

**Amendment-11 to "RFP 27/2020-21 dated 04/01/2021 for Supply, Installation, Configuration, Implementation, Commissioning, Maintenance & Management of Server & Application Monitoring Solution (SAMS)."**

**It is decided to amend the following in respect of the above RFP:**

**a. Bid Schedule (Serial No. 10 & 11, Page no. 2):**

Description	Existing details	Amended details
	Date, Time and Venue	Date, Time and Venue
Last Date and Time for Submission of Bids	<b>05/05/2021, Monday</b> upto 3.00 PM (Online Bid submission in e-procurement Portal) Venue: Canara Bank, First Floor, DIT Wing, HO (Annex), Naveen Complex, 14 M G Road, Bengaluru 560001.	<b>17/05/2021, Monday</b> upto 3.00 PM (Online Bid submission in e-procurement Portal) Venue: Canara Bank, First Floor, DIT Wing, HO (Annex), Naveen Complex, 14 M G Road, Bengaluru 560001.
Date, Time & Venue for opening of Part A- Conformity to Eligibility Criteria.	<b>05/05/2021, Monday</b> at 3:30 PM (Online Bid submission in e-procurement Portal) Venue: Canara Bank, Second Floor, Conference Hall, DIT Wing-HO (Annex), Naveen Complex, 14 M G Road, Bengaluru 560001.	<b>17/05/2021, Monday</b> at 3:30 PM (Online Bid submission in e-procurement Portal) Venue: Canara Bank, Second Floor, Conference Hall, DIT Wing-HO (Annex), Naveen Complex, 14 M G Road, Bengaluru 560001.

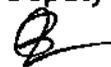
Sl. No.	Page No.	Section/ Annexure/ Appendix of the RFP	Clause No.	Existing	Amended
b.	31	<b><u>E. SELECTION OF BIDDER</u></b>	<b><u>4. Bidders Presentation /Site Visits / Product Demonstration /POC</u></b>	<b>4.7</b> Setting of evaluation criteria for product demonstrations shall be entirely at the discretion of the Bank. The decision of Bank in this regard shall be final and in this regard, no correspondence shall be entertained.	<b>4.7</b> Setting of evaluation criteria for product demonstrations shall be entirely at the discretion of the Bank. The decision of Bank in this regard shall be final and in this regard, no correspondence shall be entertained. Bidder has to demonstrate critical Server monitoring and Application monitoring features and its under lying server infra as mentioned in Appendix-P.



c.	57	<u>Annexure-7</u>  <u>Technical &amp; Functional Requirement of Server &amp; Application Monitoring Solution (SAMS)</u>	<u>A. TECHNICAL REQUIREMENTS:</u>	<u>Note:</u> The above requirements are mandatory and will be verified by way of POC as part of Part B Technical Evaluation. The POC will include the live demonstration of 60-70% critical Server monitoring and Application monitoring features coverage for two business application and its under lying server infra. The details will be shared to selected bidder after Part A Evaluation.	<u>Note:</u> The above requirements are mandatory and will be verified by way of POC as part of Part B Technical Evaluation. The POC will include the live demonstration of critical Server monitoring and Application monitoring features as mentioned in Appendix-P for two business application and its under lying server infra.
d.	73-76	<u>Annexure- 14</u>	<u>Bill of Material</u>	Bill of Material	Amended Bill of Material(Annexure-14) is attached as annexure.
e.	85	<u>Additional Appendix</u>	<u>Additional Appendix</u>	Additional Appendix	Additional Appendix-P (Technical Criteria for Proof of Concept) is attached as Annexure.

All the other Instructions and Terms & Conditions of the above RFP remain unchanged.  
Please take note of the above Amendments while submitting your response to the subject RFP.

Date: 04/05/2021  
Place: Bengaluru

  
Deputy General Manager  




Amended Annexure- 14

Bill of Material

SUB: RFP for Supply, Installation, Configuration, Implementation, Commissioning, Maintenance & Management of Server & Application Monitoring Solution (SAMS) in Canara Bank.

