

Government of India
 Ministry of Communications and IT
 Department of Telecommunications
 (AS-II Cell)
 Sanchar Bhawan, 20, Ashok Road, New Delhi-110117

No. 842-1042/2009-AS-IV/16

Dated: 15th April, 2009

To

All Cellular Mobile Telephone Service Licensee(s) including MTNL and BSNL
 to whom CMTS Licences issued in 2001 or thereafter

Subject: Amendment to the Cellular Mobile Telephone Service Licence Agreement
 issued in 2001 or thereafter.

In exercise of the power vested in the Licensor under clause 5.1 of Cellular Mobile Telephone Service (CMTS) Licence Agreement, inter-alia, reserving the right to modify at any time the terms and conditions of the LICENCE, in public interest, security of the nation or proper conduct of the SERVICE, the Licensor hereby inserts, with immediate effect, the following clause(s) of the said Licence, namely:-

Existing Condition(s) of CMTS Licence	Amended Condition(s)
44.9 The designated person of the Central/ State Government as conveyed to the Licensor from time to time in addition to the Licensor or its nominee shall have the right to monitor the telecommunication traffic in every MSC/ Exchange or any other technically feasible point in the network set up by the LICENSEE. The LICENSEE should make arrangement for monitoring simultaneous calls by Government security agencies. The hardware at LICENSEE's end and software required for monitoring of calls shall be engineered, provided/installed and maintained by the LICENSEE at LICENSEE's cost. However, the respective Government instrumentality shall bear the cost of user end hardware and leased line circuits from the MSC/ Exchange to	44.9 The designated person of the Central/ State Government as conveyed to the Licensor from time to time in addition to the Licensor or its nominee shall have the right to monitor the telecommunication traffic in every MSC/ Exchange/MGC/MG or any other technically feasible point in the network set up by the LICENSEE. The LICENSEE should make arrangement for monitoring simultaneous calls by Government security agencies. The hardware at LICENSEE's end and software required for monitoring of calls shall be engineered, provided/installed and maintained by the LICENSEE at LICENSEE's cost. However, the respective Government instrumentality shall bear the cost of user end hardware and leased line circuits from the MSC/ Exchange/MGC/MG to the monitoring centres to be located as per their choice in their premises or in the premises of the LICENSEE. In case the security agencies intend to locate the equipment at LICENSEE's premises for facilitating monitoring, the LICENSEE should

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the monitoring centres to be located as per their choice in their premises or in the premises of the LICENSEE. In case the security agencies intend to locate the equipment at LICENSEE's premises for facilitating monitoring, the LICENSEE should extend all support in this regard including Space and Entry of the authorized security personnel. The Interface requirements as well as features and facilities as defined by the Licensor should be implemented by the LICENSEE for both data and speech. Presently, the LICENSEE should ensure suitable redundancy in the complete chain of Monitoring equipment for trouble free operations of monitoring of at least 210 simultaneous calls for seven security agencies."

Along with the monitored call following records should be made available:

- (i) Called/calling party mobile/ PSTN numbers.
- (ii) Time/date and duration of interception.
- (iii) Location of target subscribers. For the present, Cell ID should be provided for location of the target subscriber. However, Licensor may issue directions from time to time on the precision of location, based on technological developments and integration of Global Positioning System (GPS) which shall be binding on the LICENSEE.
- (iv) Telephone numbers if any call-forwarding feature has been invoked by target

extend all support in this regard including Space and Entry of the authorized security personnel. The Interface requirements as well as features and facilities as defined by the Licensor should be implemented by the LICENSEE for both data and speech. Presently, the LICENSEE should ensure suitable redundancy in the complete chain of Monitoring equipment for trouble free operations of monitoring of at least 210 simultaneous calls for seven security agencies."

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- (iv) Telephone numbers if any call-forwarding feature has been invoked by target subscriber.
- (v) Data records for even failed call attempts.
- (vi) CDR (Call Data Record) of Roaming Subscriber.

