Appendix D: FUNCTIONAL REQUIREMENTS

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Compliant Part of Core Vendor Vendor Comments (Y/N)**Functional Requirement** Solution? Module ID (Y/N)1.1 **Customer Management** The system must provide functionality to create new customers and record their personal details, including but not limited to the following fields: Residential Customers: Title (Drop down: Dr., Hon., Ms., Mr., Mrs., Prof., Rev.) First Name, Middle Name, Last Name, Date of Birth, ID Type (Drop Down; ID, Passport, Driver's License, Other, ID number), Nationality, Citizenship, Language (Drop down: Gender, Employer Name, Occupation, Marital Status (Drop Down: Single, Married, Divorced, Widowed), Social Security 1.1.1 Number, Registered Pensioner (Yes, No), Employee Number, Employee Salary Reference Number, Employee Cost Center, Non-Namibian Customer (Drop down: Yes, No, Diplomat...), Income level (Drop down). Business Customers: Company Name, Trading Name, Company Registration Type (Drop Down: Closed Corporation, Pty Ltd, Sole Trader, NGO, Governmental Agency, Other etc.), Registration Number, VAT Registration Number, Industry, Non-Namibian Customer (Drop down: Yes, No)

1 CUSTOMER RELATION MANAGEMENT FUNCTIONAL REQUIREMENTS

Procedure: RFP updated

1.1.2	The system must provide the capability to upload, save and display scanned customer documents in various formats, e.g. PDF, JPEG, Tiff, PNG, BMP etc.		
	The system must have capability to record and maintain multiple customer contact details:		
1.1.3	Residential Customer : including Next of Kin (Relative Name, Surname, Telephone Number, Mobile Number, Date of Birth, ID number, Email Address, Fax Number, Postal Address, Residential Address).		
	Business Customer : Director/Representative info (Representative Name, Surname, Telephone Number, Mobile Number, Fax Number, Date of Birth, ID number, Email Address, Postal Address, Residential Address).		
1.1.4	The system must be able to provide functionality to capture a customer's preferred communication method: Email, Telephone, Fax, Postal, SMS, Mobile. Auto messaging sub systems should use this selection to communicate with customer via preferred method.		
1.1.5	 The system must support the capturing of different address types for each customer: Residence address Region Name (Drop Down), Town Name (Drop Down), Suburb Name (Drop Down), Street Name, Erf/Farm Number Installation address 		

	 Region Name (Drop Down), Town Name (Drop Down), Suburb Name (Drop Down), Street Name, Erf/Farm Number Billing/Postal address PO Box/Private Bag Number, Town Name (Drop Down), Post Office Branch (Drop Down), Postal Code Employer address Region Name (Drop Down), Town Name (Drop Down), Suburb Name (Drop Down), Street Name, Erf/Farm Number E-mail address Other Address line etc. 			
1.1.6	Define customer segments by Class (Drop Down), Type (Drop Down), Subtype (Drop Down), Nationality, Income, Profession, Region, Foreign Currency Customer (Drop Down), Tax Profile (Drop Down: VAT Residential; Business VAT; VAT Exempt) etc.			
1.1.7	The system must have the capability to automatically assign a customer to a segment-based marketing strategy.			
1.1.8	The system must provide capability to capture Commercial Region and Operation Region (Drop Down) for each customer.			
1.1.9	The system must support personalization options for a customer (addressing customer by name in all			

	communication e.g. SMS, Email and Soft Call Notifications).		
1.1.10	The system must allow users with the necessary privileges to update customer profile and account information (e.g. only authorized users can change customer profile to VIP). An audit trail must be recorded for all changes.		
1.1.11	The system must provide for the capability to configure and assign customer level packages or bundles. These are packages or product bundles that can be shared between the accounts or subscribers linked to the customer. Provide the option to allocate specific bundle resources to various accounts.		
1 1 1 2	The system must have the capability to identify/alert a user on any identical customers already within system, based on configurable and defined lookup fields (e.g. First+Last Name, ID number, Passport number, Residential Address etc.).		
1.1.12	When a duplicate customer record is found, the system must present the existing customer(s) information and allow the user to select the correct customer. The system must not allow duplicate credential or identification types and numbers to be used to create new customers.		
1.1.13	The system must have the ability to blacklist customers internally for non-payment, dishonored		

	payments, returned Cheques and dunning history based on configurable and defined lookup fields (e.g. First & Last Name, ID number, Residential Address, Installation Address etc.).		
	Provide the option to exempt specified customer types from blacklisting.		
	The system must request for a security deposit for service subscriptions on blacklisted customer or relative accounts.		
	Blacklisting status must be displayed on customer information.		
	System must provide configurable criteria to de- blacklist customers.		
1.1.14	The system must be able to provide a full and comprehensive customer event history view on the CRM (packages, usage, payment history, discounts, complaints history, historical order trail for active and not active services etc.).		
1.1.15	The system must have capability to record alerts/notes on customer and display the alert/note once the customer's information is accessed.		
1.1.16	The system must generate an audit trail on all events or actions where customer records are created, added or modified.		

Procedure: RFP updated

1.1.17	The system must have flexibility to add or configure additional static information fields onto the GUI as required by business needs.		
1.1.18	CEM system to leverage real-time analytics to track and manage not just the customer's journey but also their experience across myriad sales channels.		
1.1.19	Integration with social media, computer telephony integration (CTI) and line of business (LoB) applications.		
1.2	Customer Account Management		
1.2.1	The system must provide capability to have one billing account for all Services (Prepaid and Postpaid, Fixed Voice & Mobile Voice, Fixed Data & Mobile Data, SMS, etc.).		
1.2.2	 The system must support customer Account Hierarchy management with at least the following functions: Capability to specify account names Capability to add multiple account hierarchy levels for a customer. Capability to merge or transfer accounts. 		
1.2.3	The system must have capability to setup different payment responsible accounts at different levels in the hierarchy, e.g. Parent-Child account relationship where the Parent account is billed for any or combination of the following:		
	 Parent account billed for Child account usage Parent account billed for Child account rentals 		

	 Parent account billed for entire Child account items, Parent account billed for specified subscriptions of Child account. 		
1.2.4	The system must have capability to assign a contact person and contact details for each payment responsible account, which can receive correspondence (IVR, SMS, e-mail) about the account (e.g. payment due reminder).		
1.2.5	The system must allow each account to be able to support different subscriber types within that account (prepaid, post-paid, hybrid).		
1.2.6	The system must provide functionality to do Prepaid Subscriber Verification: that is, the capability to first capture defined and mandatory customer information before the prepaid account can be activated and used. The system must support this information to be captured either via CRM GUI or via an open API from other systems.		
1.2.7	The system must have Hybrid account support: ability for a subscriber to have a postpaid sub- account (where monthly charges are billed) and a prepaid sub-account (to allow prepaid functions such as recharging). The system must provide this option to both Postpaid and Hybrid products/offers on both Fixed and Mobile networks.		

Procedure: RFP updated

1.2.8	The system must have functionality for an automated credit rating check and storage of all credit checking results. For customers with bad credit rating, the system must request a security deposit.		
1.2.9	The system must have capability to set an account level credit limit, whereby the total combined usage of all services linked to the account cannot exceed the limit.		
1.2.10	ThesystemmustsupportAdding/maintaining/changingpost-paidpaymentmethods(Cash, Cheque, Direct Debit, EFT, etc.).		
1.2.11	 The system must allow the following information to be captured for the Direct Debit payment method: a) Bank account holder name b) Bank account number c) Bank account type d) Bank Name (drop-down select) e) Branch Name (drop down select based on Bank) f) Branch Code (auto-populate based on branch name) 		
	name) g) Action date (drop-down select) h) Option to set maximum direct debit amount.		
1.2.12	The system must provide the capability to select or modify post-paid billing cycles, i.e. date of billing of customer accounts.		

1.2.13	The system must have the capability to display the dunning status of an account, as well as the bad debt status. The system must generate an audit trail on all events or actions where account details are			
	created, added or modified.			
1.3 9	Subscriber (Service) Management	r	I	
1.3.1	The system must have the capability to create or add multiple fixed and/or mobile service lines per account. The service (subscriber) types can be post-paid, hybrid or prepaid.			
1.3.2	The system must support automatic prepaid service activation on any first event or usage, subject to a successful prepaid account verification (as per 1.2.6).			
1.3.3	The system must support the application of a prepaid service lifecycle with configurable period and notification for each state within the lifecycle. Lifecycle state to include but not limited to Inactive, Active, Grace, Blocked, Terminated.			
1.3.4	The system must have capability to apply a postpaid subscriber lifecycle with configurable periods and notifications for each state (Inactive, Active, Barred, Suspend, Disconnect).			
1.3.5	The system must have the capability to flag a service number as private or public.			

1.3.6	The system must have the capability to do batch prepaid subscriber provisioning on selected offers or price plans.		
1.3.7	The system must support the functionality to do batch postpaid/hybrid subscriber activation for selected accounts or customers on specific product/package/price plan.		
1.3.8	The system must have the capability to register for other prepaid and postpaid offer/price plan through different channels (SMS, USSD, Web Interface, IVR, CRM).		
1.3.9	The proposed system must support Postpaid & Hybrid contract management including updates with change history log.		
1.3.10	 The system must support the following options upon contract expiry: System automatically renew contract Automatic shift to a standard product/offer Continue indefinite on same package, but without a mandatory contract period. Suspend contract and service automatically. Terminate contract and service automatically. 		
1.3.11	The system must allow the configuration of a workflow to allow notifications or reminders to be sent prior to and after contract expiry date as well as after contract renewals.		

	It must have the ability to automatically generate a report of all contracts, which are about to expire, and send to a pre-defined email address. This will allow Sales team to make new deals or opportunity to sell new products, etc.		
1.3.12	The system must have capability to do conversion between postpaid/prepaid or hybrid.		
1.3.13	The system must have functionality to do setting and modification of postpaid service usage limits. These can either be permanent or temporary limit changes.		
1.3.14	The system must provide for options to set usage limits per usage type (e.g. a usage limit for data consumption).		
1.3.15	The system must have the capability to monitor customer usage and update customer segmentation accordingly or suggest the appropriate segmentation as per customer revenue.		
1.3.16	The system must allow the display on CRM of all package/product/bundle contract periods and date of expiry for a service/subscriber.		
1.3.17	The system must have capability for a contract renewal function, allowing for modification of price-plans, and setting new contract period. The system should update the start and end date automatically based on new contract period		

	selected. A history must be maintained of all previous contract periods.		
1.3.18	The system must have functionality to do balance sharing between multiple subscribers of same or different customers on:		
	Monetary walletsFree unit wallets		
1.3.19	The system must provide capability to select Itemized Billing for service, whereby the detailed call usage is included in the monthly bill.		
1.3.20	The system must maintain ownership history of a service number.		
1.3.21	The system must display the dunning status of service/subscriber.		
1.3.22	The system must support Change of Ownership for services. This can be from Residential to Residential or Residential to Business and vice versa. When changing from Business to Residential and vice versa all business rules should apply e.g. increase in rental fee.		
1.3.23	The system must record an audit trail on all events or actions where subscriber records are created, added or modified.		
1.3.24	The system should have the ability to allow the "retirement" of some products, which have reached end of life, and to present an option of		

	updating such retired products with the new/replacement products.		
1.4	Complaint Management		
1.4.1	The system must provide option to raise a ticket on service level or on account level.		
	When a user have entered a service number/account information/customer name, etc., in order to raise a ticket, the system should, first of all, perform a service/account status check, whether it is on suspension or not.		
1.4.2	If the service is on suspension; the system must display an alert informing that the service is on suspension and no fault ticket should be raised on a service that is on suspension.		
	Only tickets regarding monetary disputes/queries can be raised for services that are on suspension; where the ticket will be on account level.		
1.4.3	The system must support the management of Customer Complaints, Faults, Disputes and Enquiries.		
1.4.4	The system must have capability to enable complaint registration via the self-care portal.		
1.4.5	The system must provide for the classification of complaint/fault/dispute/enquiry types, causes, and resolutions.		

	Automatic update of Fault, Enquiry, Complaint and Dispute status (Open, Pending, Closed, Cancelled etc.).		
1.4.6	The system must provide capability to capture customer feedback.		
1.4.7	The system must support configurable automated or manual workflow processes for Faults, Enquiries, Complaints and Disputes to ensure capturing of relevant information and forwarding to applicable group.		
1.4.8	The system must allow the re-assignment of tickets.		
1.4.9	The system must support printing of complaint tickets.		
1.4.10	The system must support Complaint Escalation to Single or Multiple People.		
1.4.11	The system must support Configurable Alarms for complaint durations that reach specified thresholds via Email, SMS or both.		
1.4.12	The system must provide capability to do query of current and historical Faults, Enquiries, Complaints and Disputes.		
1.4.13	Disputes must be linked to offers or adjustment reasons that are linked to relevant GL accounts		

Procedure: RFP updated

1.4.14	The system must support automatic account balance adjustment for Approved Disputes.		
1.4.15	The system must incorporate different credit level authorities for approval of dispute amounts.		
1.4.16	The system must provide Key Performance Indicators for Complaint Handling.		
1.4.17	The system must have capability to register an Announcement or Notice, and link it to a defined to complaint.		
1.4.18	The system must generate Complaint Reports (Pending Complaint Report, KPI Report, Cleared Complaint Report, etc.).		
1.4.19	The system must support enabling SLA levels between different groups.		
1.4.20	The system must display Resource Management information of a subscriber during complaint registration.		
1.4.21	The system must support automatic generation of Change of resource info order in case of faulty resource The system must support the ability to allow an		
	agent responsible for faults, to initiate the process of changing/updating existing resource		

Procedure: RFP updated

	information from the faults management interface, as informed by the field technician. With the introduction of WOMS, the idea is to			
	they will update their faults tickets online, which may also include resource changes.			
1.4.22	The system must have functionality to update resource management information of a subscriber via a fault ticket.			
	The system must alert the user of pending tickets to prevent duplicate capturing of complaints.			
1.4.23	The system SHOULD NOT ALLOW the capturing/opening of a New Ticket, if one exists already on the same service.			
1.4.24	The system must have capability for SMS and email notifications of received/captured tickets and generate a reference number.			
1.4.25	The system must record an audit trail on all events or actions where complaint/fault/dispute/enquiry records are created, added or modified.			
1.4.26	The system should have the ability to determine if a ticket was already created on any one of the services/products of an offer. If yes, then no new tickets should be created for the associated products/services of the same offer. The system should simply allow the agent to make additional notes/updates to the same ticket.			

