

RJIL/TRAI/2016-17/411 August 12<sup>th</sup>, 2016

To,
Sh. R.S. Sharma, IAS
Chairman,
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg, New Delhi 110 002

Subject: Denial of Interconnection and Augmentation of POIs.

Ref.:

- COAI letter No. RSM. /COAI/2016/153 dated August 8, 2016 to the Telecom Regulatory Authority of India ("TRAI") on provisioning of full-fledged services to public in guise of testing by Reliance Jio Infocomm Limited ("RJIL" or "the Company") (the "Said Letter");
- 2. RJIL's letter dated August 4, 2015 to TRAI ("August 4 Letter");
- 3. RJIL's Letter dated June 21, 2016 to all TSPs

Dear Sir,

- 1. Reference is drawn to our letter dated August 4, 2016 to TRAI wherein we had requested TRAI to direct specified telecom service providers to *inter alia* provide RJIL with the requisite number of additional E1s and complete the augmentation within 7 days of the August 4 Letter.
- 2. Reference is now made to the captioned Said Letter from COAI.
- 3. As you would have noticed, the dominant incumbent operators using the aegis of COAI vide the Said Letter have categorically mentioned that its member operators (which incidentally include Bharti Airtel, Vodafone and Idea) shall not be expected to provide points of interconnect ("Pols") to RJIL during the test trials. In particular, the Said Letter mentions as follows:
  - "3. .... Our member operators should no longer be expected to provide Pols while this charade of tests is being played out."
- 4. Such unequivocal denial to provide Pols for interconnection to RJIL is in blatant breach of the License Agreement. The License Agreement provides in very clear terms the obligation of the Licensee to provide interconnection facilities to other Licensees. The License Agreement provides as follows:

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"<u>Part I (General Conditions)</u>, 27.4. Licensee shall interconnect with other Telecom Service Providers at the Points of Interconnection (POI) subject to compliance of prevailing regulations, directions or determinations issued by TRAI. ... The Interconnection Agreements will, inter alia, provide the following:

- "(a) ...
- (b) <u>to establish and maintain such one or more Points of Interconnect</u> as are reasonably required and are of sufficient capacity and in sufficient number to enable transmission and reception of the messages by means of the Applicable Systems,.."

"<u>Part II (Access Service)</u>, 6.2. It shall be mandatory for the LICENSEE to interconnect to/ provide interconnection to all eligible Telecom Service Providers (eligibility shall be determined as per the service provider's License Agreement and TRAI's determinations/orders/regulations issued from time to time) to ensure that the calls are completed to all destinations...."

- 5. Therefore, as per the terms of the License Agreement, a Licensee is required to provide the requisite points of interconnect, as are required, and are of sufficient capacity, and in sufficient number to enable transmission and reception of the messages by means of the Applicable Systems so as to ensure that calls are completed to all destinations.
- 6. It may be pertinent to note that the obligation of a Licensee to provide Pols is absolute and not contingent on any other factors including, any traffic imbalance, or the Licensee not having announced commercial launch. Your good self may please note that RJIL has been complying with the relevant IUC payment terms with all operators per the relevant Interconnection Agreement and applicable TRAI regulations with respect to all of the test users.
- 7. Considering that interconnection between TSPs is the basis of the telecommunication network, it is necessary that the requisite POIs, which are required to maintain the minimum QoS to ensure that calls are completed to all destinations must be unconditionally facilitated *interse* between all TSPs, subject alone to payment of relevant IUC charges. The current number of POIs provided / being provided to RJIL are far from adequate and this is more than evident from the fact that the current call failure rate is in excess of 65% resulting in more than 1.6 crore call failures per day between RJIL and the networks of Bharti Airtel, Vodafone and Idea. Without expediting the requisite POI augmentation, this situation will only get worse. Therefore, RJIL's demand for additional POIs is critical for its continued test trial and launch of commercial operations.
- 8. Therefore, there is no basis, legal or otherwise, for any of the TSPs to deny or even delay the provisioning of POIs for interconnection to RJIL. Any such denial or delay is ex facie



a breach of the terms of the Licence Agreement and TRAI's regulations/ directions. The intent stated in the Said Letter of COAI expressing its members' unwillingness to perform their solemn obligations, mandated statutorily and contractually, amounts to gross repudiation of the terms of the License Agreement. The continued denial and delay in the provisioning of POIs by the dominant incumbent TSPs is unlawful, and actionable for appropriate legal action, as prescribed in the License Agreement / applicable regulations.