Ref: RFP 27/2020-21 dated 04/01/2021

Notes

1. These details should be on the letterhead of Bidder and each & every page should be signed by an Authorized Signatory with Name and Seal of the Company.
2. Please be guided by RFP terms, subsequent amendments and replies to pre-bid queries (if any) while quoting.
3. Do not change the structure of the format nor add any extra items.
4. No counter condition/assumption in response to commercial bid will be accepted. Bank has a right to reject such bid.

Table -A

Price details for proposed solution in Canara Bank

[Amount in Indian Rs.]

Sl. No.	Requirement Details	Unit Price with Three years Comprehensive onsite warranty and support (Excl. of Tax)	4 <sup>th</sup> year AMC/ATS Charge (Excl. of tax)	5 <sup>th</sup> year AMC/ATS Charge (Excl. of tax)	Unit Price with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period (Excl. of tax)	Quantity	Total Cost with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period (Excl. of tax)	Tax for Column F		Total Cost with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period (Incl. of tax)	
		A	B	C	D= A+B+C		E	F= D*E	G=% of tax		H=Tax Amt.
1.	Hardware /Appliance including OS for DC	App Server									
		Web Server									
		Data base Server									
		Any other (add more rows of required)									
2.	Hardware / Appliance including OS for DR	App Server									
		Web Server									
		Data base Server									
		Any other (add more rows of required)									
3.	System Software/Middleware/ Database License for deploying proposed Solution at DC (Break up details to be provided)										
4.	System Software/Middleware/ Database License for deploying proposed Solution at DRC (Break up details to be provided)										
5.	OS/VM/Host Based Monitoring Licenses for OS/DB/Middleware/etc. as per Technical Specifications and Scope of Work					2000					

6.	Business Application monitoring licenses etc. as per Technical Specifications and Scope of work				100				
7.	Any Other Software licenses at DC (Break up details to be provided)								
8.	Any Other Software licenses at DRC (Break up details to be provided)								
9.	One time Implementation cost of IT Infrastructure Monitoring Solution as per Technical specification and Scope of Work of this RFP.				1				
10.	Total Cost of Ownership for Five years contract period (Sum of column I of rows 1,2,3,4,5,6,7,8 and 9)								

Bidder has to provide the adequate quantity in column E in above Table-A as mentioned in Annexure-7.

**Table-B**  
**Charges for Onsite Resources**

[Amount in Indian Rupees]

Sl. No.	Description	Charges for one resource Per Month [Excl. of Tax]	No. of Months	No. of Resources	Charges for resources for 60 Months [Excl. of Tax]	Tax %	Tax Value	Charges for resources for 60 Months [Incl. of Tax]
		a	b	c	d=axbxc	e	f	g=d+f
1	Cost of L1 Onsite Resources.		60	2				
2	Cost of L2 Onsite Resource.		60	1				
3	Total Cost [total of column g of row 1 and 2]							

**Table-C**  
**Charges for Pre & Post Implementation Training**

[Amount in Indian Rupees]

Sl. No.	Requirement	One Time Training Charges (Excl. of Taxes)	Tax for Column A		One Time Training Charges (Incl. of Taxes)
			Tax %	Tax Value	
		a	b	c	d=a+c
1.	Pre- Implementation Training Charges				
2.	Post- Implementation Training Charges				
3.	Total Cost [total of column d of row 1]				

Table - D

Charges for additional licenses for Proposed Solution in Canara Bank

[Amount in Indian Rupees]

Sl. No.	Requirement Details	Unit Price with Three years Comprehensive onsite warranty and support (Excl. of Tax)	4 <sup>th</sup> year AMC/ATS Charge (Excl. of tax)	5 <sup>th</sup> year AMC/ATS Charge (Excl. of tax)	Unit Price with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period (Excl. of tax)	Quantity	Total Cost with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period (Excl. of tax)	Tax for Column F		Total Cost with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period (Incl. of tax)
		A	B	C	D= A+B+C	E	F= D+E	G=% of tax	H=Tax Amt	I= F+H
1.	OS/VM/Host Based Monitoring Licenses for OS/DB/Middleware/etc. as per Technical Specifications and Scope of Work					100				
2.	Business Application monitoring licenses etc. as per Technical Specifications and Scope of work					10				
Total Cost of Ownership for Five years contract period (Sum of column I of Row 1 and Row 2)										

The Prices mentioned in the above Table-D is indicative only. Bank will procure the same as when required during contract period of five years.

