

TENDERER'S NAME:

.....

CLOSING DATE: FRIDAY, 24TH JULY 2026 by 14H30 (NAMIBIAN TIME)

PLACE: THE MANAGER

MTC PROCUREMENT

CORNER OF MOSE TJITENDERO & HAMUTENYA WANEHEPO NDADI STREET, OLYMPIA

MOBILE TELECOMMUNICATIONS LIMITED (MTC) HEAD QUARTERS, WINDHOEK



TENDER NO: MTC32-26-O

REQUEST FOR PROPOSALS FOR AN ENTERPRISE RESOURCE PLANNING SOLUTION FOR
MOBILE TELECOMMUNICATIONS LIMITED (MTC)

MOBILE TELECOMMUNICATIONS LIMITED (MTC)

EFFAISHE NGHIIDIPAA

MANAGER PROCUREMENT

WINDHOEK

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A. CONDITIONS OF TENDER

A.1. INVITATION TO TENDER

A.1.1 MTC hereby invites offers:

CLIENT:	MOBILE TELECOMMUNICATIONS LIMITED (MTC)
TENDER DESCRIPTION:	REQUEST FOR PROPOSALS FOR ENTERPRISE RESOURCE PLANNING SOLUTION FOR MOBILE TELECOMMUNICATIONS LIMITED (MTC)
TENDER NUMBER:	MTC32-26-O
CLOSING DATE	FRIDAY, 24TH JULY 2026 by 14H30 (NAMIBIAN TIME)
BRIEFING MEETING	THURSDAY, 09TH JULY 2026 by 10H00 (NAMIBIAN TIME)
BRIEFING MEETING LINK	https://teams.microsoft.com/meet/33117919551308?p=P5bjhvxdL1HQu4PS7
ADDRESS TENDER TO:	MTC Procurement, Manager Procurement
	Cnr Mose Tjitendero & Hamutenya Wanehepo Ndadi Street
	Olympia
	Windhoek, Namibia
ALL INQUIRIES:	Mbakondja Mutirua Senior Procurement Executive Tel: +264 61 280 2148 Fax: +264 61 280 2057 Email:mmutirua@mtc.com.na

A.2. TENDER FORMAT

A.2.1 Tender documents must be in a sealed package as follows:

A.2.1.1 One (1) hardcopy of Complete offer to be deposited in the tender box at MTC head Office in Olympia

A.2.1.2 One (1) scanned electronic format OF COMPLETE OFFER to be uploaded on the MTC website

A.2.2 All documents must clearly be marked:

TENDER NO: MTC32-26-O

“REQUEST FOR PROPOSALS FOR AN ENTERPRISE RESOURCE PLANNING SOLUTION FOR MOBILE TELECOMMUNICATIONS LIMITED (MTC)”

A.2.3 ALL TENDER DOCUMENTS MUST BE DEPOSITED INSIDE THE MTC TENDER BOX AT THE RECEPTION OF MTC HEAD OFFICES IN OLYMPIA, MOSE TJITENDERO AND HAMUTENYA WANAHEPO NDADI STREETS.

A.2.4 ALL SOFT COPIES MUST BE UPLOADED ON THE MTC WEBSITE.

A.3. DEFINITIONS

A.3.1 In this Tender, unless the context clearly indicates the contrary, the following interpretation will apply to the terms stated below:

A.3.1.1 "MTC" shall mean Mobile Telecommunications Limited

A.3.1.2 "RFP" shall mean Request for Proposal (Tender)

A.3.2 This Request for Proposal is not a contract and does not create an obligation on MTC's part to purchase products / services from any company submitting a proposal. MTC reserves the right to reject any or all proposals in its sole and absolute discretion.

A.4. TENDER INVITATION

A.4.1 MTC invites appropriately qualified companies to tender for the provision, implementation, and maintenance of an enterprise resource planning solution, inclusive of all necessary software, technical integration, support services, and capacity-building measures for a period of five years.

A.4.2 This tender document shall consist of the following Appendices:

A.4.2.1 Appendix A, BEE Scorecard: This scorecard is not to be filled out, but to show the various elements that the company should be accredited by the Namibia Preferential Procurement Council (NPPC). The Tenderer is required to approach the Namibia Preferential Procurement Council (NPPC), Telephone number 061 248 007, for accreditation and attach their accreditation certificate to the Tender response.

A.4.2.2 Appendix B, Non-Disclosure Agreement: This Non-Disclosure Agreement is to be completed by the Tenderer.

A.4.2.3 Appendix C – Questions template

A.5. GENERAL TENDER CONDITIONS

- A.5.1 All Tender Documents must be submitted before or on the closing date and time as indicated on the cover page and be deposited in the tender box at the entrance of MTC Headquarters, Olympia.
- A.5.2 No late tenders will be considered.
- A.5.3 Every Tender Document page must be initialed.
- A.5.4 MTC is neither bound to accept the lowest of any Tender nor to assign any reason for acceptance or rejection of such Tender.
- A.5.5 MTC reserves the right to change these dates and any other dates that may appear in this Tender. Such changes will be communicated as soon as they are made.
- A.5.6 Notifications to companies will be in writing to the designated liaison person nominated by the firm (refer to paragraph [A.9](#) below).
- A.5.7 From the submissions an evaluation will be performed highlighting a short list.
- A.5.8 If deemed necessary, negotiations may be entered into with the short listed candidates.
- A.5.9 Companies that wish to tender should examine this Tender carefully and review all instructions contained herein. Companies should follow the instructions so that MTC can easily evaluate and compare all proposals received.
- A.5.10 All prices must be in NAD and exclusive of all taxes.
- A.5.11 MTC in its sole and absolute discretion reserves the right to:
 - A.5.11.1 Reject any or all proposals, whether or not these instructions are followed.
 - A.5.11.2 Reject any submissions not complying with the specified format.
 - A.5.11.3 Award the contract based solely on a proposal received without entering into any further discussions.
 - A.5.11.4 Short list candidates.
 - A.5.11.5 Not base the final decision solely on price.
- A.5.12 No correspondence will be entered into should MTC decide to reject any proposals or to withdraw the Tender.
- A.5.13 Each response must include a detailed discussion of each of the items below. Should responses not use the same heading and follow the same numbering as the Tender, MTC may automatically disqualify the company from the tender process.
- A.5.14 MTC will make its decision based on the quality of the information contained in the offers received and no opportunity will exist for any company to enhance such information after closing date and time of the Tender.
- A.5.15 It is important to clearly note down any assumptions made in the submitted offer so that each submitted offer may be evaluated fairly against all other offers received.
- A.5.16 This Tender outlines the requirements of MTC and the process to be followed by the prospective Tenderers in submitting an offer.
- A.5.17 Companies should provide a list of previous or current clients they served with similar projects. MTC reserves the right to contact any clients referenced.

- A.5.18 MTC reserves the right to exclude certain persons and legal entities in the event of poor performance; the Tender offering or attempting to offer any bribe, promised a bribe, or any other consideration to any MTC employee involved with this Tender or the tenderer has acted fraudulently and or in bad faith.
- A.5.19 Any restriction imposed upon any such Tenderer shall also apply to any other enterprise under the same or different name with which the person, firm or company is actively associated.
- A.5.20 MTC may accept any Tender in part or wholly with no obligation to explanation whatsoever.
- A.5.21 Tenderer shall be a Juristic Entity with valid Company Registration documents, in terms of the laws of the Republic of Namibia or country of origin. Tenderers who fail to prove that they are a juristic entity shall be disqualified.

A.6. **GENERAL EVALUATION CRITERIA**

- A.6.1 Proposals will be evaluated by MTC using criteria in the Tender and as per the relevant questions asked. These categories are not necessarily listed in order of importance:
- A.6.1.1 Price competitiveness, including any price discount provided in the proposal.
 - A.6.1.2 Project completion schedules and lead times proposed.
 - A.6.1.3 Warrantee conditions and handling of claims.
 - A.6.1.4 Availability of references from other customers and reputation of tenderer.
 - A.6.1.5 Availability of infrastructure for after sales support, both local and international.
 - A.6.1.6 Compliance with local and international standards.
 - A.6.1.7 Certification and accreditations.
 - A.6.1.8 Value added to MTC.
 - A.6.1.9 The financial condition and trading record of the tenderer (Company profile, bank rating of tenderer etc.)
 - A.6.1.10 Tenderer degree of conformance to the Black Economic Empowerment Policy (A certificate from NPPC or any other recognised BEE accreditation agency should be submitted to prove the BEE credential):
 - Alternatively, shareholder names and certificates must be attached.
 - Small and medium enterprises (SME's) must submit their SME certificates issued by the Ministry of Trade and Industry.
- A.6.2 The Tenderer shall ensure that sufficient supporting documentation and information is supplied in his proposal to enable MTC to evaluate the proposal in respect of each of the abovementioned criteria.
- A.6.3 As per the Communications Regulatory Authority of Namibia: Regulations in respect of Type approval and Technical Standards for Telecommunications Equipment, gazetted in the Government Gazette # 5659, General Notice # 22, the tenderer supplying equipment subjected to this regulation must ensure that all documentations required are obtained from the Regulator before importation. Failure to do so may lead to equipment being confiscated by Customs at the supplier's risk, and MTC hereby distances itself from any confiscated equipment.

A.7. SUMMARY OF DEADLINES

ACTION	DUE DATE
TENDER DOCUMENTS AVAILABILITY:	3RD JULY 2026
SUBMISSION OF QUESTIONS:	10TH JULY 2026
MTC RESPONSE TO QUESTIONS:	15TH JULY 2026
TENDER CLOSING DATE:	24TH JULY 2026

A.8. QUESTIONS & ANSWERS

- A.8.1 If required, companies may submit questions via email to the following e-mail address: tenders@mtc.com.na on or before Friday, 10th July 2026. Only questions submitted in the questions template as per Appendix C will be responded to.
- A.8.2 All questions and answers thereto will be uploaded on the website by the Wednesday, 15th July 2026.
- A.8.3 Communication between MTC and prospective companies, for the duration of this Tender, must only be through Mr. M. Mutirua @ 061 280 2148 or mmutirua@mtc.com.na No direct communication or contact with any other party at MTC is permissible. Any such breach may disqualify the company.

A.9. TENDERER'S DESIGNATED LIASON

- A.9.1.1 Companies must select a single designated contact person, through whom all communications between MTC and the company will take place:

CONTACT NAME:	
DESIGNATION:	
TELEPHONE:	
FAX:	
EMAIL:	
SIGNATURE:	

A.10. REFERENCE LIST (PREVIOUS COMPLETE PROJECTS)

ITEM	COMPANY NAME	CONTACT PERSON	CONTACT DETAILS	YEAR OF SERVICE
1				
2				

3				
4				
5				

A.11. SUCCESSFUL TENDERER'S PERFORMANCE MANAGEMENT

- A.11.1 The successful Tenderer/s are subjected to annual performance reviews to be completed by the respective MTC representative or Procurement Officer responsible for the purchase. The review will be done at intervals to be decided upon by the Procurement department.
- A.11.2 The performance reviews will amongst others cover the following issues:
- A.11.2.1 **Reliability:** How reliably do you follow through on your commitments to MTC?
 - A.11.2.2 **Cost:** How closely did your final total costs correspond to your expectations at the beginning of the transaction?
 - A.11.2.3 **Order Accuracy:** How well did the product/service delivered matched your order specifications and quantity?
 - A.11.2.4 **Delivery / Timeliness:** How satisfied is the appraiser about the timeliness of the product/service delivery?
 - A.11.2.5 **Quality:** How satisfied is the appraiser about the quality of the product/service provided by your company?
 - A.11.2.6 **Documentation Accuracy:** Does your company present its all and correct documents with its deliveries?
 - A.11.2.7 **Personnel:** How satisfied is the appraiser about the attitude, courtesy, and professionalism of your company's staff?
 - A.11.2.8 **Customer Support:** How satisfied is the appraiser about the customer support she/he received from your company?
 - A.11.2.9 **Responsiveness:** How responsive is your company to information requests, issues, or problems that arose in the course of the transaction?

A.12. DECLARATION OF INTEREST FORM

Any deliberate omission in this declaration or the supplying of false information will be regarded in a serious light and may lead to an investigation and disqualification of the tender process.

Tenderer Name:

--

Tender #:

--

Description of Tender:

--

RELATION TO MTC EMPLOYEES/ MANAGEMENT/ DIRECTORS

I herewith declare that I have/am related – i.e. spouse (also fiancé or boyfriend/ girlfriend), parent, child, any other relation with the following MTC Employee(s)/ Member(s) of Management/ Board of Directors: *

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

CONFIRMATION OF FACTUAL INFORMATION

I confirm by signing this declaration that, to the best of my knowledge, the statements made above are factual and accurate and that I have taken note of all the sections. *

Full Name:

Signature:

Date:

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* Please initial in each box where applicable.

TENDER PRICES

- A.12.1 Tender prices shall be quoted in Namibian Dollar, the legal currency in use in the Republic of Namibia.
- A.12.2 No change in the submitted tender price shall be countenanced after receipt and before award of Tender.

A.13. **VALIDITY OF TENDER AND ACCEPTANCE**

- A.13.1 The MTC is not bound to accept the lowest or any Tender nor to give any reason for the rejection of a Tender, nor shall they be responsible for or pay any expenses or losses which may be incurred by the Tenderer in the preparation and delivery of his Tender.
- A.13.2 Tenders remain open for acceptance for a period of ninety (90) days as from the closing date of the Tender.
- A.13.3 MTC reserves the right to ask for extension of the validity without any change in the prices.
- A.13.4 MTC shall not entertain price variations due to any currency fluctuations for the submitted offer during its validity period.
- A.13.5 After submission and before decision, no interviews dealing with the subject shall be answered by MTC. Tenderers may, however, be called upon to clarify aspects of their Tender at the discretion MTC, and supply further information requested and necessary to assess the Tenders.
- A.13.6 The successful Tenderer will be advised by the MTC to this effect by letter through the mail or by telegram or by fax and in such case the Post Office shall be regarded as the agent of the Tenderer and delivery of such acceptance to the Post Office shall be treated as delivery to the Tenderer.
- A.13.7 In the event that the Tenderer submits his proposal together with a technical partner whether local or foreign, MTC reserves the right to require that both the Tenderer and the Technical Partner conclude the Contract.
- A.13.8 The successful Tenderer shall provide at his own expense all the necessary revenue stamps for the Contract as required by Law in Namibia.
- A.13.9 After the signing of the Contract Documents by MTC and the successful Tenderer a duplicate copy shall be handed over to the latter.
- A.13.10 The MTC reserves the right to adjust arithmetical or other errors in the Tender. Any adjustments made to a Tender will be stated to the Tenderer prior to the acceptance of the Tender.

A.14. AMENDMENT OF TENDER DOCUMENTS

- A.14.1.1 At any time prior to the last date of submission for offers, MTC may, for any reason, whether at its own initiative or in response to a clarification requested by a Tenderer, modify the documents by amendment.
- A.14.1.2 The amendment shall be notified to all the prospective Tenderers in writing, and these shall be binding on them.
- A.14.1.3 MTC may extend the last date of submission required as a result of such amendment.

A.15. DETAILS CONFIDENTIAL

- A.15.1.1 Tenderers shall treat all aspects pertaining to this tender as confidential and shall not disclose details to third parties except for bona fide tendering purposes.