- 9. It is submitted that the Authority under Section 11 (1) (b) (i) (ii) (iii) and (v) of the Telecom Regulatory Authority of India Act, 1997, is mandated to ensure compliance of terms and conditions of the Licence, fix terms and conditions of interconnectivity, ensure effective interconnection between different service providers, lay down standards of Quality of Service and ensure the Quality of service to protect consumers' interest.
- 10. For the foregoing reasons, we request TRAI, in its capacity as the Regulator to: (i) Immediately direct the TSPs, including the dominant incumbent operators / members of the COAI, to provide POIs to RJIL, without any demur or delay, per capacities indented by RJIL in its letter dated June 21, 2016 addressed to the respective TSPs (enclosed as an annexure to this letter); and (ii) Take any or all applicable action/s against the errant TSPs for any continued denial / delay in the provisioning of POIs to RJIL and subsequent breach of the respective Licenses, as prescribed in the License Agreement / applicable regulations.

We crave leave for your kind indulgence on this urgent matter and doing the needful.

Should you require any further information, please do let us know.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Kapoor Singh Guliani Authorised Signatory

Enclosure: As above.

Copy to: Sh. J.S. Deepak, Secretary, DoT, Sanchar Bhawan, 20, Ashoka Road, New Delhi - 1



RJIL/Tata/2016-17/162 21<sup>st</sup> June, 2016

To
Mr. Satya Yadav,
Addl. Vice President – Corporate Regulatory Affairs,
Tata Teleservices Limited,
2A, Old Ishwar Nagar,
Main Mathura Road,
New Delhi – 110 065

Subject: Augmentation of POIs for Access and NLD Services.

Dear Sir,

- This is in reference to augmentation of Reliance Jio Infocomm Limited (RJIL) Point of Interconnections (POIs) with Tata Teleservices Limited (Tata Teleservices) for Access and NLD services. In this regard we wish to bring to your attention that RJIL is currently conducting test trials of its services before its commercial launch. As you are aware, RJIL is deploying an IP-based network with an initial capacity to support over 200 million subscribers.
- 2. RJIL, on reasonable grounds, is expecting over 100 million subscribers in the first year post launch of services. This combined with the initial pent-up demand for services may result in upwards of 25 million subscribers coming on the network within the first quarter post launch. In order to help provide seamless connectivity to the targeted subscribers, RJIL will require sufficient interconnect capacity for inter-operator traffic at the Points of Interconnection ("POIs").
- 3. Based on the above, RJIL has carried out an exercise to forecast the E1 requirements as per the following assumptions:
  - 0.03 Erl busy hour traffic per subscriber (2 BHCA calls per subscriber with an average call duration of 54 seconds);
  - ii) Initial scenario of 22 million RJIL subscribers (for which number series is already allotted), and ramping up to 100 million by end of year, translating to 25 million every three months;
  - iii) For Tata Teleservices, subscriber base is considered as per data published by TRAI as on 31st March 2016;
  - (given relatively small size of RJIL subscriber base), this gradually decreases to 50% as the RJIL subscriber base reaches 100 million.

As per this, the service area wise details of E1s requirements are as per following. The E1 requirement in the first column (with RJIL base of 22 million) is our item diate demand

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for Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help Tata Teleservices to plan interconnect capacity in advance.

Service Area	RJIL base 2	2 mn	RJIL base 5	0 mn	RJIL base 75 mn		RJIL base 1	00 mn	Current E1s	
Service Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	52	20	183	38	235	48	261	53	4	1
Assam	-	-	-		- 1	-	_	-	-	-
Bihar	18	7	46	13	59	17	66 1	19	4	1
Delhi	36 1	9	92	17	118	22	131	24	2	1
Gujarat	36	12	104	22	133	29	148	32	2	1
Haryana	92	11	109	23	140	29	155	32	12	5
Himachal Pradesh	7	1	2	1	2	1	2	1	2	1
Jammu & Kashmir	- 1	-	-	-	-	-	- 1	- 1	- 1	-
Karnataka	92	29	262	56	337	72	374	80	2	1
Kerala	36	7	64	13	82	16	91	18	2	1
Kolkata	86	11	119	22	153	29	170	32	2	1
Madhya Pradesh	56	19	133	37	171	48	190	53	18	7
Maharashtra	61	26	195	50	251	64	279	71	2	1
Mumbai	80	13	228	26	293	33	325	36	3	1
North East	- 1	-	-	-	- 1	-	-	- 1	-	-
Odisha	60	9	48	18	62	24	69	26	2	1
Punjab	66	11	114	22	146	28	163	31	2	1
Rajasthan	20	6	35	12	45	16	49	17	2	2
Tamil Nadu	46	19	170	36	219	46	243	51	2	1
Uttar Pradesh (East)	35	16	92	32	118	41	131	45	2	1
Uttar Pradesh (West)	47	14	96	27	123	35	137	39	2	1
West Bengal	8	2	12	4	15	5	16	6	3	1
Total	934	242	2,104	469	2,702	603	3,000	666	70	30