The LICENSEE shall be required to provide the call data records of all the specified calls handled by the system at specified periodicity, as and when required by the security agencies.

<p>subscriber.</p> <p>(v) Data records for even failed call attempts.</p> <p>(vi) CDR (Call Data Record) of Roaming Subscriber.</p> <p>The LICENSEE shall be required to provide the call data records of all the specified calls handled by the system at specified periodicity, as and when required by the security agencies.</p>	
	<p>Annexure-I 19 .A LOCAL CALLS mean calls originating and terminating with in the same local area, which are charged at local call rates and Remote Subscribers' Unit (RSU)/ Remote Line Unit (RLU) , Concentrators/Media Gateway having switching functions are to be treated as an exchange for the purposes of this definition.</p>
<p>Annexure-I 22. "MOBILE SWITCHING CENTRE, ALSO KNOWN AS MSC" means the switching equipment installed as a part of the network which performs all switching functions of calls for providing various services under the scope of this Licence.</p>	<p>Annexure-I 22. "MOBILE SWITCHING CENTRE, ALSO KNOWN AS MSC" means the switching equipment installed as a part of the network which performs all switching functions of calls for providing various services under the scope of this Licence.</p> <p>For IP based Next Generation Network Media Gateway Controller (MGC) can be deployed within or outside of the License service area controlling the Media Gateways deployed in each license service area. The Media Gateways so installed in each service area shall perform the function of switching subscriber traffic under the control of MGC for call control. These two are interconnected through signalling link and can be located in different locations as per the network architecture of the service provider.</p> <p>Annexure-I 22.1 MEDIA GATEWAY CONTROLLER (MGC) ALSO KNOWN AS SOFTSWITCH,CALL SERVER (CS),CALL AGENT,CALL CONTROLLER : The Media Gateway Controller is located in the service provider's network and handles call control and signaling functions, typically maintaining call</p>

state for every call in the network. A MGC interacts with Application Servers to provide services that are not directly hosted on MGC in Packet Based networks. It handles the registration and management of resources at the media gateway. A media gateway controller exchanges messages with central office switches via a signaling gateway. It processes the signaling for all types of packet protocols. It controls connection services for a media gateway and/or native IP endpoints, selects processes that can be applied to a call, provides routing for a call within the network based on signaling and customer database information, transfers control of the call to another network element, and interfaces to and support management functions such as provisioning, fault, billing, etc.

Annexure-I 22.2 MEDIA GATEWAY (MG):

A protocol converter that interfaces a traditional public switched telephone network (PSTN), or device running PSTN protocols, with a device running the Internet protocol (IP) suite. As the Media Gateway connects different types of networks, one of its main functions is to convert between the different transmission and coding techniques. Media streaming functions such as echo cancellation, DTMF, and tone sender are also located in the Media Gateways.

Annexure-I 22.2A Trunk Media gateway (TMG):

The TMG supports a trunk side interface to the PSTN and/or IP routed flows in the packet network. It supports functions such as packetisation, echo control etc.

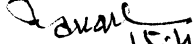
Annexure-I 22.2B Access gateway (AG):

The AG is located in the service provider's network. It supports the line side interface to the core IP network for use by phones, devices, and PBXs. This element provides functions such as media conversion (circuit to Packet, Packet to circuit) and echo control.

Annexure-I 22.2C Signaling gateway (SG):

The SG provides the signalling interface between the VoIP network and the PSTN signalling network. It terminates SS7 links and provides Message Transport Part (MTP) Level 1 and Level 2

	functionality. Each SG communicates with its associated CS to support the end-to-end signalling for calls.
	<p>Annexure-I 23-A. Next Generation Network (NGN): As per ITU-T recommendation Y.2001, A Next Generation Network (NGN) is a packet-based network able to provide services including Telecommunication Services and able to make use of multiple broadband, QoS-enabled transport technologies and in which service-related functions are independent from underlying transport-related technologies. It offers unrestricted access by users to different service providers. It supports generalized mobility which will allow consistent and ubiquitous provision of services to users.</p>