1.5	Sales Force Management	
	The proposed system must have capabilities to	
1.5.1	support the entire Sales process, from	
	prospect/lead and sale processing to successful	
	acquisition.	
1 5 0	The system must allow the registration of	
1.5.2	prospects or leads on the system, and tracking it	
	per user and location.	
1.5.3	The system must have capability to do staging of	
	prospects/leads towards credit vetting.	
1.5.4	The system must provide for an Approval or Reject	
	process for prospects or leads. The system must support the staging of	
1.5.5	leads/prospects towards Customer and Account	
1.5.5	activation on approval.	
	The system must provide capability to determine	
1.5.6	the potential revenue value of a lead or prospect	
1.5.0	customer.	
	The system must have the ability to change a	
1.5.7	lead/prospect into a customer order, once the	
	lead/prospect is approved.	
1 5 0	The system must support the creation of a new	
1.5.8	service or subscriber through a workflow process.	
	The system must have capability to do Reservation	
	and Assignment of one or multiple stock items to	
1.5.9	a subscriber.	
1.5.5		
	The system must have the capability to reserve	
	network resources for lead/prospect	
	The system must support the release of stock	
1.5.10	items previously reserved to a subscriber upon	
	cancellation or rejection of application.	

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1	.5.11	The system must be able to track any stock item associated with a subscriber.		
		The system must provide a list of available Products based on selected Physical Address before Order Capture.		
1.	.5.12	The proposed system must have functionality to check for the serviceability of an address (based on Available Access Technology, Available Ports, Available Cable Network etc.).		
1.	.5.13	The system must provide capability to report "lost opportunities" by automatically saving prospects/leads where a service could not be provided due to lack of infrastructure.		
1.	.5.14	The system must have capability to generate a Best Package Option, by matching customer expectation to applicable offerings.		
1	.5.15	The system must have capability to provide for appropriate options or alternative products or services based on Address, Income etc.		
1	.5.16	The system must provide functionality to query/deduct available stock levels and stock locations via IFS ERP interface.		
1	.5.17	The system must have capability to support an online shopping cart feature.		

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1.5.18	The system must have the capability to provide a Quotation Tool, which are fully integrated to the Products Catalogue.		
1.5.19	The system must capable to provide for quotation discounts; and to support quotation workflows and approvals via Delegation of Authority levels.		
1.5.20	The system must have capability to create orders directly from a quotation.		
1.5.21	By integrating IFS ERP to the system, the system should allow the following: At the point of determining whether a particular service/offer can be provided, the RM Engineer/Technician should be allowed to specify all materials required in order to provision such service/offer, and by entering the appropriate IFS ERP catalogue numbers, he/she should able to raise reservations on IFS ERP via this tool, for these materials to be available for this order. If the materials are not available (out of stock) such information should be linked to the order for any user to know.		
1.5.22	The system must be able to generate service demand forecasts and reports of quotations issued.		

1.6	1.6 Customer Care Management					
	The system must provide for Postpaid/Hybrid/Prepaid Balance Enquiry through					
1.6.1	 a) SMS b) USSD c) IVR d) Web Self-Care 					
1.6.2	The system must be able to generate an automatic welcome notification upon service activation.					
1.6.3	The system must provide functionality to do management of roaming service (enable or disable per service type: voice/SMS and data).					
1.6.4	The system must provide following details for Subscriber Balance Enquiry on CRM: a) Total usage for period for all services					
	b) Summarized usage per service typec) Free units granted, used and remaining					
	The system must support the viewing of invoice(s) on CRM and Self-care portal including the following details:					
1.6.5	 a) Summary of charges of an invoices b) Detailed invoice drill down per account c) Online view/download of PDF invoices for a configurable number of months 					
1.6.6	The system must provide a CRM Display of CDR History (Billed and Un-billed):					
	a) Date & time of usage					

	 b) Called number and calling number c) Call duration / volume of usage d) Charged Amount or Free Unit consumption amount e) Service type and call type f) Ordering and filtering of records g) CDR report generation with every report requested audit logged h) Subtotals and totals for call durations, usage volumes, charged amounts, free unit consumption amounts, service type and call type. 		
1.6.7	The system must have capability for export, print and email of CDR History. It must also have functionality for automatic charging of CDR History requests.		
1.6.8	The system must support the capability to perform an Itemized Reversed Call Detail Query; which must be accessible to authorized users only. It must also have functionality for automatic charging of Itemized Reversed Call Detail requests.		

Procedure: RFP updated

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2 CSR TOOLBOX

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
2.1	CSR Toolbox				
	The proposed system must support a tab-based navigation from a single-view screen of the following information. Both current and historic information must be presented in a well-organized manner				
2.1.1	 All general customer information (including Blacklisting status) All account information Account details All AR transactions, including salary deduction payments Usage, free units and recharge details Invoice details, including Itemized bills Credit arrangement details All subscriber information Contract Management information All order information (Current and History) All complaint information Itemized Reversed Call Details (only accessible by authorized users) 				

Procedure: RFP updated

2.1.2	The system must support the capability to query a specific account or service for customers with multiple accounts or subscribers.		
2.1.3	The system must provide the functionality to print, email, and export or download information.		
2.1.4	The system must provide short-cut buttons that launch key applications and functions for streamlining actions a CSR commonly performs. (e.g. create a case, prepare an order, update an address)		
2.1.5	The system must provide the possibility to displays recommended text and scripting to guide CSR in specific conversations/dialogues.		

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3 SERVICE ORDER HANDLING AND MANAGEMENT

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
3.1	Order Handling				
3.1.1	The system must provide capability to auto-create orders from a quotation and from leads.				
3.1.2	The system must provide the capability to capture profit centers on service level. All services within the same package/offer should have the same profit center.				
3.1.3	The system must support single or bundled Orders; either for related or unrelated products or from same or different access technologies.				
3.1.4	The system must support multiple addresses on a single order for point-to-point or point-to-multi- point services. Installations done at both addresses and the associated stages must be reflective of the two distinct installation addresses. Allocated resources should also be reflective of the distinct installation addresses				
3.1.5	The system must support the capability to query non-network related items from IFS ERP or via standard bar code scanners and allocate them to				

Procedure: RFP updated

	an order. Scanning must be possible during order capture or order workflow.		
	The order must be updated with all the relevant information of the item such as item serial number, description etc.		
3.1.6	The system must support validation of resources assigned to an order with the downstream systems e.g. email addresses on email server, username on LDAP etc.		
	System should not allow the creation of email addresses, usernames, etc., which already exist on downstream systems/ Network Elements		
3.1.7	The system must provide capability for the capturing and provisioning of bulk/mass orders (for selected customers, selected products, geographical location etc.)		
3.1.8	The system must provide a list of available Products at the specified address based on available technologies and resources before order capture.		
3.1.9	The system must have capability to support online self-service subscriptions and tracking of orders via SMS, IVR and self-care portal. It must also be possible to do an online query of service orders (current and historic).		
3.1.10	The system must support the configuration of order status notification to customers.		

Procedure: RFP updated

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3.1.11	The system must support work order generation for non-network related products, individually or as part of a package.			
3.1.12	The system must have functionality to record quality of service (QoS) preference where applicable.			
3.1.13	The system must support auto-allocation of resources to an order (network resources), single address or multiple addresses.			
3.1.14	The system must have functionality to perform an external credit check on a customer, and based on credit score request for deposits (if applicable) or propose alternative products. Orders should not proceed until deposits are paid.			
3.1.15	The system must provide capability to override a security deposit demand.			
3.1.16	The system must have functionality to perform an internal credit check on a customer and request deposits (if applicable) or propose alternative products depending on query results. Orders should not proceed until deposits are paid			
3.1.17	The system must have capability to query order value (Monetary or KPI). It must allow viewing of once-off fees and recurring fees of an order.			
3.1.18	The system must support order printing.			

Procedure: RFP updated

	The system must support the functionality to capture an order with a pre-determined future execution date on the network element (Timed Orders).			
3.1.19	The system must be able to park the timed orders in an automatic stage.			
	The system must provide a functionality to configure which steps of the order workflow must be executed before the order is parked			
	The system must support the querying and reporting of timed orders that are parked			
3.1.20	The system must have functionality to move or transfer an existing fixed line service from one address to another address; with minimal service interruption.			
	The system must support the capability to retain previous resources where possible.			
3.1.21	The system must provide for the capability to transfer ownership of a contract from one customer to another.			
3.1.22	The system must offer functionality of permanent disconnection of service upon customer request.			
3.1.23	The system must support creating orders for the replacement of faulty resources, e.g. port, cable or network resources,			

Procedure: RFP updated

3.1.24	The system must support the switching of contract from postpaid to pre-paid and vice versa.		
3.1.25	The system must have the capability to support number portability orders between different Mobile Operators.		
	The system must support sharing of same resource between different products, e.g. for FTTX services, the Main number and MSNs share the same port; for Fixed broadband services, data and voice share the same cable resources.		
3.1.26	(With NGN a device is connected to the Central Exchange via one port and the various services (voice/internet/vpn/etc.) are connected on various ports/interfaces on the device/CPE. The port between the device/CPE and the Central Exchange, is just used as a pipe, in which various/multiple services are running.).		
	So the system should allow the provisioning of multiple services over the same network resources.		
3.1.27	The system must have capability to order one-way or two-way barring of outgoing and/or incoming services.		
3.1.28	The system must have capability to order a suspension and reconnection for an account or a service; with reason and history log.		

Procedure: RFP updated

3.1.29	The system must have capability to order changes on specific products which are part of bundled offers/packages. The order must apply on the selected/single product only.			
3.1.30	The system must have functionality to do a subscriber transfer to a different account or customer; with an option to include/exclude the account balance and free resources			
3.1.31	The system must support the capturing and updating of devices IMEI(s), SIM serials, etc. for subscriber.			
3.1.32	The system must have capability to perform an account or subscriber termination order with automatic calculation of applicable charges. The system must provide the capability to waive the penalty charges.			
	The system must provide for an account or subscriber On-Hold order process whereby the account/subscriber remains active but all services blocked and no further billing of charges occur for a specified period.			
3.1.33	Billing must resume after the hold period expires and must not be back-dated to include the hold period			
	The system must provide the option to adjust contract period according to the hold period i.e. add hold duration to contract period			

	The system must support charging (once-off or recurring) for the hold activation.		
3.1.34	The system must have capability to do static IP and APN assignment order for a service.		
3.1.35	The system must support VPN, Friends and Family number maintenance.		
3.1.36	The system must support the capability to generate ad-hoc contract/request which contains various standard offers/packages. E.g. a customized solution which comprises of PABX, SIP Trunk, Fixed broadband, FMC, etc. The installation address of the various offers/packages can be the same or different.		
3.1.37	The system must provide the capability to cancel orders and reverse any raised financial charges or provisioning tasks associated with the cancelled order.		
3.1.38	The system must support Network Access Elements orders e.g. An order for setup of a new base station, etc.		
3.2 \	Nork Flow based Service Order Management		
3.2.1	The proposed system must provide an automated solution to manage the Service Order lifecycle.		
3.2.2	The system must support configurable service order orchestration and fulfilment.		

Procedure: RFP updated

3.2.3	The system must have capability to manage orders from different sources e.g. Order Handling, Customer Self Service etc.		
3.2.4	The system must be able to decompose service orders into a sequence of interdependent tasks.		
3.2.5	The system must have capability to interact directly with multiple systems as required to fulfill orders.		
	The system must provide a graphical interface to design and implement service order workflows.		
3.2.6	Order workflow must be determined by a combination of multiple inputs such as product type, the task (e.g. create, disconnect, transfer etc.), product attributes, access, etc.		
3.2.7	The system must have capability to send work orders to external systems and automatically action subsequent steps as per received results.		
3.2.8	The system must support automatic generation of change of resource info order in case of faulty or occupied resources		
3.2.9	The system must support the capability to query all pending orders per location or customer address or ad-hoc contract/request.		
3.2.10	The system must have the functionality to allow users to request for the return of orders, or send		

Procedure: RFP updated

	orders to predefined stages based on selected reasons		
3.2.11	The system must have functionality to automatically notify users via email, SMS when tasks are allocated to them.		
3.2.12	The system must have capability to escalate overdue tasks.		
3.2.13	The system must enable auto initiation of predefined tasks upon order completion e.g. courtesy call, billing process, etc.		
3.2.14	The system must support backdating of the billing effective date. It must also provide the capability to configure approval for specified order types.		
3.2.15	The system must support the capability to select a future effective date for initiation of billing after order completion; subject to the configured approval for specified order types.		
3.2.16	The system must be able to auto generate message (SMS, emails) to customer welcoming them and informing them of the connection of their service.		
3.2.17	The system must allow for a definition of stages/work areas, which are not part of the Normal/Automatic Process, but to which orders can be sent manually.		
	For instance, at many times, customers order services and when the technician goes to perform		

Procedure: RFP updated

the installation, either the customer is out of the country or their building is not ready, etc.		
At the moment these orders are kept at the Installations' Stage, while they cannot do anything.		
The idea is to have these defined stages, "Waiting for Customer", to where such orders can be sent and parked until the customer is ready or available for the installation to be performed.		