- 4. It may be noted from the above that the E1s allocated by Tata Teleservices at POIs at current levels are grossly inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing serious POI congestion in most of the circles during the testing phase of our network.
- 5. RJIL, having foreseen the capacity constraints, has been requesting Tata Teleservices to augment the POIs as per the terms of the Interconnection Agreement from circle level as well as at Headquarter level. However, repeated requests, telephonically and written, during last 6 months for augmentation have not been responded to by Tata Teleservices. Such continued non-cooperation by Tata Teleservices will only result in avoidable inconvenience to subscribers of both operators.
- In view of the above, we request you to direct your teams to urgently issue demand notes for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing to pay the demand notes immediately, we request you to treat this as a firm demand by RJIL.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh



demand for Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help SSTL to plan interconnect capacity in advance.

	RJIL base 22 mn		RJIL base 50 mn		RJIL base 7	75 mn	RJIL base 1	00 mn	Current E1s	
Service Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	-	-	-	-	-		-	-	-	
Assam	- 1	-	-	-	-	-	- [			-
Bihar	-	м	-	-	-	-	-	-		
Delhi	16	4	39	8	50	10	55	11	12	4
Gujarat	3 '	1	8	2	10	3	11	3	6	1
Haryana	- i	-	- 1	-	-	-		-		-
Himachal Pradesh	- 1	-	- 1	-		-	- !_	-	-	-
Jammu & Kashmir	-	-	_	-	-	-	!	-	-	-
Karnataka	15	5	42	9	54	12	60	13	8	3
Kerala	8	2	15	3	19	4	21	4	12	5
Kolkata	17	3	23	5	30	6	33	7	12	5
Madhya Pradesh	-	= =	-	-	-	-		-	-	-
Maharashtra	-	-	- [	-	-	-	-	-		-
Mumbai	- ]_	-		-	-			-		-
North East	V-1	-	- 1	-	-		- !	-	-	-
Odisha		-	-	-	-	-	-	-	-	-
Punjab	0-0	-	-	-	-	-			-	
Rajasthan	27	9	48	17	62	22	69	24	7	3
Tamil Nadu	8	3	27	6	35	8	38	8	2	1
Uttar Pradesh (East)	-	-	-	-	-	-	-	-	-	
Uttar Pradesh (West)	3	1	5	2	6	2	7	2	12	1
West Bengal	24	6	37	12	47	16	52	17	12	1
Total	121	34	244	64	313	83	346	89	83	2.4

- It may be noted from the above that the E1s allocated by RJIL at POIs at current levels 4. are inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing POI congestion in few circles during the testing phase of our network.
- In view of the above, we request you to direct your teams to urgently issue demand notes for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing to pay the demand notes immediately, we request you to treat this as a firm demand by RJIL.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh





RJIL/Aircel/2016-17/157 21<sup>st</sup> June, 2016

To
Mr. Ashok Sharma,
National Head - Regulatory,
Aircel Limited
Bldg. No. 10-A, 5<sup>th</sup> Floor, DLF Cybercity, Phase – II,
Gurgaon-122001, Haryana.

Subject: Augmentation of POIs for Access and NLD Services.

Dear Sir,

- This is in reference to augmentation of Reliance Jio Infocomm Limited Point of Interconnections (POIs) with Aircel Limited (Aircel) for Access and NLD services. In this regard we wish to bring to your attention that RJIL is currently conducting test trials of its services before its commercial launch. As you are aware, RJIL is deploying an IP-based network with an initial capacity to support over 200 million subscribers.
- 2. RJIL, on reasonable grounds, is expecting over 100 million subscribers in the first year post launch of services. This combined with the initial pent-up demand for services may result in upwards of 25 million subscribers coming on the network within the first quarter post launch. In order to help provide seamless connectivity to the targeted subscribers, RJIL will require sufficient interconnect capacity for inter-operator traffic at the POIs.
- 3. Based on the above, RJIL has carried out an exercise to forecast the E1 requirements as per the following assumptions:
  - 0.03 Erl busy hour traffic per subscriber (2 BHCA calls per subscriber with an average call duration of 54 seconds);
  - ii) Initial scenario of 22 million RJIL subscribers (for which number series is already allotted), and ramping up to 100 million by end of year, translating to 25 million every three months;
  - iii) For Aircel, subscriber base is considered as per data published by TRAI as on 31st March 2016;
  - iv) In the traffic forecasting, 80% of the traffic considered as inter-operator traffic initially (given relatively small size of RJIL subscriber base), this gradually decreases to 50% as the RJIL subscriber base reaches 100 million.