 (B.L. Panwar)
 ADG(VAS-II)

Copy to:

1. Secretary, TRAI, New Delhi
2. Wireless Advisor, WPC Wing, New Delhi
3. Sr.DDG(WPF), DoT, New Delhi
4. DDG(Security), DoT, New Delhi
5. DDG(AS-I), DoT, New Delhi
6. DDG(LF), DoT, New Delhi
7. ✓ DDG(C&A), DoT for posting on the DoT website

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Sanchar Bhawan, 20, Ashoka Road, New Delhi-110117

File No. 842-1042/2009-AS-IV / 17

Dated: 15th April, 2009

To

All Unified Access Service (UAS) Licensee(s)

Subject: Amendment to the Unified Access Services (UAS) Licence agreement.

In exercise of the power vested in the Licensor under clause 5.1 of Unified Access Service (UAS) Licence Agreement, inter-alia, reserving the right to modify at any time the terms and conditions of the LICENCE, in public interest, security of the nation or proper conduct of the SERVICE, the Licensor hereby inserts/amends, with immediate effect, the following clause(s) of the said Licence, namely:-

Existing Condition(s) of UAS Licence	Amended Condition(s)
2.2 (b)(i) Further, the LICENSEE can also provide Voice Mail, Audiotex services, Video Conferencing, Videotex, E-Mail, Closed User Group (CUG) as Value Added Services over its network to the subscribers falling within its SERVICE AREA on non-discriminatory basis. The Licensee cannot provide any service except as mentioned above, otherwise shall require a separate licence. However, an intimation before providing any other VALUE ADDED SERVICE, which is mentioned above or listed in item 75 of Annexure-I, has to be sent to the LICENSOR and TRAI.	2.2 (b)(i) Further, the LICENSEE can also provide Voice Mail, Audiotex services, Video Conferencing, Videotex, E-Mail, Closed User Group (CUG) as Value Added Services over its network to the subscribers falling within its SERVICE AREA on non-discriminatory basis. The Licensee cannot provide any service except as mentioned above, otherwise shall require a separate licence. However, an intimation before providing any other VALUE ADDED SERVICE, which is mentioned above or listed in item 74 of Annexure-I, has to be sent to the LICENSOR and TRAI.
26.5 It shall be mandatory for the LICENSEE to provide interconnection to all eligible Telecom Service Providers as well as NLD Operators whereby the subscribers could have a free choice to make inter-circle/ international long	26.5 It shall be mandatory for the LICENSEE to provide interconnection to all eligible Telecom Service Providers as well as NLD Operators whereby the subscribers could have a free choice to make inter-circle/ international long distance calls through NLD/ ILD Operator.

