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EXPRESSION OF INTEREST

External CAMEL DB Server

Document Release Date: Thursday, 14th May 2020.

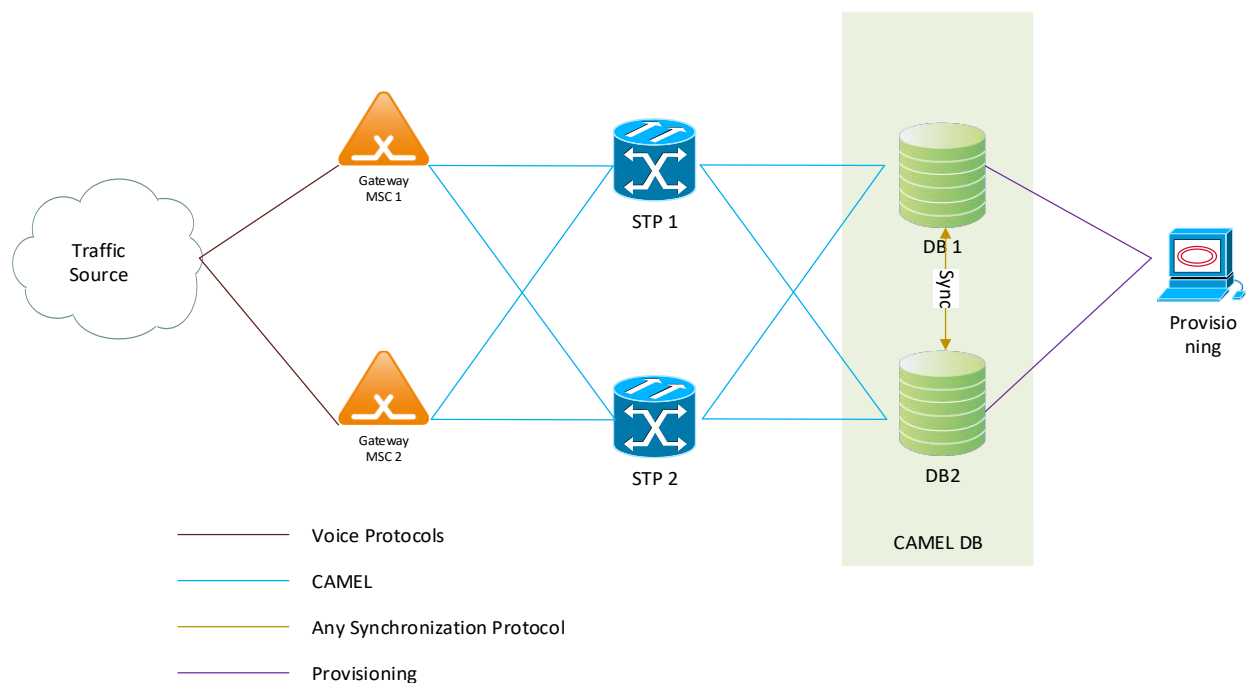
Last Date for Receipt of EOI: Wednesday, 27th May 2020, 1700hrs (GMT+3).

1.1. Introduction

Safaricom PLC is the leading integrated communication services provider in Kenya, commanding a mobile market share of 65%. Due to its significant market position, Safaricom controls over 90% on international incoming traffic and 60% of international outgoing traffic. This being the case, Safaricom network becomes a target for international traffic bypass and Wangiri frauds.

To secure its international incoming traffic volume and shield its customers from Wangiri, Safaricom intends to engage the services of a reputable supplier for the supply of **External CAMEL DB Server** for mitigating International Traffic Bypass & Wangiri Frauds. Safaricom is therefore soliciting for Expressions of Interest (EOI) from interested qualified suppliers.