A.16. LEGAL ASPECTS

- A.16.1.1 Unless in special cases the MTC agrees to the contrary, the laws of the Republic of Namibia shall be applicable to each contract created by the acceptance of a tender and each Tenderer shall indicate a place in Namibia and specify it in his tender as his domicilium citandi et-executandi where any legal process may be served on him.
- A.16.1.2 Each Tenderer shall bind himself to accept the jurisdiction of the Courts of Law of the Republic of Namibia.
- A.16.1.3 Each foreign Tenderer shall state in his tender the name of his accredited agent in the Republic of Namibia in whom the necessary legal competence is vested and who has been duly appointed to sign any contract.
- A.16.1.4 A foreign company may tender on condition that, should it be informed by the MTC that its tender has been successful, it registers as a company and taxpaying entity in the Republic of Namibia prior to the signing of the Form of Agreement or within such extended time as may be allowed by the MTC.
- A.16.1.5 The Bidder should be an original equipment manufacturer (OEM) or authorized partner of OEM for supply of the equipment, licenses, solution implementation and maintenance support. Letter of confirmation from OEM must be submitted.
- A.16.1.6 The bidder is only allowed to submit one offer, either individually or in a partnership. Bidders submitting more than one offers will automatically be disqualified.
- A.16.1.7 One Bidder can bid only with one OEM and similarly one OEM can bid with only one Bidder. Letter of confirmation from the Bidder and OEM is required. Bidders with letters from the same OEM will automatically be disqualified.

A.17. TAX COMPLIANCE AND WITHHOLDING

- A.17.1.1 The Supplier acknowledges that payments made by the Purchaser for the services are subject to Withholding Tax (WHT) under Namibian tax law, specifically for services rendered by non-residents.
- A.17.1.2 The Supplier confirms that the agreed-upon price is a gross amount, and they accept that any applicable WHT will be deducted from this amount.
- A.17.1.3 The Purchaser shall be entitled to deduct the legally required WHT from any payments due to the Supplier and remit this amount to the Namibia Revenue Agency (NamRA). The Purchaser will provide the Supplier with a WHT certificate as proof of payment upon request.
- A.17.1.4 The Supplier shall provide the Purchaser with any necessary information or documentation to ensure the correct WHT is applied. The Supplier is responsible for any further tax liability, including corporate or income tax, in its home jurisdiction.
- A.17.1.5 If the Supplier is resident in a country with which Namibia has a Double Taxation Agreement, and the Supplier believes a reduced WHT rate applies, the Supplier shall provide all necessary proof and documentation to the Purchaser to claim treaty relief. The Purchaser is not obligated to apply a reduced rate until such evidence is provided to its satisfaction.

BUSINESS CONTINUITY, HEALTH, SAFETY AND ENVIRONMENT PROVISIONS

- A.17.2 Suppliers that are identified in Business Impact Analyses as being key dependencies in MTCs ongoing operations or responses to disruptive incidents, should contractually agree to provide critical services and products within lead times required by MTC to meet the recovery time objectives established.
- A.17.3 To facilitate the continuation of services to MTC's interested parties, MTC may request its suppliers to:
 - A.17.4 provide assurance in the proposal or tender of its ability to continue to provide the required service or products, despite disruption to its own business operations.
 - A.17.5 include, in the service level agreement (SLA), the supplier's undertaking to provide annual reassurance of its ability to continue to provide the required service or products despite disruption to its business operation.
 - A.17.6 assurance shall be verifiable by means of an audit report extract, BCM exercise/ test reports and/or current ISO22301 certification, indicating the supplier's verified continuity capability.
- A.17.7 MTC may further request that:
 - A.17.7.1 the supplier undertakes to form part of the MTC's BCM testing programme from time to time - scenario dependent and by mutual agreement.
 - A.17.7.2 failure to adhere to a consistent and verifiable BCM programme may be construed, by MTC, as a breach in service level with the penalties and conditions that apply to such agreement.
- A.17.8 MTC maintains to the prescribed guidelines pertaining to the safety, health, environment of all its workers, contractors, suppliers, clients, and all other relevant stakeholders. MTC thus expects and requires contractors to maintain the same high standard. It is mandatory that there be compliance to all prescribed local legislations Pertaining to Health and Safety of Employees,

MTC's Health, Safety Policies, all environmental protection laws and all other applicable statutes.

- A.17.9 The contractor warrants that all his sub-contractors' employees are covered in terms of the provisions of the Employees compensation ACT, (ACT No 30, of 1941), which cover shall remain in force whilst any such employee are on MTC's work premises. Prior written consent must be sought from MTC before allowing subcontractors on a work site.
- A.17.10 The Contractor undertakes to ensure that he and his sub-contractors along with his their respective employees will at all times comply with all the requirements of the Labour ACT specifically referring to the Health and Safety section), Environmental Protection ACT, Waste Disposal ACT and all other related Government notices.
- A.17.11 The Contractor and all his sub-contractors undertake that he is duly certified/qualified and has the capability to carry out work as prescribed in any Statute and Purchase Order, such as but not limited to Medical surveillance, for when conducting dangerous work, working at height competencies/certifications, fall rescue, first aid, fire prevention, baseline risk assessment, emergency response as awarded during the validity of this contract.
- A.17.12 Each contractor is responsible for the safety of their own employees, the conduct of sub-contractors, the protection of MTC work sites, adequate hazard warning signs, provision, and training thereof of adequate PPE as identified by a thorough risk assessment and conducting of all risk assessments associated with the work performed by the contractor.
- A.17.13 Each contractor must designate an individual to communicate with the plant on issues relating to Safety, access controls, sanitation, and the environment. This person will contact the Project Manager, HSE Practitioner, or authorized representative and keep these persons informed of these issues at all times.

The contractor shall report all work-related injuries as prescribed by law to the Project Manager and HSE Practitioner and where necessary shall facilitate an HSE investigations into establishing root causes and possible work process related risks for corrective action.

- A.17.14 Failure to comply with applicable rules may result in with holding of payment until compliance is achieved. Concurrently, Management reserves the right to stop any job order or remove any contractor or their sub-contractor and their employees from any work site or property for violations of any safety or Environmental laws, regulations and guidelines
- A.17.15 Prior to commencing of work on a project at MTC, the contractor will submit to the Auxiliary Manager/Coordinator and HSE Coordinator a list of Contractor Personnel who will work on the project site. An updated list will be provided every time new personnel is added onto the work project.
- A.17.16 All contractor personnel should undergo a full site and/or work induction and sign off such induction documentation.
- A.17.17 All contractor personnel will park their vehicles in the designated parking area. The contractor will make provisions with the Auxiliary Department in advance for offloading of equipment and materials inside the facilities property. No vehicles shall remain on the premises except for offloading materials. All vehicles will be subject to inspection upon exit.
- A.17.18 All contractor Personnel may be issued with an access card to be able to access the premises, contractors are encouraged to stay within their designated work sites and not visit other areas.
- A.17.19 Any work to be performed outside business hours must be done so with Prior authorization from the Auxiliary Manager and his representative.
- A.17.20 All contractor personnel will undergo Safety Training and must comply to emergency alarms as well as follow any safety instructions given by an HSEC member during a drill.
- A.17.21 Contractors are responsible for ensuring that all PPE, tools, supplies and equipment used during their contractual period at MTC is suitable for use for their intended purpose as prescribe by a manufacturers specifications sheet and are inspected and maintained according to such specifications.
- A.17.22 Soliciting, selling of any merchandise, gambling, horseplay, throwing any object and scuffling are forbidden on MTC property.
- A.17.23 Guns and knives or any other lethal weapons are not allowed on any MTC Property.
- A.17.24 MTC expects all contractors to always maintain a drug free and alcohol-free work site. It remains the responsibility of contractor to inform and enforce upon his employees and any sub-contractor that the use of, or evidence of use of, intoxicating liquor or illegal drugs is prohibited. Management reserve the right to remove a contractor from a work site who is believed to be under the influence of drugs or alcohol.
- A.17.25 MTC base stations are often remote areas of work and therefore no contractor who is under the influence of alcohol or illegal or prescribed drugs is allowed on a base station site.
- A.17.26 All contractors who render construction related services are always wear overalls, proper shoes, construction helmets and any other prescribed personal protective clothing. Working at a

construction site with tank tops, flip flops etc is an unsafe work practice and therefore prohibited on all MTC sites.

- A.17.27 All contractors who handle, provide food and catering services and other perishables with suspected communicable diseases, respiratory infections, infected open cuts, sores or skin abrasions will not be permitted to work or deliver such services where contamination is possible.
- A.17.28 Contractors shall supply to their personnel and to MTC's Auxiliary Manager and HSE Practitioner emergency contact names and numbers as well as emergency procedures appropriate to their work site.
- A.17.29 Contractors must provide MTC HSE with a full copy of their HSE Program Including Safe work practices, lock out, tag out, hazard communication procedures and associated training certificates.
- A.17.30 The contractor shall supply all required first aid supplies and safety equipment to support his/her personnel.
- A.17.31 Materials will be stored away neatly and responsibly so as to not obstruct roadways, walkways, stairways, emergency doors, fire escapes, emergency equipment and ablution facilities etc.
- A.17.32 It is strictly prohibited to throw material or tools from a scaffold or other overhead areas.
- A.17.33 Contractors must provide fire extinguishers for each welding and burning operation.
- A.17.34 Overhead areas of work or excavation sites or sites where there are other unsafe conditions must be properly blocked off with appropriate warning signs. In case of excavation barricades must be provided.
- A.17.35 All electrical equipment must be properly grounded and must be PCB free
- A.17.36 All contractors who conduct work at height e.g all work occurring at elevation above 2M without standard railing must adhere to MTC's working at height Procedure.
- A.17.37 All height work requires the use of a safety harness. All working at height equipment must comply with applicable local requirements and be used in line with manufacturers specification guidelines.
- A.17.38 All contractors working in a forklift basket, scissors or man-made lifts are required to wear the appropriate harness.
- A.17.39 All work at height equipment must be inspected before use and if defects and malfunctions are found, rectifications are to be made before work use is attempted. Copies of inspection records can be requested by HSE at any time and must be provide on request.
- A.17.40 Contractors and contractor employees or sub-contractors who bring hazardous chemicals or perform dangerous work must prior to such activities:
 - A.17.40.1 Provide MTC with a SDS (safety data sheet) or manufacturer specifications of all lists of hazardous chemicals.
 - A.17.40.2 Properly label all contents adhering to MTC's labelling requirements
- A.17.41 In the event of a fire, medical or other emergency, contractors are required to notify MTC's auxiliary Manager/Coordinator, Technical Manager, HSEC committee member, HSE Practitioner or relevant Project manager immediately. Some of the informing shared should include the

location of the fire, medical emergency, and other pertinent information. Auxiliary can be contacted at the following numbers.

- A.17.42 All contractors and sub-contractors are expected to follow pre-determined exit routes and emergency evacuation procedures as stipulated on the site or instructed through induction.
- A.17.43 In the event of a fire alarm, all contractors and their sub-contractors are expected to evacuate the building as per instruction from an HSEC committee member who at this stage will identified with a reflector vests, the names and role. Contractors are expected to report to the nearest assembly point for proper roll call and briefing. Contractors may not leave the assembly point or re-enter a building until instructed to do so by the HSEC committee member.
- A.17.44 All contractors and their employees must adhere to MTC's hot work procedure.

- A.17.45 All ladders belonging to the contractor must be labelled adequately with their name and possess safety feet
- A.17.46 All Ladders must be properly secured
- A.17.47 All scaffolding used on a plant must be equipped to with railings and toes boards
- A.17.48 All scaffolds and ladders must be adequately maintained, and all records kept at hand for verification and inspection at all times
- A.17.49 Construction refuse and debris may not accumulate on a work site and must be removed at the contractor's own expense unless otherwise agreed contractually.
- A.17.50 Contractors will take full ownership and ensure environmentally responsible waste disposal practices for all waste and debris generated from materials they brought onto the site or from demolition activities.
- A.17.51 No reference to MTC shall be made in any documentation or otherwise when disposing of such waste or debris.
- A.17.52 Construction and/or work sites may be inspected periodically by the HSE Practitioner at any given time to ensure compliance with HSE obligations under this contract.
- A.17.53 It is illegal to dispose of any liquid including water, onto the ground /outside drain for any reason. All water provided it was not contaminated shall be disposed in the appropriate drain
- A.17.54 Each contractor must have written a spill response plan and procedure in place to adequately manage spills and releases which may occur during work use, transport and delivery of hazardous material. A copy of such procedure must be submitted to MTC's HSE department.
- A.17.55 Each contractor must be equipped with the appropriate spill response equipment. the contractors and his employees/ subcontractors must be trained on how to manage a spillage or react to environmental emergency.
- A.17.56 Contractor is fully responsible for the clean operations required that are a direct result of their activities. Such clean up may include removal or rehabilitative remedies to soil, water, flora and fauna etc.
- A.17.57 In the event of a spill that occurred on MTC premises, and the contractor does not respond adequately to such spill to the satisfaction of MTC, MTC shall have the right to take any reasonably necessary measures to respond and remedy such spill at the cost of the contractor.
- A.17.58 Spills and hazardous releases shall be reported immediately by the contractor to the HSE practitioner or MTC project manager.
- A.17.59 Contractors commit to abide by MTC's radiation Policies and procedure.

A.18. INFORMATION SECURITY PROVISIONS

- A.18.1 The contractor / supplier shall ensure that all information systems, networks, and software used in connection with the procurement process and the delivery of goods or services are secured against unauthorized access, use, disclosure, modification, or destruction.
- A.18.2 The contractor / supplier shall implement and maintain reasonable and appropriate administrative, technical, and physical safeguards to protect against anticipated threats or hazards to the security, confidentiality, integrity, and availability of information.
- A.18.3 The contractor / supplier shall comply with all applicable laws, regulations, and industry standards related to information security.
- A.18.4 The contractor / supplier shall conduct regular risk assessments to identify potential threats to the security of the information and shall implement appropriate controls to mitigate those risks.
- A.18.5 The contractor / supplier shall maintain an incident response plan that outlines the steps to be taken in the event of a security breach or incident and shall regularly review and update the plan as necessary.
- A.18.6 The contractor / supplier shall provide security awareness training to all personnel involved in the procurement process and the delivery of goods or services and shall ensure that they are aware of their information security responsibilities and obligations.
- A.18.7 The contractor / supplier shall maintain appropriate records and documentation of its information security practices and compliance and shall provide such records and documentation to the purchaser upon request.
- A.18.8 The contractor / supplier shall ensure that all subcontractors or third-party service providers involved in the procurement process and the delivery of goods or services comply with the same information security requirements as the contractor / supplier.
- A.18.9 The contractor / supplier shall be liable for any breach of this information security clause and shall indemnify and hold harmless the purchaser from any and all damages, losses, costs, and expenses arising out of or related to such breach.

A.19. DISQUALIFICATION OF TENDERERS

- A.19.1 The offer of any Tenderer, which does not conform to the Conditions of this Tender and the instruction reflected in the Tender, may be disqualified at the discretion of the MTC.

A.20. NOTICE (S) TO TENDERS

- A.20.1 Additional information and amendments to the tender documents will be conveyed to the Tenderers by the MTC or his agents, prior to the closing date of the tender, by means of Notices to Tenderers. Receipt thereof shall be acknowledged immediately to the sender by email and shall also be submitted together with the Tender Document with tender closure.

A.21. LANGUAGE

- A.21.1 All offers shall be submitted in the English language.

A.22. ADDITIONAL CONDITIONS OF TENDER

A.22.1.1 Good Standing in terms of the Social Security Commission Act

A.22.1.2 Tenderers shall provide Original certificates of good standing in terms of the Social Security Commission Act.

A.22.1.3 Good standing with Inland Revenue Office

A.22.1.4 Tenderers shall attach a valid Original Tax Good Standing Certificate.

