change)
	Improvement/Enhancement (perfect change)
	Change in Environment (adaptive change)
	Other

Estimate of Impact

Degree of Impact: (X)		Minimal		Moderate		Major
Cost Impact of Requested Change						
Time/Schedule: (Yes/No) (Detail Below)				INR: (Yes/No) (Details Below)		
Name:					Title:	

Approvals for Full Evaluation:

Customer: _____

Title: _____

Connectivity Solutions: _____

Title: _____

Evaluation Results		Date of Review:	
		Total Approved Cost:	

Decision: (X)

	Approved		Rejected		Deferred Until:

RAZORPAY NEW CAMPUS SCOPE OF WORK
Campus networking - Wired and Wireless

Scope of work

Discovery and SRD (Solution Requirement Discovery)

- Conduct interviews and workshops with end customer to understand the requirements related to traffic flows, business logic, traffic restriction, wireless coverage, bandwidth usage, guest access, etc.
- Document the requirements as part of SRD document and share with customer for signoff
- Analyze floor plans to determine placement of access points
- Share list of pre-requisites from client to achieve the requirements laid out in SRD.
- Create list of success criteria for the project which will be the basis of test case creation

Design

- Create AP placement map based on customer inputs
- Create rack elevation diagrams
- Create IP Planning sheet
- Create cable map
- Create logical and physical topology
- Create design for security configuration
- Create VLAN mapping based on customer departments, functions, traffic, use cases, etc
- Create SRFU (Site Ready For Use) documentation basis success criteria documented as part of the discovery workshop
- Upon signoff on design, move toward build phase.

Build

- Conduct BoQ verification using detailed BoQ as basis.
- Rack and stack devices as per rack elevation diagram
- Mount access points as per AP placement map
- Configure wireless lan controller as per requirements documented in SRD
- Configure firewall as per requirements documented in SRD

Testing and KT (Knowledge Transfer)

- Conduct test cases in from of end customer representative as per signed off SRFU
- Deliver a 3 hour KT session to customer operations team

Assumptions and Exclusions

- This is assumed to be a green field deployment with no integration or migration.
- Scope limited to the BoQ called out in this document
- Any sort of MEPC (Mechanical, Civil, Plumbing, Civil) work is not included in this scope.
- Existing application and service availability in new infra.
- Coordination with ISP for Link commissioning.
- Interdepartmental coordination in Razorpay.
- Shifting of Equipment within the campus.
- Disposal of waste packaging material.

Project Management and Governance

- Weekly review calls between CS and Razorpay PM

Deliverables

- SRD (Solution Requirement Development) document
- DDD (Detailed Design Documentation)
- KT session training aides (if any)

Pricing and Payment Terms

- INR 17,00,000 + GST
- 50% advance
- 50% post KT session delivery