1.2. Architecture

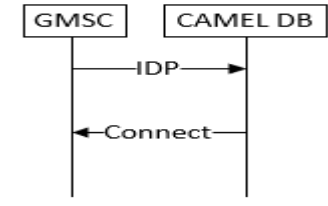
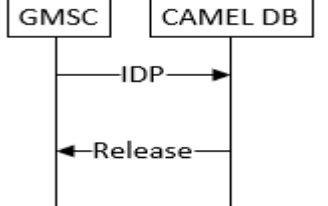
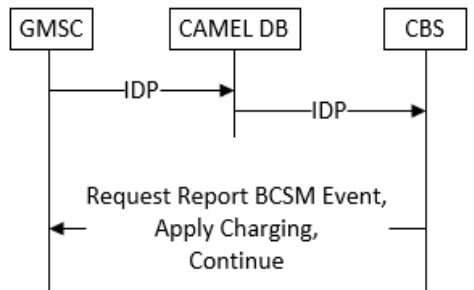
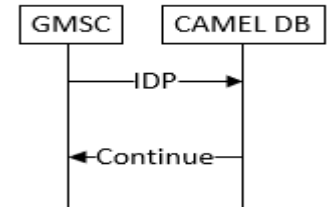
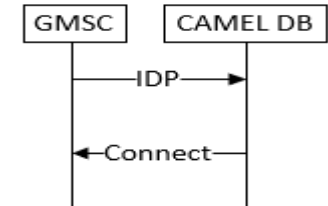
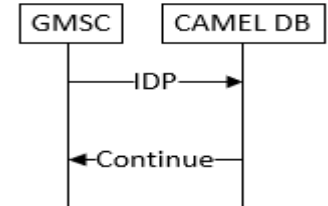


Dimensioning

The database is expected to handle at least 20 Million MSISDNs with at least 1,200 IDP's (Initial Detection Points) per second at busy hour. We also expect to add/remove at least 6,000 MSISDNs per hour to the DB.

Call Scenarios

Below are the call flows for the different scenarios:

Service Key	Scenario	Explanation	Call Flow
Bypass calls from Safaricom's Corporate Direct Connectivity (PABX) customer or calls from Safaricom's interconnect partner.	Calling number in database and Test Call Generation flag is yes	Return a connect (TC-END) with a new number that should help core route the call to some dummy announcement	 <pre> sequenceDiagram participant GMSC participant CAMEL_DB as CAMEL DB GMSC->>CAMEL_DB: IDP CAMEL_DB-->>GMSC: Connect </pre>
Bypass calls from Safaricom's Corporate Direct Connectivity (PABX) customer or calls from Safaricom's interconnect partner.	Calling number in database and Test Call Generation flag is no	Release the call (TC-END)	 <pre> sequenceDiagram participant GMSC participant CAMEL_DB as CAMEL DB GMSC->>CAMEL_DB: IDP CAMEL_DB-->>GMSC: Release </pre>
Bypass calls from Safaricom's Corporate Direct Connectivity (PABX) customer.	Calling number not in the database	Change the SCCP called party address and forward the IDP (TC BEGIN) to STP for onward forwarding to CBS	 <pre> sequenceDiagram participant GMSC participant CAMEL_DB as CAMEL DB participant CBS GMSC->>CAMEL_DB: IDP CAMEL_DB->>CBS: IDP CBS-->>GMSC: Request Report BCSM Event, Apply Charging, Continue </pre>
Bypass calls from Safaricom's interconnect partner	Calling number not in database	Return a continue (TC-END)	 <pre> sequenceDiagram participant GMSC participant CAMEL_DB as CAMEL DB GMSC->>CAMEL_DB: IDP CAMEL_DB-->>GMSC: Continue </pre>
Wangiri call from Safaricom's international carrier	Calling number in database	Return a connect (TC-END) with a new number that should help core route the call to some dummy announcement	 <pre> sequenceDiagram participant GMSC participant CAMEL_DB as CAMEL DB GMSC->>CAMEL_DB: IDP CAMEL_DB-->>GMSC: Connect </pre>
Wangiri call from Safaricom's international carrier	Calling number not in database	Return a continue (TC-END)	 <pre> sequenceDiagram participant GMSC participant CAMEL_DB as CAMEL DB GMSC->>CAMEL_DB: IDP CAMEL_DB-->>GMSC: Continue </pre>

1.3. EOI Requirements

Interested prospective suppliers are requested to submit the following documents as part of their response to this Expression of Interest (EOI):