Table-E

Total Cost for 5 Years Contract Period

[Amount in Indian Rupees]

Sl. No.	Details	Total Cost of Ownership [Incl. of tax]
A	Total Cost for Implementing IT Infrastructure Monitoring Solution in Canara Bank Hardware as per Table-A [Total of Column I]	
B	Total Charges for Onsite Resources as per Table-B [ Total of Column g]	
C	Total Charges for Pre & Post Implementation Training as per Table-C [Total of Column d]	
D	Total Charges for additional licenses for IT Infrastructure Monitoring Solution in Canara Bank as per Table-D [ Total of Column I]	
E	Total Cost of Ownership [Sum of A, B, C and D of Table-E]	

Undertaking

- Bill of material is submitted on the letter head and is signed by an Authorized Signatory with Name and Seal of the Company.
- We confirm that we have gone through RFP clauses, subsequent amendments and replies to pre-bid queries (if any) and abide by the same.
- We have not changed the structure of the format nor added any extra items. We note that any such alternation will lead to rejection of Bid.

- iv. We agree that no counter condition/assumption in response to commercial bid will be accepted by the Bank. Bank has a right to reject such bid.
- v. We are agreeable to the payment schedule as per "Payment Terms" of the RFP.

Date

Signature with seal

Name :

Designation :



Appendix-P

Technical Criteria for Proof of Concept

Sl. No.	POC Requirement	Complied (Yes/No)	Bidder's Signature	Bank Official's Signature
1.	The Proposed Solution must be capable of performing prediction-based anomaly detection to identify unusual or unexpected events and measurements within the monitored environment.			
2.	The Proposed Solution must be complied with all the data privacy norms as per laws applicable in India. The solution should comply with the future Indian Laws as and when made applicable with-in the stated time-frame. PII data should be encrypted, if part of log.			
3.	The Proposed Solution must consider relevant log messages that are associated with problems and then automatically factor it into root-cause analysis.			
4.	The Proposed Solution must have capability to integrate with existing Monitoring tools like Oracle Enterprise Manager, Tivoli Performance Monitoring tool, Fog Light, Java monitoring open source tool kit like glow-root, Pinpoint, Performance Tuning Toolkit(PTT) etc. and Inbuilt Application Monitoring tool like Java Management Console, windows Performance Monitoring tool, and should able to pull the information from these monitoring tools. Alternatively, The proposed solution should have all the capabilities mentioned above.			
5.	The Proposed Solution must have capability to provide the information like server reachability, server up time, server resources utilization (CPU, Memory and HDD) and critical services running status. The details of Servers with OS will be provided to selected bidder.			
6.	The Proposed Solution must have capability to provide the information regarding the top trending applications in the bank based on the no of user requests and application resources utilization.			
7.	The Proposed Solution must have capability to allow creation of dashboards to show business transaction health and application response time for the transactions. The Bank teams must be able to drill down to these transactions to see breakup of time spent (i.e. NRT, ART etc.) on webserver, application server, middleware, external components and database tiers (whatever is part of the individual transaction). The proposed tool must be able to capture the business KPIs from POST parameters, Method Arguments (as data objects or variables) Return Values, SQL Bind variables, etc.			
8.	The Proposed Solution must have capability to allow the Bank to define conversion goals based on the key page-actions performed by each user on different steps of a particular transaction.			
9.	The Proposed Solution must have role based access control to define privileges for the users to raise a request to add, modify and delete nodes/devices etc. in their web dashboard/console and the request should be effected only after the approval of the super administrator.			
10.	The Proposed Solution must have capability to analyse multiple log files simultaneously (Even stored across multiple hosts.)			
11.	The Proposed Solution must have capability to apply data-driven analytics and ML technology to enhance the effectiveness of monitoring.			