Procedure: RFP updated

Effective Date: 3 December 2018 Revision: 1

4 PRODUCT & PACKAGE MANAGEMENT

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
4.1	Product & Service Configuration				
4.1.1	The proposed system must be a fully TM-compliant platform, which is supporting Fixed & Mobile voice, data, messaging and value-added services in a single unified and converged environment; for prepaid, postpaid and hybrid customers.				
4.1.2	System must support an automatic and manual product numbering systems. Functionality must be available to query products across the system by automatically assigned numbers, manually assigned numbers, product descriptions or both.				
4.1.3	 The system must support a single centralized Offers and Packages Catalogue for both fixed and mobile products. The configuration and administration of catalogue items must be managed from a single module or portal. 				
4.1.4	Product catalogue view must display current as well as historic prices				
4.1.5	The system must support the configuration of independent linking or referencing of product and charging components; i.e. the same tariff can be				

Procedure: RFP updated

	linked to multiple products without need to reconfigure existing tariffs.		
4.1.6	The system must provide for configuration of different charge types for both product and value-added services; and for all once-off and recurring fees.		
4.1.7	The system must support GL configurations at service, offer, package and product levels. It must have capability to configure split GL accounts (e.g. main GL and sub GL's) with roll-up functionality.		
4.1.8	The system must support the configuration of free units (voice minutes, SMS, data, airtime, etc.) for fixed and mobile products.		
4.1.9	The system must have the capability to enable sharing of free units per service (voice, SMS, data etc.) between different subscribers.		
4.1.10	The system must have capability to support sharing of FMC-based free units, i.e. between Fixed and Mobile products and offers.		
4.1.11	The system must support the capability to roll-over free units for a configurable period (days, weeks, months etc.).		
4.1.12	The system must support the configuration of optional or add-on offers and packages, with configurable effective and expiry dates.		
4.1.13	The system must support the configuration of standalone voice/SMS/data bundles with once-off		

Procedure: RFP updated

	or recurring subscription fee for pre-paid, hybrid and post-paid subscribers.			
4.1.14	The system must have the capability for the configuration of non-network related products/offers such as handsets, devices, promotional items or services, etc.			
4.1.15	The system must support the configuration of non- network related product information such as serial numbers, item descriptions etc.			
4.1.16	The system must provide for the maintenance of product/offer/bundle status or their lifecycle.			
4.1.17	The system must have capability for reverse-billed data bundles on an APN.			
4.1.18	The system must have capability to define eligibility rules for products/packages/offer/services based on customer profile, commercial region, CSR profile etc.			
4.1.19	The system must support configuration of multiple price plans per offer, where the applicable price plan is determined by region, customer profile, access technology upon subscription			
4.1.20	The system must enable the setting of hierarchy/priority among products/packages to support upgrade or downgrade workflows.			
4.1.21	The system must have the capability to capture detailed information about product & services with supporting images and marketing information.			

Procedure: RFP updated

4.1.22	The system must have the capability to define pre- qualifications as part of business rules for registration for services such as age > 21, deposit requirement, etc. (all business rules needs to be configurable).			
4.1.23	The system must have the capability to define packages, bundles of products and services with an option of period validity, and validity for specific region or specific groups of customers.			
4.1.24	The system must have functionality to support configurable contract periods.			
4.1.25	The system must provide flexibility to change contract periods in relation to monthly rentals; i.e. to subscribe to a package with a set contract period and choose a different period, with automatic calculation of new monthly rental fee.			
4.1.26	The system must have functionality to support personalized packages, allowing customers to select from a pre-defined list of products, services, price plans and/or devices (may need to enable definition of such packages by the customer via the Self-care portal interface)			
4.1.27	The system must have capability to define multi partner packages. A partner may be internal or external to MTC.			
4.1.28	The system must be able to define dependencies between products/offers and value-added services			

	e.g. child or parent, mutually exclusive or mutually inclusive.		
4.1.29	The system must support defining actual and planned product coverage areas based on integration to GIS.		
4.1.30	The system must provide for the capability to define SLA, and quality of service (QoS) in terms of guaranteed bandwidth, service availability, delay, packet loss, etc. for data related products or offers.		
4.1.31	The system must provide for the capability to define product/ service prices as one-time fee, flat subscription, rental charges, event-based, fixed club membership, etc.		
4.1.32	The system must support defining variable prices driven by parameters such as time range, bandwidth range, volume range, additional services etc.		
4.1.33	The system must support workflow-based logic to define structured prices using IF-THEN scenarios for any future requirements.		
4.1.34	The system must provide the capability to support rent-to-own based products.		
4.1.35	The system must have capability to define authorization and approval levels for price overrides.		

Procedure: RFP updated

4.1.36	The system must have capability to define bonus and discounts based on number of parameters such as customer category, segment, the extent of usage, time, duration of subscription, etc.		
4.1.37	The system must support defining non-service or monetary bonuses such as T-shirt, headphone, etc.		
4.1.38	The system must have capability to define discount authorization route and level for sales representatives.		
4.1.39	The system must enable capability to define loyalty discounts.		
4.1.40	The system must enable capability to define volume discounts.		
4.1.41	The system must enable capability to define advance payment (early settlement) discounts.		
4.1.42	The system must have capability to define SLA and Quality of Service discounts.		
4.1.43	The system should allow for discounts to be designed and applied to any level of application such as individual customer, product(s), customer category, criteria basis (e.g. having subscribed to some product, etc.).		
4.1.44	The system must provide functionality to define promotions for current and future periods.		

Procedure: RFP updated

4.1.45	The system must provide capability to record multiple effective time periods for a single promotion.		
4.1.46	The system must have capability to restrict a promotion to region, dates, customer category, or number of customers e.g. first 500 applicants.		
4.1.47	The system must have capability to define a service as pre-paid, post-paid, or combination of both i.e. VOD service is offered as post-paid but the customer may purchase pre-paid tokens and use them.		
4.1.48	The system must provide the capability to provide a combination of pre-paid and post-paid at the customer contract level.		
4.1.49	The system must provide the capability to define multiple tariff per service driven by parameters such as time of usage, volume of usage, bandwidth, requested QoS, type of contentetc.		
4.1.50	The system must have capability to define rebates for prepaid, hybrid and post-paid products on employee customer accounts.		
4.1.51	The system must provide capability to define discounts independent from any product/offer/package and to apply the discount to any product.		

Procedure: RFP updated

4.1.52	The system must support the configuration of periodic subscriptions e.g. Daily, Weekly, Monthly, Quarterly, or Annual.		
4.1.53	The system must have capability to define separate rentals to be charged at different intervals for the same product/offer e.g. a product with two rental charges: a monthly rental as well as an annual rental charge for maintenance.		
4.1.54	The system must support the configuration of Instalment products with configurable terms and different interest rates.		
4.1.55	The system must support the definition of foreign- currency products.		
4.1.56	The system must support MVNO capability.		
4.1.57	The system must have capability to offer free rental/once-off charges for first N cycles, based on parameters such as geographical area, subscription period, customer profile (e.g. birthday), special events etc.		
4.1.58	The system must have capability to create Global Products, which are available for all subscribers.		
4.1.59	The system must support the maintenance of product price plan versions.		

Procedure: RFP updated

4.1.60	The system must provide for the capability to select whether revised product price should apply to existing subscriptions or not.		
4.1.61	The system must support actual and multiple planned charges for both once-off and recurring charges e.g. effective charge and several planned charges with future effective dates.		
4.1.62	The system must have the capability to define required resources for products.		
4.1.63	The system must have the capability to support Bandwidth on Demand, both instant and scheduled		
4.1.64	The system must support amortization of Anniversary Offers		
4.1.65	Trial Product: Configure to have usage/rental validity for specified period from first usage.		

Effective Date: 3 December 2018 Revision: 1

5 RATING & BILLING FUNCTIONAL REQUIREMENTS

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
5.1 C	Online Rating Functions				
5.1.1	The proposed system must support online real-time charging for both post-paid and prepaid subscribers and for both Fixed and Mobile networks.				
5.1.2	The system must support rating of all existing services including: voice, SMS, fixed and mobile data, MMS, PBX, content, multimedia, USSD, cloud etc.				
5.1.3	The system must support different charging methods such as flat-rate, duration-based, time-based, content-based and volume-based, location-based charging for all service types.				
5.1.4	The system must have capability to define call type- based rating of various services, such as on-net; off- net; national, international.				
5.1.5	The system must support accumulation-based charging configured on various criteria.				
5.1.6	The system must have capability to provide for tiered based charging.				

Procedure: RFP updated

5.1.7	The system must have capability to provide for multiple buckets/wallets per subscriber for various services with ability to grant free units, rewards or bonuses on each.		
5.1.8	The system must support the granting of periodic recurring bundles.		
5.1.9	The system must provide for real-time authentication, balance & credit control and discounting.		
5.1.10	The system must have the capability configure call limits for both fixed and mobile postpaid services.		
5.1.11	The system must support special number charging (free or chargeable).		
5.1.12	The system must support flexible data rating based on volume, duration, URL, content, APN.		
5.1.13	The system must support group service charging, such as VPN and Friends & Family.		
5.1.14	The system must have capability to configure home zone charging.		
5.1.15	The system must support real time rating for roaming charging based on CAMEL Phase II and III.		
5.1.16	The system must have capability to support real time post-paid data roaming charging.		

Procedure: RFP updated

5.1.17	The system must have capability for Reverse Charging for voice (Toll Free to calling subscriber but charged to called number); and data (APN-based).		
	Flexibility in Rating (Elaborated below):		
	• User defined call types; i.e. local, international,		
	on-network, etc.		
	Connection charges		
	Weekend/Holiday rates		
	Minimum billable connection times		
	Configurable call increments		
	Free local minutes		
	Free minutes based on definable call groups		
5.1.18	Call rounding options (up, down, round)		
	2-6 decimal places		
	Minimum calling charges		
	Maximum calling charges		
	Option to fix plans to specific products		
	Supports copying, importing and exporting call		
	plan data to CSV		
	Time or bandwidth rating		
	Rating by bandwidth upload and download		
	Free Bandwidth plans		
5.2	Offline Rating Functions		1
5.2.1	The proposed system must provide for offline rating capabilities from mediated CDR files.		

Procedure: RFP updated

5.2.2	The system must have capability to do rating of interconnect CDR's.		
5.2.3	The system must have functionality for rating of PBX originated CDR's.		
5.2.4	The system must support flexible off-line tariff modes (flat, fixed, tiered, time-based, volume, bandwidth, requested QoS, type of content, zones, location-based etc.)		
5.2.5	The system must provide for error management functionality to enable identification, viewing and correction of rejected/suspended CDR's.		
5.2.6	The system must support re-rating of incorrectly charged CDRs at the applicable rate/tariff based on the time the CDR was generated.		
5.2.7	The system must allow re-rating rules to be configurable through user interface.		
5.2.8	The system must allow re-rating rules to apply to any past event.		
5.3 I	Rating & Discounting		
5.3.1	The proposed system must support for variety of rate plans and versions of those plans. Rate plan or tariff views must display current as well as historic prices.		

Procedure: RFP updated

5.3.2	The system must have capability to define preferential rates across networks.		
5.3.3	The system must support configuration of multiple unit charges e.g. second, minute, hour, MB, KB, transaction, set-up charge etc.		
5.3.4	The system must support configuration of Peak, Off- peak, Off-off Peak, Weekend Rates, etc.		
5.3.5	The system must have capability to configure an actual and a planned tariff e.g. effective tariff and tariff with future effective date.		
5.3.6	The system must support standard discounts/bonus/other discounts e.g. family/friends/ clubs, special promotion, discount on special sites, sponsored events, early settlement discount etc.		
	Rating discounts, subscription discount, billing discount		
5.3.7	The system must have capability to perform Loyalty Program rating, i.e. loyalty points.		
5.3.8	The system must manage sales catalog based in Loyalty points		
5.3.9	The system must support separate rating for upstream data volumes and downstream data volumes.		

Procedure: RFP updated

5.3.10	The system must have the functionality to automatically implement a fair usage data policy; by throttling the data bandwidth or QoS by a configurable setting once a defined volume of data usage was consumed during a billing cycle. The throttling needs to be reset at the start of every new cycle.		
5.3.11	The system must support capability for split rating across time periods e.g. event started at peak time and continues into non-peak.		
5.3.12	The system is to provide capability to handle partial billing events e.g. ability to discount incomplete downloads.		
5.3.13	The system must have capability to process long duration calls which may be split into parts by the core network.		
5.3.14	The system must have capability to provide an Advice of Charge prompt on selected services before usage by subscriber.		
5.3.15	The system must have capability to rate predefined events at zero charge.		
5.3.16	The proposed system must have capability to support wholesale and retail rating.		

