

### Bid Document

Bid Details	
Bid End Date/Time	08-06-2020 16:00:00
Bid Opening Date/Time	2020-06-08 16:30:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	70 (Days)
Ministry/State Name	Ministry Of Electronics And Information Technology
Department Name	Na
Organisation Name	National Informatics Centre (nic)
Office Name	National Informatics Centre-head Quaters
Total Quantity	1
Item Category	Enterprise Management System Software
Bidder Turnover (Last 3 Years)	673 Lakh (s)
OEM Average Turnover (Last 3 Years)	5300 Lakh (s)
Experience Criteria	3 Year (s)
MSE Exemption for Years Of Experience and Turnover	Yes
Startup Exemption for Years Of Experience and Turnover	Yes
Document required from seller	Experience Criteria,Bidder Turnover,OEM Authorization Certificate,OEM Annual Turnover *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Bid to RA enabled	Yes

### EMD Detail

Advisory Bank	State Bank of India
EMD Percentage(%)	2.00
EMD Amount	2693475

### ePBG Detail

Advisory Bank	State Bank of India
ePBG Percentage(%)	5.00

(a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

### **Beneficiary:**

S.O.

National Informatics Centre-head Quaters, NA, National Informatics Centre (NIC), Ministry of Electronics and Information Technology  
(P.r.dabral)

### **Splitting**

Bid splitting not applied.

1. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of years as indicated in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the year. In case of bunch bids, the category of primary product having highest value should meet this criterion.

2. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

## **Enterprise Management System Software ( 1 pieces )**

### **Technical Specifications**

[\\* As per GeM Category Specification](#)

Specification	Specification Name	Values	Bid Requirement (Allowed Values)
BASIC INFORMATION	<b>Category</b>	Enterprise Management System Software	Enterprise Management System Software
	<b>Components/</b>	1. Server Management	1. Server Management

<b>Modules of Offered product :</b>	System,2. Network Management System,3. Helpdesk Management System,4. IT Asset Inventory Management System	System, 2. Network Management System, 3. Helpdesk Management System, 4. IT Asset Inventory Management System
<b>Componets /Modules of Server Management System</b>	1. Server Fault, Availability and Performance Management System,2. Server Automation Capability,3. Database Management System,4. Storage Management	1. Server Fault, Availability and Performance Management System, 2. Server Automation Capability, 3. Database Management System, 4. Storage Management
<b>Componets /Modules of Network Management System</b>	1.Network Fault, Availability and Performance Management System,2. Network Automation and configuration Management System,3. Network traffic Analysis System,4.Mutliprotocol Label Switching Service (MPLS) Monitoring,5. Network Reporting & Analysis	1.Network Fault, Availability and Performance Management System, 2. Network Automation and configuration Management System, 3. Network traffic Analysis System, 4.Mutliprotocol Label Switching Service (MPLS) Monitoring, 5. Network Reporting & Analysis
<b>Componets /Modules of Helpdesk Management System</b>	1. Helpdesk Management System,2.SLA Management and Penalty Estimation	1. Helpdesk Management System, 2.SLA Management and Penalty Estimation
<b>Componets /Modules of IT Asset Inventory Management System</b>	1.IT Asset Auto-Discovery and Inventory Management,2. Configuration Management database (CMDB)	1.IT Asset Auto-Discovery and Inventory Management, 2. Configuration Management database (CMDB)
<b>Number of concurrent user supported by the offered product (Hint:- User can be Admin or Operator)</b>	1000	1000.0 - 1000.0 Or higher
<b>Maximum number of user creation supported by the offered product</b>	2000	2000.0 - 2000.0 Or higher
<b>MODE OF DEPLOYMENT</b>	1.Onsite,2.Offsite	1.Onsite, 2.Offsite

	<b>Deployment platform supported by the offered product</b>	1. Physical Server,2. Virtual Server,,3. Cloud,,4.Container Based,	1. Physical Server, 2. Virtual Server,, 3. Cloud,, 4.Container Based,
	Name of Software	-	*
	OEM Model / Part No	-	*
	Software Description, Functionality/ Features	-	*
	Software Version & Date of Launch	-	*
	<b>Installation and Demonstration</b>	Yes	Yes
	<b>The offered product have support from OEM for</b>	1. Updation for Patches and Bug fixes within supoort period.,2. Upgradation of version within support period .	1. Updation for Patches and Bug fixes within supoort period., 2. Upgradation of version within support period .
	<b>Number of Years upto which support is available from OEM for Updation (Patches and Bug fixes) within support period</b>	5	5
SCOPE OF LICENCE	<b>Number of Years upto which support is available from OEM for Upgradation of version within support period</b>	5	5
	<b>No of days Training Provided On/Off Site</b>	upto 5	upto 5
	<b>Number of devices supported per licence (Hint :- Device is an entity which is monitored and manged by EMS EX Router, Switch,Se rver,VM,Firewall, IOT devices etc )</b>	10	10.0 - 25000.0 Or higher
	<b>Types of Licence</b>	1.Perpetual	1.Perpetual
Server Fault, Availability and Performance Management System	<b>Duration of subscription (in years) (Hint: - Select '0' if not applicable)</b>	0	0.0 - 5.0 Or higher
	<b>Operating Systems supported by the EMS</b>	1. Windows,5. Linux,6. Centos	1. Windows, 5. Linux, 6. Centos

<b>Capability to monitor end to end performance of Server Operating Systems &amp; Databases and capable to manage distributed, heterogeneous systems from</b>	1. Single Management Station	1. Single Management Station
<b>Server Fault and Availability Management System Features</b>	<p>1. Capable to take backup of the threshold policies, based on the groups of devices or on any single individual device, 2. Capable to trend management supported monitored parameters ., 3. EMS to be pre-integrated for both Fault and Performance Management to receive alarm from various events sources to monitor Fault and Performance in a unified common format to provide a user friendly graphical user interface for alarm analysis and acknowledgement., 4. Capable to supports event co-relation where the correlation logic can be configured by operation team., 5 Capable to filter out events for device / infrastructure marked under maintenance and also have GUI to define maintenance schedule, 6. Capable to captures all the events that are generated across multi-vendor infrastructure and correlates them to take corrective measures based on service dependencies &amp; event handler., 7. Monitor both standalone and blade Infrastructure and its</p>	<p>1. Capable to take backup of the threshold policies, based on the groups of devices or on any single individual device, 2. Capable to trend management supported monitored parameters ., 3. EMS to be pre-integrated for both Fault and Performance Management to receive alarm from various events sources to monitor Fault and Performance in a unified common format to provide a user friendly graphical user interface for alarm analysis and acknowledgement., 4. Capable to supports event co-relation where the correlation logic can be configured by operation team., 5 Capable to filter out events for device / infrastructure marked under maintenance and also have GUI to define maintenance schedule, 6. Capable to captures all the events that are generated across multi-vendor infrastructure and correlates them to take corrective measures based on service dependencies &amp; event handler., 7. Monitor both standalone and blade Infrastructure and its components, 8. Capable</p>

	<p>components,8.Capable to reflect on certain application level issues in the server.,9.. Capable to provide Virtual Environment Management and provide Error reports generated by hypervisors.,10. System, security and audit logs,11. Capable to Integrate with VMware, Citrix, etc,12. Detect the fail-over and fall-back in high availability environment,13. Provide a centralized point of control with out-of-the-box policy-based management intelligence for easy deployment for the servers, operating systems, applications and services for correlating and managing all the IT infrastructure components of a business service.,14.The offered product capable to perform DNS lookup &amp; support Agent-based and Agent-less data aquisition mentods.,15. The Agent to be pre-configured with common service monitoring parameters for quick and easy deployment. The Agent also support SSL based communication method for polling and data aquisition.</p>	<p>to reflect on certain application level issues in the server., 9.. Capable to provide Virtual Environment Management and provide Error reports generated by hypervisors., 10. System, security and audit logs, 11. Capable to Integrate with VMware, Citrix, etc, 12. Detect the fail-over and fall-back in high availability environment, 13. Provide a centralized point of control with out-of-the-box policy-based management intelligence for easy deployment for the servers, operating systems, applications and services for correlating and managing all the IT infrastructure components of a business service., 14.The offered product capable to perform DNS lookup &amp; support Agent-based and Agent-less data aquisition mentods., 15. The Agent to be pre-configured with common service monitoring parameters for quick and easy deployment. The Agent also support SSL based communication method for polling and data aquisition.</p>
<b>Monitoring server parameters of</b>	<p>1. Disk Usage,,2. CPU Usage,3. Swap Memory,4. Virtual Memory,5. Interface status,6. Log file monitoring,7. Process status,8. CPU Utilization by a process,9. Service</p>	<p>1. Disk Usage,, 2. CPU Usage, 3. Swap Memory, 4. Virtual Memory, 5. Interface status, 6. Log file monitoring, 7. Process status, 8. CPU Utilization by a process, 9. Service Status</p>