12.	The proposed solution must have capability to discover and monitor background jobs triggered in applications/O5 and able to setup configurable response time baselines and thresholds for them than a regular transaction and alert on failed jobs and scheduler process.			
13.	The proposed solution must have capability to pin point the exact cause of failure so that the team can set the right fix. The reason of failures can be 1.Out of memory exception 2.Hung JVM process 3.JVM thread deadlock 4.Java exception 5.Sudden push of large file on an overloaded routine, etc. (The Bank would like to set automated actions to resolve the problems of the routines as Mandatory manual monitoring of these are very times consuming).			
14.	The Proposed Solution must have capability to auto-correlate series of events/alerts and identify the root cause. It should be able to detect and diagnose problems in real time, giving the root cause along with actual lines of code. The system must able to replay the timeline/transaction that will help developers in doing a post-facto analysis of how the problem evolved over time without waiting for the problem to recur.			
15.	The Proposed Solution must have capability to auto-detect when key business transactions aren't working as expected and should be able to provide reports for the same.			
16.	The Proposed Solution must have capability to automate all reports generation and distribution through mails			
17.	The Proposed Solution must have capability to automatically detect and alert on unexpected low or high resource surge problem like high/web request pile up.			
18.	The Proposed Solution must have capability to automatically detect application flow and topology along with components involved without any manual configuration. The solution also must be able to automatically detect any changes in the topology such as addition or removal of any component.			
19.	The Proposed Solution must have capability to automatically detect the database performance and its impact on transaction performance. It should be able to showcase the slow performing SQL Queries or Procedures, deadlocks, errors, slow wait events. It should allow to trace from a selected SQL all the way back to the transaction(s) which called it.			
20.	The Proposed Solution must have capability to baseline metrics/KPIs automatically in the monitored environment. Any deviations to this baseline should be automatically correlated so that a single actionable alert can be raised to the respective team.			
21.	The Proposed Solution must have capability to capture and monitor details about how fast web pages and its components were rendered.			
22.	The Proposed Solution must have capability to capture and provide a feature/option replay timeline/transactions of the complete digital experience for user session monitored user across browsers, interfaces and devices.			
23.	The Proposed Solution must have capability to capture digital experience for specific user categories like HNI's or VIP or any other such business parameters available in session attributes.			
24.	The Proposed Solution must have capability to capture entire user journey of a monitored user session, trace it end to end, any			

	performance issues in real time, across multiple digital channels such website, mobile app (IOS/ Android) including respective LB/Web/ App/DB Server.			
25.	The Proposed Solution must have capability to clearly project the problem cause by the JavaScript was due to incompatibility of browser or JavaScript code error.			
26.	The Proposed Solution must have capability to collect, ingest, correlate and analyze the real-time data, logs etc			
27.	The Proposed Solution must have capability to configure actions based rules for set of pre-defined alarms/alerts enabling automation of set tasks e.g initiating a script.			
28.	The Proposed Solution must have capability to Configure Business Transactions as per Banks Requirement			
29.	The Proposed Solution must have capability to configure instant SMS and e-mail alerts, along with the solutions custom-configurable performance dashboards to analyses trends and timely and effective decisions.			
30.	The Proposed Solution must have capability to capture storage response time, IOPS, CPU utilization, Free Capacity in order to capture entire user journey of a monitored user session. The Integration capability can be SNMP, SSH , HTTPS etc.			
31.	The Proposed Solution must have capability to detect the relevant entry points on the Bank's website and help understand the conversions when optimizing performance, such as new campaign pages, product release, help pages etc.			
32.	The Proposed Solution must have capability to detect to the extent possible, which of the Bank's services and processes suffer from network connection problems. This will enable the operations team to improve the connections between vital infrastructure components. It should be able to provide a clear picture of all inbound and outbound process connections over network interfaces (both physical and virtual).			
33.	The Proposed Solution must have capability to discover and monitor the newly added middleware services without any manual intervention or need of configuration. (for already monitored application).			
34.	The Proposed Solution must have capability to do correlation between complaint and Digital Channels /Infrastructures /Application/ Service/database faults.			
35.	The Proposed Solution must have capability to do Performance monitoring like capture of database Engine related performance counters as well as threshold alerting etc.			
36.	The Proposed Solution must have capability to do tracking and recording of application uptime/downtime as part of business transaction monitoring.			
37.	The Proposed Solution must have capability to enable true AIOPS the solution should have an AI Engine which can ingest metrics and events from external sources for correlation.			
38.	The Proposed Solution must have capability to enables system administrators to automatically discover, group, and monitor devices in their environment. It should enable the default monitoring for these automatically grouped devices using the solutions portlet and the monitoring settings templates			
39.	The Proposed Solution must have capability to establish baseline for minimum 8 baseline metrics			