As per this, the service area wise details of E1s requirements are as per following. The E1 requirement in the first column (with RJIL base of 22 million) is our immediate demand for Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help Aircel to plan interconnection capacity in advance.

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Service Area	RJIL base 2	2 mn	RJIL base 5	RJIL base 50 mn		RJIL base 75 mn		00 mn	Current E1s	
Service Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	29	11	101	21	129	27	144	30	2	2
Assam	212	20	184	41	237	53	263	59	12	5
Bihar	73	28	192	55	246	70	273	78	4	3
Delhi	103	25	264	49	339	63	376	70	12	7
Gujarat	1	1	1	1	1	1	1	1	2	1
Haryana	1	1	1	1	1	1	1	1	-	-
Himachal Pradesh	95	5	20	9	25	12	28	13	12	6
Jammu & Kashmir	200	10	91	21	116	27	129	30	17	6
Karnataka	39	13	112	24	144	31	159	34	12	3
Kerala	7	2	12	3	16	3	17	4	2	2
Kolkata	126	16	175	33	225	42	249	46	4	2
Madhya Pradesh	1	1	1	1	1	1	1 !	1		-
Maharashtra	24	11	78	20	100	26	111	29	2	1
Mumbai	70	12	197	22	253	28	281	32	13	5
North East	220	13	109	26	139	33	155	37	12	5
Odisha	123	19	99 1	37	127	48	141	53	3	1
Punjab	26	5	45	9	58	11	64 1	12	12	2
Rajasthan	83	26	147	51	189	65	210	72	11	2
Tamil Nadu	204	85	764	161	982	207	1,091	230	14	2
Uttar Pradesh (East)	58	27	154	53	198	68	220	76	2	1
Uttar Pradesh (West)	10	3	19	6	25 1	7	27	8	12	2
West Bengal	75	19	118	38	151	49	168	54	7	2
Total	1,780	353	2,884	682	3,702	873	4,109	970	167	60

- 4. It may be noted from the above that the E1s allocated by Aircel at POIs at current levels are grossly inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing serious POI congestion in most of the circles during the testing phase of our network.
- 5. RJIL, having foreseen the capacity constraints, has been requesting Aircel to augment the POIs as per the terms of the Interconnection Agreement from circle level as well as at Headquarter level. However, repeated requests, telephonically and written, during last 6 months for augmentation have not been responded to by Aircel. Such continued non-cooperation by Aircel will only result in avoidable inconvenience to subscribers of both operators.
- In view of the above, we request you to direct your teams to urgently issue demand notes
  for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing
  to pay the demand notes immediately, we request you to treat this as a firm demand by
  RJIL.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh





RJIL/Idea/2016-17/159 21<sup>st</sup> June, 2016

To
Mr. Rahul Vatts
Vice President - Regulatory and Corporate Affairs,
Idea Cellular Ltd,
7<sup>th</sup> Floor, "Konnectus" Bhavbhuti Marg,
Near Minto Bridge, New Delhi – 110 001

Subject: Augmentation of POIs for Access and NLD Services.

Reference: RJIL letter no. RJIL/IDEA/2016-17/023

Dear Sir,

- This is in continuation to the aforementioned letter from Reliance Jio Infocomm Limited (RJIL) dated 07.04.2016 to Idea Cellular Limited (Idea) requesting augmentation of POIs for Access, NLD and ILD services.
- 2. In this regard we wish to bring to your attention that RJIL is currently conducting test trials of its services before its commercial launch. As you are aware, RJIL is deploying an IP-based network with an initial capacity to support over 200 million subscribers.
- 3. RJIL, on reasonable grounds, is expecting over 100 million subscribers in the first year post launch of services. This combined with the initial pent-up demand for services may result in upwards of 25 million subscribers coming on the network within the first quarter post launch. In order to help provide seamless connectivity to the targeted subscribers, RJIL will require sufficient interconnect capacity for inter-operator traffic at the Points of Interconnection ("POIs").
- 4. Based on the above, RJIL has carried out an exercise to forecast the E1 requirements as per the following assumptions:
  - 0.03 Erl busy hour traffic per subscriber (2 BHCA calls per subscriber with an average call duration of 54 seconds);
  - ii) Initial scenario of 22 million RJIL subscribers (for which number series is already allotted), and ramping up to 100 million by end of year, translating to 25 million every three months;
  - iii) For Idea, subscriber base is considered as per data published by TRAI as on 31st March 2016;
  - iv) In the traffic forecasting, 80% of the traffic considered as inter-operator traffic initially (given relatively small size of RJIL subscriber base), this gradually decreases to 50% as the RJIL subscriber base reaches 100 million.