Procedure: RFP updated

	The system must have capability to apply promotional discounts or promotional charges for specified usage events or scenario's.				
5.3.17	The conditions need to be configurable such as, applicable to some customers only or in specified areas and/or to a certain period of taking some subscription or even by a specific user only.				
5.3.18	The system should define all errors and or failures resulting during usage processing; and a reprocessing capability.				
5.3.19	The system should provide functionality for "force to bill" CDRs to an identified user number.				
5.3.20	The system must have capability to apply different taxes in rating process.				
5.3.21	The system must provide capability to apply a preferential usage tariff by subscription or via global application by the SP.				
5.3.22	The system must have capability to support rating for MVNOs.				
5.3.23	The system must have the capability to do new call rate simulations				
5.4 I	Silling & Invoicing	•		•	
5.4.1	The proposed system must have capability for billing and invoice generation for post-paid/hybrid services and statement generation for pre-paid services.				
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Procedure: RFP updated

5.4.2	The system must generate invoices in sequential order for all accounts considered in the bill run. The system must be capable of invoice sequencing in order to account for each invoice sent out		
5.4.3	The system must have capability to perform on- demand billing (Hot Billing) for a selected customer or group of customers. This functionality must be accessible via GUI interface for administration and execution.		
5.4.4	The system must be able to support the capability to prevent the sending of a specific customer's invoices (i.e. to hold back customer invoices)		
5.4.5	The system must support the capability to exclude customers from a bill run (invoice suppression)		
5.4.6	The system must support the capability to consolidate invoices (the invoice is generated internally, but no invoice document is sent to the customer until the outstanding balance is bigger than customer-type specific configurable amount)		
5.4.7	The system must support the capability to generate an immediate invoice in the shop in case of sales of an equipment or voucher.		
5.4.8	The system must support the capability to allow installment billing.		

Procedure: RFP updated

5.4.9	The system must support billing based on SLA and requested QoS agreements.		
5.4.10	The system shall have capability to perform advanced and pro-rated billing based on various criteria (Usage hours, Period, Data capacity Upgrades / Downgrades etc.)		
5.4.11	The system must support advance and backdated billing		
5.4.12	The system must have capability for split billing (Billing to be charged to multiple accounts).		
5.4.13	The system must have capability for perform FMC Package or Bundled Billing for both fixed and mobile services to a single account. The system must be capable to generate a converged FMC invoice.		
5.4.14	The system must have functionality for Itemized Billing, i.e. the generation of a detailed usage report with the invoice.		
5.4.15	The system must have functionality to generate a consolidated invoice on customer level, which is a summarized statement of all billed accounts which is part of the customer.		
5.4.16	The system must provide for the configuration of various configurable and flexible Billing Discounts (Volume, Activations, Cross Product, Guaranteed Fixed Period Uptake, Long term Contracts etc.)		

Procedure: RFP updated

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5.4.17	The system must have capability to define periodic billing cycles (E.g.: Weekly, Monthly, Quarterly, etc.)			
5.4.18	The system must support Temporary Service Billing (Days, Months, Specified Periods etc.) e.g. for Broadcasting Services etc.			
5.4.19	The system must support cyclic billing, based on defined parameters such as customer profile, period, service, regions etc.			
5.4.20	The system must support generation of bills in an ASCII file format.			
5.4.21	The system must support of invoice generation and delivery through E- mail, SMS, Paper Bill, Hand delivery.			
5.4.22	The system must have capability to support of multiple invoice formats and layouts e.g. Postscript, XML, CSV, EXCEL, Text, PDF etc. Additionally, it must have functionality for the exporting of invoices in standard data exchange formats (e.g. XML etc.) for formatting using third-party tools or printing at external print agencies			
5.4.23	The system must provide capability to design/configure invoice format/template using user friendly tools (Bill layout customization).			
5.4.24	The system support printing of Barcodes on Invoices			

Procedure: RFP updated

5.4.25	The system must support colour printing on invoices		
5.4.26	The system must provide option between Open Item Accounting (only reflects charges of current bill period) Invoice or Balance Brought Forward Accounting (Previous and Current Charges in Current Bill Cycle) Invoice. All payments and adjustments are performed against the earliest bill only for BBF Accounting		
5.4.27	The system must display deposit payments on customer invoice.		
5.4.28	The system must provide for functionality to display savings and discounts on customer invoice; summarized as well as per call on the Itemized bill.		
5.4.29	The system must provide for Account Ageing information to be displayed on customer invoice.		
5.4.30	The system must have capability to allow for Bill Inserts and Overlays.		
5.4.31	The system must have functionality to support Bill Call Masks.		
5.4.32	The system must have capability of Bill Run error management, including Auto suspension and resumption of bill-run when errors are resolved.		
5.4.33	The system must have capability to run the bill process step by step, to allow for an invoice file to be generated, but not applied to the account,		

	allowing for the checking of invoice contents prior to updating the customer account balance.		
5.4.34	The system must have capability to allow roll-back and re-run of entire bill-run.		
5.4.35	The system must have capability to revoke selected bill run steps for either a single customer hierarchy or an entire bill run.		
5.4.36	The system must have re-billing capability: to generate a corrective bill/invoice for any previous bills that have been corrected, after the initial invoice for that bill was sent to the customer.		
5.4.37	 The system must allow the billing operations staff to manage the bill process, for example: Specify how many customer hierarchies to bill simultaneously Specify how many bill run errors are allowed before aborts the bill run Specify how many batches to process in parallel 		
5.4.38	The system must provide capability of a billing analysis tool (in built or from 3rd party supplier)		
5.4.39	The system must provide billing reports after bill- run.		
5.4.40	The system must provide support for Multi Lingual invoices.		

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5.4.41	The system must provide support Multi-currency billing and invoicing.			
5.4.42	The system must have capability to support billing on behalf of other provider.			
5.4.43	The system must provide capability to key details of manual calls in the format of a normal CDRs, to be used for billing			
5.4.44	The system must have capability for Wholesale billing.			
5.4.45	The system must provide capability to perform Simulation (Test) billing; with the capability to specify Input criteria for Test bill.			
5.4.46	The system must support capability to generate pro- forma invoice at any time, inclusive of latest transactions on an account.			
5.4.47	The system must support billing for MVNO.			
5.4.48	The system must provide capability for PABX instalment billing.			
5.4.49	The system must have functionality for Amortization of Periodic subscription.			
5.4.50	The system must support import of charges from third party and apply it against respective customer accounts.			

Procedure: RFP updated

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5.4.51	The system must support Anniversary billing for periodic products.			
5.4.52	The system must provide functionality for the creation and management of billing cycles based on pre-set calendar.			
5.4.53	The system must enable the linking all charged items (services, once-off fees, recurring fees etc.) to a predefined G/L account.			
5.4.54	The system is to generate monthly GL transactions file for all charged items to the external financial system (IFS ERP).			
5.4.55	The system must have capability to apply Invoice tax based on customer type.			
5.4.56	The system must be able to relate each individual charge to a specific tax category.			
5.4.57	The system must be able to define a customer, a type of customer or a type of event as tax exempt.			
5.4.58	The system must have capability modify the tax rate by using date ranged reference data			
5.4.59	The system have capability to generate a summarized bill which includes the following details:			
	 Non-recurring charges (if applicable) Adjustments (debits/credits) 			

Procedure: RFP updated

	 Balances brought forward Recurring charges Total usage per service (e.g. voice, SMS, data etc.) for the billing period Total Tax or tax per service Invoice total 			
	The system must provide for various Bill Presentation options:			
5.4.60	 Display/presentation of the invoice on screen, printing, or export to PDF/excel format. Sending of invoices to subscribers via email. Display of information, promotional and marketing messages on the invoice. Bill Notification through E-mail, SMS 			
5.4.61	The system must support Bulk Updates e.g. of Bill Cycles, Profit Centres, Customer Segmentation, Tax Profiles			
5.4.62	The system must implement tracking of revenue in accordance with IFRS 15 Standard: Revenue from contracts with Customers from the International Accounting Standards Board			
5.5 F	Reconciliation with the Network Elements		1	
5.5.1	The proposed system must have capability to perform reconciliation on services between Billing and Network Elements			
5.5.2	The system must be able to generating reconciliation Reports			

5.5.3	The system to provide functionality to perform auto correction based on defined rules.	
5.5.4	The system must have capability to perform Online Reconciliation and synchronization with network elements for individual services.	
5.6	Reports	
	The system must provide usage processing reports for reconciliation and verification purposes.	
5.6.1	The report should show success/failure stats per file or batch processed.	
	The report should classify the failures	
5.6.2	The system must provide all the necessary financial reports for reconciliation and verification purposes	
5.6.3	The system must provide all the standard Financial Accounting reports	
5.6.4	The system must provide Service Costing reports	
5.6.5	The system must provide all the necessary reports for reconciliation and accounting for Partnership Settlement purposes. Partners shall either be external or internal (inter departmental/ regional/ subsidiary companies)	
5.6.6	The system must provide all the necessary Inter Admin Accounting reconciliation and accounting	

Procedure: RFP updated

	reports for the purposes of settlement with			
	international operators			
5.6.7	The system must provide all the necessary operational management reports for the purpose of monitoring and control of daily sales, payments, service provisioning etc.			
5.6.8	The system must provide management reporting such as Customer Behavior Analysis, Qualitative Marketing Reports, etc.			
5.6.9	The system must provide audit reports			
5.6.10	The system must provide the necessary reports covering all the functional areas within the scope of the system. The bidder must provide a complete list of available reports as a supplement to the reply for this item.			
5.7	General Requirements		1	
5.7.1	All business rules should be configured (code must not include any business rule)			
5.7.2	Configurable work flow must be used for all process handling (code should not include any process handling)			
5.7.3	The system must support the concept of multi business units and branches at the contract and sales level			

6 AR AND FINANCIAL FUNCTIONAL REQUIREMENTS

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
6.1	Accounts Receivable				
6.1.1	The proposed system must support Account level payments; where the default way of payment allocation against invoices should be starting from the oldest opened invoice to the latest one.				
6.1.2	The system must provide for flexibility to allow payment allocation to historically listed outstanding dues (as an override the default method).				
6.1.3	The system must support Account or multiple account payments for payment responsible levels towards specific invoice(s). For this option, the system must display all the open account invoices for selection.				
6.1.4	The system must provide the option to query with any of the following: Account number, Customer number, Customer Name, ID number, Company Registration number, Invoice number, Service number, etc.				
6.1.5	The system must have capability to process a Subscriber Level Payment.				
6.1.6	The system must support Multiple Account Payment: Single payment used to pay multiple				

	accounts, either of the same customer or different customers.			
6.1.7	The system must provide capability for Post-paid usage level payment (pre-payment/top-up).			
6.1.8	The system must allow for underpayments and overpayments (advance payment).			
6.1.9	The system must generate a processed Payment Print: Single (one) receipt for single payment against multiple accounts			
6.1.10	The system must have capability to process Salary deduction payments. Configurable maximum amount for deduction.			
6.1.11	The system must support the application of employee benefit rebate on different salary bands by authorised users			
6.1.12	The system must support real-time payment interfaces for third party systems using web service (e.g. payment gateway)			
6.1.13	The system must have functionality to allow for Early Settlement (In full or partial) of Instalment- based subscriptions. Interest payable must be re- adjusted accordingly. Early Settlement of Instalment-based subscription must not affect the Outstanding Amount			
6.1.14	The system must enable configuration of payments linked to Payment Locations and associated GL accounts.			
6.1.15	The system must support an option to capture payments for a selected payment channel. Payment channels are linked to GL accounts			

Procedure: RFP updated

	The system must support of back-dated capturing			
	of Payments; both for single and batch payments.			
	Additional it must provide the option to capture			
6.1.16	Payment Received Date. This date field must be			
	mandatory to fill in and there must be no			
	default/current date populated (requires user to			
	enter it).			
	The system must allow for following details must be			
	displayed for all AR Transactions view:			
6.1.17	Operator name, approver name, payment location,			
	date & time, amount, transaction type, reason,			
	remarks, GL code, etc.			
	The system must have capability for Payment			
6.1.18	reversal or void process applicable for a			
	configurable period.			
	The system must define the Payment reversal as a			
6.1.19	different transaction type. All payment reversals			
0.1.15	must be displayed with the associated original			
	payment transactions and invoice details			
	The system must support payment reversal			
	authorization (Approval or Rejection). Upon			
6.1.20	Payment Reversal Approval, the payment reversal			
	amount must be linked back to the GL of the			
	original payment transaction.			
	The system must provide the capability to define			
	Adjustments Types & Rules; where Debit or Credit			
	Adjustments can be on account or subscriber level.			
6.1.21				
	The system must support the following Adjustment			
	Types:			
	Credit Adjustment (CR), effective immediately			
	upon approval			

	 Debit Adjustment (DR), effective immediately upon approval Debit Adjustment (DR-Billing), effective at bill- run time after approval 			
6.1.22	The system must support adjustment authorization (Approval or Rejection).			
6.1.23	The system must define Adjustment Reasons to be linked to GL accounts. The associated GL account codes must be displayed on the adjustment screen, together with the reason codes.			
6.1.24	The system must provide for VAT on Adjustment to be based on the Tax Profile of the customer.			
6.1.25	The system must support the generation of Credit and Debit Notes in pdf format			
6.1.26	The system must have capability for Batch Payments on multiple customers or accounts via file upload on account, invoice or service level			
6.1.27	The system must provide a Batch Payment interface for third party systems via automatic file upload.			
6.1.28	The system must support encryption and decryption of third-party files			
6.1.29	The system must have functionality for Batch/Multiple Adjustments (for all accounts/services for one customer; or batch adjustment for multiple accounts).			
6.1.30	The system must support Batch File Uploads for Payments, Adjustments, Write-Offs, Deposits, Refunds as well as the Cycles, Profit Centres, Customer Segmentation, Tax Profiles			

6.1.31	The system must support functionality of Account Balance Transfer between different account types,		
	for both debit and credit balances		
6.1.32	The system must support Credit Balance Transfer between subscribers.		
6.1.33	The system must support Multiple Payment Methods (Cash, Cheque, Credit/Debit Card, Direct Debit, Voucher, Wire transfer, etc.)		
6.1.34	The system must allow for configurable processing rules per payment method.		
6.1.35	The system must support Deposit Payment; Deposit Release and Deposit Refund with business process for both security deposits; dealer deposits and foreign deposits.		
6.1.36	The system must have capability for workflow to disable Direct Debit or Cheque Payment method automatically in case of configurable number of unpaids/bounces. The system must send notifications to customers after payment method has changed.		
6.1.37	The system must have capability to apply discounts on successful Direct Debit payments.		
6.1.38	The system must support an automatic and configurable surcharge fee for unpaid Direct Debit payments or bounced cheque payments. The surcharge fee must only be applied at bill-run time.		
6.1.39	The system must support roll-back and re- processing of direct debit files.		
6.1.40	The system must have capability to accept payment in advance for certain recurring line items (e.g. payment in advance on handset or subscription		