A.22.1.5 Company Registration Certificate

A.22.1.6 Tenderers shall attach a valid copy of his/her Company Registration Certificate or proof of Defensive Name issued in terms of Section 7 of the Companies Act of 1973 (Act 61 of 1973) OR a Close Corporation Certificate issued in terms of Act 26 of 1988.

A.22.1.7 Letter of Intent

A.22.1.8 Letter of Intent to be provided by financial institution with the Tender to confirm that a Performance Guarantee will be issued after award of the Tender.

A.22.1.9 Shareholding

A.22.1.10 Tenderers shall attach shareholders certificates clearly indicating the shareholding structure of the company tendering

A.23. BACKGROUND

MTC is a public company registered in terms of the Companies Act of Namibia, No. 28 of 2004, as amended (Companies Act of Namibia) and MTC's Initial Public Offering closed on 1 November 2021 and listed on the Namibian Stock Exchange on 19 November 2021. The shareholding of MTC is now 39.9 % retail and institutional investors and 59.1 % by the Namibia Post and Telecom Holdings Limited (NPTH), a government entity.

The Mobile Telecommunication Company (hereafter referred to as "MTC") is a Namibian mobile communications operator founded in 1995. MTC's principal nature of business is to invest in and operate communications infrastructure in Namibia with intentions to offer complete solutions to its customer base. To date, MTC is the largest communications provider in Namibia with over two million active subscribers and a total of 807 active sites country wide.

MTC is committed to achieving 100% coverage of the Namibian population and improving the lives of customers through innovative digital solutions that will enable us to be the best digital provider that meets customer expectations. MTC commitments are being fulfilled through its innovative digital solutions, the 081Every1 project, which is expanding MTC's services to Namibians in remote rural areas, and its continued efforts to ensure their infrastructure supports the needs of customers. MTC is a preferred employer and the most recognized communications brand in Namibia – nine out of 10 customers would recommend MTC to others.

A.23.1 Vision Statement

To drive an inclusive Namibian digital economy.

A.23.2 Mission Statement

To create sustainable value for all our stakeholders through innovative digital solutions and a high-performance culture.

A.23.3 What we value

- Integrity (trust, transparency)
- Customer centricity
- Stakeholder inclusivity
- Innovation

OPERATIONAL PHILOSOPHY

MTC recognizes commitment to our common vision, to growth and profitability and to enjoying the work we do. We achieve this through continuous change and development in a dynamic industry. We grasp opportunities to develop MTC in a structured manner. We are committed to a culture of mutual respect, honesty, fairness, integrity, transparency, accountability, and trust, and dare each other to perform in an excellent manner. We reward people according to the value they bring to MTC. We serve our customers to the best of our ability and strive to improve this service wherever possible.

A.24. TERMS OF REFERENCE

MTC seeks an Enterprise Resource Planning (ERP) system that modernizes and transforms the Finance function, enabling efficiency, transparency, compliance, and data-driven decision-making. The solution should leverage automation, integration, and AI capabilities where appropriate, while maintaining flexibility for future innovation.

A.25. CORE ERP MODULES:

- **Financial Management:** financial management capabilities, including general ledger, accounts payable, accounts receivable, fixed assets, budgeting, and reporting.
- **Supply Chain Management:** Procurement and inventory management.
- **Human Capital Management (HCM):** Employee data management, payroll, recruitment, and performance management.
- **Customer Relationship Management (CRM):** Sales, marketing, and customer service.

A.26. TELECOMMUNICATIONS INDUSTRY-SPECIFIC MODULES AND CAPABILITIES:

- **Billing and Revenue Management:** Rating, charging, invoicing, subscription management, interconnect billing, and revenue recognition for telecommunications services.
- **Network and Service Management:** Asset management for network infrastructure, service provisioning, and fault management integration.
- **Dealer/Partner Management:** Applicable, please provide details on functionalities for managing relationships and commissions with dealers or partners.
- **Interconnect and Roaming Management:** Features that support interconnect agreements, traffic data exchange, and roaming settlements.

A.27. GUIDING PRINCIPALS

Outcome-Oriented: The ERP should enable accurate, timely, and reliable financial management

Automation-First: Processes should minimize manual intervention and reduce errors.

AI-Enabled Insights: System should provide predictive and prescriptive insights for finance leaders.

Compliance & Control:

System must support governance, regulatory compliance, and audit readiness.

Core Financial Management

Enable end-to-end automation of finance processes (general ledger, accounts payable, accounts receivable, asset management, tax, treasury).

The general ledger:

Automation of journal processing, multi-entity support, intergroup reporting, adjustments, drill down options, batch processing

Payable Accounts:

Supplier on boarding, master data management, invoice processing, payment scheduling and batch processing, integration with banking system, tax compliance and withholding support

Accounts receivable:

Customer billing and invoicing, dunning and collections, customer statement generation, matching and reconciliation, balance reporting

Fixed Assets Management:

Integration to project management & procurement, assets acquisition, depreciation, disposals, multiple depreciation methods, revaluations, impairment, fixed assets reconciliations, master data management

Cash & treasury management:

Bank account management and reconciliations and matching, cashflow forecasting and liquidity planning, integration with the banking systems to enable automated processing to the general ledger, cash on hand tracking

Reporting & Analytics:

Real time financial dashboards and KPIs, drill-down capabilities at transaction level, regulatory, statutory and management reporting, self-service reporting tools for finance teams, integration with BI tools

Business planning. Budgeting and Cost Control**Procurement management:**

supplier management, purchase requisition and order management, contract and vendor management, spend and reporting analysis, category reporting

Warehouse, Stock & Inventory Management:

stock tracking and valuation, replenishment and forecasting, inventory optimisation, warehouse management, multi-location, integration into the general ledger.

Traveling and Subsistence allowance expense module**Sales and Distribution:**

Invoicing, e-commerce and customer portals, sales and marketing automation

Petty Cash Management

- Support seamless integration across modules (procurement, HR, operations, projects, Billing, POS, Stock Management etc.).
- Ensure compliance with relevant financial standards (e.g., IFRS, local regulations, tax laws).
- Provide strong internal controls, approval workflows, and audit trails.

Automation & Efficiency

- Automate high-volume, repetitive processes (e.g., invoice matching, reconciliations)
- Leverage AI to suggest actions, detect risks, and optimize cash management

- Reduce processing time for month-end and year-end close

Integration and Data Management

- Provide seamless integration with Banking systems, regulatory portals and partner platforms
- Integration to other external System which include Billing System, MFS platforms etc.
- Support API or service orientated integrations to external platforms
- Ensure master data governance across the ERP
- Provide a single source of truth for financial data, accessible in real-time

User Experience & Accessibility

- Provide an intuitive, modern, and mobile-friendly interface
- Enable self-service portals for employees, suppliers, and customers
- AI-driven virtual assistants/chatbots for finance queries
- Support accessibility standards for all user groups

Innovation & Future-Readiness

- Provide an intuitive, modern, and mobile-friendly interface
- System must be **cloud-ready** with strong security, uptime, and resilience AI-driven virtual assistants/chatbots for finance queries
- Support accessibility standards for all user groups

Compliance and Risk Management

- Maintain comprehensive audit trails.

A.28. FUNCTIONAL REQUIREMENTS**A.28.1 General**

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Open and Standard architecture The Vendor shall provide an Open and Standard architecture that minimizes changes to the architecture caused by new requirements			
Provide standard API's The ERP shall Expose and Orchestrate capabilities internally and externally by standard API's. Please provide a document that lists and describes the provided APIs.			
Trigger Notifications (Advice of Charge) The ERP shall support the capability of triggering Notifications to notify Users in case of certain configurable events			
Future proofed Database architecture The ERP must provide a Database structure/architecture that is fit for purpose			
High-Availability The ERP Architecture must achieve availability of at least 99.999%			
Geo-redundancy The ERP shall be capable of being deployed across geographical redundant sites/locations			
Scan and attached files			

The ERP shall have the capability to scan and attached PDF, JPEG, Audio/Video and MS Office files to records throughout all modules			
Disaster recovery mode of operations The ERP shall be capable of working in active-active mode of operation with the ability to re-route functionality to the alternative site in the event of a site failure without requiring changes to systems outside the ERP			

A.28.2 Financial Accounting and Controlling (FAC)

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
General Ledger accounting The ERP must provide a robust General Ledger that supports automated postings from all subledgers, manual and recurring journal entries, account reconciliations, allocations, reclassifications, period-end processing, transaction matching, and multi-dimensional reporting. It should support real-time trial balance updates, drill-down to source transactions, and strong audit controls.			
Accounts Receivable The solution must manage end-to-end receivables including customer billing, invoice generation, customer statements,			

collections, receipt allocation, aging analysis, payment matching, direct debit processing, and integration with contracts and revenue recognition. It should automate billing cycles, account updates, and reporting			
Accounts Payable The system must support end-to-end payable processes including supplier invoice capture, OCR and email ingestion, PO/non-PO invoice processing, three-way and two-way matching, approvals, payment scheduling, supplier statement reconciliation, accruals, duplicate invoice detection, and integration with procurement, banking, and the GL.			
Asset Accounting The ERP must support the full asset lifecycle including acquisition, capitalization, depreciation, transfers, revaluation, impairment, disposal, scrapping, and integration with projects, procurement, AP, inventory, and GL. It should maintain a full fixed asset register with audit trails and support IFRS and tax books.			
Bank Accounting The system must support bank account management, electronic bank statement imports, automatic and manual bank reconciliation, bank transaction posting, bank file generation for payments, segregation of duties, and complete audit trails. It should integrate with AP, AR, payroll, treasury, and cash management.			
Consolidation The ERP must provide multi-entity consolidation across subsidiaries, with support for intercompany eliminations, minority interests, group adjustments, consolidating journals, currency translation, and consolidated financial statement reporting. It should enable real-time or scheduled group reporting.			

Special Purpose Ledger The solution must support special ledgers for specific reporting or regulatory needs, including parallel ledgers, adjustment books, tax books, management books, and other purpose-specific ledgers. These should reconcile with the main ledger while allowing separate reporting and control.			
Travel Management The ERP must support travel, subsistence, mileage, and employee claim management including claim creation, policy validation, approvals, supporting documents, per diem calculations, reimbursement workflows, project/cost center tagging, and integration with payroll, AP, and GL.			
Cash Flow Management The system must provide cash positioning, cash flow forecasting, liquidity analysis, expected inflow/outflow monitoring, and integration with AP, AR, payroll, treasury, lease payments, and manual forecasts. It should support scenario-based cash planning and consolidated cash visibility.			
Financial Planning The ERP must support budgeting, forecasting, rolling forecasts, scenario analysis, budget approvals, budget-versus-actual analysis, multi-entity planning, payroll budgets, capex budgets, and integration with actual financial results for management reporting and decision-making.			
Taxation The solution must support tax calculations and reporting including VAT/GST, withholding tax, tax posting rules, tax codes, tax reporting, e-invoicing where applicable, and compliance with local tax legislation. It should support both transaction-level tax treatment and statutory reporting.			
Multi-Currency Support			

The ERP must support transactions, reporting, and settlements in multiple currencies, with maintained exchange rates, automatic currency translation, realized and unrealized foreign exchange postings, revaluation runs, and reporting in both local and group/reporting currencies.			
Regulatory Compliance Support The solution must support compliance with IFRS, tax legislation, statutory accounting, audit requirements, internal controls, approval workflows, maker-checker principles, and traceability of financial transactions. It should provide reporting and documentation to support audits and regulatory submissions.			
Month-end & Year end Closing Operation The ERP must support controlled month-end and year-end close processes including close calendars, checklists, automated accruals, reversals, reconciliations, foreign currency revaluation, consolidation, closing validations, roll-forwards, and year-end reporting. It should identify incomplete tasks before close.			
Asset Management The system must support operational asset management beyond accounting, including asset master data, tagging, location tracking, custodian assignment, movement tracking, lifecycle status management, maintenance cost visibility, verification processes, and integration with the fixed asset accounting module.			
Cost management and Profitability Analysis The ERP must support cost allocations, cost centre accounting, project costing, profitability analysis by product/customer/entity/channel, budget versus actual			

analysis, contribution margin analysis, and reporting on operational and financial drivers of profitability.			
Multi Company Reporting and Integration The ERP must support multiple companies/entities within a single group structure, enabling shared master data, intercompany transactions, cross-company reporting, consolidated views, entity-specific ledgers, and seamless integration across all finance modules.			

A.29. SALES AND DISTRIBUTION (SD)

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Customer and Vendor Master Data The ERP must support centralized business partner master data management for both customers and vendors, with controlled creation, update, approval, validation, duplicate prevention, banking and tax information maintenance, contact details, categorization, lifecycle status management, and full audit trails. Master data must integrate across sales, procurement, finance, billing, inventory, dealer management, and reporting.			
Sales order Management The solution must support end-to-end sales order management including quotation conversion, order capture, validation, approval, pricing, availability checks, backorder			

management, order amendments, status tracking, fulfillment integration, delivery coordination, billing trigger management, and full traceability from order to cash collection.			
Credit Management The system must support customer and dealer credit management through credit master setup, credit checks at order entry, configurable credit limits, blocked order handling, exposure monitoring, override approvals, risk classification, overdue monitoring, and integration with accounts receivable, billing, and collections processes.			
Electronic Data Interchange The ERP should support electronic exchange of business documents with customers, vendors, logistics providers, and external systems, including sales orders, invoices, delivery notices, statements, and confirmations. It should support standard file/API-based integration methods, validation rules, exception handling, acknowledgements, and audit logs.			
Billing and Invoicing The solution must support automated and manual billing processes for recurring, usage-based, contract-based, milestone-based, and once-off billing. It must generate invoices, debit notes, credit notes, and billing adjustments, with configurable invoice layouts, tax handling, approval controls, customer delivery through digital channels, and integration with AR and revenue recognition.			
Online Transaction Processing and Reporting The ERP must provide real-time transaction capture and reporting for sales, billing, delivery, collections, and customer account activities. It should support immediate updates to customer balances, inventory commitments, order status, and management dashboards, with drill-down capability and exportable reports.			