	Status	
<b>Process Utilization for</b>	1. Correlation between CPU,2. Memory,,3. I/O,4. Paging,5. Paging space,6. I/O Utilization	1. Correlation between CPU, 2. Memory,, 3. I/O, 4. Paging, 5. Paging space, 6. I/O Utilization
<b>Server Performance and Reporting Management System Features</b>	1. Bandwidth utilization at the physical and virtual host level.,2. Capacity Planning - To Manage dynamic demand of IT services, software be able to proactively Identify potential area's, which need to be upgraded (power, storage, etc),3. The system have context-based analysis and forecasting based on performance data with automated policy deployment with detailed, intelligent monitoring of performance and availability data collection.,4. The event records to be available in the report format, with each event classified by its priority level and to be tagged with details of the date and time at which the event occurred Each event to be displayed and highlighted until the event has been acknowledged and cancelled in the automatic event log, and provided the fault has been satisfactorily rectified in the equipment, which generated the event,5. The system be capable of archiving the performance data,6. Proposed EMS has advance reporting, dashboard and analytical engine with various out of the box dashboards and reports, for constant	1. Bandwidth utilization at the physical and virtual host level., 2. Capacity Planning - To Manage dynamic demand of IT services, software be able to proactively Identify potential area's, which need to be upgraded (power, storage, etc), 3. The system have context-based analysis and forecasting based on performance data with automated policy deployment with detailed, intelligent monitoring of performance and availability data collection., 4. The event records to be available in the report format, with each event classified by its priority level and to be tagged with details of the date and time at which the event occurred Each event to be displayed and highlighted until the event has been acknowledged and cancelled in the automatic event log, and provided the fault has been satisfactorily rectified in the equipment, which generated the event, 5. The system be capable of archiving the performance data, 6. Proposed EMS has advance reporting, dashboard and analytical engine with various out of the box dashboards and

	monitoring of Availability, Performance & Efficiency,7. Server Management The server management gives an overall understanding of the equipment performance Which then can be further drilled down to each of the smaller component The platform management is required	reports, for constant monitoring of Availability, Performance & Efficiency, 7. Server Management The server management gives an overall understanding of the equipment performance Which then can be further drilled down to each of the smaller component The platform management is required
<b>Cache Utilization for</b>	1. Host Port Utilization,2. Disk Utilization,3. CPU & Memory Utilization	1. Host Port Utilization, 2. Disk Utilization, 3. CPU & Memory Utilization
<b>Centrilized Dashboard Management System Features</b>	1 .There be a single agent on the managed node that provides the system performance data, and for event management and be able to prioritize events, do correlation & duplicate suppression ability to buffer alarms and provide automatic actions with capability to add necessary annotations.,2. Each operator is provided with user roles that includes operational service views enabling operators to quickly determine impact and root cause associated with events.,3.Sound/Popup Notifications for Alerts,4. The system integrates with Helpdesk / Service desk tool for automated incident logging and also notify alerts or events via e-mail or SMS.,5.To provide alarm correlation and facilitate reduction of	1 .There be a single agent on the managed node that provides the system performance data, and for event management and be able to prioritize events, do correlation & duplicate suppression ability to buffer alarms and provide automatic actions with capability to add necessary annotations., 2. Each operator is provided with user roles that includes operational service views enabling operators to quickly determine impact and root cause associated with events., 3.Sound/Popup Notifications for Alerts, 4. The system integrates with Helpdesk / Service desk tool for automated incident logging and also notify alerts or events via e-mail or SMS., 5.To provide alarm correlation and facilitate reduction of



		<p>total number of alarms displayed by means of intelligent alarm correlation, suppression and root cause analysis techniques built in to the system.,6.The proposed Alarm Correlation and Root Cause Analysis system to integrate network, server and database performance information and alarms in a single console and provide a unified reporting interface for network components. The current performance state of the entire network &amp; system infrastructure be visible in an integrated console.,7. It has the capability to perform cross domain correlation with alarm correlation from Network Monitoring tool, Systems monitoring tool and other domain monitoring tools.,8. Alarm Filtering allows flexible filtering rules for staff to filter the alarms by category, severity, elements, duration, by user, by views, by geography or by department.,9. To provide out of the box root cause analysis with multiple root cause algorithms inbuilt for root cause analysis.,10.The system supports multiple administrators, if need be using separate accounts with associated individual and group rights and privileges Normal users may have only read access, that too only to</p>	<p>total number of alarms displayed by means of intelligent alarm correlation, suppression and root cause analysis techniques built in to the system., 6.The proposed Alarm Correlation and Root Cause Analysis system to integrate network, server and database performance information and alarms in a single console and provide a unified reporting interface for network components. The current performance state of the entire network &amp; system infrastructure be visible in an integrated console., 7. It has the capability to perform cross domain correlation with alarm correlation from Network Monitoring tool, Systems monitoring tool and other domain monitoring tools., 8. Alarm Filtering allows flexible filtering rules for staff to filter the alarms by category, severity, elements, duration, by user, by views, by geography or by department., 9. To provide out of the box root cause analysis with multiple root cause algorithms inbuilt for root cause analysis., 10.The system supports multiple administrators, if need be using separate accounts with associated individual and group rights and privileges Normal users may have only read access, that too only to</p>
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		<p>related areas.,11. Monitoring system be capable of sorting and filtering events in accordance with their priority to the level required A facility to be provided to enable a summary printed event record report to be prepared, listing not only the current active events, but also any events, including faults and alarms, reported and/ or cleared during the period since the previous summary report,12. In a situation, where, due to a single event, multiple events/alarms arise, the system be capable to identify the root-cause event asap, while suppressing the other conjugate events to help in minimizing downtime,13. Umbrella Management - Mere Looking at the GUI helps understand the problem and where it has occurred instantly In case possible by the end device (being monitored) the information be polled.,14. The tool provides graphical user interface, which helps physically reaching the equipment whenever need be Tracking key information and data related to the device performance network traffic and current usage, be available on hovering the affected equipment Important trend charts be displayed on the fly,15. Sound/ popup notifications,16. Able to send e-mail or Mobile -SMS to pre-defined</p>	<p>related areas., 11. Monitoring system be capable of sorting and filtering events in accordance with their priority to the level required A facility to be provided to enable a summary printed event record report to be prepared, listing not only the current active events, but also any events, including faults and alarms, reported and/ or cleared during the period since the previous summary report, 12. In a situation, where, due to a single event, multiple events/alarms arise, the system be capable to identify the root-cause event asap, while suppressing the other conjugate events to help in minimizing downtime, 13. Umbrella Management - Mere Looking at the GUI helps understand the problem and where it has occurred instantly In case possible by the end device (being monitored) the information be polled., 14. The tool provides graphical user interface, which helps physically reaching the equipment whenever need be Tracking key information and data related to the device performance network traffic and current usage, be available on hovering the affected equipment Important trend charts be displayed on the fly, 15. Sound/ popup notifications, 16. Able to send e-mail or</p>
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		<p>users for pre-defined faults.,17. It raises, co-relate &amp; analyse alarms and helps in taking corrective action.,18. All alarm/event messages to be automatically time and date-stamped.,19. Capable to support REST API based integration with ticketing tools.</p>	<p>Mobile –SMS to pre-defined users for pre-defined faults., 17. It raises, co-relate &amp; analyse alarms and helps in taking corrective action., 18. All alarm/event messages to be automatically time and date-stamped., 19. Capable to support REST API based integration with ticketing tools.</p>
Server Automation Capability	<b>Server Automation Capability</b>	<p>1. Detect, collect and maintain information about Managed Servers, including packaged, unpackaged software, runtime state, host/guest relationships and more.,2. Capability to auto install agent onto target server,3. Visualizes server, network, storage, and logical application environments and dependencies and compliance state. Provides Layer 2 and virtual LAN (VLAN) network information. Intuitive visual snapshot comparison reduces troubleshooting time.,4. Defines server build sequences for provisioning, incorporating operating systems, patches, and software policies Supports provisioning of VMware Hypervisor and Solaris Zones.,5. Identifies server vulnerabilities quickly and easily and reduces the time needed to patch multiple servers. Enables patch policy creation and flexible patch deployments. Supports native patch</p>	<p>1. Detect, collect and maintain information about Managed Servers, including packaged, unpackaged software, runtime state, host/guest relationships and more., 2. Capability to auto install agent onto target server, 3. Visualizes server, network, storage, and logical application environments and dependencies and compliance state. Provides Layer 2 and virtual LAN (VLAN) network information. Intuitive visual snapshot comparison reduces troubleshooting time., 4. Defines server build sequences for provisioning, incorporating operating systems, patches, and software policies Supports provisioning of VMware Hypervisor and Solaris Zones., 5. Identifies server vulnerabilities quickly and easily and reduces the time needed to patch multiple servers. Enables patch policy creation and flexible patch deployments. Supports native patch</p>

