



**Police Headquarters, Chhattisgarh**  
**Sector- 19, Naya Raipur- 492 002, Chhattisgarh**  
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**Corrigendum -3**

**Date: 15-09-2017**

Name of the work: “**Selection of Implementation Agency for Chhattisgarh State Dial 112 Emergency Response System**”

With reference to the **NIT No. RFP No- PHQ/Tech Ser./P1/166/17 dated 11th August 2017**; the following clarifications are issued in Corrigendum-3.

S. No	RFP Reference	Existing Clause	Revised Clause
1.	Volume-1 Bidding Sheet Data	Last date (deadline) for submission of the bid- 15 September 2017 by 3:00 PM	To be read as: Last date (deadline) for submission of the bid- 03 <sup>rd</sup> October 2017 by 12:00 PM. Bidder to submit softcopy also along with hardcopy.
2.	Volume-1 3.6.1 Technical Bid Evaluation Criteria	Integration & demonstration with existing emergency system like of 108(ambulance service)	To be read as: Demonstration on process of Integration with existing emergency system like 108 (ambulance service)
3.	Volume-2 Bill of Material	Network Switch	Annexure-2
4.	Volume-2 Bill of Material	Internet Router	Annexure-3
5.	Volume-2 Bill of Material	SIEM	Annexure-4
6.	Pre-bid queries post release of corrigendum 1 & 2		Annexure-1

Note: All other terms and conditions shall remain same.

Additional Director General of Police  
 (Technical Services)  
 Chhattisgarh Police

**Annexure- 1 Pre-bid queries post release of corrigendum 1 & 2**

S No	RFP Section	RFP Point	Clarification Sought	Response to Queries
1.	Vol 1, Section 3.5 point no. 7,8 & 9, Page 33	Bidder / Consortium	However in notes on Page 34 it says "2. Each Member of the Consortium must comply with at least one of the Pre-Qualification Criteria mentioned at S. No 7, 8 and 9 in the above table". Request to remove.	Please refer Corrigendum 2
2.	Vol 1, Section 3.5 point no. 9 Page 33	The Bidder should have experience in GIS, CAD, AVL, MDT, Contact Centre at city level in single project.	Here it does not say Bidder / Consortium. However in applicable to section it says Sole Bidder or Lead Bidder OR Consortium Members (if any). Can we get this written under Pre-Qualification Criteria also in point 9.	Please refer "Applicable to" section of the same point
3.	Vol 1, 3.6.1, Page 35	3. Integration & demonstration with existing emergency system like of 108(ambulance service)	Integration in a span of 7 days is not possible.	Please refer point no 2 of corrigendum 3
4.	Vol 1, 3.6.1, Page 39	Team evaluation matrix	Resource should be in fulltime payroll of Bidder (on bidder is mentioned and not consortium). We cannot hire the resources before getting the project. During evaluation these candidate would be interviewed mentioned on page 35, evaluation matrix, point 3	No change. As per RFP
5.	General	Electricity bill payment of C4	Its not specifically mentioned anywhere in the RFP as to who will make the electricity bill payment (this amount will be huge in not considered in our proposal).	Please refer point no 23 of annexure of Corrigendum 1
6.	Vol 1, Point 6, Page 103	6. The SI/bidder has to ensure that their financial proposal is structured in such a way that the Capital Cost quoted in the project does not exceed 30% of total costs of the project. In case the bidder quotes higher figures towards capital costs the same shall be restricted to 30% while making payments towards Capex. Any value quoted towards capex over and above 30% limit will be paid in equal monthly installments for next five years along with monthly payment for each quarter.	We need to make a note of this in commercials	Yes