Sales Master Data The system must maintain sales-related master data including customer groups, sales areas, sales offices, sales personnel, territories, sales channels, product/service catalogs, pricing structures, payment terms, delivery terms, tax profiles, and customer classification attributes. Master data changes must be controlled through workflow and audit tracking.			
Sales Order Processing The solution must support structured sales order processing from order creation through approval, reservation, picking, delivery, invoicing, and payment allocation. It must support multiple order types, order amendments, partial shipments, split deliveries, returns, cancellations, and linkage to contracts, inventory, warehouse, and billing.			
Sales Information System The ERP should provide a sales information system for operational and management reporting across sales performance, orders, customer trends, product movement, billing, collections, margins, returns, and delivery performance. It should support dashboards, filters, drill-down, and trend analysis across entities, channels, and periods..			
Sales Support The system should support sales operations through workflows, alerts, activity tracking, approval routing, document generation, order support processes, customer communication support, and sales performance visibility. It should also support integration with CRM, dealer channels, contract management, and service fulfilment systems.			
Special Business Transaction The ERP must support special sales-related business transactions such as credit notes, debit notes, cancellations, write-offs, promotional transactions, intercompany sales,			

bundled offers, free goods, return-to-stock transactions, adjustments, and exceptional billing scenarios. These must be processed with configurable controls and auditability.			
Transportation The solution should support transportation-related processes linked to order fulfilment, including shipment planning, dispatch scheduling, carrier readiness, route grouping, proof of dispatch, transport status capture, delivery confirmations, and integration with warehouse and logistics processes where applicable.			
Pricing The system must support flexible pricing management including standard price lists, customer-specific pricing, promotional pricing, discounts, rebates, bundled pricing, contract pricing, dealer pricing, multi-currency pricing, tax-inclusive or tax-exclusive pricing, and approval workflows for price overrides and exceptions..			
Picking The ERP must support picking processes linked to sales order fulfilment, including pick list generation, wave-based picking, serial/lot capture where applicable, scan-based confirmation, exception handling, partial picking, and integration with warehouse, dispatch, and delivery confirmation processes.			
Quotations The system should support quotation management including quotation creation, validity periods, version control, pricing simulation, approval workflows, conversion to sales orders, customer communication, and reporting on quotation success, open quotations, and conversion ratios.			
Bill of Material			

The solution should support sales-related bill of material capabilities for bundled or configurable products and services, allowing multiple components to be sold as one commercial offer while maintaining pricing, inventory, revenue, and fulfillment linkage to underlying components.			
Cost Analysis The ERP should support cost and margin analysis across sales transactions, products, channels, customers, contracts, and entities. It must provide visibility of direct cost, allocated cost, selling price, gross margin, contribution margin, and profitability at multiple reporting levels.			
Sales Master Data Management The system must provide governance and lifecycle management of all sales master data, including approval workflows, field validations, duplicate checks, status management, role-based maintenance, audit trails, and controlled synchronization with finance, inventory, dealer, and billing modules.			
Sales Contract Management The ERP must support the creation and lifecycle management of customer sales contracts, including contract activation, renewal, amendment, suspension, termination, billing linkage, service terms, pricing conditions, revenue schedules, and monitoring of contractual obligations and consumption.			
Claims, Returns, Refund Management The solution must support end-to-end claims, returns, and refund processing including return authorization, reason codes, customer claims logging, inspection outcomes, stock return handling, credit note or refund generation, workflow approvals, and reporting on return trends and claim resolution.			
Business Partner Data			

The system should maintain a unified business partner structure for customers, vendors, dealers, agents, merchants, and other counterparties, ensuring shared core data with role-specific extensions for sales, procurement, finance, contracts, banking, tax, and compliance.			
Free Goods Flow The ERP should support promotional and contractual free goods processing, including free item allocation, bundled sales offers, campaign-driven giveaways, inventory tracking, pricing treatment, approval controls, and reporting on promotional stock movement and cost impact.			
Delivery Process The solution must support the delivery process from order release to dispatch confirmation, including delivery creation, picking integration, packing, shipment readiness, route grouping, proof of delivery or dispatch, serial tracking where required, and integration with warehouse, billing, and customer account processes.			
Incompletion Process The system must support incompletion checks to identify missing mandatory master data, pricing details, delivery details, tax information, or other required data before a sales order, delivery, billing document, or contract can proceed. It should provide user prompts, exception handling, and workflow-based resolution.			
Sales Monitoring and Analysis The ERP must provide real-time and historical monitoring of sales operations across order intake, pipeline, quotation conversion, billing, returns, collections, margin performance, delivery service levels, customer trends, dealer activity, and channel performance. Dashboards and reports should support drill-down, trend analysis, and multi-entity views.			

A.30. **SUPPLY CHAIN MANAGEMENT**

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Contract Lifecycle Management (CLM) • Clause library with approved alternatives and fallback clauses. • Collaborative redlining with version history and audit trail. • E-signature integration (e.g., DocuSign/Adobe Sign). • Contract metadata (term, renewal, pricing, SLAs, KPIs, obligations) with reminders. • Contract-to-catalog publishing for items/rates.			
Warehouse Management Multi-warehouse setup (3 warehouses) including standalone repairs managements system with shared and/or separate inventory pools; support for complex fulfilment channels (contractors, corporate, residential, retail shops, dealers and internal customers) PIOT integration			
Transportation Management Shipment planning by customer category, region, and dispatch schedule; carrier integration (Application Programming Interference/file-based); dispatch KPIs (OnTimeInFull, lead time, cut-off adherence)			
Supply Chain Management End-to-end supply chain visibility including inbound, outbound, returns, and redistribution flows including online dispatch			

Procurement management Integration with PO and Advance Shipping Notification processes; supplier collaboration and inbound visibility.			
Document Management GRN, ASN, dispatch, and audit documentation with full traceability. Integration of waybil and POD with 3rd party.			
Procurement Process ASN creation/receipt; ASN vs PO vs actual reconciliation; discrepancy handling (short/over/damaged/mismatch). Receipt ability trigger AQ and trigger to Shelf. Advance notification of delivery to Procurement and relevant stakeholders.			
Requisition Management Demand-driven requisition inputs aligned to stock levels and planning triggers (Including authorization rules)			
Contract Management Supplier and service contracts across procurement lifecycles, with access rights			
Supplier Management Supplier master data, ASN collaboration, performance tracking. Invoice arrival documentation attachment on system, Including CSV files attachment, Packing list, Import documents			
Sourcing and Quotation Management The system should support Creation of RFx templates (RFI, RFP, RFQ) with pre-defined questionnaires. Event management: invite suppliers, manage timelines, Q&A. Weighted scoring (price, quality, delivery,) with configurable weights. Scenario analysis (e.g., multi-award, capacity constraints). Award to contract and/or catalog with one-click handoff.			

Forecasting and Replenishment Forecast-driven replenishment triggers; stock-out alerts; demand planning integration: Out of stock notifications, Excess/out of stock days, weeks, months, Potential out of stock.			
Execution of Orders Order execution across multiple customer channels with SLA prioritization and reservation logic. Contract customers, Retail/Laybuy/ projects, Material Requests internal requests Integration to billing system automation. (real time) Project requirements - Tenders/Sales automated request, approval process, sales price automated update according to quotation, Finance payment agreement - Logistics execute online Couriers or advance shipping notification automization. Material Requirements advance trigger alerts for execution. Authorization role level requirements Documents attachment feeds			
Dispatch of Orders Packing, dispatch confirmation, label printing, and manifesting			
Electronic Tendering Registration & Portal Self-service supplier registration with configurable forms (company info, tax/VAT, banking, certifications). Supplier portal for profile maintenance, documents, order visibility, ASN, invoicing. Qualification & Risk Risk scoring model (financial, delivery, quality, compliance), with thresholds for approval. Document collection & workflow (COI, ISO certs, tax certificates) with expiry notifications. Master Data & Performance			

Single supplier master record with parent/child hierarchies and site/plant mapping. Performance scorecards (OTD, quality defects, responsiveness, price competitiveness), auto-calculated from transactions. Supplier corrective action plan (SCAR) workflow for underperformance. The system should also support Creation of RFx templates (RFI, RFP, RFQ) with pre-defined questionnaires. Event management: invite suppliers, manage timelines, Q&A. Weighted scoring (price, quality, delivery,) with configurable weights. Scenario analysis (e.g., multi-award, capacity constraints). Award to contract and/or catalog with one-click handoff.			
Tracking Products by supplier and user Serialized lifecycle tracking (IMEI/MAC/Serial) from inbound → storage → issue → return → refurb → redeploy/scrap			
Demand Planning Demand inputs from all fulfilment channels; planning integration including forecasting			
Supply Chain Process and Business Scenarios Full process coverage including inbound, warehouse operations, order fulfilment, reverse logistics, repair integration.			
Order Processing Order capture, prioritization, backorder handling, and partial fulfilment rules (with Dash boards available) Integration between ERP and Repair management system - part update with notes.			
Inbound Planning & Yard Management The solution must support Dock appointment scheduling and inbound planning Yard/vehicle check-in and gate control			

,Truck queue management and dock allocation, Labour planning based on ASN arrivals Warehouse capacity planning for inbound loads			
Staging Management The solution must support Inbound staging before put-away Outbound staging before dispatch Cross-dock staging (Receive → Sort → Dispatch without storage) Staging area control by zone and priority Congestion management and staging optimization			
Task & Labour Management The ERP should support System-driven task queues (put-away, picking, replenishment, movement) Task interleaving to optimize workforce productivity Labour tracking and performance measurement (lines/hour, tasks/hour) Supervisor visibility and workload balancing			
Exception Handling Management The solution must support Structured exception workflows for: Short picks Damaged goods Missing inventory Incorrect scans (serial/bin/order) Exception logging with reason codes Approval workflows and audit tracking Escalation and resolution tracking			
Value Added Services (VAS) The system must support Kitting and bundling (e.g., router + cables + SIM) Pre-pack assembly Labelling and relabeling Product configuration (e.g., firmware updates, provisioning)			
Shipping Documentation & Compliance The ERP must provide Packing lists, delivery notes, dispatch documentation Export/import documentation (if required) Proof of			

Delivery (POD) integration readiness Compliance documentation and audit trails			
Warehouse Performance Management The ERP must provide Operational KPIs: Pick productivity Put-away time Order cycle time Receiving cycle time Warehouse “health check” dashboards			

A.31. MATERIAL MANAGEMENT (MM)

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Compliance, Documentation & Audit Trails Full audit trail for all inventory transactions, compliance documentation, and traceability across processes			
Availability of Material Real-time visibility of stock across warehouses and locations			
Availability of Stock Stock status handling (Available, Reserved, Quarantine, Defective, In Repair, Refurbished, Scrap)			
Third Party Stock Handling of contractor/dealer stock ownership and visibility			

Consignment Stock Supplier-owned inventory tracking and usage			
Warehouse Management Multiple warehouses and sub-warehouses; bin structure (zone → aisle → bay → bin)			
Requisition Management Demand-driven requisition inputs aligned to stock levels and planning triggers (Including authorization rules)			
Optimum Store Inventory FIFO/FEFO enforcement; stock ageing; slow-moving identification; stock-out alerts Replenishment of forward picking locations from bulk storage Min/max and demand-based replenishment triggers Automated replenishment task generation			
Inventory Management Full stock movement lifecycle: receipt, staging, put-away, transfers, returns, scrap (repair integration) Explicit staging processes (inbound/outbound) Cross-docking flows Internal stock movements with task execution Swap stock Arrival to be registered on ERP			
Product Lifecycle Management Serialized equipment lifecycle including refurb, repair, redeployment, scrap			
Stock Takes Cycle counting (ABC, event-based, location-based); blind counts; variance workflows Event-triggered counts (post-returns, exceptions) Audit compliance reporting Authorized stock take completions Authorized Stock variance approvals Audit Count approvals			

Goods Issue and Receipt Management PO-based receiving, QA workflows (pass/fail/quarantine), GRN recording Authorization role level requirements Documents attachment feeds			
Inventory control, Optimization and Analytics Dashboards: stock holding, surplus, shortage, ageing, fill rate, stock-outs			
Picking and Packing Management Picking strategies (zone/batch/pick-to-cart); scan validation; pack verification Outbound staging before dispatch Pick failure handling and short pick logic Substitution rules (if applicable)			
Demand Planning Integration with replenishment and fulfilment demand signals			
Distribution Management Shipment, routing, dispatch, and customer delivery planning			
Demand Planning Demand inputs from all fulfilment channels; planning integration including forecasting			
Process Synchronization for Capacity Planning Labour planning and dock scheduling driven by Advance Shipping Notification and inbound workload			
Product Data Management Stock Keeping Unit attributes: serialized flag, QA flag, condition grading, warranty tracking integration to Repair Management			
Forecasting and Replenishment Automated replenishment triggers and planning inputs, surplus /stock outs, potential stock outs, available stock in days /weeks and months			

Quality Assurance Management QA at receiving and returns; test outcomes (pass/fail/repair/scrap); compliance controls Disposition decision rules: • Return to stock • Repair • Vendor return • Scrap			
Resource Planning and Management Workforce planning based on inbound (ASN), picking waves, and workload.			
Pricing Product pricing structures (if linked to inventory valuation including sales parts to Mobile Homes and EBU/ contracts)			
Bill of Materials Component tracking and reporting for assemblies and repair parts			
Reverse Logistics Management Returns (RMA), condition grading, cleaning, refurbishing/repair, redeployment Asset Return, from installation back to warehouse			
Repair & Integration Management Repair center integration including work order mapping, stock updates, and spare parts management			
Replenishment Management Automated replenishment of pick faces Trigger-based replenishment (min/max, demand, wave planning) Priority-based replenishment execution Integration with picking and wave planning			
Security & Safekeeping (RFID/ PIOT tracking)			

High-value inventory storage (cages, restricted zones) Controlled user access by warehouse zone Serialized inventory protection and audit tracking Shrinkage monitoring and loss prevention Integration readiness with CCTV/security system			
Environmental & Storage Controls Temperature Special storage requirements for sensitive, hazardous or bulky goods Monitoring and alerting for environmental breaches Compliance with storage regulations (if applicable) Batteries			
Returns Authorization & Validation RMA approval workflow before returns arrive Return eligibility validation rules Fraud/invalid return prevention Pre-advice for expected returns Asset Return			
Kitting & Assembly Creation of bundled SKUs Assembly/disassembly processes Component tracking within kits Dis-assemble kit and book back - used /unuse			
Inbound Logistics ASN, receiving, QA, put-away, (cross-docking delivered without storing)			
Inventory Transactions Real-time, auditable stock movements with serial tracking			
Order Fulfilment Wave planning, picking strategies, SLA prioritization			
Reverse Logistics Returns, QA, cleaning, repair, redeploy			
Slotting			

Dynamic slotting and optimization Placement of Stock locations inside the warehouse according to fast moving slow moving, heavy equipment and expensive equipment			
Scanning & Mobility RF scanners, barcode/QR, offline sync Update and programme new unit			
Dashboards Fill rate, stock health, ageing, Onetime in Full The solution must provide flexible, user configurable dashboards enabling different operational, tactical and management users to personalize views, KPI's, filters and reporting according to their business function and responsibilities without IT dependency.			
HSE Compliance Restricted zones, process compliance, safety tracking safety warehouse health checks on system. Preset and scheduling plus reporting			
Integration Repair, procurement, finance, CRM, carriers; Banks, External Systems including Mobile Billing and MFS			
Acceptance Scenarios End-to-end test scenarios for validation			

A.32. BUSINESS INTELLIGENCE (BI)

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Financial Reporting			
Reporting on all modules Intelligent reporting which assists in extracting critical data for better and informed decision making			
Analytics and Reporting On-Demand and Periodic, Reporting and querying tools to create and custom reports, dashboards based on users' specific needs and requirements			
User Customized dashboards and alerts on KPI's			
Data Warehousing			
BI Platform Front End reporting and Dashboards			
Data Services Tools and methodologies that enable effective management, processing, and analysis of ERP data.			
Data Modelling Information Design Tools			
Online Analytical Processing Functions and Services			

A.33. HUMAN RESOURCE MANAGEMENT (HRM)

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Personnel Administration • Complete employee master data: personal details, ID numbers, contact info, emergency contacts • Employment contracts and offer letters • Job classifications and grades structure • Reporting hierarchy/org charts • Employee photos and biographical data • Work permit/visa information (if applicable) • Document management policies for personnel files			
Time Management • Current time tracking methods/devices (biometric, swipe cards, manual) • Work schedule definitions (shifts, rotations, flexible hours) • Leave policies: types of leave, accrual rules, carryover limits • Overtime rules and approval workflows • Attendance policies and exception handling rules • Public holiday calendars • Time recording requirements for different employee categories			
Time Management • Salary structures: basic pay, allowances, bonuses, deductions • Pay scales and grade-based compensation tables • Tax tables and statutory deduction rates (PAYE, pension, UIF, etc.) • Bank account details for all employees • Payment schedules (weekly, bi-weekly, monthly)			