40.	The Proposed Solution must have capability to give full visibility of customer experience across the digital transactions from the frontend to the backend including various interfaces for the transactions. (Bank should be able to quickly isolate the area of problem with minimal impact to users).			
41.	The Proposed Solution must have capability to give One Dashboard for alerts from Infrastructure servers, VM, database, app web servers, applications performance events, network monitoring and Business Service Impact Management to provide combined view of application performance and infrastructure			
42.	The Proposed Solution must have capability to have a performance metric to measure the computational resources used by the application for the load, indicating whether there is adequate capacity to support the load, as well as possible points/locations of a performance bottleneck.			
43.	The Proposed Solution must have capability to have agent binary/Plugin (in case of agent-based monitoring) for the monitoring of host, process, transactions, code, logs, network communication.			
44.	The Proposed Solution must have capability to have an early warning system mechanism. During peak hours or month ends or while running campaigns, the solution should auto-detect problems before they can impact the customers. The solution must be capable of identifying performance issues and prioritize it, to indicate the severity is the problem (business impact of the problem) and its impact on the user experience.			
45.	The Proposed Solution must have capability to have an extensible API framework to pull and push metric data from 3rd party systems and data sources like infrastructure components hosts, process, networking, virtualization or any custom device related metrics.			
46.	The Proposed Solution must have capability to have automated and comprehensive monitoring at all levels to monitor End-to-End Transaction in synthetic Monitoring as well as end-user experience monitoring. This should also include the Journey involving 3rd party integrations and merchants. It should also provide reports and Dashboards for analysis.			
47.	The Proposed Solution must have capability to have built-in log analytics, which shall automatically discover majority of log files on the monitored hosts and processes. The team should then be able to pick and choose the Auto-detected logs and immediately analyze log files of important processes. It should allow to filter relevant log files by keywords and time range in a single or multiple log files at once.			
48.	The Proposed Solution must have capability to have Extensible Framework, Agent and Agent-less Monitoring Options, Performance Analysis and Reporting, Automated Diagnosis, End-to-End Service Views, Error Log Monitoring, Configuration Monitoring, and Alerts. Moreover, it should have the following business benefits: Improved Productivity, Increased up time and Improved Customer Service			
49.	The Proposed Solution must have capability to have interactive dashboards to compare behavior and conversions across all channels such as web browsers, mobile devices, operating systems and geographic regions.			
50.	The Proposed Solution must have capability to have scalable feature to meet future needs for monitoring application			

	performance, a platform which provides analytics for issue tracking, auto ticketing and predicting issues and integrate with various platforms / application systems in the Bank.			
51.	The Proposed Solution must have capability to have synthetic monitoring capabilities and be able to run synthetic (active) / robotic transactions from within the Bank premises and also from vendor cloud to check availability and performance of multi-step transactions over browser (both desktop and mobile) and also to test new features by running periodic synthetic transactions on the target within the Bank intranet (i.e. branch locations or from the cloud environment)			
52.	The Proposed Solution must have capability to have transaction analytics along with actionable reports based on business transactions and should allow to dig deeper into any method or DB statement which may be affecting the performance			
53.	The Proposed Solution must have capability to help in monitoring database query executions, it should be able to track and inspects all the SQL statements that the application sends out. The databases should be auto-detected and analyzed without any manual configuration.			
54.	The Proposed Solution must have capability to help the Bank monitor all the components at all layers for an optimal, application delivery and helps to improve the end user experience at the last mile. The solution strives to detect and diagnose complex application performance problems to maintain an expected level of service.			
55.	The Proposed Solution must have capability to highlight Performance problems for carry adequate actionable information, such as the suspect KPI or problem layer (Web, App or Database) to enable faster MTR (Mean Time To Restore) as well as faster MTI (Mean Time To Isolate).			
56.	The Proposed Solution must have capability to identify problematic methods and their resource contention, such as CPU thread deadlocks and or network bottlenecks. The solution dashboard should allow Bank team to see a breakdown of service execution times at the method level to analyze the failure rates. For eg. In case the issue is related to garbage collection the console should provide relevant metric, based on which the team can tweak the application's heap memory settings.			
57.	The Proposed Solution must have capability to Monitor resources utilization of standard Operating Systems including Windows, Solaris, Oracle Linux, SUSE, Cent-.OS, RHEL, AIX, HP-UX and any other industry leading platforms used in an enterprise/industry.			
58.	The Proposed Solution must have capability to manage sensitive end-user data. The system should not allow changes to the configuration without privileged access.			
59.	The Proposed Solution must have capability to measure count and response time for each step of the transaction flow and classify in buckets of response time. (e.g. Transaction step (CBS, UPI, HRMS, MB, IMPMS, Internet Banking) in <2 sec and >10 sec etc.)			
60.	The Proposed Solution must have capability to measure Performance metrics for computational resources used by the			