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S No	RFP Section	RFP Point	Clarification Sought	Response to Queries
7.	Vol 2, Sec 1.1 Page 5	The Centralized Dial 112 call Centre cum command Centre will be setup in the Raipur (Police Control Room, Civil Lines, Raipur) and will later be shifted to Naya Raipur in the premises of Police Headquarters. C4 will comprise of control room, conference room and a training room. SI needs to provision all C4 infrastructure including hardware, software, and furnishing as per the requirements of the RFP.	Does this means all the work done initially at PCR in Raipur, will have to done in Naya Raipur to set up C4 or will the C4 infrastructure at Naya Raipur will be done by Police Deptt and we just have to do the shifting of equipment and data along with furniture?	Police Department. Will provide adequate space in Naya Raipur C4. Bidder needs to provision all C4 infrastructure including hardware, software, furnishing etc.
8.	Vol 2, Sec 1.1 Page 5	District Control Rooms	Need specs to set up these also	District Control Rooms are already operational in districts. Bidder to provide necessary workstation, network and software with licenses as per RFP
9.	Vol 2, 1.1, Page 6	There are 15 Highway Patrol Vehicles being used by CG Police. These vehicles need to be fitted with MDTs and are proposed to be used as ERVs on the highway stretches covered by each of these.	Who would be responsible for the maintenance, fuel, drivers of these vehicles (not the equipment installed by bidder)	Bidder only need to perform equipment fitting as per RFP
10.	Vol 2, 1.4.10.1 Page 16	The vendor would be required to maintain vehicles provided by Chhattisgarh Police.	Though the vehicles are procured by CG Police all the maintenance of vehicles is passed on to bidder. We need to factor in this cost	Yes
11.	Vol 2, 1.4.10.5 Page 17	Operation and Maintenance - These operational expenses may include but not limited to Salary of vendor's staff, fuel, maintenance expenses, accidental expenses, insurance expenses etc	We need to factor in price for all these items also for fuel.	Yes
12.	Vol 2, 1.4.10.5 Page 17	In case of natural causes/accidents or damage beyond the control of	How can we factor this?	Bidder to ensure the same through insurance

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S No	RFP Section	RFP Point	Clarification Sought	Response to Queries
		the bidder, the risk of damage to vehicle shall be borne by the SI.		
13.	Vol 2, 1.4.10.5 Page 18	The supervisory staff will then ensure the availability of replacement vehicle within the timelines.	We need to factor in price for replacement vehicle also. CG police should be providing replacement vehicle else we will have to procure additional vehicles and keep them as buffer to be used as replacement vehicles	Please refer Corrigendum 1
14.	Vol 2, 1.4.10.6 Page 18	The vendor would need to deploy at least one person per district for supervision and monitoring of the fleet, refueling of vehicles, submission of bills etc. The office space for supervisory staff would be provided by Chhattisgarh Police at each district.	Will this office space also needs to be developed if yes need this dimensions and specs	Department will provide space
15.	Vol 2, 1.4.10.7 Page 18	Vehicle commissioning	In case of delay in getting the vehicles from Dept. what needs to be done?	All vehicles will be provided in time. In case of delay Department will be responsible for delay in timelines.
16.	General	Vehicle warranty	Warranty will get void if we install external equipments. Who will take care of this?	Point not clear. Please specify equipments
17.	Vol 2, 4 Page 40	Timelines	They want to project to be live in T+90 days however in the given timelines they have not mentioned timelines for vehicle commissioning, C4 interiors works. When are we supposed to do this?	Please refer Corrigendum 1
18.	General	Air Conditioning of C4	Nothing mentioned. It is just mentioned for CHIPS data center where power and AC would be provided in Vol 2 Page 7	Its already installed in Raipur C4. In Naya Raipur, bidder needs to provide AC in C4 and Data center and to be provisioned in the shifting cost.
19.	6.2 Hardware	Internet Router	The minimum specs are not given. Please provide the Specs. The Network Switch specs are specific to a single OEM and only one can comply to this. As per 3.2.3 clause No Vendor lock-in and Replace-ability and minimum two OEM should comply but this not possible with these specs.	Refer Annexure-3
20.	Annexure 1: Minimum Technical Specification 11. Network Switch	The switch should support layer 3 routing protocols such as OSPF, EIGRP, BGPv4, IS-IS, RIPv2, Policy-Based Routing (PBR),	<b>Requested Clause:-</b> Please provide the generic specs with L2 and L3 capabilities for Leading OEM to qualify.	Please refer point no 7 of corrigendum 1

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S No	RFP Section	RFP Point	Clarification Sought	Response to Queries
		<p>HSRP</p> <p>The switch should have Utility Specific Smart Port Macros/Templates</p> <p>The switch should support for GOOSE Messaging or similar fault diagnosis mechanism</p> <p>The switch should be minimum IP30 certified.</p> <p>The switch should be IEC 60068-2-27 (Operational Shock, Non-Operational Shock) certified or shall be supplied with required mounting for handling shock / non-shock.</p> <p>The switch should be IEC 60068-2-6, IEC 60068-2-64, EN61373 (Operational Vibration, Non-operational Vibration) certified or shall be supplied with required mounting to handle operational and non-operational vibrations</p>		
21.	12. Aggregation/ Data center Switches (L3 Manageable)	10/100/1000 Base-TX Ethernet ports/FX and extra 2 numbers of Base-SX/LX ports should be one either 24 or 48	<p><b>Requested Clause :-</b></p> <p>10/100/1000 Base-TX Ethernet ports/FX and extra 2 numbers of 10G SR/LR ports should be one either 24 or 48</p> <p>As there is a shift from 1G to 10G we recommend to have 10G Uplink from Day 1 for scalability and to avoid forklift upgrade</p>	Bidders are free to propose higher specification
22.	12. Aggregation/ Data center Switches (L3 Manageable)	Switch should be provided with redundant power supply.	Please confirm if the redundant power supply required are internal.	Yes