• Payroll calendar with cutoff dates • Third-party payment recipients (insurance, garnishees) • Historical payroll data for migration			
Organizational Management • Complete organizational structure (business units, departments, cost centers) • Position definitions and job titles • Reporting relationships and approval hierarchies • Headcount per department/division • Location/site master data • Cost center assignments • Legal entity structure			
Benefits Administration • Benefit plans: medical aid, pension, provident fund, insurance • Eligibility rules per benefit • Enrollment periods and rules • Contribution rates (employee/employer split) • Benefit provider details and contracts • Beneficiary nomination forms • Benefits enrollment workflows			
Enterprise Compensation Management • Compensation philosophy and policies • Salary bands and ranges per grade • Merit increases matrices • Bonus schemes and calculation rules • Commission structures (if applicable) • Total rewards statements format • Compensation approval workflows • Market salary survey data			
Payroll Integration • GL account mapping for payroll postings			

• Cost center allocation rules • Finance system integration points • Journal entry templates • Reconciliation procedures • Audit trail requirements • Payment file formats for banks Consider adding: Time Management to Payroll integration requirements Attendance data transfer rules Bank Integration; Leave and Bonus Provision based on actual data; Automated Increase calculation			
Tax Administration Management • Tax registration numbers (company and employees) • PAYE/income tax calculation rules • Tax certificates (IRP5/IT3a) generation requirements • Statutory filing deadlines • Tax directive handling procedures • Tax code master data • Year-end tax reconciliation processes			
Employee Self Service • Self-service functions required (leave requests, pay slips, personal data updates) • Mobile access requirements • Approval workflow definitions • Document access policies • Password/security policies • User interface requirements • Notification preferences			
Manager Self Service • Manager approval functions (leave, overtime, expenses) • Team reporting/dashboard requirements			

• Budget visibility requirements • Delegation of authority rules • Access to subordinate data policies • Workflow escalation rules			
Time and Labour • Labor cost allocation rules • Project/job costing requirements • Billable vs non-billable time tracking • Labor distribution to cost centers • Productive hours tracking • Absence costing rules • Integration with payroll for labor costing			
Employee Master Database • Data migration plan from current HR system • Data cleansing requirements • Unique employee ID structure • Data retention policies • Archive and purge rules • Data privacy/POPI compliance requirements • Access control matrix for employee data • Historical data requirements			

A.34. **KNOWLEDGE MANAGEMENT (KM)**

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Content Management			
Task Creation			
Static data, Reports, Processes & Procedures, memos, etc,			
Folder Management			
Automated Service Requests			
Automated Approvals			
Automated Transfers			
Automated Products/Services Price Updates			
Electronic Signatures			
Knowledge and Information Resource Management			

A.35. REFERENCE DATA MANAGEMENT

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Manage Reference Data Manage Reference Data Integration; Manage Reference Data Quality			
Manage Master Data			

Manage Master Data Integration; Manage Master Data Lifecycle; Create Master Data; Update Master Data; Collect Master Data; Remove Master Data			
Manage Transactional Data Manage Transactional Data Integration, Manage Transactional Data Quality; Manage Transactional Data Lifecycle; Manage Reference Data Lifecycle			
Manage Reference Data Lifecycle Manage Reference Data Lifecycle business activity directs and controls tasks to support the entire lifecycle tasks for reference data management, from creation and maintenance to retirement.			
Manage Unstructured Data Manage Unstructured Data Integration; Manage Unstructured Data Quality; Manage Unstructured Data Lifecycle			
Reporting Reference Data Reporting			
Accounting Rules			

A.36. PROJECT MANAGEMENT

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Project Management Module Functional Requirements			

Supports planning, execution, monitoring, and financial control of projects. Support project budgeting at project, phase, and task level, including original budgets, revisions, and budget-versus-actual tracking.			
Project Financial Management and Integrations Integration with GL, Procurement, Inventory, AP, AR, FA, for real time tracking and update. Traceability between project transactions, operational modules, and General Ledger postings for audit and financial control purposes.			
Project Reporting and Analysis Cost, Budget Variance, Profitability, Commitments, Revenue, WIP and Capital project tracking reports. Including Dashboard Functionality for monitoring financial status and budget utilization. Drill Down Functionality			

A.37. MANAGEMENT ACCOUNTING AND BUDGETING

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Budgeting Functionality to create, manage and analyze annual budget and forecasting. Should support Activity Based, Itemized, standard budgeting. Multiple company budgets including consolidation up to group budget. Tools for scenario planning (what if analysis). Multi-currency capability. Integration to Project and GL module to update for budget tracking purposes			

Payroll Budgeting Detail Payroll budgeting integrating to HR module. Multiple company budgets including consolidation up to group budget. Capex budget functionality with depreciation forecasting base on current FAR and new additions.			
Capex & Depreciation Budgeting Itemized Capex budget with depreciation forecasting based on current FAR and new additions.			
Budget import functionality			
Forecasting Rolling Forecasting Functionality			
Cost management and Profitability Analysis Variance Analysis reports and Dashboards, available up to cost center level. Drill down functionality and compare what was budgeted and forecasted versus the actuals to determine coarse corrections as needed.			
Cost tracking Analytics Such as cost per employee, assets maintenance and trend analysis			
Cost management and Profitability Analysis Variance Analysis reports and Dashboards, available up to cost centre level. Drill down functionality and compare what was budgeted and forecasted versus the actuals to determine coarse corrections as needed.			

A.38. MOBILE FINANCIAL SERVICES

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Agent Management through Integration Agent GL Reconciliation to align with Agent listing in Core Platform. Include Super and Sub- Agent set-up			
Agent Commission possible Reverse Billing Commission Tracking for Invoice Payment			
VAS Service Invoicing for Partners Invoice of for VAS Service			
Trust Account and Settlement Reconciliation Manage Trust Reconciliation			
Full Bank Integration and Reconciliation			
Full MFS Accounting not covered under the Financial Accounting Sections			
Reconciliation relating to IPP/ Interchange			

A.39. **FLEET MANAGEMENT**

The table below must be completed accurately and competently by the bidder. All entries must be supported by relevant documentation and evidence.

Requirements	Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Fleet and Fuel Card Manager Management of Fuel and Maintenance Cost			

Fleet Analysis			
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A.40. ERP - OPERATIONAL REQUIREMENTS SPECIFICATIONS (ORS)

A.40.1 Fault Management (FM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Fault Management Alarm messages at a minimum shall contain the following data: date, time, severity, unique identifying number, user defined component identifier, user defined category, alarm slogan, detailed alarm description including probable cause and impact.			
Fault Management All alarms issued by the system shall be fully documented incl. a detailed explanation of the problem, its probable route cause, its potential impact on system and application/service level, and instructions how to fix the problem.			
Fault Management Each alarm issued by the system shall be supported by a corresponding clear event. As soon as the malfunction ceases the clear event shall be issued.			
Fault Management It shall be possible to individually filter alarms at system level before being sent to central Fault Management components.			

Fault Management The Fault Management System shall not cause alarm floods, i. e. is shall not issue more than • 100 alarms per minute. • 1000 alarms per hour • 10000 alarms per week. Motivation - Avoid overload of NMS			
Alarm Severity classification The Supplier shall support at least the following severity classification. The actual denotation and granularity might differ, but shall be supported by the Supplier, i. e. adding, deleting, and modifying severity details shall be possible.			
Alarm Severity classification Severity - Fatal/Critical: • Outage of a system or component • Failure with significant service derogation • Heavy performance or capacity limitations • Loss of charging records • Instant detailed analysis and/or correction necessary			
Alarm Severity classification Severity - Major: • Outage of a redundant system or component • Indication of possible outage in future • Detailed analysis and/or correction necessary in order to assure service or to eliminate single point of failures			
Alarm Severity classification Severity: Minor: • persistent failures, not affecting the service yet • Detailed analysis and/or correction necessary but not time-critical			
Fault Management Severity: Warning: • single or short-term failures, possibly self-adjusting • Could indicate trends and should therefore be shown to operators • Detailed analysis or correction not yet necessary			

Fault Management The Supplier shall preset all alarms according to the above classification. It shall be possible to redefine the preset classification by a per alarm basis.			
Fault Management The Supplier shall provide tools to enable tracing, fault isolation and fault diagnosis in both the signaling and bearer planes as well as on system, application and service level in order to perform "Route Cause Analysis". Motivation - Enable trouble shooting			
Fault Management Please describe what equipment and tools will be provided in respect of tracing and fault analysis. Motivation - Enable trouble shooting			
Fault Management The Supplier's offer shall include logging of all alarms and clear events in files.			
Fault Management It shall be possible for the MTC to configure the number and size of log files in order to define how long data is kept and to avoid storage overflow.			
Fault Management The alarms' time shall be displayed in the local time zone and shall convert alarms time zone to its local time zone if the alarms' time zone differs from the local time zone.			
Fault Management Provider shall state if an automatic on-line link is available to retrieve on-line the documentation related to the error.			

Fault Management It shall be possible to modify the alarm additional information (at least 80 characters additional alarm information can be added to the alarms) on a per alarm basis.			
Fault Management The system shall generate an alarm in the event of any connectivity issues between the system and any other system that the system is directly integrated with. Please detail the method and time taken to detect these issues for each system integration point (for the minimum of the list of integration point described in the functional requirements). For example detection of BSS notification interface by heartbeat failure after 10 seconds			
Monitoring It must be possible to monitor the status of all components within the configuration without the requirement for local or physical access to the platform.			
Monitoring Mechanisms must be provided to view system and application events and alarms both on the platform itself and via a remote mechanism (e.g. SNMP)			
Monitoring The Fault and Performance Management System shall comprise "Monitor the Monitoring" functions that allow for automated detection of malfunction of the management system itself, e. g. loss of communication between management agents and servers (if such are provided), outage of SNMP agents (if such are provided), malfunction of monitoring scripts (if such are provided), etc.			

Monitoring Every Fault and Performance Management component offered shall include a configurable heartbeat function that allows for issuing regular commands in order to signal the operational status. Heartbeats shall clearly indicate and assure that the relevant component is up and running and fully operational.			
Monitoring The Fault and Performance Management System shall comprise "Consistency Check" functions that allow for automated consistency checks of the management system's parameterization in order to detect configuration errors like: active monitors for inactive components, no monitoring for already activated components, etc.			
Monitoring Please describe in detail, what kind of "Monitor the Monitoring" and "Consistency Check" features will be provided.			
Monitoring The Supplier's offer shall include all hardware and software components needed to integrate and operate its "Monitor the Monitoring" solution.			
Monitoring It should be possible for external systems to monitor various aspects of the platforms by simply logging in and running automated checks, e.g. checking the /usr directory for any recent changes to the user files			
Monitoring It shall be possible to create on line performance measurements that allow the real time monitoring of the systems and - or service performance. These real time statistics should be available with an maximum interval of 1 minute.			

A.40.2 Performance Management (PM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
PM characteristics The Supplier shall provide a Performance Management solution that allows for: measuring, storing, monitoring and alarming, forwarding, all relevant performance counters of the system.			
PM characteristics The measured values shall be complete, consistent and correct.			
PM characteristics The Supplier shall provide an interface between Performance and Fault Management that allows for issuing alarms and clear events when configurable thresholds of performance counters are met.			
PM characteristics It shall be possible to filter performance data before it is forwarded to upper management layers.			
PM characteristics The PM system shall be able to correlate different performance alarms that have a common cause.			

PM characteristics Performance data shall be collected from the NEs and shall be processed in 'near real time', i.e. less than 5 minutes.			
PM characteristics Provider shall describe the parameters that are configurable on this system for the purpose of performance measurement. At least the following non-exhaustive list of parameters shall be supported on a per measurement basis: - Measurement identification/explanation - Measurement granularity - configurable- Measurement units explanation			
PM characteristics It shall be possible to define the period of time over which the value of a statistical measurement shall be represented. This shall include but not be limited to:- Minutes in last hour - Hours in last days- busiest hour over a 24 hour period- 24 hours in last week- Week in last Month - Month in last year - week - month - year - YTD (year to date)			
Output Format of Performance Data Performance data shall be output in a standard data format (e.g. ASN.1, CSV or XML)Note: In case of complex data structures like ASN.1 or XML, the data structures definition as well as the corresponding encoding rules (e.g. BER) shall be provided.			
Output Format of Performance Data Performance data shall be output in a format that shows the association between counter, counter value, object, performance data report, recording period, sampled date/time and data quality.			

Measurements of Peak Traffic Measurements of peak performance/resource usage per time unit (e.g. hour) and subsystem shall be available.			
Measurements of Mean Traffic Measurements of the mean performance/resource usage per time unit (e.g. hour) and subsystem shall be available.			
SLA Management The system shall provide appropriate mechanisms to enable MTC to monitor and report the contractually agreed capacity, performance, and availability.			
SLA Management The presentation of the statistical measurement data shall allow: to display and real-time monitoring in text or graphical format; off-line analysis (view the measurement data history); trend analysis of measurement data.			
Service Event Failure Rate The Service Event failure rate shall be less than 0.01 percent of total Service Events handled. Note: Latency higher than 5s is counted as call failure.			
Counters Availability The system must support a wide range of counters for the following categories - interface usage, system resources usage, service level counters. Question: Please provide the full list of all supported counters.			
Insertion of New Performance Values It shall be possible to, on demand, insert new defined performance values.			

Performance Management Agents It shall be possible to host external Performance Management Agents into the managed node to perform measurement of complex and multiple parameters on the platform.			
List of External certified PMAs A list of all external Performance Management Agents that have been certified to run on The System shall be provided.			
Performance Data Availability The way(s) performance data is made available to other systems shall be provided.			
Performance Data Availability Performance data (raw and/or summary) shall be storable.			
Performance Data Availability The period to store performance data shall be configurable.			
Behavior at performance Limits Please describe the system behavior when it operates at its performance limits.			
Behavior at extensive application request Please describe the impact of receiving a very extensive application request. Note: All system limitations shall be listed and described.			

Impact of running side processes The impact of running statistical measurements, traces, command files and any type of activities on the performances shall be described.			
Reaction to Traffic Overload The System reaction to a traffic overload during a short time and to a permanent overload traffic shall be described. Note: Precision shall be given in terms of figures and description of system overload algorithm.			

A.40.3 Configuration Management - Administration (CMO)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
GUI A graphical user interface shall be provided for administrating data incl. following features: Login, offer creation/modification/deletion, import/export, versioning			
Log Mechanisms Log mechanisms for users and commands shall be provided. These logs can be switched-on or off according to the needs.			
Export Data in Human Readable format The system shall allow the export of all the Configuration data defined in a human readable format.			

Export DataThe system shall allow the export of all the Configurable data defined in a format that allow to recover all Configurable data in the case of offer data lost (ex. wrong manipulation of offer data)			
Version Handling The Configuration admin tool shall offer a version handling for different data sets. A version is identified by a version number, a name and a time stamp.			
Logging All operations and activities done in the offer admin tool shall be logged in a protocol log file. The activity (save of instances and offer modification) shall be characterized by dedicated values in the log file (date, time, Version No., activation time, result state). Log Files and their entries must not to be deleted, modified or substituted by the offer admin tool user.			
Recovery in case the System has a corrupt offer data configuration, the offer admin tool shall provide means to bring the last valid master configuration version to the System			
Presentation Presentation of configuration data has to be done within a user-friendly GUI by usage of several windows to be opened at the same time so that offer administration is easily done between selected windows opened in parallel. A well-structured navigation bar shall enable fast access to the offer relevant parameters.			