		<p>formats for all major operating systems. Provides out-of-the-box integration with Microsoft® Patch Network and Red Hat Enterprise Linux,6. Enables rapid troubleshooting and configurable compliance management by comparing servers to reference servers, most golden reference snapshots, industry best practices, or user-defined scripts. Provides comprehensive compliance dashboard with consolidated servers and cross-tier compliance views.,7. Uses the communications channel with enhanced security features, audit logs, and access control policies to provide direct connections to servers in any location. Supports remote desktop connections, Windows PowerShell, and any shell of Linux environments.,8. Improves automation efficiency by managing remote systems and executing tasks from a command line interface. Also supports Windows PowerShell to provide a command line interface (CLI) to Windows servers.,9.Provides dynamic, real-time, and historical reports into hardware, software, patches, and operations activities in complex, heterogeneous data Centers. Includes out-of-</p>	<p>formats for all major operating systems. Provides out-of-the-box integration with Microsoft® Patch Network and Red Hat Enterprise Linux, 6. Enables rapid troubleshooting and configurable compliance management by comparing servers to reference servers, most golden reference snapshots, industry best practices, or user-defined scripts. Provides comprehensive compliance dashboard with consolidated servers and cross-tier compliance views., 7. Uses the communications channel with enhanced security features, audit logs, and access control policies to provide direct connections to servers in any location. Supports remote desktop connections, Windows PowerShell, and any shell of Linux environments., 8. Improves automation efficiency by managing remote systems and executing tasks from a command line interface. Also supports Windows PowerShell to provide a command line interface (CLI) to Windows servers., 9.Provides dynamic, real-time, and historical reports into hardware, software, patches, and operations activities in complex, heterogeneous data Centers. Includes out-of-the-box compliance</p>
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		<p>the-box compliance reports and at-a-glance compliance status with actionable links to servers, policies, and other objects. Exports reports to HTML and comma-separated values (CSV) formats.,10. To support audit and remediation against industry best practice content such as CIS, MSFT,11 .Provision to run book automation capability, which provides out of the box workflows for IT infrastructure and there is no limit on the number of workflows that can be deployed.,12. Run book automation has an options for both private cloud, data center as well as if it required may extend to public cloud environment for the future usage purpose.</p>	<p>reports and at-a-glance compliance status with actionable links to servers, policies, and other objects. Exports reports to HTML and comma-separated values (CSV) formats., 10. To support audit and remediation against industry best practice content such as CIS, MSFT, 11 .Provision to run book automation capability, which provides out of the box workflows for IT infrastructure and there is no limit on the number of workflows that can be deployed., 12. Run book automation has an options for both private cloud, data center as well as if it required may extend to public cloud environment for the future usage purpose.</p>
Database Management System	<b>Database supported for</b>	1.Oracle,,2.DB2,,3.Sybase,,4. MySQL,,5.PostgreSQL,	1.Oracle,, 2.DB2,, 3.Sybase,, 4. MySQL,, 5.PostgreSQL,
	<b>Database Management System</b>	1. Table-space information used/free,2. List of Top sessions CPU/memory/IO consumption with history,3. Undo/Temp space usage with history,4. Top wait events in database,5 .Memory usage SGA/Shared pool,6.Disk Read/Write Latency Monitor,7.Monitoring block locks,8. Overall database health status in single dashboard,9. Database query monitoring	1. Table-space information used/free, 2. List of Top sessions CPU/memory/IO consumption with history, 3. Undo/Temp space usage with history, 4. Top wait events in database, 5 .Memory usage SGA/Shared pool, 6.Disk Read/Write Latency Monitor, 7.Monitoring block locks, 8. Overall database health status in single dashboard, 9. Database query monitoring
Storage Management	<b>Storage Management</b>	1. Support for various storages type like NAS, SAN, etc,2. IOPS at LUN	1. Support for various storages type like NAS, SAN, etc, 2. IOPS at

		level,3. Hosts/WWNs connected to the storage,4. Disk usage at LUN level	LUN level, 3. Hosts/WWNs connected to the storage, 4. Disk usage at LUN level
Network Fault, Availability and Performance Management System	<b>The number of network devices managed by the offered product</b>	10000	10000
	<b>The offered product scalable upto for Network device management</b>	25000	25000
	<b>Network Fault, Availability and Performance Management System</b>	1. The Network Management function monitors performance across heterogeneous networks from one end of the enterprise to the other.,2. NMS provides integrated fault, performance Monitoring, Configuration & compliance Management together in one tool.,3 .Tool supports MIB-II and enterprise MIB for performance management Device certification be part of the tool,4 .The tool supports for SNMP traps,5 .The framework of the tool enables consolidation of the management of various networking devices (network, security, storage, virtualised platform etc), along with the infra supporting devices in a single view Tool be open for third party integration via (soap, xml, web-service, snmp-v1, v2, v3),6. Overall hardware monitoring including temperature; Fan Status; Power Status; Power Consumption of standalone and blade infrastructure,7 .It be able to ascertain the	1. The Network Management function monitors performance across heterogeneous networks from one end of the enterprise to the other., 2. NMS provides integrated fault, performance Monitoring, Configuration & compliance Management together in one tool., 3 .Tool supports MIB-II and enterprise MIB for performance management Device certification be part of the tool, 4 .The tool supports for SNMP traps, 5 .The framework of the tool enables consolidation of the management of various networking devices (network, security, storage, virtualised platform etc), along with the infra supporting devices in a single view Tool be open for third party integration via (soap, xml, web-service, snmp-v1, v2, v3), 6. Overall hardware monitoring including temperature; Fan Status; Power Status; Power Consumption of standalone and blade infrastructure, 7 .It be