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S No	RFP Section	RFP Point	Clarification Sought	Response to Queries
23.	13. PoE+ Switches for IP phone connectivity	10/100/1000 Base-TX Ethernet ports/FX and extra 2 numbers of Base-SX/LX ports should be one either 24 or 48	<p><b>Requested Clause:-</b>                      10/100/1000 Base-TX Ethernet ports/FX and extra 2 numbers of 10G SR/LR ports should be one either 24 or 48.                      As there is a shift from 1G to 10G we recommend to have 10G Uplink from Day 1 for scalability and to avoid forklift upgrade</p>	Bidders are free to propose higher specification
24.	13. PoE+ Switches for IP phone connectivity	Switch should be provided with redundant power supply.	Please confirm if the redundant power supply required are internal.	Yes
25.	Vol. 2, Section 7 - Annexure 1, Table 23 - Storage Specifications, Page 91	Primary Storage to have 100% capacity for all solutions of the project for as per recording parameters	<p>Is retention period for both Video &amp; Non Video data is one month or only Video stream?                      For storage calculation accordingly</p>	<p>Video – 1 Month                      Non-Video- Entire project period</p>
26.	General		Regarding broadband connectivity at the 10 locations mentioned in the RFP, request you to please share the address of the same, which helps in feasibility check etc.	All 10 District Police Control Rooms of respective districts
27.	Volume- 2 Annexure: Minimal Technical Specification		In Primary Storage Compliance it is mentioned that we have to consider storage for Video and Non Video data for 5 years, whereas in Corrigendum - 1, the retention period for Video and Non Video Data feed is 1 Month. Do we have to consider one month storage for both video and non-video data or one month for video data and 5 years for non-video data. Please Clarify?	Please refer point no 25 of this annexure
28.	Volume -2 Integration with other systems	Integration of Dial 112 system with outdoor surveillance system whenever ready like smart city surveillance, ITMS, CCTV etc. of Raipur, Naya Raipur and other proposed cities.	Please clarify the number of cameras for storage sizing?	Only viewing to be provided on demand
29.	Volume -2 Integration with other systems		VMS software is considered only for streaming of live feed of ERV feed. Please clarify how to stream and record the cameras from city surveillance, ITMS etc. Please specify the camera licenses required if it is through the same VMS software. Technical compliance of VMS Software are also not mentioned in RFP.	Licenses are not required. Integration for only viewing on demand to be provided
30.	Volume -2, Annexure: Minimal Technical Specification		One Radio over IP Software License and three Radio over IP Gateway is asked in RFP. The hardware asked in RFP is not	3 Radio channels for Raipur only

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S No	RFP Section	RFP Point	Clarification Sought	Response to Queries
			sufficient for all 11 district. Please clarify this is only for Raipur district?	
31.	Volume -2, Annexure: Minimal Technical Specification		Technical Compliance of SIEM is not mentioned in RFP	Refer Annexure -4
32.	Volume -2, 6 Bill of Materials		Technical Compliance of Internet Router is not mentioned in RFP	Please refer point no 19 of this annexure
33.	Volume-2, Section 1 Scope of Work		What are the type of vehicles, hope it is Tata sumo ONLY. If other vehicles has been incorporated then what would be count of both the vehicles individually?	Please refer annexure point no 6 of corrigendum 1
34.	Volume-2, Section 1 Scope of Work		What would be vehicles (Type) whether it is AC or non AC ?	AC vehicles
35.	Volume-2, Section 1 Scope of Work		Whether the vehicles would be fitted by PUBLIC ADDRESS SYSTEM AND BLINKERS --that is whether it would be provided by police Govt. or vendors has to the fitting	Yes. Bidder need to provide these. Please refer section 1.4.10.2 Vehicle Deployment Pre-requisites of Volume 2