	application for the load, indicating whether there is adequate capacity to support the load, as well as possible points/locations of a performance bottleneck.			
61.	The Proposed Solution must have capability to monitor applications running on following platforms: Operating Systems - Linux , Windows Server, Solaris, , AIX; Web Servers - Oracle HTTP Server, IBM HTTP Server, Apache, Nginx; Application Servers - Oracle Weblogic, IBM WebSphere, JBoss, .NET, IIS, Tomcat, Tuxedo, Spring			
62.	The Proposed Solution must have capability to monitor critical health parameters, with little intervention from the individual software and hardware, thereby greatly improving diagnostics, issue detection and resolution. The solution must assist in root cause analysis of issues, establishes health parameter correlations and monitors error log files and configuration changes.			
63.	The Proposed Solution must have capability to monitor disk space to ensure the Servers won't run out of disk space. For best performance, all disks should have 15% or more of free space as KPI.			
64.	The Proposed Solution must have capability to monitor for Blocking (exceeding duration) and Deadlocks			
65.	The Proposed Solution must have capability to monitor Infrastructure like Log, queues, request, response of application designed or hosted in Cobol & C++ etc.			
66.	The Proposed Solution must have capability to monitor itself by enabling self auto-healing and auto-healing should be completely configurable.			
67.	The Proposed Solution must have capability to monitor OS, web server, application servers, queries to databases, middleware and user transactions with a agent binary/Plugin at OS level. If new JVM's or new Webservers processes are introduced due to load considerations, the agent must be able to auto-detect these and auto instrument with no manual intervention for applications deployed on any OS.			
68.	The Proposed Solution must have capability to monitor slow Web request to troubleshoot.			
69.	The Proposed Solution must have capability to monitor standard RDBMS like Oracle, MySQL, MSSQL, DB2, Sybase etc			
70.	The Proposed Solution must have capability to monitor the Application Load-balancers and WAF.			
71.	The Proposed Solution must have capability to monitor the following infrastructure components on the VM images. - The hosts (CPU, memory, NIC, and storage) - Guest OS - Network health - Resource utilisation of the virtual management platform (VMware vCenter or standalone ESXi hosts). - All the components should be monitored by installing agents which will cumulatively consume resources not greater than the values mentioned by the Bank.			
72.	The Proposed Solution must have capability to monitor the SAN/NAS storage boxes and SAN switches/SAN Fabric. The Integration capability can be SNMP, SSH , HTTPS etc.			
73.	The Proposed Solution must have capability to monitor the Session Handling capacity of Web servers and Application servers and should recommend the optimal values to set in Webserver and Application server session handling Configuration files.			
74.	The Proposed Solution must have capability to monitor user journey within a visit/session and tracing it back to backend systems.			

