# TATA COMMUNICATIONS

## Addendum 1

## GLOBALRAPIDE CLOUD NUMBER PRIVATE TRUNKING DESCRIPTION

This Addendum 1 is part of the Service Schedule for the GlobalRapide Cloud Number Solution and describes the parameters of the Private Trunking option available to Customer when configuring the Solution.

- 1. Private Trunking is an option for the Solution whereby Customer's connectivity to Supplier Network is provided over an MPLS-based network (COS 1). Private Trunking allocates dedicated bandwidth for voice traffic (COS 1) with stringent quality of service delivery by prioritizing the real-time voice application over other data traffic on the converged MPLS-based network.
  - a. GlobalRapide Cloud Number Outbound (Voice) service and GlobalRapide Cloud Number Inbound (Voice) service. The
    Private Trunking option connects Customer's premise-based voice systems PBX/Diallers (TDM & IP), IP phones and soft
    phones with Supplier's core voice infrastructure by utilizing the MPLS-based network.
  - b. The features of Private Trunking may include the following capabilities:
    - i. Closed User Group ("CUG") calls.
    - ii. GlobalRapide Cloud Number Outbound (Voice) Service and GlobalRapide Cloud Number Inbound (Voice) Service
    - iii. Multiple access speeds.
    - iv. PBX trunking capabilities over multiple protocols.
    - v. Centralized dial plan management.
    - vi. Feature transparency transit of signalling information end to end without interference.
    - vii. Web-based performance reports for GlobalRapide Cloud Number Outbound (Voice) Service and GlobalRapide Cloud Number Inbound (Voice) Service may be available through Supplier's performance management system (based on interconnect locations only).
    - viii. Customer portal to view traffic and Call Detail Record ("CDR") information based on Customer's specific service(s).
    - ix. MPLS-based security and priority class of service.

Note: CUG calls refer to voice calls from any Customer location to any other Customer location using a private numbering plan whereby the calls are configured to remain on Supplier Network between those locations.

2. Use Restrictions. Use of the Private Trunking option may require Customer to be licensed in India. Supplier provides this option in India as IP telephone, which allows only outbound calling under the Global Outbound Off-net Voice Service. Supplier will not commission the Services if Customer does not have the requisite regulatory approvals. Further, if proof of regulatory approval for Customer's use of the Service, where such approvals are required, is not submitted to Supplier within 60 days from the date of execution of the Order Form, then the Order Form shall be deemed terminated for cause by Supplier, without refund to Customer of any advance payments.

[End of Addendum 1]





## TATA COMMUNICATIONS

### Addendum 2

## GLOBALRAPIDE CLOUD NUMBER DEDICATED IP AND PUBLIC IP TRUNKING DESCRIPTION

This Addendum 2 is part of the Service Schedule for the GlobalRapide Cloud Number Solution and describes the parameters of the dedicated IP and public IP trunking options available to Customer when configuring the Solution.

### 1. IP Connectivity Descriptions: network:

- a. **Dedicated IP** Customer connects to Supplier Network over Supplier's MPLS network with COS4 or Supplier Internet/IP port dedicated for voice only.
- Public IP Customer connects to Supplier Network over public Internet.

All features of GlobalRapide Cloud Number Inbound (Voice) Service and GlobalRapide Cloud Number Outbound (Voice) Service can be provided by either IP connectivity option.

#### 2. Basic Features:

- a. **Service Description:** Trunking on Dedicated IP or Public IP allows Customer's GlobalRapide Cloud Number Outbound (Voice) Service and GlobalRapide Cloud Number Inbound (Voice) Service to be routed over Internet/public IP using the Supplier Network.
- b. Web-based performance reports may be available through Supplier's performance management system (based on interconnect locations only).
- c. Customer portal to view traffic and CDR information based on Customer's specific service(s).
- d. Quality of Service ("QoS") Parameters. Supplier shall endeavour to meet the following QoS parameters for services traversing the Supplier Network. However, that these QoS parameters shall not form part of the Supplier's committed service levels:
  - Mean Opinion Score ("MOS"): 3.9 to 4.1 for G.711 codec or 3.7 for G.729 codec
  - Jitter: <10 msec</li>
  - Packet Loss: <5%</li>
  - Latency: <150 msec one-way, on-net
  - Post Dial Delay: <5 sec</li>

### 3. Use Restrictions:

- a. Availability and terms for this option are subject to local country regulations.
- b. In India the same service would be offered to customers as IP telephone, which would allow only outbound calling under the Global Outbound Off-net Voice Service.
- c. Supplier shall not commission the Services if the Customer fails to obtain the requisite regulatory approvals. Further, if such approvals are not submitted to the Supplier within 60 days from the date of execution of the Order Form, then the Order Form shall be terminated, and no refund of advances will be made against such Order Forms.
- 4. Additional Fees: A onetime, non-refundable charge, payable by Customer before the Service is implemented by Supplier, may be required as indicated in the Order Form.