Procedure:	RFP updated
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	fees). This type of payment must not affect the		
	outstanding balance of the account.		
6.1.41	The system must have functionality to provide a		
0.1.41	Direct Debit interface to bank.		
6.1.42	The system must support the generation and		
0.1.42	printing of Payment/Adjustment Receipts.		
	The system must have capability to maintain a Full		
6.1.43	Transaction History/Audit Trail on all financial		
	events and transactions.		
6.1.44	The system must have the capability to manage		
0.1.44	unidentified payments.		
	The system must have capability to handle Error		
	payment transactions (from third parties). It must		
	enable the batch upload of error transactions from		
6.1.45	third party into the error database. The system		
	must provide the capability to allocate an error		
	payment to a single account or to multiple		
	accounts.		
	The system must have capability to handle System		
	Error payment transactions. The system rejections		
6.1.46	file must have a different indicator from the third		
	party error payment files. Rejection reasons must		
	be indicated on the error file.		
	The system must have functionality to perform		
	duplicate checking of payments based on account		
	number or invoice number or service number, date		
_	and amount. This check must apply to both		
6.1.47	payments via batch uploads as well as user		
	payments.		
	The system much clout the second of the double the		
	The system must alert the user of the duplication		
	found. If the user submits a duplicate payment		

	(same account/invoice/service number, same		
	amount and same date), the system must request		
	supervisor approval for the second/duplicate		
	payment to be effective.		
	The system must provide for duplicate checking and		
6.1.48	validation on batch uploads: File and transaction		
	levels.		
6.1.49	The system must provide user with a pending		
0.1.15	adjustment alert.		
	The system must support Querying Functions for		
	following transactions:		
	Payments		
	Payment reversals		
6.1.50	Adjustments		
	Write-offs		
	Deposits		
	Transfers		
	Refunds		
6.1.51	The system must support Account Handover to a		
0.2.02	Debt Collectors Process.		
	The system must support Account Write-Off		
6.1.52	Process. It must allow AR transactions on written-		
	off accounts.		
_	The system must provide a batch write-off function,		
6.1.53	via file upload or via selection based on		
	configurable criteria.		
	The system must support an Account Reconciliation		
	function to generate an online report considering		
6.1.54	all transactions, and calculated with a running		
	balance. The system must provide capability to		
	export, email, and print this report.		

Procedure:	RFP updated
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6.1.55	The system to provide for Account Ageing to be displayed on both CRM and invoice.		
6.1.56	The system must support refund of advanced payments or deposit payments		
6.1.57	The system must support refund authorizations (approval or rejection)		
6.1.58	The system must be configurable to provide the option to have debits and credits in either one account or two separate accounts		
6.1.59	The system must provide an interface to SAGE payroll system for detailed Salary deduction payments from employee customers.		
6.1.60	The system must provide capability of multi- currency AR transactions.		
6.1.61	The system must have capability to Accept payments of invoices, deposits, first time order payments, etc.		
6.1.62	The system must have functionality to define payment split rule across services and across customer contracts.		
6.1.63	The system must have capability to send an online thank you messages to customers when payment is received.		
6.1.64	The system must generate a daily GL transactions file for all types of Accounts Receivable transactions.		
6.1.65	The system must have capability to manage disputes and interact with billing for adjustment purposes.		

6.2 Credit Control							
6.2.1	The system must have capability to manage disputes and interact with billing for adjustment purposes.						
6.2.2	The proposed system must have capability to perform real-time credit limit/usage control.						
6.2.3	The system must support setting of account credit limits and subscriber usage limits						
6.2.4	The system must have functionality of sending of customizable voice or SMS notification message based on threshold of limit reached.						
6.2.5	The system must provide a function to increase/decrease credit/usage limit (temporary or permanently) by prescribed amount subject to supervisor approval.						
6.2.6	The system must allow modification of permanent or temporary credit/usage limit subject to user access right.						
6.2.7	The system must provide a feature for a temporary credit/usage limit increase valid until end of current billing cycle or to date specified.						
6.2.8	The system must not allow chargeable usage once credit/usage limit has been reached within current cycle.						
6.2.9	The system must have capability to enable usage of services with available free units even if credit/usage						

	limit has been reached. Once all remaining free units are consumed no further chargeable usage is to be allowed.		
6.2.10	The system credit control function should take into consideration subscriber level payments (pre- payments or top-ups) made in calculating available usage limit or credit.		
6.2.11	The system must have capability for usage level payment/top-up which can be via direct payment or voucher recharge.		
6.2.12	The system must have capability to enable subscriber to have option to disable/enable roaming services (voice and/or data) via USSD dial code.		
6.2.13	The system must have capability for an Automatic, Dynamic, Personalized Credit Control scheme based on customer profile, credit limit, usage, billing or payment history.		
6.2.14	The system must have capability to define credit control actions and link them to the credit control schemes.		
6.2.15	The system must provide for automatic activation of credit control actions based on pre-set schemes and rules.		
6.2.16	The system must generate automated High Consumption Reminders based on the Credit Control		

Procedure: RFP updated

	Scheme, actions and rules, through email, SMS, Voice Mail, auto fax.	
6.2.17	The system must have functionality for an Automated Credit Check invoked at the time of application processing and/or at the back office. Also online analysis of customer payment habits (good & bad customers).	
6.2.18	The system to have capability for a Manual Credit Check facility required for investigation purposes only	
6.3 E	Bad Debt Management (Dunning)	
6.3.1	The system must support configurable dunning policies, templates and schedules based on customer profile, usage, billing or payment history.	
6.3.2	The system must provide capability to exclude or exempt specific customers/accounts from dunning process for a specified period.	
6.3.3	The system must provide capability for an automatic dunning workflow through different steps/levels (i.e. notification after x days, one-way block after x+y days, etc.).	
6.3.4	The system must support the definition of a minimum amount of debt to start the dunning process.	

Procedure: RFP updated

6.3.5	The system must support the configuration of Threshold limits, SMS messages, e-mail messages and dunning letters to be sent to customers.		
6.3.6	The system must support automated dunning actions on voice, SMS and data services; on all types of usage.		
6.3.7	The system must provide for automatic charging of penalty fees per account or subscriber once a defined dunning step has been reached.		
6.3.8	The system must provide for flexible configuration options for late payment fees (e.g. based on a percentage, fixed amount, etc.)		
6.2.0	The system must have functionality to support 'Payment Arrangement' feature for customers in a dunning phase. This can be the full amount at once or in instalments with a down payment.		
6.3.9	This feature must also provide an option for automatic reconnection of services upon activation of 'payment arrangement'; it must be optional and for the CSR to indicate		
6.3.10	The system must be able to suspend the treatment actions for customers/accounts that have promise to pay arrangements. It there is no payment on the promised date, the system must trigger the treatment actions.		

Procedure: RFP updated

6.3.11	The system must have capability to exclude the disputed amounts (including any interest or penalties on such an amount) from the dunning process.		
6.3.12	The system must have capability to charge configurable reconnection fees for all types of reconnections.		
6.3.13	The system must provide for an Audit Trail for all dunning steps and actions for a customer.		
6.3.14	The system must support Automatic Payment Reminders through email, SMS, voice mail, auto fax etc. The sending of invoice due notification message to account level contact person (via Email, SMS).		
6.3.15	The system must have the capability to configure templates for the Payment reminders: email, SMS, dunning/demand letters		
6.3.16	The system must support generation of dunning/demand letters		
6.3.17	The system must support Age Debt Management		
6.3.18	The system must support Automatic partial suspension.		

Procedure: RFP updated

6.3.19	The system must have capability for automatic suspension based on parameters such as customer profile, usage, billing or payment history.		
6.3.20	The system must enable automatic reconnections upon receiving full payment of outstanding/overdue account balance, excluding the current outstanding balance.		
6.3.21	The system must enable automatic notification to be initiated after the service is suspended using alternative contacts.		
6.3.22	The system must be capable to perform automatic Permanent disconnection of contract/ service due to failure in making payment in the specified period as per configured dunning action.		
6.3.23	The system must have capability to perform Automatic Hand-over to External Debt Collection agencies.		

Effective Date: 3 December 2018 Revision: 1

7 ROAMING AND INTERCONNECT FUNCTIONAL REQUIREMENTS

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
7.1 Ro	aming Partner Administration				
7.1.1	The system must have the capability for the creation and management of roaming agreements and details for each roaming partner.				
7.1.2	The system must support separate roaming tariff plans to be assigned to different roaming partners				
7.1.3	The system must support different currencies in roaming tariffs plans assigned to roaming partners; including NAD, USD, EUR, etc.				
7.1.4	The system must support multiple different TAP and NRTRDE codes to be assigned to each roaming partner.				
7.1.5	The system must support multiple IMSI prefix ranges for each roaming partner.				
7.1.6	The system must have capability to associate the same IMSI range of an operator with different TAP and/or NRTRDE TADIG codes as per Roaming Hub (e.g. Key2Roam) requirements.				

7.1.7	The system must provide for the defining of roaming relations in either a Test or Live status per roaming partner; for different services.	
7.1.8	The system must support the maintenance of Roaming Exchange Rate Currency Information for each currency used. System must save all changes of exchange rate history in the system.	
7.2 1	TAP Processing Requirements	
7.2.1	The proposed system must support complete specifications of TAP 3.12 or latest version.	
7.2.2	The system must enable generation of TAPOUT files (including test files) in TD.57 format according to configurable intervals.	
7.2.3	The system shall apply TAPIN file validations	
7.2.4	The system shall process TAPIN files and apply the charges to the corresponding customer accounts.	
7.2.5	The system must have capability for file exchange management for both TAPOUT and TAPIN files.	
7.2.6	The system must support the GSM standards for Roaming File naming conventions.	
	The system must support different tariff plans (Peak, off peak, per operator, per destination/country, etc.).	
7.2.7	The system must support the application of discounts per volume, destination to and from, dates, etc.	

7.2.8	The system must have capability to apply surcharge on outbound roaming usage within the TAPIN files, per service type.			
7.2.9	The system must have capability to rate the incoming voice calls received in the TAPIN file.			
7.2.10	The system must support the real-time rating of roaming data usage from SGSN CDR's; and reconcile with roaming usage record received from TAPIN file.			
7.2.11	The system must provide for Error handling of the roaming traffic as per the TAP3 standards and latest RAP version defined by GSM MoU. The system shall process RAP and RAP Acknowledgement files.			
7.2.12	The system must have capability to validate RAPIN data with TAPOUT data.			
7.2.13	The system must have capability to support TAPIN/TAPOUT re-process or re-generate for rejected/error files or records. This functionality must be applicable for both existing and new file sequence numbers.			
7.2.14	The system must provide High Usage Alert or Fraud Management for inbound roamers on the HPLMN network.			
7.3 N	RTRDE Processing Requirements		·	1
7.3.1	The system must perform generation of NRTRDE files in TD.35 format.			

Procedure:	RFP updated
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7.3.2	The system must support schedule for NRTRDE file generation, adhering to GSMA specifications.		
7.3.3	The system must have capability for the processing of NRTRDE incoming files.		
7.3.4	The system must have capability for a High Usage or Fraud Alert work flow process to automatically block outbound roaming IMSI's with high usage based on NRTRDE incoming files.		
7.3.5	The system must provide a capability for a High Usage or Fraud Alert work flow process to block high usage visitor IMSI's detected within home network.		
7.3.6	The system must have capability to associate the same IMSI range of an operator with different TAP and/or NRTRDE TADIG codes as per Roaming Hub (e.g. Key2Roam) requirements.		

7.4 R	evenue Share Management Requirements		
7.4.1	The system must have capability to define revenue share partners (content providers) and settlement rules.		
7.4.2	The system must provide functionality to define content/service type (Voice, Data) with classification (News, tones, sport, music, etc.)		
7.4.3	The system must provide capability to link partners to multiple services and/or content.		
7.4.4	The system must provide capability to define revenue sharing rule as flat rate, percentage, conditional, etc.		
7.4.5	The system must supporting defining flexible revenue sharing rules using IF-THEN structures.		
7.4.6	The system must permit two types of revenue sharing apportionment, one on billing and the other on payment received.		
7.4.7	The system must have support for multi-currency settlement.		
7.4.8	The system must have capability for the configuration and maintenance of SMS/USSD Revenue Share Partners.		
7.4.9	The system must enable the administration of SMS Short Codes per Partner.		
7.4.10	The system must enable the administration of SMS tariff and revenue share % per short code.		

Procedure: RFP updated

7.4.11	The system must generate Revenue Share settlement reports and invoices.		
7.4.12	The system must have the capability for intra- company settlement between MTC profit centers, business units, regional branches subsidiary companies, etc.		

Effective Date: 3 December 2018 Revision: 1

8 PROVISIONING SYSTEM FUNCTIONAL REQUIREMENTS

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
8.1 Sei	vice Provisioning				
8.1.1	The system must support the provisioning for mobile, fttx, cloud or transmission and point-to- point TDM services. It must also support new IP- based (layer 2 and layer 3) access such as Internet/DATA/VPN/Ethernet via GPON, WDM, SDH, Active Ethernet, IP-MPLS on access devices such as MSAN, Ethernet, LTE, etc.				
8.1.2	The system must be able to auto-provision ISP services (email, websites, etc.)				
8.1.3	Plug and Play service provisioning for any added new service, product or package (e.g. add complex service such as VPN)				
8.1.4	The system shall provide means for real time or near real-time provisioning, interacting with core network or other 3rd party entities.				
8.1.5	The provisioning system should have the capability to invoke Resource Management for new resources in case of failed orders				
8.1.6	The system must provide a dynamic interface to configure and maintain network elements.				