**Annexure -2 Network Switch Specification**

S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
	Make	To be provided by bidder		
	Model	To be provided by bidder		
1	Minimum 24 ports of 10/100/1000 base-T PoE ports and 2 x 10G ports			
2	1 U Rack mountable and should provide stacking of minimum 4 switches with 40Gbps of dedicated stacking/ equivalent bandwidth. The stacking accessories should be included from Day 1			
3	128 Gbps or higher Backplane capacity and minimum 90 Mpps of forwarding rate			
4	Should support Non-blocking hardware architecture			
5	All interfaces should provide wire speed forwarding for both Fiber and copper modules			
6	Support for at least 1000 VLANs & 16k MAC address			
7	It should support IGMP snooping v1,v2 & v3			
8	It should have static IP routing and RIP from Day 1			
9	It should support OSPF, OSPFv3 and PIM			
10	Switch should support 8 hardware queues per port			
11	Dynamic Host Configuration Protocol (DHCP) snooping			
12	Switch should support LLDP and LLDP-MED capabilities			
13	Should support IP source guard & DAI			



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S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
14	Should support Secure Shell (SSH) Protocol and Simple Network Management Protocol Version 3 (SNMPv3).			
15	Switch needs to have console port for administration & management			
16	Management using CLI, GUI using Web interface should be supported			
17	FTP/TFTP for upgrading the operating System			
18	IEEE 802.1x support			
19	IEEE 802.1D Spanning-Tree Protocol			
20	IEEE 802.1p class-of-service (CoS) prioritization			
21	IEEE 802.1Q VLAN			
22	IEEE 802.3 10BASE-T specification			
23	IEEE 802.3u 100BASE-TX specification			
24	IEEE 802.3af and IEEE 802.3at			
25	Switch should able to support management via CLI, Web interface			
26	SNMP v1,v2,v3			
27	Switch should be manageable through both IPv4 & IPv6.			
28	Switch should be FCC Part 15, ICES-003, VCCI Class A, EN 55022, EN 55024, EN 300386, CAN/CSA 22.2 No.60950-1, Reduction of Hazardous Substances (ROHS) certified			
29	The switch should be EAL 3/NDPP certified under Common Criteria.			

**Annexure -3 Internet Router**

S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
	Make	To be provided by bidder		
	Model	To be provided by bidder		
	<b>General requirements</b>			
1	Device should have a modular architecture			
2	Minimal performance degradation when running advanced services such as stateful firewall, NAT, and IPSec.			
	<b>Hardware and interface requirements</b>			
3	Device should have atleast 4 x 10/100/1000 and 4 x 1G SFP ports supporting both LAN and WAN protocols.			
4	The Router should have 4GB RAM and 2GB Flash			
5	Device should have atleast 4 free LAN/WAN slots			
6	Device should support modular LAN and WAN connectivity options including Gigabit Ethernet T1/E1, serial V.35 interface modules.			
7	The Router should support internal redundant Power Supply.			
	<b>Performance requirements</b>			
8	The Device should have a minimum routing performance of 700 Kpps			
	<b>Quality of Service (QoS ) requirements</b>			
9	Devices should support Class-based queuing with prioritization			
10	It should be possible to configure maximum bandwidth and guaranteed bandwidth			
11	Devices should support Queuing based on VLAN, DLCI, interface, bundles, or filters			
12	Devices should support Marking, policing, and shaping			
13	Devices should support congestion management features like WRED			
	<b>Routing protocol support</b>			
14	The Device should support IPv4 and IPv6 routing			

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S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
15	The Device should support VRRP			
16	The Device should support Static Routes			
17	The Device should support RIPv1 & RIPv2			
18	The Device should have OSPFv2 and IS-IS routing features			
19	The Device should support Policy Based Routing			
20	The Device should support Routing over IPsec Tunnels			
21	The Device should support ECMP			
	<b>Multicast Features</b>			
22	Multicast Listener Discovery (MLD)			
23	IGMP v1/v2/v3			
24	PIM-SM, Source Specific Multicast (SSM)			
	<b>MPLS Features</b>			
25	Layer 2 and Layer 3 VPN			
26	LDP and RSVP			
	<b>Security features</b>			
27	Devices should support AAA using RADIUS or TACACS			
28	Devices should support Packet Filters			
29	Devices should have Stateful Firewalling			
30	Devices should support Tunnels (GRE, IP-in-IP, IPsec)			
31	Devices should have DES (56-bit), 3DES (168-bit), AES (256-bit) encryption			
32	Devices should support MD5 and SHA-1 authentication			
33	Devices should have role based access mechanisms.			
34	Devices should support Network address translation (NAT).			
	<b>Management and Troubleshooting</b>			
35	Device should have Console, Telnet and Web for management			
36	Devices should support Software upgrades through Web			
37	Devices should support SNMPv2 and SNMPv3			

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S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
38	Extensive debugs on all protocols			
39	Real-time traffic-interface/sub interface statistics.			
40	Real-Time Performance Monitor—service-level agreement verification probes/alerts			
	<b>Certifications</b>			
41	Safety certifications UL 60950-1			
42	EMC certifications FCC Class A			
43	The router should be EAL 3/NDPP certified under Common Criteria.			

