SARS
Technical Session
RFP 16-2020

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Agenda

- **Overview of SARS's requirement**
- **Technical discussion around the requirement**
- **Q & A session**

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Introduction

- **Complex application architecture**
- **No business transaction level monitoring**
- **Strategic objectives – modernise systems, but limited capability to monitor these systems**
- **The necessity to have an APM solution is realised**

Key Requirements

- **Visibility**
- **User experience monitoring**
- **Automation**
- **Day one results**

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Essential Requirements - General

Solution must meet the following requirements:

- **Single-vendor solution with an on-prem implementation option**
- **Easy to implement and maintain**
- **Support both AIOps as well as APM requirements**
- **Deployment options that support high availability**
- **Scalable to at least 3000 APM agents (no sampling)**
- **Significant integration capabilities through open API**
- **Ability to segregate information from applications with less sensitive data with apps with more sensitive data**
- **Encryption for in-flight data**
- **All applicable regulations and industry standards when it comes to sensitive data collected, stored and shown**
- **Integrated to Active Directory for user/role/group based permissions**

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Essential Requirements - User Experience

Solution must meet the following requirements:

- Support both synthetic as well as real user experience monitoring for both web and native mobile applications

- Synthetic must support making individual service calls as well as monitoring of process flows

- Real user monitoring to support monitoring of real user journeys and measure every click, all users all the time

- Support drill down to identify what caused a click to respond slower than expected, i.e. show page breakdown

- Support drill down from clicks to the web requests made to a web server or API calls made from a mobile app to the API server

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Essential Requirements - APM

Solution must meet the following requirements:

- Support drill-down from requests made to a web server and from there to the method stack called, due to the request. All users all the time to all methods, no sampling

- Support .NET and JAVA instrumentation at a minimum

- Support identification of a 3rd party service that was called by a method and slowed that method down

- Method tree must also identify errors that occurred

- APM Agent must not have high overhead (CPU/Memory) at all times, not just meet this objective when sampling

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Essential Requirements - AI/ML

Solution must meet the following requirements:

- **Have AI/ML capabilities**
- **Ability to "learn" normal behaviour and be able to auto-baseline**
- **Be able to identify root cause of a problem not just by correlating events but by understanding the "which caused which"**
- **Be able to use as many inputs for AI/ML based predictive analytics potentially including:**
    - Log information
    - Host metrics
    - User experience metrics
    - APM metrics
    - Event metrics
    - 3rd party tool metrics

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Essential Requirements - Host Monitoring

Solution must meet the following requirements:

- **Provide all host monitoring in the same tool**

- **Be able to monitor physical, VM & container environments**

- **Include CPU/Mem/Disk for physical or VM**

- **Be able to provide resource metrics for JVM/CLR including resource consumption (CPU/Mem) as well as garbage collection**

- **Have MQ Monitoring capabilities**

- **Have CICS Mainframe monitoring capabilities**

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Essential Requirements - Reporting

Solution must meet the following requirements:

- **Have either an HTML or PDF reporting capability**

- **Dashboarding capabilities**

- **Out of the box dashboards but also be extensible to add custom/configurable dashboards**

- **Dashboards to be interactive to allow users to drill into details (e.g. click on a spike shown in a chart to find reasons for it) and not static**

- **Problem reporting capability instead of reporting a list of events that all link to a single root cause**

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Q & A Session

Please submit all formal questions electronically to SARS Procurement at

tenderoffice@sars.gov.za

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