Ease of Use The administration of the Configuration admin tool has to be done easy, safe and clearly, has to be done with common sense, has to be done without doubt about an action and a result, has to be done with reproduceable and consistent results and procedures, shall be faultless as possible, has to be indicated by useful alarms and indications in case of wrong operations and has to be done with less effort in order to reduce error rates.			
User Manuals A User Manual for working with the Configuration admin tool shall be provided which enables the operator to perform offer administration with the tool. A Help File in the offer admin tool does not substitute a proper User Manual.			
Errors Errors during offer administration or distribution processes to the System shall be announced by error messages on the application screen and in log files. These error messages must be objective and understandable by operation staff.			
Language The Configuration admin tool shall use English language. All messages (error, warning, information etc.) presented by the admin tool to the user has to be in English language.			
Updates and Backward compatibility If the software of the admin tool is updated, the administration of already existing offer data configurations in the admin tool and against the System shall be furthermore given. Configuration data administrated with an older version of an admin tool must be available and administrable with a newer version of the r admin tool. The admin tool has to be backward compatible.			

Backup & Restore A back up & restore file as system back up shall be generated in the admin tool which embrace all offer data configuration inclusive versions for the System and internal tool related system data. At each time, this file has to be exported and imported within one and the same Release Software version. The created file shall be used for backup and restore functionality for the whole data in the admin tool and implicit for the System and shall be easily created after each change. Another use case of this backup & restore file is to reproduce the whole live network offer configuration in a test lab (e.g. type acceptance test floor).			
User Authentication Each tool user has to authenticate before offer administration can start, login name and password is therefore required. A logout is also required. Passwords have not to be stored in readable format but cyphered.			
Shut Down Prompts When the admin tool is shut down, running sessions shall be indicated by a pop-up window and shall ask the user if offer admin tool shall proceed or shut down the open session.			
Database Protection The database including the Configuration relevant data has to be protected for access and manipulation by normal users who are logged into the System, where the database is located. Access to the database shall only be allowed by authentication using dedicated passwords.			
Performance Impact All administrative activities initiated on the admin tool shall have no performance impact on the System and do not change service response times. Therefore, all administration activities can be done at each time over the whole day.			

Multiple User Handling There shall be the possibility that multiple users are able to open and work with the admin tool at the same time. There shall be no limitation to operations provided by the admin tool which are run by users working in parallel.			
Concurrent Modification Handling in case there are concurring modify / write accesses to the offer data in the admin tool, a user (user_2) shall be informed about this parallel access to a working version of an arbitrary piece of data (offer instance) in case another user (user_1) already opened the same instance in the modify / write mode. In case of a concurring modify session on the same instance version the user who intends to save the instance data version has to be informed when concurring access is existing. It shall be up to the user to decide whether to store or to discard data changes. Overwriting of data has not be prohibited by the offer admin tool. Notification has to be done by displaying the users' Login-ID."			
Vendor Changes Each changes in the admin tool done by the vendor against the predecessor version shall be communicated to MTC. Evaluation of changes has to be reflected by the vendor to the MTC project, to operation and function of the System.			
Remote Access The system where the admin tool is installed shall support remote access. This shall ensure access to the admin tool not only for operational staff but also for engineering staff not located near to the System infrastructure.			
Versions availability The available versions on the system shall only be limited by the granted storage space.			

Effective date Effective date - it should be possible to prepare provisioning and have it "active" in a specific date/time.			
Rollback Versioning should be implemented in a way that could allow an automatic rollback to the previous configuration.			

A.40.4 Configuration Management (CM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Config. Mngt The Supplier shall define the service downtime duration caused by software upgrade and hardware upgrade			
Config. Mngt Any installation or configuration process (incl. software installation and upgrade) shall be fully automated, i. e. shall not be executed manually in interactive mode but shall be performed by a script or program which reads its input from a file. During the process it should give feedback about the progress, errors, decision points.			
Config. Mngt Any installation or configuration process should include a roll-back scenario. This should be available to be applied in any stage of the installation process in case some unexpected error happen without possibility to workaround.			

Config. Mngt It shall be possible to query every actual setting of configurable parameters on • hardware level, • operating system level, • system software level, • application software level via a script or program. Such scripts or programs shall be provided by the Supplier.			
Config. Mngt Every configurable parameter and its associated commands, API, etc. shall be documented. Documentation shall be available online and offline.			
Config. Mngt Any change to the configurable parameters (incl. Software installation and upgrade) shall be documented (incl. userId, command, old value, new value, timestamp) and version controlled.			
Config. Mngt It shall be possible to perform In-Service Maintenance, i. e. applying new software or configuration without causing service outages or data loss, e. g. by supporting two different software/configuration versions running simultaneously .			
Config. Mngt It shall be possible to revert to earlier versions of software and configuration versions in less than an hour.			
Config. Mngt It shall be possible to distribute Configuration Management changes over multiple platforms offered by the Supplier, from one source platform. The Vendor must explain their solution for this			
Config. Mngt The Supplier shall provide a solution that allows for comparing any configurable parameter in order to detect divergence between• different environments, e. g. production and			

test• target and actual settings. The solution shall be provided to the customer			
Config. Mngt The Supplier shall keep the target values for a specific configuration version in central location, e. g. file, directory, database. This information should be available.			
Config. Mngt The Supplier shall explain how each part of the proposed solution performs Configuration Management resynchronization over the proposed Smart Orchestrator solution and its interfaces			
Config. Mngt The Supplier's offer shall include all hardware and software components needed to integrate and operate its Configuration Management System solution.			
Config. Mngt It shall be clearly stated if it is possible to skip one or more software releases, i.e. if it is possible the SW upgrade between two non-consecutive SW releases. In this case, Provider shall describe in detail the procedure followed for skip release.			
Config. Mngt Provider shall indicate the number of software releases a year, and the number of recommended upgrades.			
Config. Mngt All software modifications shall be backwards compatible with existing software and data.			
Config. Mngt It shall be possible to insert patches (minor software modifications) via a remote data link.			

Config. Mngt Provider shall have a database with all available patches and a database with all the patches loaded on the system.			
Mass conf. Changes Mass provisioning changes must be possible to apply with a short time frame (less than 5h).			
Clock synchronization Clock synchronization for all platforms and HW elements since offers could be affected. NTP must be available.			

A.40.5 Operations and Maintenance (OM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Operations and Maintenance A graphical user interface shall be provided for administrating platform/service/ data.			
Operations and Maintenance An command line or batch interface shall be provided to the operator for administrating platform/service data. The supplier shall describe which interface (command line or batch) can be used to administrate the mentioned data.			
Operations and Maintenance It shall be possible to perform queries on the databases			

Operations and Maintenance The system MMI shall provide all facilities needed to monitor all aspects of the system including: Customer data, test, diagnostic and tracing, traffic control, resource usage accounting, charging and accounting, network data, system data administration,			
Operations and Maintenance The MMI shall incorporate a comprehensive security system to control the type of data accessible and commands usable according to the status and privileges of the operator. All access has to be protected by password.			
Operations and Maintenance GUI manipulations or batch processes must not put the underlying database or data into an inconsistent state such that it could cause any GUI or batch processes to block or to produce incorrect results.			
Operations and Maintenance All on-line transactions that can be performed via the GUI should allow for the reverse transaction via the GUI, unless explicitly stated differently in the functional requirements			
Operations and Maintenance Errors in syntax encountered during command execution (MMI + GUI commands) shall be notified directly by a short explanatory message and a fault code.			
Operations and Maintenance It shall be possible for commands previously entered to be retrieved and edited using local or remote terminals.			

Operations and Maintenance Where the syntax of a command is incorrect because it contains insufficient information, the equipment shall prompt the user for the missing items. On entering a command successfully, a suitable response shall be returned confirming the request.			
Operations and Maintenance It shall be possible to stop the execution of a command or command file at any time.			
Operations and Maintenance Commands that may have a significant impact on the grade of service, have to produce a warning message and must require an explicit confirmation before execution.			
Operations and Maintenance Whenever batch jobs exit with a fatal error status, the restart of the batch job shall be automated: scratch or intermediate files shall be automatically removed upon completion; the application logic shall resume functionally correct without manual need.			
Operations and Maintenance All batch processes or daemons shall be able to resume under the following conditions whenever they are interrupted for whatever reason (application, user provoked, hardware, environment,...):- The restart shall be autonomous, i.e. without any other manual action			
Operations and Maintenance Within a command file, it shall be possible to use parts of the output of MMI-commands as input-parameters for the next MMI command.			

Operations and Maintenance The output of the command file shall contain the command and the result of the command (successful or unsuccessful).			
Operations and Maintenance A separate file with all failed commands will be created after the execution of a command file.			
Operations and Maintenance All batch jobs shall log sufficient information in their log file to monitor their progress and to allow for a time estimate to complete the job.			
Fraud Control What type of tools are available to enable fraud detection?			
Fraud Controls is it possible to create periodic reports with fraud control activities?			
Remote vendor Access A supplier access to operational platform shall be supported. (Remote Vendor Access).			
Log retrieval to supplier Tools to fetch data automatically in order to send to the supplier for investigations. Avoid many interaction for files/log retrieval.			

Remote Capabilities O&M remote capabilities. It should be possible to perform almost all O&M tasks remotely. For example power down/up, HW check-up.			
Interfaces It shall be possible to redirect output messages (e.g. alarms, responses to certain commands) to any output port, or remote terminal or file			

A.40.6 Backup & Recovery (BR)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Backup Detailed backup procedures and proposals for backup intervals shall be provided by the Supplier. The backup policy provided by the vendor must guarantee 100% service restore in case of failure.			
Backup Support for centralized backup to all nodes belonging to the solution must be available.			
Backup Each system that holds data to backup, must have available an exclusively dedicated backup communication port or adapter for access to the backup LAN and/or backup SAN to be able for integration in LAN an or SAN based backup architecture.			

Backup The Supplier has to accept additional software on the system offered for backup purposes			
Backup Backup data containing customer data or security related shall be stored encrypted and access to the encryption key shall be restricted.			
Backup The System shall support automatic backup of configuration data and provide a mechanism to restore the previous backed up configuration data.			
Backup It must be possible to make a complete system backup online. The backup can not affect the service and the accuracy of measurement processes (e.g. Accounting, Toll-ticketing, traffic measurement).			
Backup The system shall be capable of making a backup automatically.			
Backup The version of the system backup shall be easily obtained. The operator shall be able to designate one among the available copies to be used for a reload. Under normal circumstances, the backup copy used in a reload will be automatically the latest version			
Restore For the backup/restore, how can you prove the backup can restore according the expectations? Is there any available feature from the vendor to guarantee that the backup would work as expected?			

Restore For the restore procedure, what is the expected TTR (Time to recover)? Some times the backup policy can be changed to minimize the TTR. Maximum should be 4 hours.			
Restore In case of a disaster an affected server must be able to start the restore of its whole system without support from an external environment which means that the server has to be rebooted from any boot device inside the offered system, Jumpstart-Server, Flash Start,...			
Restore Provide a boot source/device from where every crashed server can be started after a disaster with its operating system.			
Restore It has to be possible to perform a restore test, of a system unit selected by the operator, every 6 months. The vendor has to explain how this test can be done.			
Restore The system has to be protected against data corruption. It should never happen that the most recent data is overwritten by old data. The Provider has to explain the data update mechanism between DB's and memory.			
Disaster Recovery The Supplier shall provide the documentation of all backup, restore and recovery procedures as well as the associated operation concept within the standard templates and format.			
Disaster Recovery What level of sync is possible between two redundant sites? Namely the data difference. Please specify the sync in delta measured in time or number of records to update			

Disaster Recovery The system should have a reconciliation feature for a period while offline – the reconciliation feature should identify the delta between the active and offline systems, and update the offline system when it is active again.			
Disaster Recovery How does the vendor's architecture provide a disaster resilient offering ? (e.g. geographical data duplication)			
Disaster Recovery In case data is replicated, describe how the data is confirmed and how interruptions between sites resulting in out-of-date data are identified and recovered?			
Disaster Recovery In case a platform has been unavailable/lost and repaired, how long does it take until the disaster/recovery capability is available again. (e.g. being ready for a further platform loss)			
Disaster Recovery Only applicable if the Supplier's solution does not provide an immediate handover with full service functionality in case of platform unavailability: A basic service shall be provided to the customer in case of platform unavailability. (e.g rating engine not reachable, platform not reachable). The service access shall be provided on a restricted base. (whitelist/blacklist, time constraint...). Please explain the possibilities within your solution. Motivation - '- ensure a service access			
Disaster Recovery What are the conditions to be in place to be considered a node failover? For example: IP isolation is a criteria? Specify the scenarios where the failover is designed to happen and also the scenarios where it is not supposed to happen.			

Disaster Recovery In case of a site failure, How long it takes to failover the service to the alternate node? What type of service loss is expected to have?			
Disaster Recovery How the original configuration is again reestablished? Is it automatic? For example IP isolations, Node restore and service enabled? How does the solution reestablish the sync before going live again? Is the controlled automatically or is it operator responsibility?			
Disaster Recovery What level of impact in the external nodes (adjacent) when a failover takes place?			
Disaster Recovery What type of architecture is applicable for your solution? (Hot standby, Load Sharing). How this is related to D&R procedures, Dimensioning?			
Disaster Recovery It must be possible to perform a DR test on the live solution on a regular basis without impacting live performance, capacity and availability.			
Backup and Recovery A mechanism must be provided to perform a periodic system back-up of the system and data disks within the platform. It must be possible to perform a complete system restoration process, using these backups, within a 4 hour time frame. Where available this mechanism must be incorporated into the customer's network backup solution. If no network backup solution is available the backup/restore mechanism must be incorporated within the platform design.			

Automatic Error Recovery For HA platforms the solution will incorporate mechanisms to facilitate automatic recovery from errors such as Error Correcting Code (ECC) memory and storage controller write-back cache with battery backup. All such mechanisms will be documented in the solution technical design documentation along with any known limitations.			
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A.40.7 Platform Testing and Test Systems (PT)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Software Factory Acceptance Testing The vendor shall define and document the Software Factory Acceptance Testing to be performed as part of platform manufacture. This will include, but will not be limited to: OS boot tests (cold start, shutdown, reboot), Crash dump functionality, system configuration check, functionality checks for all installed components, validation of software build versus the documented definition, confirmation of software licensing, platform service functionality under an extended period of load, platform performance verification, resilience testing, installation specific configuration check.			

Software Factory Acceptance Testing Following delivery and installation, at the customer site, the supplier will perform SAT testing to demonstrate the following to the customer representative to verify correct functionality of the platform:- Console level access to all components- Correct boot function of all components- Confirmation of availability of all system devices- Validation of customer specific configuration versus ISSC- Standalone functionality and connectivity demonstration			
Unit Acceptance Testing The vendor shall perform Unit Acceptance Testing (UAT) on all electrical components supplied as part of the platform. The UAT shall include, but not be limited to: Power up of individual components Fan check on all components Check all external casing for sign of damage during transportation Check all self-test diagnostics pass Record and documents all serial numbers			
Test system The supplier shall provide a test/preproduction system, which is identical to the system in live network. Motivation - '- a pilot (or so called reference) platform is used for:- trouble shooting purpose- reducing risks at SW installation and data changes			
Test System Test system must be 100% functionally equivalent to production system. Test system consists of a minimal configuration regarding HW, expansion stage, performance but still meets above requirements.			

A.40.8 Availability (AV)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
System Redundancy For service availability reasons the System must be 100% redundant. Redundancy concepts shall be provided in advance so that correct decisions can be taken on architecture and sizing.			
System Redundancy The vendor shall describe in detail the resiliency of their complete solution. The answer shall include: • Event detection resilience (no loss of events) • Offer generation resilience (no loss of knowledge that an offer is outstanding with the customer) • HW resilience • Internal platform resilience			
Hardware Redundancy HW components shall be redundant in order to avoid any single point of failure. Note: Please list all components that are not redundant.			
Hardware Redundancy Any single HW fault shall not affect the service availability nor engineered load capacity. Note: If not, state the parts that are not.			
Software Redundancy All SW components shall be redundant. Note: If not, list the ones that are not.			