75.	The Proposed Solution must have capability to perform Database Space Monitoring for both file group and transaction log (Warning threshold, Critical threshold as well as file group/log full)			
76.	The Proposed Solution must have capability to perform end-to-end application performance monitoring which will include monitoring of underlying OS, physical server hardware, web servers, application servers, databases, application code execution. The solution must be able to provide in-depth analysis of application performance problems and determine the root cause of the problem			
77.	The Proposed Solution must have capability to perform post deployment auto discovery of most of the Bank's technology stack/ components and their dependencies without manual intervention. (i.e. It should be able to auto-instrument the applications and middleware (web and app servers, IIB and Messaging Queues etc.))			
78.	The Proposed Solution must have capability to provide RCA identification with business affected alarms correlation (inter-domain and cross-domain correlation) to give end to end visibility of the request flow in the proposed solution.			
79.	The Proposed Solution must have capability to provide a comprehensive list of top exceptions associated with exception class and also show the affected services which were impacted. Bank must be able to see all exception messages with the aggregated stack traces and affected requests			
80.	The Proposed Solution must have capability to provide a single centralized console along with web based interface to configure monitoring for all the devices inclusive and not restricted to servers, applications, databases, URL response, storages and virtualization platforms			
81.	The Proposed Solution must have capability to provide ability to easily collect and analyze specific information, including information on: Buffer pools, Databases, Locks and other details about lock resources, Server key events, Table space, Database State, Errors etc.			
82.	The Proposed Solution must have capability to provide analytical reports for helping identify and resolve concurrency related issues for the services monitored.			
83.	The Proposed Solution must have capability to provide Application log data and errors			
84.	The Proposed Solution must have capability to provide application memory leak analysis, lock contentions, process crash analysis.			
85.	The Proposed Solution must have capability to provide break up of response time (web, application, database layer times) of maximum possible single transaction, irrespective of whether it was successful or failed.			
86.	The Proposed Solution must have capability to provide code level performance profiling			
87.	The Proposed Solution must have capability to provide complete topology on the spread of infrastructure for an application			
88.	The Proposed Solution must have capability to provide connectivity Percentage of properly established TCP connections compared to TCP connection that were refused or timed-out.			
89.	The Proposed Solution must have capability to provide custom applications metrics			

90.	The Proposed Solution must have capability to provide customizable dashboards to track revenue, conversion rates, availability, user experience, drop-off rates and other relevant metrics. The dashboards should be able to show response time of web pages and an indication where users spent most of the time, point at which users dropped out and funnel view with page wise bounce rate. Data should be captured from true end user actions performed either on mobile/desktop browsers			
91.	The Proposed Solution must have capability to provide dashboards to all level of stakeholders including business and IT..			
92.	The Proposed Solution must have capability to provide data warehouse to maintain historic data and also able to generate analytic report based on user requirement.			
93.	The Proposed Solution must have capability to provide deployment architecture of Holistic and complete Application Performance Management (end user experience monitoring, architecture discovery modelling and display, transaction profiling, deep-dive monitoring, analytics)			
94.	The Proposed Solution must have capability to provide detailed stack trace view of abnormal transaction right from web server through the app server, middleware all the way to the database. Stack trace should include calls made to the 3rd party systems.			
95.	The Proposed Solution must have capability to provide detailed transaction traces down to specific lines of code			
96.	The Proposed Solution must have capability to provide detailed user journey (All user actions performed within a session) and drill down to the backend systems problematic requests. (The Bank can track and provide better user experience and help in sentiment analysis).			
97.	The Proposed Solution must have capability to provide diagnostics capabilities like - gain insights into process hotspots which provides break down and filtering data by code execution, network I/O, Disk I/O, Lock time and wait times over times and also provide forward and reverse stack traces			
98.	The Proposed Solution must have capability to provide easy to use interface to chart the usage on multiple dimensions such as app version, OS type, OS version, device-type etc.			
99.	The Proposed Solution must have capability to provide for each individual SQL statement, fired in a transaction, the count of average Rows returned and fetches.			
100.	The Proposed Solution must have capability to provide full visibility into all the activities from web and mobile application user across all devices, browsers and geographic locations. (To analyse user data in real-time to assess satisfaction, detect struggles and proactively predict and influence next steps in their digital journey).			
101.	The Proposed Solution must have capability to provide hybrid monitoring architecture through support of both agent-based monitoring and agentless monitoring approach			
102.	The Proposed Solution must have capability to provide interactive and simple web UI for administration, management and monitoring and should not require switching between multiple UI screens and client applications.			
103.	The Proposed Solution must have capability to provide online auto analysis to identify which component or tier is contributing to			