[End of Addendum 2]





# TATA COMMUNICATIONS

### Addendum 3

#### **DEFINITIONS**

This Addendum 3 is part of the Service Schedule for the GlobalRapide Cloud Number Solution and describes defined terms used in that document. In the event of a conflict between any terms in this Addendum 3 and definitions in the MSA or General Terms and Conditions as applicable, the definitions in this Addendum 3 shall govern.

"A2P SMS Destinations" means the Mobile Network Operator destinations configured for Application to Person (A2P) SMS termination by the Supplier for the Customer.

"Business Day" means any day other than Saturday, Sunday or a day which is a public holiday in the country where the Service is provided.

"Business Hour" means any hour from 9am to 5pm on a Business Day.

"Caller Line Identification" or "CLI" means a service whereby the caller's number is transmitted and presented to the called party.

"Class of Service" or "COS" means the priority of the IP packets that can be set and sent to Supplier Network as part of the GVPN Service Class of Service package ordered by Customer as set out in the Customer Order Form. COS values can be a combination of COS 1, 2, 3, 4, 5 or 6.

"Class of Service Package" means predetermined packages of Classes of Service as detailed in the Appendix and which is a standard of service ordered by Customer as set out in the Customer Order Form.

"Customer Premises Equipment" or "CPE" means equipment provided by Customer or Supplier and used in conjunction with the Supplier Network in order to receive the Service.

"Equipment" means any equipment or platform that enables Customer to utilise the GlobalRapide Cloud Number Solution.

"Jitter" (or inter-packet differential arrival delay) means the variation between packets in their deviation from the ideal instant as they traverse the Supplier Network.

"Latency" means the short period of delay that occurs in sending a network packet from source to destination.

"Mean Opinion Score" or "MOS" means the perceived quality of received media after compression and/or transmission. The MOS is expressed as a single number in the range 1 to 5, where 1 is lowest perceived audio quality, and 5 is the highest perceived audio quality measurement.

"Minimum Monthly Charge" means the minimum monthly charge or a minimum monthly recurring charge to be paid by the Customer to the Supplier for usage of the Services, irrespective of the actual usage of the Services, as further identified under the Order Form. The actual usage of Services may be adjusted against such Minimum Monthly Charge or be charged for separately, as identified under the Order Form.

"Mobile Network Operators", "Operators" or "MNOs" means the third-party mobile network operators whose network may be utilized by the Supplier for providing the inbound or outbound Service

"Monthly Recurring Charge" or "MRC" means the monthly recurring charges for the Service as set out in the Customer Order Form.

"Non-Recurring Charge" or "NRC" means the one-time non-recurring charges to be made by Supplier for installing, commissioning and provisioning of the Service as set out in the Order Form.

"Origination Rate per SMS" means the rates communicated by the Supplier to the Customer to originate A2P SMS traffic.

"Packet Loss" means an event where one or more packets of data traveling across the Supplier Network fail to reach their destination.

"Planned Maintenance" means any preventative, routine or scheduled maintenance which is performed with regard to the Service, the Platform or any component thereof, which Supplier or its agents reasonably believe is necessary in order to maintain the Service or prevent or remedy a defect which may affect Customer's use or access to the Services. Supplier shall endeavor to give Customer at least five (5) days' notice of any Planned Maintenance event if the Supplier determines that such Planned Maintenance event would adversely affect the Customer's use of Services for more than five (5) minutes.

"Post Dial Delay" or "PDD" means the time period from dialling the last digit to the time a caller hears ringing.

"Point of Demarcation" means the location/Equipment defined as such in the Order Form or as agreed later in any additional order document(s).

"Regulatory Fee" means any fee or tariff or a charge of similar nature imposed by a regulatory authority having jurisdiction over the Services.

"Service Outage" or "Outage" means an instance when Customer is unable to convey traffic to or from Supplier Network.

"SMS Fragment" means an SMS message of up to 160 alpha-numeric characters (or 140 bytes) in GSM-7 or equivalent encoding.

"Supplier Network" means the telecommunications network and network components owned, operated and maintained by Supplier and its Affiliates, including points of presence PoPs. The Supplier Network does not include Customer Premises Equipment ("CPE") such as modems, routers, etc., local data links between a PoP and Customer's location or any networks or network equipment not owned or controlled by Supplier.

"Termination Rate per SMS" means the rates communicated by the Supplier to the Customer for each A2P SMS Destination to terminate A2P SMS traffic on behalf of the Customer.

"Trouble Ticket" means the official method used by Customer to advice Supplier of a potential Service Outage.

[End of Addendum 3]



Approved As To Form:
LEGAL DEPARTMENT
Standard
(No Changes)
ANY CHANGES TO THE STANDARD TEMPLATE
BOCUMENT SHALL NOT BE EFFECTIVE.