Software Redundancy Any single SW fault shall not affect the service availability nor load capacity. Note: If not, state the parts that are not.			
Software Redundancy It shall be possible to perform software upgrades without affecting the service to subscribers or causing performance degradation on other operating components.			
Software Redundancy It shall be possible to perform service logic upgrades without affecting services to subscribers or causing performance degradation on other operating components.			
DB Upgrade Database upgrades shall be possible without service interruptions			
Interfaces Redundancy All interfaces shall be redundant - no interface shall present any Single Point of Failure. Note: if not, list the ones that are not.			
Interfaces Redundancy IP Traffic Interfaces			
Interfaces Redundancy IP Provisioning and Front-End Interfaces			

Interfaces Redundancy IP CDR (Back End) Interfaces			
Interfaces Redundancy IP OA&M Interfaces			
Service Availability Per year The System shall provide service to end users by more than 99,99% of the time (four nines service availability). Please state the supported and committed value.			
Critical Nodes All critical elements shall offer availability higher than 99,99%. Please state the supported and committed value.			
Non-Critical Nodes All non-critical elements shall offer availability higher than 99,95%. Please state the supported and committed value.			
Load Sharing For protection against predictable (e.g Christmas or New Eve's day) and unpredictable traffic peaks (e.g National emergency event) System shall support traffic loadsharing (more than one node can handle the traffic at any moment). For this a synchronization mechanism must be implemented for dynamic subscriber data (if there is any).			
Load Sharing Load-sharing facilities shall be provided for IP Traffic.			

Load Sharing In order to provide load-sharing facilities to both the legacy systems and core network, each platform shall be seen as one logical (cluster) address to all external entities.			
Call Gapping In order to protect the nodes against bursts of excessive traffic (peaks of traffic higher than the engineered maximum capacity) and for overload control reasons, the System shall be able to implement (trigger and maintain) progressive Call Gapping procedures			
Fault Identification It shall be possible to identify, isolate, diagnose and rectify any failed component of proposed system.			
Takeover Please explain what happens to the ongoing traffic (all traffic types both in progress and already setup) in case of a takeover event.			
Failure Recovery The system shall have progressive recovery capabilities with appropriate logging to support root cause analysis of a failure condition.			
Failover scenario Service Continuity In a failover scenario the system shall be able to keep providing service without interruption. Note: If applicable, list any kind of traffic that is not maintained after failover event.			
Failover scenario Data Integrity In a failover scenario the System shall be able to keep all data (not lose any event detection data or data on offers sent to a specific customer).			

Effects of Failure Single Failure In case of a single failure, The System shall be able to provide full service (100%) to all customers at full load (100%). Note: Please provide the proposed High Availability strategy.			
Effects of Failure Site Loss In case one (single) site is lost (disaster scenario) the system shall be able to keep providing full service (100%) to all customers at full load (100%) at the same performance level - no loss of service. Note: The proposed High Availability strategy shall be provided.			
Effects of Failure In the event of a failure of any component of the system, it shall be possible to isolate the failed component without causing any service degradation to other operating components			
MTBF - Mean time between failures Provide MTBF figures for all Hardware components (in months).			
Spare Parts Provider shall list all existing spare parts, together with a description of their functionality, their criticality, their MTBF, their TAT, their unit price their repair price and their NFF price even when the Provider offers a swap repair services.			
Geographical Redundancy For Disaster Recovery, Geographical Redundancy shall be supported.			
Minimum Distance It shall be possible to have redundant nodes away from each other by, at least, 100 Kms. Note: Please provide update/synchronization procedures per node (online and offline).			

Data Integrity It should be possible to restore any function from a prior backup and ensure data integrity with all related components.			
Resilience Resilience of the critical functions shall be maintained by ensuring that any hung or failed processes will be automatically detected and restarted within 60 seconds.			
Automatic Recovery Following a crash restart or similar unplanned event of a critical server or hardware partition, automatic system recovery must occur within 15 minutes.			
Recovery of Critical database Recovery of a critical database within any of the critical functions must be achievable within 20 minutes.			
Restore Critical Components It should be possible to restore components from backups within 15 minutes for critical components. Note: The restoration will include both operating system and application code.			
Availability For high availability (HA) platforms the solution design will incorporate component and functional resilience to eliminate all single points of failure (SPOFs) (e.g. Redundant power supplies, mirrored disks, multi-path storage bus, resilient data network connections, redundant storage controllers). Any exceptions to this requirement must be documented and agreed with the customer prior to inclusion in the design.			

A.40.9 Security (SE)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Access Control The System shall provide access control for various functions of the systems (Role Based Access Control, Multi Factor Authentication, Single Sign On & Strong Password Policies and Account Logout control)			
Operators Profiles The System shall provide managed profiles/privileges for operators.			
User Activity Logs The System shall maintain security related historical information (e.g. user activity logs, Login event data) for at least 60 days.			
Security Auditing The System shall support auditing of user activity			
Data Privacy, Protection and Compliance The System shall protect customer data from any possible threat, e.g. encryption and secure transfer methods			

O&M Data Protection The System shall protect O&M data from any possible threat, e.g. Privilege Access and Secure Access Methods			
Business Data Protection The System shall protect business data from any possible threat, e.g. Encryption and secure transfer methods			
Security Domains The System shall provide clearly defined security domains.			
Security Identification and Authentication All subsystems of the System shall provide Identification and Authentication capabilities such that each user on a system or network can be uniquely identified and authenticated before any action is performed on behalf of the user.			
Security Identification and Authentication The System (and subsystems) shall have the capability to lock out or cause subsequent delays in attempting access on the systems, for an individual user and/or terminal after a predetermined consecutive number of failed authentication attempts			
Security Identification and Authentication The system administrator or security administrator must be able to revoke unused or unwanted user id(s). Users should be locked after a set time or event			

Security Identification and Authentication The System shall provide mechanism(s) to ensure that all passwords meet established password criteria. These criteria will be specified by the operators.			
Security Identification and Authentication users shall be able to change password at any time as long as the chosen passwords meet the password criteria.			
Security User level access control Mechanism(s) that set authorized use of programs, utilities, and data files to the individual user shall be foreseen. All access to data by users shall be controlled via an interface that requires, at least, a login and password or secure certificates			
Security User level access control The System shall provide the capability to set profiles for users based on need-to-do functions. Specific user profiles will be available that can perform specific actions. Different levels of access shall be assignable: passive (read-only); active (read/write)			
Security User level access control The administration and display of security related material (e.g. passwords) shall be protected by further (higher level) passwords.			
Security User level access control specific interface (GUI) shall be available to maintain (create, delete, reset password, change profile) end user logins to the application.			

Security User level access control The system(s) must be able to record access permission changes and export them			
Security User level access control It has to be possible to set the level of access on parameter level. E.g. in one profile it has to be possible to set the access level to read for one parameter (e.g. the notification preference), and to set the access level to read/write for another parameter.			
Security Network level access control No password or machine name shall be passed as a parameter.			
Security Network level access control All systems and networks shall have interface restrictions established for connection among its component subsystems and external locations			
Security and performance There shall be no performance degradation of the offered system when any of the security requirements are enabled /used.			
Blade based security If the system has a blade or distributed architecture, explain how the security is managed across the multiple systems/blades.			
Multi-level audit The system shall provide audit trails on different software layers (OS, database, application) as well as each network element accessed, allowing a tight control of accessing functions and information. The system shall provide a means to detect and alarm unauthorized or improper use of the system.			

Single sign-on Single sign-on capabilities shall be supported. It shall define how each Telecommunications Management Network (TMN) layer (within the TMN logical model) deals with user profiles; authority bands; pass-through; consolidated command logging; configuration databases; auditing; reporting; network and sub-network change control, service/service platform and other critical resources change control.			
Single sign-on Please describe the mechanism used to securely reduce the number of necessary logins (Single Sign On) .			
Central inactivity periods Does the system have the ability to define the period of inactivity centrally			
Certification compliance The Vendor must confirm the full level of compliance of CCS.			

A.40.10 Password Policy (PP)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
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Password Policy All passwords shall be stored hashed or in a one-way encrypted form that is inaccessible by any user. They shall not exist in clear text in any file or database (i.e. log or cookie, cache, etc.).			
Password Policy End User (including the customer) passwords shall be inaccessible by any kind of user without the knowledge of the relative password.			
Password Policy The strength of passwords used with the operation and maintenance accounts shall be enforced by the system.			
Password Policy The system shall provide a configurable mechanism to comply to MTC's password policy: • To detect and block simple passwords (e.g. 123456, abcdef etc.). • Check that the password does not contain more than two successive identical characters • To allow only the administrator accounts to reset the passwords • Password checking must be case sensitive • Password history must be set to 6 passwords • No hard-coded passwords allowed (i.e. service/application user passwords displayed in the source code)			
Password Policy The system shall provide a password change confirmation procedure (to prevent typing errors).			
Password Policy End user passwords shall be able to be changed directly by the users and be forced to change passwords.			

A.40.11 Account Management (AM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Account Management Passwords (even expired ones) shall be changeable by the system administrator without restrictions and by the corresponding user after providing the current password			
Account Management The system shall provide the capability to lock/deactivate/suspend or delete certain accounts/User IDs either manually or automatically, given some predefined actions/criteria (i.e. period of inactivity).			
Account Management The system shall provide the capability to print a list of all possible access privileges.			
Account Management The system shall provide the capability to print a specific user's access privileges.			
Account Management The system shall provide the capability to print comparison tables between different User IDs.			

Account Management The system shall provide the capability to list/print account/global security settings.			
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User Identification and Authentication (UI)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Authentication for sensitive data For access to very sensitive data (e.g. full VLR information) additional access request for authentication SHALL be used.			
Identification All users shall be allocated a unique user ID for the sole use of the individual.			
Password Policy Passwords shall NOT be included in any automated log-on procedure (e.g. by the use certificates or similar method).			
Logging access Access to the logging system and data shall be restricted to privileged accounts and user profiles (e.g. root, system administrator).			

Password Policy Passwords shall NOT be shared on any circumstance.			
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A.40.12 System Log and Access Control (SL)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Access log The system shall provide a log for when a successful/unsuccessful logon occurs. Events should be created for pre specified criteria.			
Log-on attempt limits The number of unsuccessful log-on attempts shall be limited to, at most, three attempts per session; afterwards the session will be terminated.			
Log-on suspension For a given User ID, after a set number of continuous unsuccessful log-on attempts (from different sessions) the account shall be time-locked suspended after a configurable number of attempts. The temporary suspension action shall be documented in a log file.			
Log-on timeout Users are required to enter their passwords (after a certain period of inactivity / time-out to be defined and configured centrally) before the session can be re-initialized.			

Non-repudiation Security log files shall be protected against manual modification even by the super user. The methods applied have to be described. The Vendor must explain how this will be achieved			
Access to logs Access to audit logs shall be safeguarded to prevent any possible misuse or compromise (i.e. access limited to authorized personnel only through specific application or system tools). The capability to export these logs to a 3rd party system must also exist			

A.40.13 Third Party and Remote Access Control (RAC)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Remote Access How would remote support or 3rd Party logins be handled in the system?			
Remote Access Policy Remote maintenance access shall be implemented according to MTC Policy requirements – contact local Operating Company for Remote Access policies. If not applicable, an alternative solution shall be agreed.			
Remote access security Remote maintenance access mechanism shall be protected with adequate authorization and authentication mechanisms.			

Remote access encryption It shall be possible to perform all remote operation and maintenance tasks via encrypted protocols (e.g. SSH, SSL). Unencrypted access shall be able to be deactivated.			
Remote access encryption Cryptographic techniques shall mutually authenticate the identities of the parties exchanging messages, in an infrastructure where external players are involved shall be adopted. No unauthorized third party should be able to gain access to the information stored, processed or transmitted in the application.			
Remote access authentication The system shall provide a mechanism to authenticate any remote user (i.e. verification of network address, dial back mode, etc.).			
Password reset The system / application administrator shall be able to re-set passwords (when the actual password is unknown).			
Password reset Database, system or service passwords shall be re-set by a super user.			
Access authorization Third parties shall request specific authorization to access any MTC Service Platform or Service. This access authorization shall be introduced and controlled by MTC.			

A.40.14 Software Build & Control (SB)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Change Control The change control process must include a method of raising an “emergency” release to allow a critical change to be applied to the live installed base and included in the formal software definition at a later time.			
Software Baseline Definition The supplier will fully document the platform software and firmware configuration and all procedures and processes involved in its maintenance and production in conjunction with the change control process.			
Software Baseline Definition It will be possible to interactively determine the current software baseline that is current on any given platform, as well as to trace the history of baseline updates that have been applied to the same platform.			
Manufacturing The supplier will be prepared to integrate software components supplied by themselves, any suitable software vendor or by MTC.			
Manufacturing The supplier will define and implement a process whereby a specific configuration (e.g. node names, addresses, MTC application configuration) can be applied and verified on a per system basis during the recurrent manufacturing phase. This information will be requested from the customer in the form of a			

standardized Initial System Specific Configuration (ISSC) document.			
Vendor Independence proprietary server operating system should be used in the design of the required solution. This will provide the ability to replace server hardware with no, or minimal changes to the software baseline and application software. Any exceptions to this requirement must be documented and agreed with the customer prior to inclusion in the design.			
Custom Logic Custom logic shall be possible to add to core SW.			
Custom Logic Custom logic shall be possible to add to core SW without causing impact on system performance, system and service availability or support conditions.			
Custom Logic Custom logic that can access/modify subscriber data shall be possible to add to core SW.			
Custom Logic Custom logic that can access/modify subscriber data shall be possible to add to core SW without causing impact on system performance, system and service availability or support conditions.			

SW Architecture Modularity For flexibility, robustness and easy of testing purposes the Software shall have a modular architecture. Question: Please provide Software architecture description/documentation.			
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A.40.15 Capacity (Cap)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Dimensioning Scenarios The product will have the capability to scale both horizontally and vertically. The Vendor, stating all the measurement conditions like profile type and traffic mix, shall provide the maximum engineerable values for:			
Capacity Limits Number of provisioned users			
Capacity Limits Number of active users			
Capacity Expansion System capacity shall be expandable by adding processing capacity (e.g. CPU, memory, etc) in existing nodes. Note: The upper limits of processing capacity expansion shall be provided (before requiring additional hardware)			

Scalability In order to allow each OpCo to increase system capacity and performance The System shall be based on a fully scalable architecture (vertical and horizontal)			
Horizontal and Vertical Scalability The System shall be scalable in terms of the addition of nodes in new sites and existing sites.			
Linear Scalability The System shall have linear scalability.			

A.40.16 Dimensioning (DM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Hardware Limits Please provide the Hardware resource limits (max memory, max disk, max number of CPUs, max number of signaling boards...). Note: All resources shall have a set of measurement counters for validation and tracking purposes.			
Software Limits All Application/Software limits shall be provided (max database sizes, max number of records...). Note: All resources shall have a set of measurement counters for validation and tracking purposes.			

Dimensioning Model A dimensioning model shall be provided for all HW elements			
Dimensioning Figures Dimensioning figures, per usage scenario, shall be provided (all system resources usage like CPU, memory, disk...)			