	slowness of the monitored transaction.			
104.	The Proposed Solution must have capability to provide performance of individual web requests, transactions, requests over all channels include the legacy and Digital channel.			
105.	The Proposed Solution must have capability to provide process crash details (java,.Net,etc..) which should include the signal that killed the process (for e.g., Segmentation fault or Abort), the execution stack frame that crashed and other artifacts like hs_err_pid files, test files that provide analysis of Linux core dumps and other operating systems			
106.	The Proposed Solution must have capability to provide Real Time user journeys monitoring that cuts across multiple internal Applications			
107.	The Proposed Solution must have capability to provide Real user monitoring experience and journey.			
108.	The Proposed Solution must have capability to provide Real-time Technical and Business Dashboards for all configured business transactions.			
109.	The Proposed Solution must have capability to provide the information regarding the top trending applications in the bank based on the no of user requests and application resources utilization.			
110.	The Proposed Solution must have capability to provide the OS resources usage of Applications hosted in server and should intimate over usage of resources like CPU, Memory, disk etc.			
111.	The Proposed Solution must have capability to provide transaction-based monitoring and use analytics to track the performance of internal service providers.			
112.	The Proposed Solution must have capability to provide usage and performance of all application dependencies like databases, middleware, web services, caching, etc.			
113.	The Proposed Solution must have capability to provide user interface, Report(s) & Dashboard(s) for i. Generating Application health alerts. ii. Online real-time User Dashboard			
114.	The Proposed Solution must have capability to provide variations in the consumption pattern of resources for each of the applications			
115.	The Proposed Solution must have capability to provide Web based feature rich GUI without need for fat client (no installation, ongoing maintenance or management for web client) i.e. Monitoring can be performed using browser and should support HTML5.			
116.	The Proposed Solution must have capability to provide web based reporting interface with Top N reports and functionality to define, customize and schedule analysis reports . The following reporting dashboards must be configurable: Top N Reports to give performance KPIs of top 50/100/500 devices Situation to Watch to indicate which nodes or group of nodes are experiencing performance degradation.			
117.	The Proposed Solution must have capability to provide, in real-time, a holistic single pane of glass view of the core banking infrastructure from a business service perspective, it must enable Bank to proactively monitor and analyse health parameters, including: Service availability, Service Response Time, Core Banking Software status, Status of Critical Processes, Network status, Operating System health, Web server Performance,			

	Application server status and usage, Database health, Application logs and configuration, Network usage and response			
118.	The Proposed Solution must have capability to should provide visibility into W3C navigation timings, for user interaction where performance is not satisfactory, and based on the end user browser it should be able to understand the available metric to help understand time spent in browser or network or server.			
119.	The Proposed Solution must have capability to SLA tracking with dedicated Dashboard			
120.	The Proposed Solution must have capability to support monitoring of C, DCOM, AngularJS, Angular 2.0, NodeJS and JQuery etc. The given solution should be able to discover and monitor for a user in a single click or action.			
121.	The Proposed Solution must have capability to support API monitoring.			
122.	The Proposed Solution must have capability to support at the contents of the site like scripts, images, CSS etc. and identifies the elements that are making it run slower and the solution churns out suggestions that will help our website run faster.			
123.	The Proposed Solution must have capability to support fully automated monitoring of addition / removal of VMs/JVMs/Web Servers/IIB processes and queues etc. based on changing load patterns/processes without manual intervention. (for already monitored application)			
124.	The proposed solution tool must be able to capture the business KPIs from POST parameters, Method Arguments, Return Values, SQL Bind variables, etc. Following is the minimum expectation: <ul style="list-style-type: none"> <li>• Response time of critical web services &amp; API calls with the ability to drill down by individual transaction and service;</li> <li>• Region wise performance of system with ability to drill down to an every single transaction. Solution must be able to correlate the locations not only from Internet but even if the transactions are initiated from within branch offices;</li> <li>• Concurrency of Web Portal and Back office users;</li> <li>• Network performance - Ability to monitor the network latency within Datacenter components like Web server, Load Balancer, Application Servers (WebSphere), Databases etc.;</li> <li>• HTTP error count with error code - 404 , 500 etc. along with the URI of most errors and also ability to put dashboard to view transaction health using return values as required by Bank.</li> </ul>			
125.	The Proposed Solution must have capability to support SQL monitoring like failed jobs, long running jobs etc.			
126.	The Proposed Solution must have capability to use machine learning based methods to automatically detect anomalies without requiring rule-based configurations or manual thresholds-based methods.			
127.	The Proposed Solution must have capability to monitor the Windows IIS Parameter like Application pool and also able to suggest the optimal values based on the concurrent application user request.			