	<p>latency in socket programming, if any In a client-server architecture with several remote hosts communicating with a central cluster server, it might develop latency due to network congestion or due to database impropriety,8 .Solution be able to monitor ISP service provider SLA,9 .Packet loss monitoring,10. Route tracing and link quality monitoring,11. Traffic and bandwidth usage monitoring,12. Resource Monitoring capability,13. Real Time Event Analytics,14. Fan speed monitoring and CPU/HDD / motherboard temperature monitoring,15. Custom metric monitoring via SNMP (Simple Network Management Protocol) v2 or v3,16. IP Printer availability monitoring,17. Pre-defined alerts for typical network problems,18. To be pre - integrated, centralized and consolidated platform to manage network devices</p>	<p>able to ascertain the latency in socket programming, if any In a client-server architecture with several remote hosts communicating with a central cluster server, it might develop latency due to network congestion or due to database impropriety, 8 .Solution be able to monitor ISP service provider SLA, 9 .Packet loss monitoring, 10. Route tracing and link quality monitoring, 11. Traffic and bandwidth usage monitoring, 12. Resource Monitoring capability, 13. Real Time Event Analytics, 14. Fan speed monitoring and CPU/HDD / motherboard temperature monitoring, 15. Custom metric monitoring via SNMP (Simple Network Management Protocol) v2 or v3, 16. IP Printer availability monitoring, 17. Pre-defined alerts for typical network problems, 18. To be pre - integrated, centralized and consolidated platform to manage network devices</p>
<b>Network Discovery Management System</b>	<p>1. To allow for discovery to be run on a continuous basis which tracks dynamic changes near real-time; in order to keep the topology always up to date. This discovery runs at a low overhead, incrementally discovering devices and interfaces.,2. The tool automatically discover different type of heterogeneous</p>	<p>1. To allow for discovery to be run on a continuous basis which tracks dynamic changes near real-time; in order to keep the topology always up to date. This discovery runs at a low overhead, incrementally discovering devices and interfaces., 2. The tool automatically discover different type of heterogeneous</p>

devices (all SNMP supported devices i.e. Router, Switches, LAN Extender, Servers, Terminal Servers, Thin-Customer and UPS etc.) and map the connectivity between them with granular visibility up to individual ports level. The tool to be able to assign different icons/symbols to different type of discovered elements. It shows live interface connections between discovered network devices,<sup>3</sup> .It supports various discovery protocols to perform automatic discovery of all L2, L3 Network devices across infrastructure and any further Network connectivity's planned in future.,<sup>4</sup> .The tool to be able to discover IPv4 only, IPv6 only as well as devices in dual-stack. In case of dual stack devices, the system to be able to discover and show both IPv4 and IPv6 IP addresses.,<sup>5</sup> .The tool to be able to work on SNMP V-1, V-2c & V-3 based on the SNMP version supported by the device. Provide an option to discover and manage the devices/elements based on SNMP as well as ICMP.,<sup>6</sup> .The proposed Network Fault Management solution supports extensive discovery mechanisms and easily discover new devices using mechanisms such as SNMP Trap based discovery. It also allow for inclusion and

devices (all SNMP supported devices i.e. Router, Switches, LAN Extender, Servers, Terminal Servers, Thin-Customer and UPS etc.) and map the connectivity between them with granular visibility up to individual ports level. The tool to be able to assign different icons/symbols to different type of discovered elements. It shows live interface connections between discovered network devices, <sup>3</sup> .It supports various discovery protocols to perform automatic discovery of all L2, L3 Network devices across infrastructure and any further Network connectivity's planned in future., <sup>4</sup> .The tool to be able to discover IPv4 only, IPv6 only as well as devices in dual-stack. In case of dual stack devices, the system to be able to discover and show both IPv4 and IPv6 IP addresses., <sup>5</sup> .The tool to be able to work on SNMP V-1, V-2c & V-3 based on the SNMP version supported by the device. Provide an option to discover and manage the devices/elements based on SNMP as well as ICMP., <sup>6</sup> .The proposed Network Fault Management solution supports extensive discovery mechanisms and easily discover new devices using mechanisms such as SNMP Trap based discovery. It also allow for inclusion and



	<p>exclusion list of IP address or devices from such discovery mechanisms.,7. To provides a detailed asset report, organized by vendor name, device type, listing all ports for all devices. The Solution provides reports to identify unused/dormant Network ports in order to facilitate capacity planning.,8. Able to Group Interfaces into One Group and tag it with Vendor Name.,9. In Toplogy view we be able to Colour code each ISP provider with different color.,10. REST API Integration for GIS map (Bharat map),11. Customized Map &amp; Topology &amp; Geo Map.,12 .Dynamic Network mapping capability.,13. Application and service discovery based on SNMP.</p>	<p>exclusion list of IP address or devices from such discovery mechanisms., 7. To provides a detailed asset report, organized by vendor name, device type, listing all ports for all devices. The Solution provides reports to identify unused/dormant Network ports in order to facilitate capacity planning., 8. Able to Group Interfaces into One Group and tag it with Vendor Name., 9. In Toplogy view we be able to Colour code each ISP provider with different color., 10. REST API Integration for GIS map (Bharat map), 11. Customized Map &amp; Topology &amp; Geo Map., 12 .Dynamic Network mapping capability., 13. Application and service discovery based on SNMP.</p>
<b>Network Dashboard and Reporting System</b>	<p>1. The NMS has risk and compliance dashboard across the network and data center components, providing an easy to understand dashboard of Cis with CVE risks and integrated remediation processes.,2. Disk space, Memory utilization and Network interface status monitoring,3 .Process memory and CPU usage / CPU load monitoring.,4 .NMS provides out of the box Risk Visibility Dashboards of network infrastructure.,5 .Trend analysis and instant drill down capability to get to know the peaks</p>	<p>1. The NMS has risk and compliance dashboard across the network and data center components, providing an easy to understand dashboard of Cis with CVE risks and integrated remediation processes., 2. Disk space, Memory utilization and Network interface status monitoring, 3 .Process memory and CPU usage / CPU load monitoring., 4 .NMS provides out of the box Risk Visibility Dashboards of network infrastructure., 5 .Trend analysis and instant drill down capability to get to know the peaks</p>

	<p>be available.,6. The tool suppress events for all the network elements that are down for routine maintenance, to assist faster root cause determination while preventing flooding of non-relevant console messages. It has the provision of appropriating parent-child relationship between all the networking devices in the network.,7. Availability, Uptime and response time monitoring,8 .NMS User Accounting / Administration Management capability.</p>	<p>be available., 6. The tool suppress events for all the network elements that are down for routine maintenance, to assist faster root cause determination while preventing flooding of non-relevant console messages. It has the provision of appropriating parent-child relationship between all the networking devices in the network., 7. Availability, Uptime and response time monitoring, 8 .NMS User Accounting / Administration Management capability.</p>
<b>Advance Network Management Features</b>	<p>1. Hypervisor-based VNF infrastructure network management.,2. NMS supports Class based (QOS)Quality Of Service.,3. NMS supports Industry-leading support for physical, virtual, and SDN-enabled devices like Cisco ACI, VMWare NSX, Viptela, Big Switch Networks, etc,4. NMS provides network Trap Analytics out of the box.,5. NMS supports out of the box monitoring,6. Diagnostic Analytics providing change-Related Performance Views and shows the difference either in either a side-by-side, or line-by-line presentation,7. The offered product has diagnostic analytics capability that able to visually correlate performance and configuration changes</p>	<p>1. Hypervisor-based VNF infrastructure network management., 2. NMS supports Class based (QOS)Quality Of Service., 3. NMS supports Industry-leading support for physical, virtual, and SDN-enabled devices like Cisco ACI, VMWare NSX, Viptela, Big Switch Networks, etc, 4. NMS provides network Trap Analytics out of the box., 5. NMS supports out of the box monitoring, 6. Diagnostic Analytics providing change-Related Performance Views and shows the difference either in either a side-by-side, or line-by-line presentation, 7. The offered product has diagnostic analytics capability that able to visually correlate performance and configuration changes of all network issues., 8</p>

		<p>of all network issues.,8 .NMS provides ChatOps functionality out of the box.,9. Provides Hypervisor or Virtual Machine monitoring.,10. Provides Wireless infrastructure availability monitoring,11. Provides IP phone availability monitoring,12. Provides NMS Security Management capability,13. Provides Builtin NMS Diagnostic Tools.,14. Provides Distributed monitoring.,15. Provides Free Upgradation to Higher Version within support period.</p>	<p>.NMS provides ChatOps functionality out of the box., 9. Provides Hypervisor or Virtual Machine monitoring., 10. Provides Wireless infrastructure availability monitoring, 11. Provides IP phone availability monitoring, 12. Provides NMS Security Management capability, 13. Provides Builtin NMS Diagnostic Tools., 14. Provides Distributed monitoring., 15. Provides Free Upgradation to Higher Version within support period.</p>
Network Automation and configuration Management System	<b>Network Automation and configuration Management System</b>	<p>1. The system be able to clearly identify configuration changes / policy violations/ inventory changes across multi-vendor network tool.,2 .The system supports secure device configuration capture and upload and thereby detect inconsistent “running” and “start-up” configurations and alert the administrators,3.The proposed fault management solution to be able to perform “load &amp; merge” configuration changes to multiple network devices.,4. EMS to be able to push IOS patch to a pre-defined group of network devices in a defined schedule interval of time.,5. The proposed fault management solution be able to perform real-time or scheduled capture of device</p>	<p>1. The system be able to clearly identify configuration changes / policy violations/ inventory changes across multi-vendor network tool., 2 .The system supports secure device configuration capture and upload and thereby detect inconsistent “running” and “start-up” configurations and alert the administrators, 3.The proposed fault management solution to be able to perform “load &amp; merge” configuration changes to multiple network devices., 4. EMS to be able to push IOS patch to a pre-defined group of network devices in a defined schedule interval of time., 5. The proposed fault management solution be able to perform real-time or scheduled capture of device configurations., 6. Tool</p>