**Annexure-4 SIEM Specification**

S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
	Make	To be provided by bidder		
	Model	To be provided by bidder		
	<b>Hardware/Interface Requirements</b>			
1	The solution should offer Single View of All the Data captured from devices across all sites			
2	The Solution should be an appliance based with a clear physical or logical separation of the collection module, logging module and co-relation module. The solution should not be cloud based.			
3	The solution should be able to integrate with the existing components and the new proposed components in the infrastructure			
4	The solution should be able to collect raw logs in real-time to a Central log database from any IP Device (existing/proposed) including but not limited to:			
5	a. Networking devices (Router/switches etc.)			
6	b. Security devices (IDS/IPS, Anti-Virus/HIPS, Patch Management, Firewall/DB Security solutions etc.)			
7	c. Operating systems (Linux/Windows/SOLARIS OS etc.)			
8	d. Enterprise Platforms (Servers, Storage, Database etc.)			
9	The solution should be able to collect the logs in an agent/ agent less manner and store the same in real-time to a Central log database from any IP Device. The raw logs should be time stamped, compressed to optimize storage utilization.			

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S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
10	The solution should collect the entire log sent by the devices by guaranteeing chain of custody for regulatory compliance.			
11	In order to make these logs tamper proof solution must store events in compressed archives that are tamper proof encoded.			
12	The solution should allow filtering log data based on log message payload like source and destination IP, ports, usernames, workstation address, domain etc.			
13	The SIEM log collector component must store the data locally if communication with centralized data storage is unavailable.			
14	The SIEM must allow sending raw event for storage and should support online log management up to 6 months of log retention			
15	The solution should provide support for IPv6.			
16	Solution should be able to provide correlation of all the data sources which are integrated and should have facility to change/modify the source of correlation.			
17	The solution should provide single dashboard for all events and incidents across the organisation and should provide Real Time Analysis and Reporting.			
18	SIEM solution should have provision for parser creation for unsupported / home grown applications. The solution should also support API integration with other proposed devices.			
19	SIEM solution should be able to receive and consume global threat feeds automatically and manually.			
20	The proposed solution must be able to capture both the logs and network flow information.			
21	The proposed SIEM solution should include all required software and hardware components for log collection, web server or any kind of application software for its installation.			

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S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
22	Proposed solution should support non-native/custom devices through customizable parser creation and API integration			
23	The proposed system should encrypt the logs or the channel of logs transmission before sending to the correlation engine. The System should also compress the logs before transmission to the log correlation engine.			
	<b>Correlation Engine</b>			
24	The solution must not have any restriction on the number of rules to be created for correlation			
25	The SIEM solution should provide correlation against data collected from multiple devices across the network.			
26	The SIEM solution should be capable to obtain security feeds from different sources and integrate the feeds for correlation and analysis			
27	The solution must provide the ability to reduce event data through filtering or aggregation before it is sent to the log management system.			
28	The solution must provide the ability to correlate VPN and the Directory services events to provide session tracking for every user login for application access			
	<b>Architecture &amp; Scalability</b>			
29	The product must provide the ability to limit bandwidth used for transmitting event data			
30	The solution must scale to larger environments and should cater to the requirements for the period of the contract.			
	<b>Reporting &amp; Dashboards</b>			

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S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
31	The product must provide the ability to schedule reports to run hourly, daily, weekly or monthly. There must be numerous output formats and delivery options for scheduled reports.			
32	The product should provide native support with the proposed/existing Incident Management solution			
33	The solution must provide an intuitive reporting interface that can leverage existing reports or the creation of new reports that does not require complex SQL queries			
34	The solution must provide value in assisting in adhering to audit requirements, alerting of non-compliance and providing necessary reports that can be used during an audit.			
35	The solution must be capable of not only detecting attacks but must also provide a mechanism to respond and recommend mitigation of the attacks in real-time using various quarantine methods while providing the necessary audit trail.			
36	The solution should have capability to integrate with applications and not restricted to audit or transaction logs. In addition to this, even logs (i.e. security logs) which are not natively generated by applications can also be captured by solution.			
37	The solution should have capability to provide inside user monitoring by integrating with existing/proposed directory services. This helps to deliver following use cases:			
38	a. High Risk Users			
39	b. Peer Outliers			
40	c. Policy Violation			
41	d. Shared Account Access			
42	e. Privilege User Monitoring			



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S. No	Detailed Technical Specifications	Complied (Yes / No)	Product Reference	Document Reference
43	f. Role based Access Violation			