8.1.7	The system must provide the ability to auto- discover network devices to enable network elements on the network		
8.1.8	The system should provide one single point of entry for the provisioning requests from client systems for both fixed and mobile networks.		
8.1.9	The system shall support bundled requests that represent multiple provisioning operations. The system shall also recognize these requests and split them into individual tasks.		
8.1.10	The system shall provide the possibility to schedule the execution of a request and allow defining priorities to requests.		
8.1.11	The system shall handle executing requests concerning the same subscriber in correct order		
8.1.12	Commands shall be sent to network elements using network element type specific network element interfaces. The interfaces shall translate the requests into provisioning commands to the correct command language and issue these commands on the network element and receive responses from it. The detailed response must be published on AA (AutoServiceActivation)		
8.1.13	The system must provide configurable roll-back capabilities. Roll-back can be for a single task or multiple tasks		
8.1.14	Provisioning orders include the following: Create new subscriber Terminate subscriber		

Procedure: RFP updated

	Barring of outgoing calls (national or international)			
	Barring of outgoing SMS (national or international)			
	Barring of packet data service			
	Barring of roaming calls (all)			
	Barring of roaming data calls only			
	Barring of incoming services (voice/SMS)			
	MSISDN change			
	SIM change			
	Add/remove APN			
	HLR routing category modification			
	Add supplementary services			
	Remove supplementary services			
	Batch Create New Subscribers			
	Batch Delete Subscribers			
	Batch Supplementary Service Provisioning			
	Batch SIM replacement			
	Batch Upgrades and Downgrades			
	Service Transfers between address			
	Change Price Plans (Upgrades or Downgrades)			
	Change of Access Technology			
	Change of resources			
8.1.15	The system must maintain a history of all MSISDN's			
0.1.15	linked to subscriber.			
8.1.16	The system must maintain SIM Change history for			
0.1.10	all subscribers.			
8.1.17	The system must translate all error codes from			
0.1.17	network elements into user-friendly descriptions			

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9 PORTALS FUNCTIONAL REQUIREMENTS

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
9.1 W	eb Self Care Portal				
9.1.1	The proposed system must support the online registration of subscribers in order to use the web self-care, registering using the subscriber's account number/service number.				
9.1.2	 The system must allow the subscriber to maintain the following via self-care: Contacts Payment of account View Account Summary (Balance, Credit Arrangement information, Deposits, Advance payments, Instalment information) View and Download Invoice(s) (current and historic) View Payment history View Recharge and Renewal View usage history (last 90 days, number of days should be configurable) View unbilled usage of the subscriber for the billing cycle. View free units used and remaining to the subscriber, both monthly recurring and bundles. 				

	 View open orders, faults and disputes Services currently subscribed to by the customer. 		
9.1.3	The system must have the capability to support corporate administrators needing to manage their company accounts.		
9.1.4	System must have capability to allow corporate administrators to assign sub login credentials to their employees and assign privileges on which accounts or services they can view and which actions they can initiate on the portal		
	The system must allow the subscriber to update and retrieve on demand his access password to the portal.		
9.1.5	Self-Care System must support ordering new services and value-added services for subscriber.		
9.1.6	The system must have capability to enable subscribers to log trouble tickets or complaints via the portal.		
9.1.7	Customers should be able to query PUKs and PINs (in case it hasn't been changed by the customer)		
9.1.8	The system must provide capability to view Sales Catalogue.		
9.1.9	The system must provide capability that enables a customer to perform the serviceability query or enable a customer to determine what services are		

	available based on physical address or other criteria. Serviceability checks must be available on all customer contact channels.			
9.1.10	The system must provide capability for subscriber to compose and send SMS & Email messages. The number of SMS/E-mail that can be sent from the self-care portal needs to be limited to a configurable amount per cycle.			
9.1.11	The system must allow the integration with a Single Sign On platform			
9.1.12	Live chat: the system must provide a real-time service interaction to the end-user with a customer service agent, in order to resolve issues or answer questions.			
9.1.13	The system must provide capability for subscriber to access via HTML5 web solution, or mobile app developed for IOS, Android or Windows Mobile.			
9.1.14	The system must provide capability to allow MTC to send notifications and alerts to the customers. Customer will be able to manage these message in a specific notifications area.			
9.2 So	ocial Media Enablement	•	L	
9.2.1	The proposed solution must provide integration with Social Media			

Procedure: RFP updated

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9.2.2	The proposed solution must be able to facilitate social campaigning		
9.2.3	The proposed solution must provide social analytics and sentiment analysis in order to deliver insights in structures of social networks and track negative contributions in discussions on social networks like Facebook and Twitter.		

10 **RESOURCE MANAGEMENT (MOBILE)**

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
10.1 Ⅳ	ISISDN Management				
10.1.1	The system must enable the generating MSISDN number ranges.				
10.1.2	The system must have functionality for the administration and maintenance of various MSISDN number states.				
10.1.3	The system must provide capability to assign MSISDN ranges to various locations (outlets).				
10.1.4	The system must support the generation of Golden/Platinum/VIP MSISDN number ranges.				
10.1.5	The system must have capability to reserve numbers or range for a certain user or certain customer; up to a defined date.				

Procedure:	RFP updated
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10.1.6	The system must provide functionality for the recycling of terminated numbers after a configurable time period.			
10.2 St	atic IP management			
10.2.1	The system must provide for the generation and maintenance of a pool of static IP ranges.			
10.2.2	The system must have functionality to assign static IP's to subscribers as add-on service.			
10.2.3	The system must provide capability to do monthly billing Static IP services according to configured charges.			
10.2.4	The system must provide for the provisioning of static IP's per subscriber.			
10.3 AF	PN Management			
10.3.1	The system must provide for the administration and maintenance of APN's available on the network.			
10.3.2	The system must support the assignment of APN's to subscribers as add-on service.			
10.3.3	The system must have capability to do monthly billing of assigned APN's services as per configured charges.			
10.3.4	The system must support to ability to do reverse APN billing for a customer.			

Effective Date: 3 December 2018 Revision: 1

11 RESOURCE MANAGEMENT (FIXED)

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
11.1 Re	source Management				
	The Resource Management should have Automatic discovery and synchronisation of live network assets with NMS, EMS and NEs.				
11.1.1	(The capability for real-time integration in order to interrogate the Access network active devices/systems (MSAN) about status of resources before resource allocation/assignment.)				
11.1.2	The system must provide the capability to model different resources by different vendors. This is for both active and passive equipment.				
11.1.3	The system should have the capability to automatically assign alternative free resources to orders upon receiving a failed order feedback from AA due to mismatched resources				
11.1.4	The system must provide a capability to perform periodic audit checks on Access devices on resource status and produce exception reports				
11.1.5	The system must support lifecycle status all RM resources (e.g. planned, active, faulty, free, etc.)				
11.1.6	The system must enable the management and allocating of resources to customer orders and Network Access Elements orders				

Procedure: RFP updated

	a) Managing IP Resources (IP Addresses, VRFs,		
	VLANs, etc.)		
	Should be able to resemble or be able to be		
	profiled to represent various Access systems;		
	GPON / Splitter Ports, Active Ethernet, IMS,		
	FTTx, Metronet, MPLS, VSAT etc fibre access		
	networks and associated nodes .		
	The system must have capability for the managing		
	of Two Address Line Cards:		
11.1.7	a) Auto Assignment of resources linked to the two		
	addresses, where address linkages to resources		
	are defined		
	The system must provide capability to design		
11.1.8	custom addresses (e.g. for international		
	installations)		
	The system must support capturing & linking or		
	creating of relationships for the below hierarchy:		
	Address (customer location) \rightarrow Site (physical		
	location of network equipment) \rightarrow Device &		
11.1.9	Technology (e.g. MSAN,) \rightarrow Access (GPON, etc.) \rightarrow		
	Resource (ports)		
	The system must be able to interface the		
	relationship to other modules like CRM.		
	The system must provide support for Service Area		
11.1.10	Management capabilities and Different levels of		
	Address definition:		
	• Country		
	Region/District		
	City/Town		

Procedure:	RFP updated
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	 Suburb/Residential area 			
	 Parcel (Farm /Erf number) 			
	Street name			
	Street type			
	Street number			
	 Building name 			
	Floor number			
	Unit/Office/Shop Plot number			
	 GPS Coordinates 			
	 Operational/ Commercial Area 			
	Each address attribute must be stored and			
	presented in separate fields.			
	The system must provide capability for the support			
	for Site Management.			
11.1.11	This includes the capability to define and maintain			
	physical location details of network equipment			
	information/			
	The system must provide support for IP Address			
	Management capabilities (V4 or V6), private or			
11.1.12	public. Additionally it must provide an interface to			
	an IP Plan tool.			
-	The system must have the capability to structure			
11.1.13	and allocate different IP types based on orders.			
	The system must provide support for Device			
	management capabilities.			
	It must have the capability to support various			
11.1.14	device structures/hierarchies such as the below			
*****	example:			
	Rack \rightarrow Front/Back \rightarrow Shelf \rightarrow Module/Slot/Service			
	Board \rightarrow Service Port/Terminals			

Procedure:	RFP updated
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11.1.15	The system must support single and multiple port allocation to one service; and single or multiple		
11.1.15	services to one type of resource		
11.1.16	The system must Support Number Management capabilities (dial-able telephone number / non dial- able numbers). The system must have the capability to structure and allocate different number types based on service request.		
11.1.17	 The system must support the definition, structure and resource management of fixed cable network (copper and fibre) Nodes stribution points, street distribution cabinets, main distribution frames, optical distribution frames, fibre distribution hubs, splitters, etc.) Cables/Connections imary cable, secondary cable, service connection, backbone fibre, metro-access fibre, etc.) 		
11.1.18	The system must support standard defined templates to speed up the creation of nodes, cables, devices, etc.		
11.1.19	The system must provide the capability to create customized RM Reports, such as network capacity threshold reports, which should inform business where upgrades/expansions to the network is required.		
11.1.20	The system must support integration to GIS, workforce management system and downstream systems/modules that require resource information.		

11.1.21	The system must track all user activities in an audit		
	trail and provide system logs for any changes made		
	The system must provide capability for user profile		
11.1.22	and user role administration with access		
11.1.22	management to various levels of Inventory		
	management and Resource management.		
	The system must provide the capability for single		
11.1.23	or batch/bulk change/modification, renaming,		
11.1.23	deletion and/or expansion of all Resource		
	management items		
	The system must have the capability to migrate		
11.1.24	existing customer services from one device to a		
	different device in bulk		
	The system must update dependant systems when		
	updates are made on RM e.g. when a cable is		
11.1.25	flagged as faulty on RM, the same status should be		
11.1.25	displayed on all customers connected to that cable		
	or when a Base station IP changes, the change		
	must perpetuate to the downstream system.		

Procedure: RFP updated

Effective Date: 3 December 2018 Revision: 1

12 DEALER MANAGEMENT

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
12.1 De	aler Management	1	1	1	
12.1.1	The system must support the process of approving new Dealers, including Dealer identification, Dealer vetting and approval				
12.1.2	The system must support assignment of roles to Dealers to determine the level of access Dealers may have to customer account information and service subscriptions				
12.1.3	The system must support different methods of handling Dealer deposits				
12.1.4	The system must support automatic commission calculations and enquiries for Dealers.				
12.1.5	The system must support online enquiries and reporting of products and vouchers sold by the Dealer.				
12.1.6	System must have capability for dealers to purchase vouchers online. Dealers must be able to sell vouchers to their sub dealers online.				
12.1.7	System should support setting of targets for internal dealers and monitoring performance vs targets. Alarms should be generated via email, sms etc. when targets are in danger				

Procedure: RFP updated

Effective Date: 3 December 2018 Revision: 1

13 CAMPAIGN MANAGEMENT

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
13.1 Ca	mpaign Management				
13.1.1	The system must provide the capability to capture an idea for a new promotion or marketing campaign.				
13.1.2	The system must provide capability to extract customer information from system and target those customers for specific campaign offerings				
13.1.3	The system must provide functionality for idea approval or declining.				
13.1.4	The system must support the capability to design different types campaigns, covering different regions.				
13.1.5	The system must support assignment of campaign tasks to different channels for execution.				
13.1.6	The system must provide capability to monitor and revise a campaign				
13.1.7	The system must provide capability to evaluate a campaign success				
13.1.8	The system must provide capability to report on campaign results against the predefined targets				
13.1.9	The system must have functionality to draw data from various sources and automatically initiate predefined campaigns for customers who meet predefined conditions				

Effective Date: 3 December 2018 Revision: 1

14 BUSINESS PROCESS MANAGEMENT

			Part of Core		
		Compliant	Solution?	Vendor	
ID	Functional Requirement	(Y/N)	(Y/N)	Module	Vendor Comments
14.1 Bu	Isiness Process Management	Γ	1		
14.1.1	The system must have capability to provide a design environment to connect business processes to applications and assemble into user interfaces.				
14.1.2	The system must support a wizard-driven tool where no development or coding is required.				
14.1.3	BPM Engine has to manage proper sequence, enforce business rules and audit each step.				
14.1.4	BPM Engine needs to support various interface standards (e.g. web services, xml, sql, corba etc.).				
14.1.5	BPM Engine needs to supports performance (KPI) management functionality via a graphical business process monitor.				
14.2 En	terprise Service Bus				
14.2.1	The system must support for synchronous and asynchronous transport protocols HTTP, HTTPS, POP, IMAP, SMTP				
14.2.2	Format: The system must support JSON, XML, SOAP 1.1, SOAP 1.2				
14.2.3	The system must support message routing based on headers, content and rules				
14.2.4	The system must support standard enterprise integration patterns for mediation like message filters, message enrichment and guaranteed delivery				
14.2.5	The system must have transformation capabilities: XSLT 1.0/2.0, XPath, XQuery				

14.2.6	The system must have security capabilities (WS-		
14.2.0	Security, LDAP, Kerberos, Open ID, SAML, XACML)		
14.2.7	The system must support load balancing for scalability		
14.2.7	and failover for high availability of business endpoints		
	The system needs to supports performance (KPI)		
14.2.8	management functionality via a graphical business		
	process monitor		
14.2.9	The system must support centralized configuration		
14.2.9	management and versioning		

Procedure:RFP updatedEffective Date:3 December 2018Revision:1

15 BUSINESS ACTIVITY MONITORING

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
15.1 Bu	siness Activity Monitoring				
15.1.1	The system must have capability to present information on dashboards as per containing defined KPIs				
15.1.2	System must display information in Real Time or Near Real Time				
15.1.3	System must have capability to integrate into the trouble ticket system for bulk messaging when troubles are detected				
15.1.4	System must have capability to integrate and display information from multiple sources of data				
15.1.5	BAM must have capability to interact with BPM				
15.1.6	System must be based on Complex Events Processing				

16 **REPORTING PORTAL**

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
16.1 Re	porting				-
16.1.1	The system must provide standard reports for all business areas				
16.1.2	The system must have the capability of a reporting tool to develop additional custom reports. This must be used by MTC developers.				
16.1.3	The system must have the capability to provide a EDW dashboard.				