A.40.17 Migration (MIG)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Migration References The vendor shall provide detailed views of reference projects that resulted in successful migrations to the vendor's platform. The vendor shall provide details that include the following: project timeline, number of transactions/history migrated, the legacy systems that were decommissioned, the migration strategy employed, lessons learnt, and type of migration			

Migration Strategy The Vendor must provide and explain their proposed strategy to migrate the subscriber base and their data from the existing charging systems, to the new CCS. This strategy must include all the MTC elements affected/impacted and the nature of the impact on those systems (including any changes required to these systems) The strategy must also include all the potential risks involved in the migration, as well as all processes and actions that the Vendor will have in place to mitigate these risks The Vendor must indicate the KPIs that will be used to prove the successful completion of the migration, including how and where these will be measured			
Seamless Migration The migration strategy must provide a seamless migration, with no interruption to service. The strategy must also ensure any revenue loss during migration is kept to an absolute minimum The strategy must include all preparation work, work done during the migration, and any post-migration work. The vendor shall provide a detailed view of the various risks involved during migration and cutover and shall detail the mitigating actions that will be employed to eliminate and minimize these risks. These actions may involve both operational procedures (e.g. on-site team, emergency SOPs, etc.) as well as technical/system level resiliency features that will be used.			

Auditing The Vendor shall implement all tools and processes to audit and ensure all subscriber data migrated has been migrated correctly and accurately. The vendor shall also provide MTC with the relevant records, reports, tools and process in order for MTC to perform independent verification that migration has occurred correctly and accurately.			
Fallback The Vendor's migration strategy/process must be capable of stopping and reversing/falling back a migration in the event of problems arising. This fallback must ensure the accuracy and consistency of all data The fall back strategy must also highlight all the points of no return - points in the migration process where a fallback is no longer feasible/possible, or will have a large negative impact on customer experience and revenue			
Phased Migration The migration strategy must allow for the migration of the subscriber base in phases, i.e. groups of subscribers at a time. It must be possible to select the subscribers according to at least number ranges, and have the flexibility to generate lists of subscribers that will be migrated.			
Interoperability The Vendor must confirm how their migration process will operate with the existing charging platforms in the relevant MTC network. The vendor shall provide full details around requirements on all external platforms and interfaces.			

Parallel Run A parallel run is defined within MTC as a phase in which the existing legacy charging platforms co-exist with the new charging platform. The purpose of this phase is to validate all provisioning and transaction events and it is expected that the new platform is considered production-ready and capable to provide all required services to all users. In this regard, the vendor is expected to provide a detailed solution that can fulfil the associated requirements and also identify specific requirements on the MTC network elements, the existing charging platforms, provisioning systems, CRM platforms as well as middleware and mediation platforms.			
Support The Vendor must confirm its strategy for supporting MTC as a customer. The Vendor must clarify how its organization will work, what resources will be available (on-site, in-country, global), and fault escalation/reporting procedures			
Product development The Vendor must confirm its product development and change request processes. The organizational structures and commitment available to meet new product requirements as quickly as possible must also be confirmed			
Language The Vendor must ensure that all documentation supplied is in English, and that all Vendor staff interfacing with MTC have a competent understanding of English for reading, writing, and speaking			
3rd Party support The Vendor shall confirm their support procedures, including escalation from a MTC perspective, for 3rd party systems			

A.40.18 Technology Licensing (TL)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Third Party components The vendor must provide a view of all third-party components and their purpose within the environment.			
Licensing Model dependencies the vendor must show in detail how the licensing model is tied to changes (increase/decrease) in the following parameters: The vendor will show how changes in these parameters will affect the costs			
Third Party License Obligations The vendor shall detail all additional hardware and software licensing costs that MTC will be liable for			
Hardware/Software End of Life The vendor should also indicate whether MTC is liable for further costs related to: - Hardware end of life: in this regard, what is the lifetime of the hardware and what is the expected cost of refresh/upgrade/replacement - Software end of life, patches and software upgrades: In a similar manner to hardware, what is the expected major software release cycle and what is the cost implication thereof.			

- What are the costs that could be incurred should MTC decide not to upgrade software or refresh hardware.			
Impact of Telco-Over-Cloud If the vendor has a roadmap towards virtualization and Telco-over-cloud, what will be the impact? The impact should be described in terms of how any existing bare-metal infrastructure is dealt with (from cost/ logistics perspective) as well as the cost going forward.			

A.40.19 Product Delivery (PD)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
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Software Design and Delivery Methodology The vendor shall provide a detailed view of the methodology employed to deliver small, large and configuration-based deliverables. The vendor must detail the following key aspects: Requirements gathering Design Development Test Deployment			
Agility There may be times where an iterative design/development model needs to be employed for new products and features for which the business does not necessarily have concrete requirements. In this regard, the vendor should be able to provide a view on how the operating model will support the iterative, agile development of new features with minimal administrative overhead			

A.40.20 Consultation (CNS)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
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Consultation on Active Projects The vendor should provide a view on how collaboration is envisioned. The vendor should provide a view on the availability and costs for key technical resources to consult with MTC planning engineers for specific problems or potential features/capabilities that are related to a project that has been budgeted for.			
General Consultation The vendor should provide a view on the availability and costs for key technical resources to consult with MTC planning engineers for specific problems or potential features/capabilities that are related to a project that has been budgeted for.			

A.40.21 Vendor Operation Methodology (VOM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
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Project Methodology The vendor shall describe in detail the project methodology to be employed throughout the project. The vendor shall elaborate on the following: Number of on-site resources Skill sets of on-site resources Roles and Responsibilities Expectations on MTC High level timelines MTC Specification Deliverables expected Vendor provided designs, documentation deliverables Escalation procedures			
Management of in-flight projects The vendor shall provide a view on how changes due to in-flight projects will be handled. This must be addressed from the following perspectives: - In flight projects that affect the system integration landscape - In flight projects that require new features/capabilities on the charging platform In this regard, the vendor is expected to describe the envisioned process to be followed as well as associated costs against the effort required to make the required change			

A.40.22 Platform Scalability (PS)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
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Scalability The vendor should provide a view on how the platform will scale to accommodate the increase of the various types of traffic and indicate what aspect of the platform will be upgraded, replaced or supplemented in each case. The vendor should respond with reference to its own roadmap towards virtualization and Telco-over-cloud capability.			
Scalability The vendor will highlight specific factors that directly impact/affect the dimensioning of the platform.			

A.40.23 Testing (TES)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Test systems the supplier shall provide at minimum two test systems - one test system will be used for the testing of new software, configurations, and Acceptance testing. The second test system will be know as the pilot/pre-production/ SIT system, and will be used to administer new rating configurations, as well as production testing			
Test, Production sites deployment Strategies The vendor shall provide full details on the strategy used across all dev, test and production sites to fulfil all migration (pre, during, post)			

requirements. The vendor shall indicate the physical requirements and associated costs in this regard.			
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A.40.24 Configuration Management (CM)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Configuration Management/Auditing It should be possible for external systems to monitor various aspects of the platforms by simply logging in and running automated checks, e.g. checking the /usr directory for any recent changes to the user files. The vendor shall also supply sufficient alternatives to mitigate any potential security and performance issues in fulfilment of the aforementioned requirement.			

A.40.25 Failure and Recovery (FRC)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)

Recovery of Audit Logs after System Failure The shall be possible that upon system failure all relevant audit logs are available or recoverable.			
Validation of Restoration after System Failure Upon system recovery, the vendor shall have the tools and processes in place to prove that all customer account information and transactions have been recovered and restored to the correct state.			

A.41. OPERATIONAL REQUIREMENTS SPECIFICATIONS (TRS)

A.41.1 Scalability (SC)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Scalable Architecture Vendor shall supply an architecture that is scalable, and can be expanded to cater for new capacity requirements. This scalability must include all nodes/systems in the architecture, e.g. processing nodes, databases The Vendor shall supply an analysis as to which components of the CCS platform are dependent on which aspects of the traffic model, e.g. whether CCS is scaled based on Transactions Per Second over the Diameter interface, database size based on total number of subscribers, etc.			

Traffic statistics/forecast template The Vendor must provide MTC with a template, detailing the parameters and data required for its own forecasting and planning			
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A.41.2 Systems stack Integration Layer (SIL)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Expansion of requirement The Vendor must also confirm if the capability exists to store the Events for a long period of time, at minimum 60 days. This "long-term" database should also be quarriable with the same requirements as above and should preferably be implemented outside of the core CCS architecture, in order to minimize potential performance impacts on CCS. It should be possible to run general queries against the database for statistic reporting purposes			

Originating ID ERP shall have the capability to display the IP address and username of the system that triggered/directly interfaced with ERP for a transaction. Middleware system to control access to ERP, so the system initiating the transaction will often not directly interface with ERP. The capability shall therefore exist to allow the upstream systems, either Middleware or the originating system, to populate the ID of the originating system in the transaction to ERP. This Originating ID will also be populated in the relevant Logs			
Web services ERP shall have the capability to expose web services (SOAP/RESTful) to external systems for the purpose of automation and seamless integration of services and use cases synchronized with FRS			
Outbound Integration ERP shall have the capability to use web services (SOAP/RESTful) to initiate transactions to external systems that use web services themselves, e.g. sending a trigger to a notification server (MTC follows TM Forum Open API's)			
Access Control ERP shall have the capability to restrict access to specific administration/querying/etc. functions for specific external systems, e.g. CRM has full access, while a customer care system only has querying functionality			

Functionality description The Vendor must supply the full set of functions/capabilities available on the provisioning/administration interfaces			
Middleware integration ERP shall have the capability to integrate with a MTC's Middleware platforms, using a webservice interface (SOAP/Restful) for administration, provisioning, and querying. The Vendor must confirm the capabilities for this integration			

A.41.3 Network Integration Layer (NIL)

Requirements	Requirements Compliant (To be completed by the bidder) (Yes/No)	Partially Compliant (To be completed by the bidder) (Yes/No)	Bidder must provide clear reference/supporting documentation (indicate document and page number)
Expansion of Requirement ERP must be also be capable of sending Realtime triggers as well as notifications, depending on rules and configuration. These triggers should be capable of being sent via various interfaces, including but not restricted to SOAP			
Interfaces and API's All interfaces and APIs must be secured and encrypted			
Network Security Controls Integration with network security controls is required			

External Access Management External access must be restricted and continuously monitored			
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BIDDER MUST PROVIDE THE FOLLOWING:**TECHNICAL COMPLIANCE**

The provider must submit comprehensive documentation, including data specifications, architecture, licensing and relevant materials supporting how the solutions satisfy the functional requirements listed on under scope of works of this document.

Bidder to clearly indicate the solution requirements/prerequisites for the below

- Operating system
- Database licenses
- Hardware requirements

The supplier should provide a complete functional architecture diagram representing the deployed solution, including components, services, APIs, databases, messaging layers, caching, and third-party integrations if any.

Any deviations from MTC's requirement must be clearly indicated and explained in the submission.

DEPLOYMENT AND HOSTING

The solution must be deployable in MTC's private cloud infrastructure, Huawei OneCloudSphere hosted by MTC. The vendor must support provisioning of Dev, UAT, and Production environments.

Data sovereignty requirements must be observed.

INTEGRATION

The solution must support well-known industry standards such as RESTful API and SOAP but should not be limited to. A clear indication should be made of the software, tools, and technologies that comes with the platform to integrate with the platform seamlessly. Any licensing cost for such software, tools and technologies must be indicated in the offer.

BUISNESS CONITINUITY PLAN

The vendor must provide a business continuity and disaster recovery plan and assurance of vendor ability to continue to provide the required service or products, despite disruption to vendors own business operations.

SUPPORT

The tenderer must include information on warranties and after-sales assistance as well as what support level is included in the offer and how support is going to be handled. Level 1 must be provided by MTC staff; therefore, the bidder must make sure that the MTC staff is capacitated to provide at least Leve 1 upon solution deployment and Level 2 within 12 months of the solution deployment. Level 3 shall remain with the bidder and the skills profile of at least 2 engineers is required with this submission to substantiate the competencies required to provide Level 3.

TRAINING

Training is expected to go up to an advanced level for Operation & Maintenance, high-level configurations, troubleshooting, optimization, and general support. Updated/Refresher training should be provided with any major changes during the 3 years.

Details of skills development and training possibilities which are normally advised for the solution must include all aspects (e.g. mode of training, duration, product help documentation, etc.). There must be training before the solution deployment as well as post implementation. The pre implementation training must be repeated the post implementation first to make sure that the trainers are refreshed in case they have missed critical information which could not be absorbed during the pre-implementation training, before any advanced training occurs.

PROJECT PLAN

The tenderer must provide a project completion schedule and lead times proposed, clearly indicating all project deliverables, milestones as well as the critical path of the project plan. The tenderer must also include a responsibility matrix clearly indicating the project implementation as well as support and maintenance responsibilities, and the party responsible for each deliverable.

FINANCIALS

The bidder is required to submit a comprehensive financial proposal clearly and individually indicating the solution components, hardware components, software, 3rd party components, licenses, traveling/accommodation costs etc., No variations in cost would be entertained, for items which were omitted by the bidder, unless clearly indicated that it is out of scope in congruence with this RFP document.

The total cost must consider a solution / software with a minimum lifespan of 5 years. If the solution proposed has a shorter lifespan left, the bidder must include in this proposal the cost to the necessary upgrades required to bring up the lifespan to a minimum of 5 years. No variation cost will be accepted for the necessary upgrades will be considered after the project has been deployed.

ITEMS	DESCRIPTION	TOTAL AMOUNT (NAD) excluding VAT
	Software solution including all modules, all features, all functionalities as indicated in this bid document	
01.	Enterprise Resource Planning Solution Full and comprehensive Enterprise Resource Planning Solution (software) including all the modules. The size of the solution must take into account the future growth projections, and clearly indicate which years a software upgrade will be required to cater for the growth projections indicated.	
02.	Integration The vendor must include all integration cost from the vendor's end required to ensure full solution integration. It is the responsibility of the vendor to seek the information from MTC in order to have a correct	

	determination of the type and nature of integrations required. The bidder will ensure that this integration cost is comprehensive for all the systems indicated. There will no variation cost whatsoever to entertained after the contract has been signed for integrations indicated here. • Customer Relationship Management • Lease Management Module (Cradle)	
03.	Solution Deployment/Implementation This cost must be comprehensive including travelling and accommodation for the bidder's project team, all labor costs to ensure that the project is successfully implemented. This must also include at least 6 months of babysitting after the project is implemented to make sure that the solution is properly implemented before MTC starts to pay for support services. This means that PAC of the solution can be signed off after 6 months from the Go Live date.	
04.	Support & Maintenance Include 6 months of babysitting. During the babysitting period, the bidder is expected to resolve all issues (level 1 -level 3) occurring at no additional cost to MTC. MTC would start paying for support 12 months after the babysitting period has ended. After the babysitting period, MTC will take over the Level 1 and Level 2 support, and bidder continues to offer Level 3 free of charge for at least 12 months after the babysitting period has ended.	
05.	User Training The cost must include the travel and accommodation of the trainer in country in Windhoek Namibia for all physical trainings. The training must equally capacitate the super users to operate the solution competently after the training.	
06.	Full training for 30x Software Engineers to capacitate Level 1 and level 2 support internally, within 12 months post implementation. The cost must include the travel and accommodation of the trainer in country in Windhoek Namibia for all physical trainings.	
07.	Third-Party Software / Components – any additional licenses required (database, BI tools, etc.) Please all the relevant 3rd party cost necessary for the efficient	

	operation of your solution, and indicate the cost for each one separately	
	TOTAL AMOUNT Excluding VAT	

The above must be fully completed by bidder and accompanied by a Bill of Quantity on the bidder's official company head.