<p>distance calls through NLD/ ILD Operator. For international long distance call, the LICENSEE shall normally access International Long Distance Operator's network through National Long Distance Operator's network subject to fulfillment of any Guidelines/ Orders/ Directions/ Regulation issued from time to time by Licensor/ TRAI. The LICENSEE shall not refuse to interconnect with the International Long Distance Licensee directly in situations where ILD Gateway Switches/ Point of Presence (POP), and that of Access Provider's (GMSC/ Transit Switch) are located at the same station of Level -I TAX .</p>	<p>For international long distance call, the LICENSEE shall normally access International Long Distance Operator's network through National Long Distance Operator's network subject to fulfillment of any Guidelines/ Orders/ Directions/ Regulation issued from time to time by Licensor/ TRAI. The LICENSEE shall not refuse to interconnect with the International Long Distance Service Licensee directly in situations where ILD Gateway Switches/ Point of Presence (POP), and that of Access Provider's (GMSC/ Transit Switch/Media Gateway Controller (MGC)/Media Gateway (MG)) are located at the same station of Level -I TAX .</p>
<p>41.10 The designated person of the Central/ State Government as conveyed to the Licensor from time to time in addition to the Licensor or its nominee shall have the right to monitor the telecommunication traffic in every MSC/ Exchange or any other technically feasible point in the network set up by the LICENSEE. The LICENSEE should make arrangement for monitoring simultaneous calls by Government security agencies. The hardware at LICENSEE's end and software required for monitoring of calls shall be engineered, provided/installed and maintained by the LICENSEE at LICENSEE's cost. However, the respective Government instrumentality shall bear the cost of user end hardware and leased line circuits from the MSC/ Exchange to the monitoring centres to be located as per their choice in their premises or in the premises of the LICENSEE. In case the security agencies intend to locate the equipment at LICENSEE's premises for facilitating monitoring, the LICENSEE should extend all support in this regard including</p>	<p>41.10 The designated person of the Central/ State Government as conveyed to the Licensor from time to time in addition to the Licensor or its nominee shall have the right to monitor the telecommunication traffic in every MSC/ Exchange/MGC/MG or any other technically feasible point in the network set up by the LICENSEE. The LICENSEE should make arrangement for monitoring simultaneous calls by Government security agencies. The hardware at LICENSEE's end and software required for monitoring of calls shall be engineered, provided/installed and maintained by the LICENSEE at LICENSEE's cost. However, the respective Government instrumentality shall bear the cost of user end hardware and leased line circuits from the MSC/ Exchange/MGC/MG to the monitoring centres to be located as per their choice in their premises or in the premises of the LICENSEE. In case the security agencies intend to locate the equipment at LICENSEE's premises for facilitating monitoring, the LICENSEE should extend all support in this regard including Space and Entry of the authorized security personnel. The Interface requirements as well as features and facilities as defined by the Licensor should be implemented by the</p>

<p>Space and Entry of the authorized security personnel. The Interface requirements as well as features and facilities as defined by the Licensor should be implemented by the LICENSEE for both data and speech. Presently, the LICENSEE should ensure suitable redundancy in the complete chain of Monitoring equipment for trouble free operations of monitoring of at least 210 simultaneous calls for seven security agencies.”</p> <p>Along with the monitored call following records should be made available:</p> <ul style="list-style-type: none"> (i) Called/calling party mobile/ PSTN numbers. (ii) Time/date and duration of interception. (iii) Location of target subscribers. For the present, Cell ID should be provided for location of the target subscriber. However, Licensor may issue directions from time to time on the precision of location, based on technological developments and integration of Global Positioning System (GPS) which shall be binding on the LICENSEE. (iv) Telephone numbers if any call-forwarding feature has been invoked by target subscriber. (v) Data records for even failed call attempts. (vi) CDR (Call Data Record) of Roaming Subscriber. <p>The LICENSEE shall be required to provide the call data records of all the specified calls handled by the system at specified periodicity, as and when required by the security agencies.</p>	<p>LICENSEE for both data and speech. Presently, the LICENSEE should ensure suitable redundancy in the complete chain of Monitoring equipment for trouble free operations of monitoring of at least 210 simultaneous calls for seven security agencies.” Along with the monitored call following records should be made available:</p> <ul style="list-style-type: none"> (i) Called/calling party mobile/ PSTN numbers. (ii) Time/date and duration of interception. (iii) Location of target subscribers. For the present, Cell ID should be provided for location of the target subscriber. However, Licensor may issue directions from time to time on the precision of location, based on technological developments and integration of Global Positioning System (GPS) which shall be binding on the LICENSEE. (iv) Telephone numbers if any call-forwarding feature has been invoked by target subscriber. (v) Data records for even failed call attempts. (vi) CDR (Call Data Record) of Roaming Subscriber. <p>The LICENSEE shall be required to provide the call data records of all the specified calls handled by the system at specified periodicity, as and when required by the security agencies.</p>
<p>Annexure-I 33. LOCAL CALLS mean calls originating and terminating</p>	<p>Annexure-I 33. LOCAL CALLS mean calls originating and terminating with in the</p>