17 COMMISSION MANAGEMENT

ID	Functional Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
17.1 Co	mmission Management				
17.1.1	The system must provide capability for the configuration of different commission rules, events, categories and criteria.				
17.1.2	The system must support an approval process for commission rules.				
17.1.3	The system must support multiple commissioning schemes				

17.1.4	System must support different commissions claw-back methods		
17.1.5	The system must support adjustment of calculated commissions		
17.1.6	The system must support the enquiry, display and export of detailed commission calculation results per channel/dealer.		
17.1.7	The system must provide an interface for commission payments via IFS ERP system.		

Procedure: RFP updated

Effective Date: 3 December 2018 Revision: 1

18 SPECIFIC ISP SERVICES REQUIREMENTS

			Part of		
		Compliant	Core Solution?	Vendor	
ID	Functional Requirement	(Y/N)	(Y/N)	Module	Vendor Comments
18.1 Ge	neral ISP Service Requirements				
18.1.1	The solution should have the possibility for real time crediting and provisioning of prepaid services and for real time rating of the consumption of these services. Real time means that during a logon session usage is directly rated and stored in the database and measured against rules set in the system.				
18.1.2	The solution must provide administration facilities such that internal users can be placed in groups that reflect functional business areas, with groups given varying levels of system access. All users should have to log on with a username and password. Permissions should be available to allow or disallow groups to add, amend, delete, and query any part of the system.				

Procedure: RFP updated

	Single database of customer information to remove the need for duplication. This data should be available		
18.1.3	to each sub-system (Helpdesk, Account set-up, Billing,		
	MIS, and Marketing).		
	The solution should support the automation of		
18.1.4	processes, so that based on a set of rules (e.g. Status		
10.1.4	of customer) actions can be created and operated.		
	History on prices, products, contracts, customer etc.		
	The system must support history on all data		
18.1.5	concerning customers, products, prices and contracts.		
10.1.5	It must be easy to write data to history and to access		
	historical data.		
	The solution should have the possibility to run all tasks		
	24 hours a day to enable the spread of workload of		
18.1.6	different tasks (e.g. production of billing output file or		
	queries on the database for management		
	information).		
18.2 Re	egistration		
	The solution must provide real time functionality for a		
	Customer Services Representative to set-up new		
	accounts, this functionality might include:		
	 Collect all customer details and update the 		
	customer database		
18.2.1	Create a Remote Authentication Dial – in user		
	account with account number and password.		
	Allow entry of mail account names (up to the number		
	allowed by the customer's subscriber package);		
	validate the names and set-up mail accounts for the		
	customer – providing password.		
	Auto Registration must:		
18.2.2	Provide the ability to do immediate real-time		
	self-registration and service provisioning.		

Procedure: RFP updated

	 Let the customer subscribe to a service and product package. Allow flexible definition of customer details that might be collected and updated on the customer database. Such data might include: Customer data – basic customer information System data – hardware and software the customer uses to connect. Package data – the package and options the customer is subscribing to. Additional items – hardware and software ordered, 			
	 information required to complete customer orders – IP addresses etc. Billing data - billing address, credit card details. 			
	 Marketing or demographic information. Create a Remote Authentication Dial – In User account with account number and password. 			
	 Allow entry of mail account names (up to the number allowed by the customer's subscriber package); validate the names and set-up mail accounts for the customer-providing 			
	 password. Configure the customer's desktop set-up; install web browser and mail client software. Flexible definition of mandatory input fields. 			
18.2.3	Data entry source tracking by Registration and/or Registration Access Codes. These codes have to be uniquely linked to a customer. It should be possible to track via which distribution channel a customer came in (Registration Code). Furthermore, it must be			

	possible to specify the allowed period of use and how		
	many times a product may be used.		
	The registration functionality should be very flexible		
	so that different kind of distribution channels can be		
	supported e.g:		
18.2.4	Shop sale		
	 Bundling 		
	Pre-Paid Card		
	Registration via www		
18.2.5	User/Domain name allocation/validation at the order		
10.2.5	stage.		
	Validation of e-mail addresses chosen by customer		
18.2.6	(unique and not reserved) and automatic update of		
	aliases should the mailbox be renamed.		
18.2.7	Validation of password chosen by customer (syntax).		
18.2.8	Registration of different addresses for users and for		
	account sponsors with billing responsibility.		
18.2.9	Registration of multiple contacts for each customer.		
18.2.10	Registration for prepaid customers or where the		
10.2.10	account is paid for by a third party.		
18.2.11	Interfacing with or support functionality of a		
10.2.11	prospecting system. Quotes.		
	Registration of customers (and non-customers) as		
18.2.12	spammer's or other types of abuses and the possibility		
	for compiling a listing of these fraudsters or abusers.		
	The online registration interface should be easily		
18.2.13	customizable in terms of data fields to be added,		
_010	procedures to be performed and adaptation of the		
40.0	look and feel by the ISP organization.		
18.3 Cu	istomer Self Care		

	Users must be able to view their account details and change some details on-line via the Web. The				
	allowed changes/queries should include functionality				
	to upgrade or downgrade between the various				
	product package offerings which might include:				
	• View usage since last bill and current account				
	charges (also for service desk services).				
	 View outstanding support calls by call 				
10.2.1	reference number				
18.3.1	Create new support call				
	 Order new products and services 				
	Check the status of orders				
	• Upgrade product-components, e.g. upgrade				
	homepage from 2MB to 5MB				
	• The system must provide the ability to restrict				
	the facilities a user would have				
	The specified functionality has to very flexible in				
	defining and redefining.				
	The CRM must support a Corporate Self-Management				
	tool that includes the corporate subscribers:				
	Web interface – accessible via mobile device				
	and desktop				
	• Ability to set up user teams / levels / reports				
	based on the corporate organization structure				
	(Management / Sales / Others)				
18.3.2	Bulk operations				
	All relevant information in real-time				
	• Feedback screens that show that the				
	transaction completed successfully				
	 Ability to add or remove services 				
	 Ability to view and manage bundle usage 				
	 Ability to see history of usage and invoices 				
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18.3.3 The customer self-care interface should be easily customizable in terms of data fields, procedures and adaptation of the look and feel by the ISP organization 18.4 Customer Care/Call Centre Integration 18.4.1 The system must provide possibility of integrating to a proven Customer Management application. 18.4.1 The system must provide possibility of integrating to a proven Customer Management application. 18.4.1 The system must provide possibility of integrating to a proven Customer Management application. 18.4.1 The system must provide possibility of integrating to a proven Customer Management application. 18.4.1 The system must provide possibility of integrating to a proven Customer Management application. 18.4.2 • Name (Customer, Company, Contact) • Customer Code • Customer physical address • Fax, Phone and mobile numbers • Site visit reports by engineers, sales personnel • Log we details of products installed at customers ite, usual configurations etc. • Correspondence with customers • Call history, with details of each call including start and end time. • Customer connection error information in real-time and history. • Customer connection error information in real-time and history. • Customer contacts and representatives. Customer premises equipment (hardware). A certain level and standard of support will have been agreed with th			 		
18.4 Customer Care/Call Centre Integration 18.4.1 The system must provide possibility of integrating to a proven Customer Management application. 18.4.1 Information displayed about a customer should include: • Name (Customer, Company, Contact) • Customer Code • Customer Code • Customer physical address • Fax, Phone and mobile numbers • Account numbers • Site visit reports by engineers, sales personnel - to give details of products installed at customer site, usual configurations etc. • Correspondence with customers • Call history, with details of each call including start and end time. • Calls currently online. • Customer connection error information in real-time and history. • Customer premises equipment (hardware). • Accentain level and standard of support will have been agreed with the customer beforehand. These may include: 18.4.3 9am – Sam support 24 hour support pay per support call					
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Customer premises equipment (hardware).Image: Customer before hand standard of support will have been agreed with the customer before hand. These may include:Image:		real-time and history.			
A certain level and standard of support will have been agreed with the customer beforehand. These may include: 18.4.3 9am – 5am support 24 hour support pay per support call 18.4.3		 Customer contacts and representatives. 			
agreed with the customer beforehand. These may include: 18.4.3 9am – 5am support 24 hour support 24 hour support call 18.4.3 18.4.3 18.4.3 19 hour support 24 hour support 24 hour support 24 hour support call 18.4.3 19 hour support 24 hour 34 hour support 24 hour 34 hour		Customer premises equipment (hardware).			
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9am – 5am support 24 hour support pay per support call		include:			
9am – 5am support 24 hour support pay per support call	10 4 2				
pay per support call	18.4.3	9am – 5am support			
		24 hour support			
		pay per support call			
		1 hour of support in total.	 		

Procedure: RFP updated

	The system should keep track of this and notify the operator if the customer is seeking service outside the agreed terms.		
18.4.4	Some action by the operator might be illegal due to the customer's current billing status. For example, a customer might not be entitled to phone support if they aren't currently paid up in full. The system should display a message to the operator (or customer if using web access) to state that support is not part of the subscriber packages or available until accounts are cleared.		
18.5 P	roducts & Pricing Plan	 -	
18.5.1	An unlimited number of subscriber packages must be supported. These will be different combinations of prices, methods of charging, discounts, terms, payment methods and offer varying bundles of services and products for hardware, software, network services, transport (access), usage and support services. The solution must be able to interface fully with current and future enterprise systems to take advantage of the information provided by these systems to take advantage of the information provided by these systems for the creation and billing of future subscriber packages.		
18.5.2	 The product & pricing plan should have the possibility for the following or combinations of the following: One-time charging Cyclical charging Usage based Time of day pricing 		

Procedure: RFP updated

 Free hours Loyalty programs 18.5.3 Flexible product definition: (main, sub or variant products). The product & pricing module should have facility to define different service desk product offerings. These product offerings may be rated and priced using the various methods referred to at 2 above. 18.5.5 Defining prices for packages overruling individual prices of products. 18.5.6 Marketing deals for both new and existing customers. 18.5.7 Cross product subsidized rating. 18.5.8 Product interdependency, e.g. to have an Alias, a customer must first have e-mail 	
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Product interdependency, e.g. to have an Alias, a	
18.5.8 customer must first have e-mail	
Use of different types of discounts and prices:	
Prices dependent on used units	
Prices dependent on time of day	
Discount for each next period of subscription	
Prices dependent on an amount of used units tapered	
and tiered pricing	
In the product & pricing plan there should e a section	
for definition of sales commissions to different	
18.5.10 channels. These definitions should be flexible; e.g. a	
one-off incentive or an incentive based on a % of	
income during period X.	
Every product & pricing plan to be defined in the	
18.5.11 solution should be very easy. The maximum time for a	
definition should not be more than 5 minutes.	
18.6 Billing	
18.6.1 The following payments methods should be	7
supported:	

Procedure:	RFP updated
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	 Cash Credit Card (one-time payment, direct debit) Bank Credit Debit Pre-payments All these payment methods should be supported by a standard Generic File Layout that interfaces easily with both: Banks, Credit Card companies and other financial institutions. Bills must be available in several formats as follows: E-Bill E-Bill 		
18.6.2	 Paper Bill Browser report Invoice 		
18.6.3	 Sales activity, orders and invoices need to be to classifiable not only by product and product packages, but also under the following headings: New business, this financial year, subject to cyclical or usage-based charging, New business, this financial year, subject to one time charging. Renewal business, this financial year, business which originated in a previous financial year and which is now being renewed. 		
18.6.4	Ability to flexibility define income recognition rules, i.e. the difference between an "order" and "invoiced sale".		
18.6.5	The ability to produce detailed analysis of the buildup and release of deferred income. This would also include a facility to forecast the release of existing deferred income out in to the future by accounting period.		