		<p>configurations.,6. Tool supports automated Change Plans including but not limited to: Conditions to validate, Pre-Change Validation, Change Script (similar to legacy Command Script), Post-Change Validation, Rollback Script.,7. NMS has built-in audit and compliance policies for industry best practices/ Gov. regulations like PCI, HIPAA, NERC others...,8. NMS supports 3-Dimensional Compliance Model - Configuration, Software, Running State,9 . NMS provides Automate Network Operations and Orchestration,10. Able to restart selected Switches or Routers with one click,11. Baseline &amp; running Configuration and compliance management</p>	<p>supports automated Change Plans including but not limited to: Conditions to validate, Pre-Change Validation, Change Script (similar to legacy Command Script), Post-Change Validation, Rollback Script., 7. NMS has built-in audit and compliance policies for industry best practices/ Gov. regulations like PCI, HIPAA, NERC others..., 8. NMS supports 3-Dimensional Compliance Model - Configuration, Software, Running State, 9 . NMS provides Automate Network Operations and Orchestration, 10. Able to restart selected Switches or Routers with one click, 11. Baseline &amp; running Configuration and compliance management</p>
	<p><b>The proposed system be able to administer configuration changes to network elements by providing toolkits to automate the administrative tasks of effecting configuration changes to network elements:</b></p>	<p>1. Capture running configuration,2. Capture start-up configuration;,3. Upload configuration;,4. Write Running Configuration,5. Upload firmware.</p>	<p>1. Capture running configuration, 2. Capture start-up configuration;, 3. Upload configuration;, 4. Write Running Configuration, 5. Upload firmware.</p>
Network traffic Analysis System	<p><b>Network traffic Analysis System</b></p>	<p>1. To be able to capture, track &amp; analyze traffic flowing over the network via different industry standard traffic capturing methodologies viz. NetFlow, jflow, sFlow, IPFIX etc.,2. To provide key performance</p>	<p>1. To be able to capture, track &amp; analyze traffic flowing over the network via different industry standard traffic capturing methodologies viz. NetFlow, jflow, sFlow, IPFIX etc., 2. To provide key performance</p>

		<p>monitoring capabilities by giving detailed insight into the application traffic flowing over the network.,3. Able to monitor network traffic utilization, packet size distribution, protocol distribution, application distribution, top talkers etc. for network traffic.,4. To collect the real-time network flow data from devices across the network and provide reports on traffic based on standard TCP/IP packet metrics such as Flow Rate, Utilization, Byte Count, Flow Count, TOS fields etc.,5. Support for latest version of FLOW protocols.</p>	<p>monitoring capabilities by giving detailed insight into the application traffic flowing over the network., 3. Able to monitor network traffic utilization, packet size distribution, protocol distribution, application distribution, top talkers etc. for network traffic., 4. To collect the real-time network flow data from devices across the network and provide reports on traffic based on standard TCP/IP packet metrics such as Flow Rate, Utilization, Byte Count, Flow Count, TOS fields etc., 5. Support for latest version of FLOW protocols.</p>
	<b>Number of messages per second flow supported by EMS</b>	500	500.0 - 500.0 Or higher
Mutliprotocol Label Switching Service (MPLS) Monitoring	<b>Mutliprotocol Label Switching Service (MPLS) Monitoring</b>	<p>1. Monitors MPLS service availability and inventory, in addition to traditional Layer-,2. Virtual Private Networks (L3 VPN), L2 VPN, core traffic engineering, and pseudo-wire management.,3. Improves uptime with continuous MPLS-specific core, Layer-2 and Layer-3 discovery, monitoring, and alerting.,4. Provides inventory view of L3 VPNs, detailed views for an L3 VPN, including VRFs and VRF details.,5. Provides monitoring of VPN Routing and Forwarding (VRF) state and incident/status-propagation for L3 VPNs.,6. Provides LSR core view and launch</p>	<p>1. Monitors MPLS service availability and inventory, in addition to traditional Layer-, 2. Virtual Private Networks (L3 VPN), L2 VPN, core traffic engineering, and pseudo-wire management., 3. Improves uptime with continuous MPLS-specific core, Layer-2 and Layer-3 discovery, monitoring, and alerting., 4. Provides inventory view of L3 VPNs, detailed views for an L3 VPN, including VRFs and VRF details., 5. Provides monitoring of VPN Routing and Forwarding (VRF) state and incident/status-propagation for L3 VPNs., 6. Provides LSR core view and launch from LSR view to other</p>

		<p>from LSR view to other views showing node-centric MPLS services.,7. It has out of the box support for Virtual Private Wire Service (VPWS) and Virtual Private LAN Service (VPLS),8. Provides monitoring of traffic engineering tunnel status and incidents.,9. Visualizes and monitor traffic engineering hops/path and Inventory view of traffic engineering tunnels in detail.,10. Provides inventory view of pseudowires and monitoring of pseudowire status and incidents.</p>	<p>views showing node-centric MPLS services., 7. It has out of the box support for Virtual Private Wire Service (VPWS) and Virtual Private LAN Service (VPLS), 8. Provides monitoring of traffic engineering tunnel status and incidents., 9. Visualizes and monitor traffic engineering hops/path and Inventory view of traffic engineering tunnels in detail., 10. Provides inventory view of pseudowires and monitoring of pseudowire status and incidents.</p>
	<b>Provides out of the box Reporting such as:</b>	<p>1.LSR reports,2.Site reports (VRF),3.Site-to-site quality-of-service reports;,4.VPN reports,5. Link Utilization and Down Time Report</p>	<p>1.LSR reports, 2.Site reports (VRF), 3.Site-to-site quality-of-service reports;, 4.VPN reports, 5. Link Utilization and Down Time Report</p>
Network Reporting & Analysis	<b>Network Reporting &amp; Analysis Features</b>	<p>1. Able to collect and collate information regarding relationship between IT elements and business service, clearly showing how infrastructure impacts business service levels.,2. Provision for user configurable for building additional reports and have customizable reporting and Integrated report editor.,3. Able to collect Key performance measurements and statistics from all network domains and store it. This data is to be used for evaluation of performance of the end to end network infrastructure/services.,4. Network Link utilization and down time report</p>	<p>1. Able to collect and collate information regarding relationship between IT elements and business service, clearly showing how infrastructure impacts business service levels., 2. Provision for user configurable for building additional reports and have customizable reporting and Integrated report editor., 3. Able to collect Key performance measurements and statistics from all network domains and store it. This data is to be used for evaluation of performance of the end to end network infrastructure/services., 4. Network Link</p>

generation facility in graphical and tabular format,5 .The system be capable to store the raw data or polled data, and also have the facility to automate the backup process or allow to take manual backup, in case required,6. All alarm messages to be recorded in a database for easy, efficient and future retrieval and not to have a text based approach, where in any 3rd party tool is not able to extract data,7. Centralized Reporting & Dashboard - The Dashboard and reporting engine provides centralized view as the face of all the elements in the IT (network, server, application and database),8. Reporting: To provide business users with highly interactive and power-users with highly sophisticated, pixel-perfect reports.,9. Web-based interactive reporting for business users, Rich graphical report designer for power users, Parameterized reports with powerful charting, Output in popular formats: HTML, Excel, CSV, PDF, RTF.,10. Analysis: To have the ability to explore data by multiple dimensions such as customer, product, network and time for business users.,11. Report generation facility for Bandwidth utilization and down time reports of internet links and devices in graphical