<p>with in the same local area, which are charged at local call rates and Remote Subscribers' Unit (RSU)/ Remote Line Unit (RLU) and Concentrators having switching functions are to be treated as an exchange for the purposes of this definition.</p>	<p>same local area, which are charged at local call rates and Remote Subscribers' Unit (RSU)/ Remote Line Unit (RLU) , Concentrators/Media Gateway having switching functions are to be treated as an exchange for the purposes of this definition.</p>
<p>Annexure-I 40. "MOBILE SWITCHING CENTRE, ALSO KNOWN AS MSC" means the switching equipment installed as a part of the network which performs all switching functions of calls for providing various services under the scope of this Licence.</p>	<p>Annexure-I 40. "MOBILE SWITCHING CENTRE, ALSO KNOWN AS MSC" means the switching equipment installed as a part of the network which performs all switching functions of calls for providing various services under the scope of this Licence.</p> <p>For IP based Next Generation Network Media Gateway Controller (MGC) can be deployed within or outside of the License service area controlling the Media Gateways deployed in each license service area. The Media Gateways so installed in each service area shall perform the function of switching subscriber traffic under the control of MGC for call control. These two are interconnected through signalling link and can be located in different locations as per the network architecture of the service provider.</p> <p>Annexure-I 40.1 MEDIA GATEWAY CONTROLLER (MGC) ALSO KNOWN AS SOFTSWITCH,CALL SERVER (CS),CALL AGENT,CALL CONTROLLER : The Media Gateway Controller is located in the service provider's network and handles call control and signalling functions, typically maintaining call state for every call in the network. A MGC interacts with Application Servers to provide services that are not directly hosted on MGC in Packet Based networks .It handles the registration and management of resources at the media gateway. A media gateway controller exchanges messages with central office switches via a signalling gateway. It processes the signalling for all types of packet protocols It controls connection services for a media</p>

	<p>gateway and/or native IP endpoints, selects processes that can be applied to a call, provides routing for a call within the network based on signalling and customer database information, transfers control of the call to another network element, and interfaces to and support management functions such as provisioning, fault, billing, etc.</p> <p>Annexure-I 40.2 MEDIA GATEWAY (MG): A protocol converter that interfaces a traditional public switched telephone network (PSTN), or device running PSTN protocols, with a device running the Internet protocol (IP) suite. As the Media Gateway connects different types of networks, one of its main functions is to convert between the different transmission and coding techniques. Media streaming functions such as echo cancellation, DTMF, and tone sender are also located in the Media Gateways.</p> <p>Annexure-I 40.2A Trunk Media gateway (TMG): The TMG supports a trunk side interface to the PSTN and/or IP routed flows in the packet network. It supports functions such as packetisation, echo control etc.</p> <p>Annexure-I 40.2B Access gateway (AG): The AG is located in the service provider's network. It supports the line side interface to the core IP network for use by phones, devices, and PBXs. This element provides functions such as media conversion (circuit to Packet, Packet to circuit) and echo control.</p> <p>Annexure-I 40.2C Signaling gateway (SG): The SG provides the signalling interface between the VoIP network and the PSTN signalling network. It terminates SS7 links and provides Message Transport Part (MTP) Level 1 and Level 2 functionality. Each SG communicates with its associated CS to support the end-to-end signalling for calls.</p>
	<p>Annexure-I 44A.Next Generation Network (NGN): As per ITU-T recommendation Y.2001, A Next Generation Network (NGN) is a packet-based network able to provide services including Telecommunication Services and able</p>

to make use of multiple broadband, QoS-enabled transport technologies and in which service-related functions are independent from underlying transport-related technologies. It offers unrestricted access by users to different service providers. It supports generalized mobility which will allow consistent and ubiquitous provision of services to users.

panwar
15-4-2009
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ADG(VAS-II)

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