Procedure: RFP updated

	The capability to attribute transactions to particular		
	accounting periods. Once a particular accounting		
18.6.6	period has been closed (flexible definition of closure)		
	subsequent transactions or adjustment may only be		
	attributed to a subsequent period.		
	The solution must, without user intervention produce		
	an interface file to transfer due amounts automatically		
18.6.7	from customer's bank accounts or credit cards. Due to		
	a large number of subscriber packages this interface		
	must be capable of running several times a day.		
18.6.8	Tie set of accounts on one single customer bill.		
18.6.9	Tie sets of products together for inclusion on a single		
10.0.9	customer bill.		
18.6.10	Flexibility to have user access rights and billing		
10.0.10	responsibility separate.		
	Invoice production should be capable of flexible		
	definition, e.g. for certain products invoices maybe		
	produced in arrears, while for other products it may be		
18.6.11	desirable to produce invoices or renewal notices,		
	(renewal notices have order stages and only attain		
	invoice status when paid), daily sometime in advance		
	of re-subscription date.		
18.6.12	Flexible rebilling synchronization.		
10 0 10	Detailed and flexible invoice content, e.g. sentence at		
18.6.13	the bottom of the invoice.		
	Customer critically ranking, to prevent the automated		
18.6.14	termination of the accounts of customers defined as		
	critical for marketing reasons.		
	An integrated accounts receivable and credit control		
18.6.15	module or reporting interface to the financial		
	accounting software of a business.		
			<u> </u>

Procedure: RFP updated

	Capability to allow adjustments against subscriber		
	accounts on the billing system such as credit notes,		
18.6.16	debit notes, refunds etc. This capability will only be		
	allowed to those customer services representatives		
	given the appropriate access rights.		
	If customer is disconnected for non-payment – control		
18.6.17	to ensure that not reconnected – say phone #/rules in		
	the system.		
18.6.18	The system needs to be able to produce copies of		
10.0.10	invoices.		
	Administration staff with suitable access rights must		
18.6.19	be able to activate and de-activate a customer's		
	account.		
18.6.20	Possibility of tracking discounts per sales employee.		
	A user account must be automatically deactivated if		
	payment is not received within a specified time. A		
18.6.21	warning email must be sent to the customer informing		
10.0.21	them of the pending deactivation if payment is not		
	made. The user account must be automatically		
	activated when payment is received.		
18.6.22	Easily facility to third parties invoice production engine		
10.0.22	or to format print locally.	 	
18.6.23	Flexible formatting of complex manual invoices (e.g.		
10.0.25	consultancy, Web design).		
18.6.24	Processing of response files of payments.		
18.7 Ra	ating		
18.7.1	Ability to rate all services real time & batch.		
18.7.2	Real time and batch crediting of payments for usage-		
18.7.2	based services.		
18.7.3	Usage based rating for all dial-in and Internet services		
18.7.4	Real time import of external usage/activity statistics		
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Procedure:	RFP updated

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18.7.5	Flexible and extensible interface to activity tracking sources.			
	Real time rating and access suspension for internet			
18.7.6	products.			
18.7.7	Automated to systems activating tracking capabilities.			
18.7.8	Input/Import based variable pricing.			1
18.8 Ma	anagement Information			
	The solution should allow tailor-made reports to be			1
18.8.1	produced printing details based on any condition, e.g.			
10.0.1	type of modem that features in most Internet Related			
	support calls.			
	Support the business in producing promotional			
	campaigns and customer profiles by providing data			
	collection and reporting functionality on:			
	Customer:			
	Usage history			
	Time spent on-line			
	Time of day access			
	Sites accesses			
	Purchases			
18.8.2	Usage since last bill and current account charges			
	Number, type and costs of support calls made			
	Training delivered			
	Support contract details			
	Business:			
	Customers by county			
	Customers by modem speed			
	Number, type and costs of support calls			
	Customers using a particular version of an application			
	for upgrade control)			

Procedure: RFP updated

		1	1
	Customer training details		
	<i>General:</i> Statistics and Management reports Trends and Patterns These reports should be produced in tabular and graphical form.		
18.8.3	On-line reports should be available that provide a history of account creations, amendments, deletions including the time of change and who made the change. These should be tabular and graphical.		
18.8.4	The management information module should have a multi-database layer capability. The application should have the possibility to extract ad present information from it's own database and other databases like Web statistics, call center, bookkeeping system, network monitoring etc.		
18.8.5	There has to be a set of template report made available by the supplier.		
18.8.6	Analyzing revenue by category – set up, rental, inter company, adv., e.g., report on billed revenue per service per time, - report on total billed revenue per time period, report on the number of prospective customers, especially the trial customers on how they do assess quality of services and products and their nature of contact; etc.		
18.8.7	Capability to define and generate flexible accounts receivable and credit control reporting.		
18.8.8	Generate affinity scheme reports – Flexibility to select required fields.		

Procedure: RFP updated

	The solution should generate statistical summary		
18.8.9	reports about active, billed, paid and cancelled		
	customers.		
18.9 Lis	st of interfaces		
<u>18.9 Lis</u> 18.9.1	st of interfaces The solution must be capable of interfacing in real time with an AAA Server to: Authenticate and authorize customers via dial-up access. Receive and capture customer's activity data. This data should contain the following data fields for both the start and stop activity: Date and time 		

Procedure: RFP updated

Effective Date: 3 December 2018 Revision: 1

	The system must be capable of interfacing in real			
	time with a LDAP Directory server to:			
	Create customer mailboxes			
18.9.2	 Delete customer mailboxes 			
	 Modify customer e-mail information 			
	Activate or deactivate customer connection access to			
	their mailboxes.			
18.9.3	The solution must be able to interface with the			
10.9.3	Company accounting package (namely IFS ERP/SAGE).			
18.9.4	The solution must be able to interface with Microsoft			
10.9.4	Office Products.			
	The solution must be capable of interfacing with			
18.9.5	network systems to:			
10.9.5	· Receive alerts, alarms			

19 INTERFACES (INTEGRATION) FUNCTIONAL REQUIREMENTS

ID 19.1 Int	Functional Requirement tegration to SMSC and IVR and Email Server (Fixed and N	Compliant (Y/N) Mobile)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments
19.1.1	System must support SMS/IVR integration and online & offline notification for following events: • Welcome new subscriber notification • Usage/Credit limit threshold notifications • Low balance notification • Balance enquiry				

Procedure: RFP updated

	Balance transfer			
	Loyalty rewards			
	Bonus			
	 Recharge notification 			
	Airtime share			
	 Offer subscriptions/expiry notification 			
	Fault order creation			
	 Service orders: service installation 			
	 Dunning notifications 			
	Dunning letters			
	Contract Expiry notifications			
	Payment notifications			
	New invoice/bill notifications			
	Special Event notifications			
19.2 U	SSD Gateway Integration			
19.2.1	System to support balance enquiry via USSD			
19.2.2	System to support subscription to offers/packages via USSD GW.			
	Integration to allow subscription of			
19.2.3	bundled/blackberry packages via USSD			
19.2.4	Voucher redemption via USSD			
19.2.5	Airtime Share via USSD			
		1	<u> </u>	
19.3 A	PI Interface			
	System must provide for a well-defined and open API			
19.3.1	interface or Web Services to allow 3 rd party interfaces			
13.2.1	to call or execute some functions on the system.			
	These include but not limited to:			

Procedure: RFP updated

	 Subscriber registration. Profile Enquiry with MSISDN, ICCID, Offer information. Enabled/disabled of selected services (e.g. data roaming) Modification of supplementary services. Ability to subscribe to selected packages/offers/bundles. Recharge or Payment functionality 		
	• Recharge of Fayment functionality		
19.4 Ba	ank Interface		
19.4.1	System must be able to generate and submit Direct Debit files according to defined file format specification.		
19.4.2	System must be able to support configurable direct debt action days (e.g. 1 st , 7 th , 15 th , 20 th , 21 st , 25th, month-end etc.) of every month.		
19.4.3	Generation of test/verification files and live files for Direct Debit		
19.4.4	System must be able to support batch processing of Payment Acknowledgement Files, Failed Error Payment Transaction Files, and Unpaid/Bounced Files from the bank.		
19.4.5	System must be able to support uploading and processing of Bank Deposit Files		
19.5 Th	nird Party System Payments		
19.5.1	The proposed system must have the capability to provide real time payment integration.		

	19.5.2	The system must be able to have a
		file specification, to allow 3 rd pa payments files for upload and proces
	19.5.3	System must be able to support ba
		Failed Error Payment Transaction File
	19.5.4	Support processing of real time transactions from 3 rd parties

Procedure: RFP updated

The system must be able to have a defined payment file specification, to allow 3 rd parties to provide payments files for upload and processing.					
System must be able to support batch processing of Failed Error Payment Transaction Files from 3 rd parties					
Support processing of real time payment reversal transactions from 3 rd parties					
Support processing of negative batch payments from 3^{rd} parties					
19.6 CDR/UDR Export Functionality					
Export and transfer of rated CDR records on daily basis, e.g. LCR customers.					
Export and transfer of Prepaid Starter pack Activations per National Dealer/Reseller					
Export and transfer of Recharges per National Dealer/Reseller					
Export and transfer of Daily Usage and Balance Transfer per National Dealer/Reseller					
ERP Financials					
The system must be able to interface with IFS ERP GL modules to cater for Account Receivables and bill run information.					
19.8 ITC					
A credit vetting real time interface to ITC is required.					
19.9 Bill on Demand					
Bills are archived in XML to a E2Vault					
	file specification, to allow 3 rd parties to provide payments files for upload and processing. System must be able to support batch processing of Failed Error Payment Transaction Files from 3 rd parties Support processing of real time payment reversal transactions from 3 rd parties Support processing of negative batch payments from 3 rd parties R/UDR Export Functionality Export and transfer of rated CDR records on daily basis, e.g. LCR customers. Export and transfer of Prepaid Starter pack Activations per National Dealer/Reseller Export and transfer of Recharges per National Dealer/Reseller Export and transfer of Daily Usage and Balance Transfer per National Dealer/Reseller ERP Financials The system must be able to interface with IFS ERP GL modules to cater for Account Receivables and bill run information.	file specification, to allow 3 rd parties to provide payments files for upload and processing. System must be able to support batch processing of Failed Error Payment Transaction Files from 3 rd parties Support processing of real time payment reversal transactions from 3 rd parties Support processing of negative batch payments from 3 rd parties R/UDR Export Functionality Export and transfer of rated CDR records on daily basis, e.g. LCR customers. Export and transfer of Prepaid Starter pack Activations per National Dealer/Reseller Export and transfer of Recharges per National Dealer/Reseller Export and transfer of Daily Usage and Balance Transfer per National Dealer/Reseller ERP Financials The system must be able to interface with IFS ERP GL modules to cater for Account Receivables and bill run information. A credit vetting real time interface to ITC is required.	file specification, to allow 3 rd parties to provide payments files for upload and processing. System must be able to support batch processing of Failed Error Payment Transaction Files from 3 rd parties Support processing of real time payment reversal transactions from 3 rd parties Support processing of negative batch payments from 3 rd parties R/UDR Export Functionality Export and transfer of rated CDR records on daily basis, e.g. LCR customers. Export and transfer of Prepaid Starter pack Activations per National Dealer/Reseller Export and transfer of Recharges per National Dealer/Reseller Export and transfer of Daily Usage and Balance Transfer per National Dealer/Reseller ERP Financials The system must be able to interface with IFS ERP GL modules to cater for Account Receivables and bill run information. Con Demand	file specification, to allow 3 rd parties to provide payments files for upload and processing. System must be able to support batch processing of Failed Error Payment Transaction Files from 3 rd parties Support processing of real time payment reversal transactions from 3 rd parties Support processing of negative batch payments from 3 rd parties R/UDR Export Functionality Export and transfer of rated CDR records on daily basis, e.g. LCR customers. Export and transfer of Prepaid Starter pack Activations per National Dealer/Reseller Export and transfer of Recharges per National Dealer/Reseller Export and transfer of Daily Usage and Balance Transfer per National Dealer/Reseller EXPF Financials The system must be able to interface with IFS ERP GL modules to cater for Account Receivables and bill run information. on Demand	

Procedure: RFP updated

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19.10 Workforce Management System Integration					
	System must have capability to send Work Orders and				
	Fault Orders which require home visits to the Work Order Management System in real time.				
	order Management System in real time.				
19.10.1	System must have capability to receive Work Orders				
	and Fault Orders from the Work Order Management				
	System in real time. System must interpret the work				
	order results and update the Order workflow.				
19.11 GI					
	The system must be able to interface with our GIS				
19.11.1	platform for address and Outside Plant (OSP)				
	information				
19.12 Ca	II Centre Management System				
	CTI integration is required to interface to the CRM CSR				
19.12.1	Toolbox and automatically query and display the				
	calling number's information				
	CTI Integration – The system must provide capability				
19.12.2	to configure rules and steps that CSR needs to follow				
	when starting a conversation with a customer				
19.12.3	Integration is also required for outbound campaigns				
19.13 Huawei iManagers					
	Huawei iManagers (u2000) manage MTC				
19.13.1	environments. The system must be able to provision				
	and manage services on these platforms.				
19.13.1					
19.14 Debt Collection Agencies					

	The system must be able to generate reports based on configurable criteria to send out handover customer account information to collection agencies.				
19.14.1	Receive batch payment files from collection agencies.				
	Support ability to batch upload write-off recommendations from the collection agencies.				
19.15 Bil	19.15 Bill Format and Printers				
19.15.1	The system must be able to output bill information in configurable bill format registers to send to external parties for formatting, printing and distribution				
19.16 IFS	S ERP Materials/Asset Management				
19.16.1	System needs ability to auto generate orders into IFS ERP if additional equipment is required to fulfil a service Support serialization				

20 TRAINING REQUIREMENTS

ID	Infrastructure Requirement	Compliant (Y/N)	Part of Core Solution? (Y/N)	Vendor Module	Vendor Comments		
20.1 Tra	20.1 Training Requirements						
20.1.1	Supplier to provide Training Plan						
20.1.2	Supplier to provide training on all modules before system is delivered to ensure a joint implementation.						
20.1.3	Supplier to provide training after implementation and before system cutover.						