utilization and down time report generation facility in graphical and tabular format, 5 .The system be capable to store the raw data or polled data, and also have the facility to automate the backup process or allow to take manual backup, in case required, 6. All alarm messages to be recorded in a database for easy, efficient and future retrieval and not to have a text based approach, where in any 3rd party tool is not able to extract data, 7. Centralized Reporting & Dashboard - The Dashboard and reporting engine provides centralized view as the face of all the elements in the IT (network, server, application and database), 8. Reporting: To provide business users with highly interactive and power-users with highly sophisticated, pixel-perfect reports., 9. Web-based interactive reporting for business users, Rich graphical report designer for power users, Parameterized reports with powerful charting, Output in popular formats: HTML, Excel, CSV, PDF, RTF., 10. Analysis: To have the ability to explore data by multiple dimensions such as customer, product, network and time for business users., 11. Report generation facility for Bandwidth utilization and down time reports of internet links and

	and tabular foramt.,12.Scheduled report emailing.	devices in graphical and tabular foramt., 12.Scheduled report emailing.
<b>Number of years for which EMS Capable to store raw data or polled data</b>	5	5
<b>Number of years for which EMS capable to generate reports of links &amp; devices at any given point of time</b>	3	3
<b>The performance management system to be able to collect and report data like</b>	1. Packet delay and packet loss;;2. User bandwidth usage rate;;3. Network availability rate;;4. CPU usage rate;;5. Input/output traffic through physical ports;;6. Input/output traffic through logical ports	1. Packet delay and packet loss;; 2. User bandwidth usage rate;; 3. Network availability rate;; 4. CPU usage rate;; 5. Input/output traffic through physical ports;; 6. Input/output traffic through logical ports
<b>The Performance Management have user defined set of reports like</b>	1. Summary Reports for specific groups: Reports displaying per group of resources the group aggregations for a set of metrics (for example, per City, the maximum traffic or the total traffic).,2. Summary Reports for specific Resources: Reports displaying for a set of resources the period aggregations for the same set of metrics (for example, per interface, the maximum traffic over the day),3. Detailed chart Reports: Reports displaying for one resource and the same set of metrics the values over the period (for example, the raw collected values for the day).,4. Resource Threshold Violation Reports: Reports displaying the	1. Summary Reports for specific groups: Reports displaying per group of resources the group aggregations for a set of metrics (for example, per City, the maximum traffic or the total traffic)., 2. Summary Reports for specific Resources: Reports displaying for a set of resources the period aggregations for the same set of metrics (for example, per interface, the maximum traffic over the day), 3. Detailed chart Reports: Reports displaying for one resource and the same set of metrics the values over the period (for example, the raw collected values for the day)., 4. Resource Threshold Violation Reports: Reports displaying the



		resources for which a threshold was violated,5. Detailed chart Reports: Reports displaying for one resource and the same set of metrics the values over the period (for example, the raw collected values for the day).,6. Resource Threshold Violation Reports: Reports displaying the resources for which a threshold was violated.,7. Report to be in pdf,excel,csv format and scheduling facility in email to concerned users.	resources for which a threshold was violated, 5. Detailed chart Reports: Reports displaying for one resource and the same set of metrics the values over the period (for example, the raw collected values for the day)., 6. Resource Threshold Violation Reports: Reports displaying the resources for which a threshold was violated., 7. Report to be in pdf,excel,csv format and scheduling facility in email to concerned users.
Helpdesk Management System	<b>Helpdesk Management System</b>	1. Able to support and handle large volume of incident, service requests, changes, etc.,2. Solution be able to integrate with third party IVR or CTI,3. Tool Analytics be completely configurable in terms of source data and results, enabling Process Managers and other IT Users to proactively identify trends that can be used to drive action. Multiple instances shall be allowed to be configured in different ways in different modules for different outcomes - for example one be able to identify trends in one set of data and subsequently develop linkages with other data, or Analytics can run on top of reporting results to provide further insights from unstructured data.,4.The tool has the knowledge management OOB - knowledge databases to support	1. Able to support and handle large volume of incident, service requests, changes, etc., 2. Solution be able to integrate with third party IVR or CTI, 3. Tool Analytics be completely configurable in terms of source data and results, enabling Process Managers and other IT Users to proactively identify trends that can be used to drive action. Multiple instances shall be allowed to be configured in different ways in different modules for different outcomes - for example one be able to identify trends in one set of data and subsequently develop linkages with other data, or Analytics can run on top of reporting results to provide further insights from unstructured data., 4.The tool has the knowledge management OOB - knowledge databases to support

		<p>investigations, diagnoses, root cause analysis techniques, and creating / updating workarounds, temporary fixes and resolutions,5. The tool allows the creation of different access levels (i.e. Read only, write, create, delete) to knowledge management system(),6. The Knowledge Management solution be available in a Multi Tenanted environment,7. Helpdesk TOOL haS to provide big data analytics, machine learning, hot topic analytics that helps to analyze common service request, optimize change management. It be possible to create support / knowledge articles for hot topics.,8. The proposed helpdesk solution supports codeless configuration of processes that can be upgraded seamlessly without the need to reconfiguration of processes.,9.The proposed helpdesk solution creates service catalogue using drag and drop method.,10. A virtual bot be available, which can respond to user requests, immediate via portal, email or mobile interfaces.,11. Support for eMail and SMS both (integration with SMS-gateway and GSM communication) should be available for sending of Alerts and scheduling Reports,12.</p>	<p>investigations, diagnoses, root cause analysis techniques, and creating / updating workarounds, temporary fixes and resolutions, 5. The tool allows the creation of different access levels (i.e. Read only, write, create, delete) to knowledge management system(), 6. The Knowledge Management solution be available in a Multi Tenanted environment, 7. Helpdesk TOOL haS to provide big data analytics, machine learning, hot topic analytics that helps to analyze common service request, optimize change management. It be possible to create support / knowledge articles for hot topics., 8. The proposed helpdesk solution supports codeless configuration of processes that can be upgraded seamlessly without the need to reconfiguration of processes., 9.The proposed helpdesk solution creates service catalogue using drag and drop method., 10. A virtual bot be available, which can respond to user requests, immediate via portal, email or mobile interfaces., 11. Support for eMail and SMS both (integration with SMS-gateway and GSM communication) should be available for sending of Alerts and scheduling Reports, 12. Help Desk has built-in service management</p>
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	<b>Helpdesk tool CONSIST OF</b>	<p>1. Incident management,,2.Problem Management,,3.Change Management,4.Knowledge Management,,5. Service Level Management,,6.Service Asset and Configuration management,,7.Service Catalogue and Request Fulfilment</p>	<p>1. Incident management,, 2.Problem Management,, 3.Change Management, 4.Knowledge Management,, 5. Service Level Management,, 6.Service Asset and Configuration management,, 7.Service Catalogue and Request Fulfilment</p>
SLA Management and Penalty Estimation	<b>Operations Related Service Level Parameters</b>	<p>1. To supports comprehensive SLA management platform,2. Manage service levels for delivery and support of business services,3.</p>	<p>1. To supports comprehensive SLA management platform, 2. Manage service levels for delivery and support of business services, 3. Allows</p>

	<p>Allows creating and applying various operational level parameters to Incidents, Requests, Changes, and Release management modules.,4. The module links available support hours to service levels when calculating deadlines as well as suspend SLA calculation for certain criteria – e.g. ‘pending information from customer’,5. The SLM module integrates with incident and problem management to automate escalation, and notification activities based on response and resolution targets,6. It also integrate with change management to provide access to service level agreement details, implementation windows, change blackout periods, and availability requirements,7 .The application has a prede fined/customizable field to indicate &amp; track the progress/status of the lifecycle of ticket(s).,8. The tool provides an audit trail, tracking &amp; monitoring for record information and updates from opening through fulfilment to closure For example: IDs of individuals or groups opening, updating &amp; closing records; dates / times of status &amp; activities updates, etc.</p>	<p>creating and applying various operational level parameters to Incidents, Requests, Changes, and Release management modules., 4. The module links available support hours to service levels when calculating deadlines as well as suspend SLA calculation for certain criteria – e.g. ‘pending information from customer’, 5. The SLM module integrates with incident and problem management to automate escalation, and notification activities based on response and resolution targets, 6. It also integrate with change management to provide access to service level agreement details, implementation windows, change blackout periods, and availability requirements, 7 .The application has a prede fined/customizable field to indicate &amp; track the progress/status of the lifecycle of ticket(s)., 8. The tool provides an audit trail, tracking &amp; monitoring for record information and updates from opening through fulfilment to closure For example: IDs of individuals or groups opening, updating &amp; closing records; dates / times of status &amp; activities updates, etc.</p>
<b>Infrastructure Related Service Level Parameters</b>	<p>1.The product be able to measure, collect, and import performance and SLA</p>	<p>1.The product be able to measure, collect, and import performance and SLA</p>