No	Document Required
1	Company Profile, list of relevant licenses and certifications. Include details of the company's physical premises and contact details.
2	Company organogram, with CVs of key resource personnel.
3	Audited accounts for the past 2 years.
4	List of past projects (not more than 5 years) of similar scope delivered to a telecommunication company or any other works of similar nature to corporate clients. Demonstrate your industry experience as a provider of CDN Solutions.
5	Verifiable References from beneficiaries of similar scope or currently in operation/contract
6	Scope of work currently being provided to Safaricom, if any. Also, indicate if you have a working relationship with Vodafone Group.
7	High Level technical proposal of the solution, including the solution support & maintenance model. See table below.
8	State the manufacturer (OEM) of the products being proposed, name and brand, as well as status of local presence/dealership.

Prospective suppliers should attach a separate Excel document with specific responses to each of the Technical requirements in the format below:

No.	Technical Requirement	Attachment	Comments
1	Solution overview		
2	System architecture and topology		
3	Hardware requirements including but not limited to: i) Cloud ready and supported technologies ii) Number of servers / VM required, CPU, Memory, hard disk etc.		
4	Redundancy and Load balancing capabilities		
5	Backup and recovery mechanisms		
6	Overload control mechanisms		
7	Operating system and database engines supported		
8	Incorporation of 3 rd party software in the application		
9	Software release management and version obsolescence		
10	Platform scalability against future growth of transactions		
11	Licensing model and management		
12	Detailed call flows		

No.	Technical Requirement	Attachment	Comments
13	SS7 Routing capabilities e.g. based on DPC, SSN etc.		
14	Call handling capabilities including but not limited to: <ul style="list-style-type: none"> i) Different handling based on service keys e.g. different responses to IDP, SCCP GT modification etc. ii) Call processing speed iii) Routing calls to SRF iv) Realtime end-to-end handling of calls v) Ability to block calls at various points of a call i.e. beginning or during the call 		
15	Provisioning mechanisms i.e. addition and deletion of MSISDNs to the database		
16	Interfaces and integration to other elements in the network including protocols supported e.g. SFTP, Open API, SIGTRAN etc.		
17	Monitoring capabilities including integration to centralized NOC monitoring system		
18	Reporting capabilities including traffic reports, capacity usage reports, failures, MSISDNs blocked, etc., different levels of granularity, web portals etc.		
19	Logging and CDR generation		
20	Service availability 99.9%		
21	Maintenance and support SLA		
22	Available interfaces or tools to perform administration, configuration and troubleshooting		
23	Compliance with Safaricom Technology Security minimum baseline requirements		
24	Project management methodology		
25	Certifications and standards		
26	Additional industry best practices and trends for Safaricom considerations.		
27	Product Roadmap		

1.4. Submission of Responses

Interested suppliers should submit their responses to this EOI in soft copy addressed to PMwangi1@Safaricom.co.ke and copied to LGachuhi@safaricom.co.ke, no later than Wednesday, 27th May 2020 at 1700hrs.

1.5. Next Steps

- i. Review of submitted Expressions of Interest.
- ii. Prequalification of shortlisted suppliers.
- iii. Issuing of Tender to prequalified suppliers.

NOTE TO SUPPLIERS:

- Only the suppliers who meet our minimum requirements will be considered for further discussions.
- **No prices should be provided with this EOI.**
- Safaricom reserves, at its sole discretion, the right to select or reject, either in totality or partially, any or all proposals made in the context of this EOI. Any such decisions made will be final and no correspondence will be engaged into, other than to informing the bidders of the outcome of the process.
- The receipt of a response shall not bind Safaricom into any contractual agreements with the bidder. Such arrangements shall only come into place once an award is issued and the bidder is successful as evaluated technically and commercially. Any costs associated with the preparation and submission of the response to the EOI shall be borne by the vendor.
- Safaricom and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the documents and information submitted in connection with this application.

Yours faithfully,

FOR: SAFARICOM PLC

Lydia Gachuhi

Senior Manager – Purchasing