		<p>data from a wide range of sources, including performance Management modules.,2. Computes the quarterly service charges payable to the different agencies after applying the penalties as per the contract and SLA. This may be achieved through customization/ development of tool, wherever required.,3. To supports SLA violations alerts during the tracking period.,4.To supports managing and maintaining a full history of an SLA.,5.To provides a flexible framework for collecting and managing service level templates including Service Definition, Service Level Metrics, Penalties and other performance indicators measured across infrastructure and vendors.,6.Ability to define and calculate key performance indicators from an End to End Business Service delivery perspective.,7. To supports SLA approval/validation workflow.,8.View of Contract Parties &amp; current SLA delivery levels.,9.To supports SLA Alerts escalation and approval process.,10.To supports capabilities for investigating the root causes of failed service levels.</p>	<p>data from a wide range of sources, including performance Management modules., 2. Computes the quarterly service charges payable to the different agencies after applying the penalties as per the contract and SLA. This may be achieved through customization/ development of tool, wherever required., 3. To supports SLA violations alerts during the tracking period., 4.To supports managing and maintaining a full history of an SLA., 5.To provides a flexible framework for collecting and managing service level templates including Service Definition, Service Level Metrics, Penalties and other performance indicators measured across infrastructure and vendors., 6.Ability to define and calculate key performance indicators from an End to End Business Service delivery perspective., 7. To supports SLA approval/validation workflow., 8.View of Contract Parties &amp; current SLA delivery levels., 9.To supports SLA Alerts escalation and approval process., 10.To supports capabilities for investigating the root causes of failed service levels.</p>
IT Asset Auto-Discovery and Inventory Management	<b>IT Asset Auto-Discovery and Inventory Management</b>	1. Discovery works without requiring agent installation (that is, agent-less discovery) while discovery Layers	1. Discovery works without requiring agent installation (that is, agent-less discovery) while discovery Layers

		<p>2 through Layers 7 of OSI model, 2 .Uses Industry-standard protocols such as WMI, SNMP, JMX, SSH to perform discovery without requiring the installation of an agent, 3. Discovery system has ability to modify out-of-box discovery scripts, create customized discovery scripts, 4. Discovery system has the ability to capture configuration files for the purposes of comparison and change tracking, 5. Discovery system be capable of supporting role-based access to various aspects of CMDB administration, 6. Discovery be object-oriented, allowing specific CIs and relationships to be discovered using a library of discovery patterns, 7. Discovery engine gathers detailed asset and configuration item (CI) information for specific servers and the applications running on them, 8. It dynamically discover and continuously map IT hardware inventory and service dependencies, 9. The EMS provides a common configuration management database that has a single solution for discovery of networks devices, servers &amp; desktops, using a common probe, that supports both agent less and agent based technologies using., 10. Inventory management of each of the equipment to be</p>	<p>2 through Layers 7 of OSI model, 2 .Uses Industry-standard protocols such as WMI, SNMP, JMX, SSH to perform discovery without requiring the installation of an agent, 3. Discovery system has ability to modify out-of-box discovery scripts, create customized discovery scripts, 4. Discovery system has the ability to capture configuration files for the purposes of comparison and change tracking, 5. Discovery system be capable of supporting role-based access to various aspects of CMDB administration, 6. Discovery be object-oriented, allowing specific CIs and relationships to be discovered using a library of discovery patterns, 7. Discovery engine gathers detailed asset and configuration item (CI) information for specific servers and the applications running on them, 8. It dynamically discover and continuously map IT hardware inventory and service dependencies, 9. The EMS provides a common configuration management database that has a single solution for discovery of networks devices, servers &amp; desktops, using a common probe, that supports both agent less and agent based technologies using., 10. Inventory management of each of the equipment to be</p>
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		available 24X7	available 24X7
Configuration Management database (CMDB)	<b>Configuration Management database (CMDB)</b>	<p>1. Provides a single shared view of services supporting Service Design, Transition and Operations stages of the lifecycle,2. The Configuration Management Database supports multiple datasets with federation and reconciliation facilities so as to get data from various discovery tools and also through manual import process,3. Reconciliation of data be possible with multiple data providers based on common attributes and ability to define precedence rules on attributes,4. Federation of external data sources be possible with ability to store common attributes inside CMDB and getting other attributes from external data sources,5. Automatically create Service models to describe how IT infrastructure supports business services,6.The CMDB has built-in drift management capabilities to capture and report on infrastructure drift based on infrastructure attributes like RAM, memory, etc.,7. System with CMDB - Integrate people, process &amp; technology. To help in reducing likelihood of downtime by facilitating communication across all the facility equipment while Managing SLAs and</p>	<p>1. Provides a single shared view of services supporting Service Design, Transition and Operations stages of the lifecycle, 2. The Configuration Management Database supports multiple datasets with federation and reconciliation facilities so as to get data from various discovery tools and also through manual import process, 3. Reconciliation of data be possible with multiple data providers based on common attributes and ability to define precedence rules on attributes, 4. Federation of external data sources be possible with ability to store common attributes inside CMDB and getting other attributes from external data sources, 5. Automatically create Service models to describe how IT infrastructure supports business services, 6.The CMDB has built-in drift management capabilities to capture and report on infrastructure drift based on infrastructure attributes like RAM, memory, etc., 7. System with CMDB - Integrate people, process &amp; technology. To help in reducing likelihood of downtime by facilitating communication across all the facility equipment while Managing SLAs and Asset Lifecycle with IMAC process., 8.</p>

		Asset Lifecycle with IMAC process.,8. Configuration item to get automatically attached with the ticket to enable maintenance team for faster resolution .	Configuration item to get automatically attached with the ticket to enable maintenance team for faster resolution .
Generic Features	<b>Generic Features</b>	<p>1. The offered product to be an integrated, modular and scalable solution from single OEM (i.e. all Network Monitoring, server Monitoring including application and database monitoring and Service Management tools be from single OEM) to provide comprehensive fault management, performance management, traffic analysis and business service management, IT service desk\ help desk \trouble ticketing system &amp; SLA monitoring functionality.,2. It has a secured single sign-on and unified console for all functions of components offered for seamless cross-functional navigation &amp; launch for single pane of glass visibility across multiple areas of monitoring &amp; management.,3. To have self-monitoring ability to track status of its critical components &amp; parameters such as Up/Down status of its services, applications &amp; servers, CPU utilization, Memory capacity, File system space, Database Status, synchronization status between primary and secondary system and event processing etc. It provides this</p>	<p>1. The offered product to be an integrated, modular and scalable solution from single OEM (i.e. all Network Monitoring, server Monitoring including application and database monitoring and Service Management tools be from single OEM) to provide comprehensive fault management, performance management, traffic analysis and business service management, IT service desk\ help desk \trouble ticketing system &amp; SLA monitoring functionality., 2. It has a secured single sign-on and unified console for all functions of components offered for seamless cross-functional navigation &amp; launch for single pane of glass visibility across multiple areas of monitoring &amp; management., 3. To have self-monitoring ability to track status of its critical components &amp; parameters such as Up/Down status of its services, applications &amp; servers, CPU utilization, Memory capacity, File system space, Database Status, synchronization status between primary and secondary system and event processing etc. It provides this</p>



		information in real-time through graphical dashboards, events/alarms as well as in the form of historical reports.,4. The offered product to be compatible with Open Stack Solutions (OS, Applications, Daabases, Storage etc)	information in real-time through graphical dashboards, events/alarms as well as in the form of historical reports., 4. The offered product to be compatible with Open Stack Solutions (OS, Applications, Daabases, Storage etc)
	Miscellaneous Features	1. EMS software to be customizable,2. Support for clustering,3. Support for Fail over,4. Support for DR (Disaster Recovery),5. Platform to be able to be deployed on a public cloud for disaster recovery	*
	TECHNICAL SERVICE SUPPORT	<b>Technical Service Support provided by</b>	1. OEM
	<b>Number of years for onsite support</b>	5	5
	<b>Number of Engineers available for onsite support</b>	2	2
	<b>Scope of Product/Technical Support provided by the OEM are</b>	1. Software Upgradation,2. Updation with Patches Bug Fixes and Repair of known Issues;,3. Remote (Offsite) support via Telephone, Email, Video Calling, etc.,4. 24 x 7 x 365 Onsite Support.,5.Office hour onsite support "9 am to 6 pm",6. Installation Support.,7. Integration Support.,8.Configuration Support,9.End to End Workflow Implementation Support,10. User Acceptance Testing of all modules.,11.OEM support provided by the professional on OEM payroll.,12. OEM support provided by the professional of	1. Software Upgradation, 2. Updation with Patches Bug Fixes and Repair of known Issues;, 3. Remote (Offsite) support via Telephone, Email, Video Calling, etc., 4. 24 x 7 x 365 Onsite Support., 5.Office hour onsite support "9 am to 6 pm", 6. Installation Support., 7. Integration Support., 8.Configuration Support, 9.End to End Workflow Implementation Support, 10. User Acceptance Testing of all modules., 11.OEM support provided by the professional on OEM payroll., 12. OEM support provided by

		authorized channel partner/vendor/system integrator/seller.,13.OEM has registered office in India.	the professional of authorized channel partner/vendor/system integrator/seller., 13.OEM has registered office in India.
	<b>If Technical support provided by channel partner/vendor/system integrator/seller then whether they are authorized by OEM</b>	Yes	Yes
	<b>Scope of Technical Support for channel partner/vendor/system integrator/seller are</b>	1. Software Upgradation,2. Updation with Patches Bug Fixes and Repair of known Issues;,3. Remote (via Telephone, Email, Video Calling, etc.),4. 24 x 7 x 365 Onsite Support.,5. Installation;,6. Integration;,7.Configuration;,8.End to End Workflow Implementation;,9. User Acceptance Testing of all modules.	1. Software Upgradation, 2. Updation with Patches Bug Fixes and Repair of known Issues;, 3. Remote (via Telephone, Email, Video Calling, etc.), 4. 24 x 7 x 365 Onsite Support., 5. Installation;, 6. Integration;, 7.Configuration;, 8.End to End Workflow Implementation;, 9. User Acceptance Testing of all modules.
SLA FOR TECHNICAL SERVICE SUPPORT	<b>High Severity Priority Issue, P1 Consists of</b>	1. Any fault which causes failure of a critical feature.,2. Significant loss of visibility of application performance or irreparable loss of data within the application (such as connectivity to the host server).,3. Customer declared critical issue with the concurrence of customer and vendor management.,4. Any fault that keeps the system from meeting significantly documented standards or performance specifications.,5. Any fault that keeps the system from meeting regulatory and safety standards,6. Discovery of application bug with NO short-term	1. Any fault which causes failure of a critical feature., 2. Significant loss of visibility of application performance or irreparable loss of data within the application (such as connectivity to the host server)., 3. Customer declared critical issue with the concurrence of customer and vendor management., 4. Any fault that keeps the system from meeting significantly documented standards or performance specifications., 5. Any fault that keeps the system from meeting regulatory and safety standards, 6. Discovery of application bug with NO short-term

	workaround.	workaround.
<b>"Response Time for Technical Support Level Commitment for High Severity Priority Issue (P1) (Maximum in Hours) (Hint : Select '0' if not applicable)"</b>	60	60
<b>"Penalty for Non Adherence to P1 Response Time of Technical Support Value (Cumulative Maximum 5 % of Technical Support Value)"</b>	0.05 % per Hour	0.05 % per Hour
<b>Medium Severity Priority Issue, P2 Consists of</b>	1. Any fault which causes failure of a non-critical feature of the application,2. Application is running at a degraded capacity with potential risk of losing critical data,3. Failures in application performance that requires additional dedicated resources to maintain core application elements	1. Any fault which causes failure of a non-critical feature of the application, 2. Application is running at a degraded capacity with potential risk of losing critical data, 3. Failures in application performance that requires additional dedicated resources to maintain core application elements
<b>"Response Time for Technical Support Level Commitment for Medium Severity Priority Issue (P2) (Maximum in days) (Hint :- Select'0' if not applicable) "</b>	6	6
<b>"Penalty for Non Adherence to P2 Response Time of Technical Support Value (Cumulative Maximum 3 % Technical Support Value)"</b>	0.25 % per Day	0.25 % per Day
<b>Low Severity Priority Issue, P3 Consists of</b>	1. Loss of administrative capabilities (non-P1/non-P2),2. Loss of full feature functionality (non-P1/non-P2),3. Discovery	1. Loss of administrative capabilities (non-P1/non-P2), 2. Loss of full feature functionality (non-P1/non-P2), 3.

		of application bug with a short-term workaround,4. Any remote upgrade or support not associated with resolution of a P1 or P2 issue	Discovery of application bug with a short-term workaround, 4. Any remote upgrade or support not associated with resolution of a P1 or P2 issue
	<b>"Response Time for Technical Support Level Commitment for Low Severity Priority Issue (P3) (Maximum in days) (Hint :- Select '0' if not applicable)"</b>	50	50
	<b>"Penalty for Non Adherence to P3 Response Time of Technical Support Value (Cumulative Maximum 2 % Technical Support Value)"</b>	0.25 % per Day	0.25 % per Day
SUPPORTED HARDWARE REQUIREMENT	Minimum Hardware Disk Space Required inGB	10000	*
	Minium RAM Size required in GB	700	*
	Server and CPU Configuration required so that EMS software to be compatible with open stack solutions (Compute, Storage, Application, OS etc	-	*
	Supported Web browsers	1.Internet Explorer.,2.Google Chrome.,3.Mozilla Firefox.	*
GENERIC PARAMETERS	Valid Licence copy to be provided	YES	*
	Software supplied through	URL Link	*
	Hyper link to Data sheet	-	*

\* Specifications highlighted in bold are the Golden Parameters.

\* Bidders may note that In respect of non-golden Parameters, the specifications 'Values' chosen by Buyer will generally be preferred over 'Bid requirement ( allowed Values) by the Buyer.

#### Additional Specification Documents

**Consignees/Reporting Officer and Quantity**

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Mohan Shyam	110003,A BLOCK CGO COMPLEX NATIONAL INFORMATICS CENTRE NEW DELHI	1	45

**Bid Specific Additional Terms and Conditions**

1. Scope of supply (Bid price to include all cost components) : Only supply of Goods
2. Timely Servicing / rectification of defects during warranty period: After having been notified of the defects / service requirement during warranty period, Seller has to complete the required Service / Rectification within 3 days time limit. If the Seller fails to complete service / rectification with defined time limit, a penalty of 0.5% of Unit Price of the product shall be charged as penalty for each week of delay from the seller. Seller can deposit the penalty with the Buyer directly else the Buyer shall have a right to recover all such penalty amount from the Performance Security (PBG).Cumulative Penalty cannot exceed more than 10% of the total contract value after which the Buyer shall have the right to get the service / rectification done from alternate sources at the risk and cost of the Seller besides forfeiture of PBG. Seller shall be liable to re-imburse the cost of such service / rectification to the Buyer.
3. Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.
4. Escalation Matrix For Service Support : Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.
5. ISO 9001: The bidder must have ISO 9001 certification.
6. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria. In case of bunch bids, the OEM of CATEGORY RELATED TO primary product having highest bid value should meet this criterion.

[This Bid is also governed by the General Terms and Conditions](#)

**---Thank You---**