As per this, the service area wise details of E1s requirements are as per following. The E1 requirement in the first column (with RJIL base of 22 million) is our immediate demand for

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Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help Idea to plan interconnection capacity in advance.

Francisco Anna	RJIL base 22 mn		RJIL base	50 mn	RJIL base 75 mn		RJIL base 1	.00 mn	Current E1s	
Service Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	159	61	566	116	728	148	809	165	4	1
Assam	49	5	43	10	55	13	61	14	2	1
Bihar	116	44	303	86	389	110	433	123	4	2
Delhi	100	24	255	47	328	61	365	68	2	2
Gujarat	150	48	435	92	559	119	621	132	3	1
Haryana	154 l	19	181	37	232	48	258	53	2	1
Himachal Pradesh	70	4	15	7	19	9	21	10	12	1
Jammu & Kashmir	50	3	23	6	29 (	7	33	8	12	1
Karnataka	106	33	303	64	389	83	433	92	2	1
Kerala	233	41	418	82	537	105	596	116	3	1
Kolkata	66	9	92	17	118	22	131	25	2	1
Madhya Pradesh	250	84	596	165	765	211	851	235	4	1
Maharashtra	214	92	693	177	891	227	990 !	252	3	1
Mumbai	102	17	289	32	372	42	413	46	3	1
North East	36	2	18	5	23	6	25 !	6	12	1
Odisha	47	7	37	14	48	18	53	20	2	1
Punjab	157	26	273	51	351	65	389	73	3	1
Rajasthan	100	31	178	61	228	79	254	87	3	2
Tamil Nadu	56	23	208	44	267	57	297	63	2	1
Uttar Pradesh (East)	91	43	242	83	311	107	345	119	2	1
Uttar Pradesh (West)	194	57	400	113	514	145	570	161	2	1
West Bengal	86	22	135	44	173	56	192	62	2	1
Total	2,586	695	5,703	1,353	7,326	1,738	8,140	1,930	86	25

- 5. It may be noted from the above that the E1s allocated by Idea at POIs at current levels are grossly inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing serious POI congestion reaching more than 150% in most of the circles during the testing phase of our network.
- 6. RJIL, having foreseen the capacity constraints, has been requesting Idea to augment the POIs as per the terms of the Interconnection Agreement from circle level as well as at Headquarter level. However, repeated requests, telephonically and written, during last few months for augmentation have not been responded to by Idea. Such continued non-cooperation by Idea will only result in avoidable inconvenience to subscribers of both operators.
- 7. In view of the above, we request you to direct your teams to urgently issue demand notes for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing to pay the demand notes immediately, we request you to treat this as a firm demand by RJIL.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh





RJIL/RCOM/2016-17/160 21<sup>st</sup> June, 2016

To
Mr. Amit Mathur,
Executive Senior Vice President,
Reliance Communications Limited,
Reliance Centre, A-Wing, 3<sup>rd</sup> Floor, Reliance Centre,
Maharaja Ranjit Singh Marg,
New Delhi – 110 002.

Subject: Augmentation of POIs for Access and NLD Services.

Dear Sir,

- This is with reference to augmentation of Reliance Jio Infocomm Limited (RJIL) Point of Interconnections (POIs) with Reliance Communications Limited (RCOM) for Access and NLD services. In this regard we wish to bring to your attention that RJIL is currently conducting test trials of its services before its commercial launch. As you are aware, RJIL is deploying an IP-based network with an initial capacity to support over 200 million subscribers.
- 2. RJIL, on reasonable grounds, is expecting over 100 million subscribers in the first year post launch of services. This combined with the initial pent-up demand for services may result in upwards of 25 million subscribers coming on the network within the first quarter post launch. In order to help provide seamless connectivity to the targeted subscribers, RJIL will require sufficient interconnect capacity for inter-operator traffic at the Points of Interconnection ("POIs").
- 3. Based on the above, RJIL has carried out an exercise to forecast the E1 requirements as per the following assumptions:
  - 0.03 Erl busy hour traffic per subscriber (2 BHCA calls per subscriber with an average call duration of 54 seconds);
  - ii) Initial scenario of 22 million RJIL subscribers (for which number series is already allotted), and ramping up to 100 million by end of year, translating to 25 million every three months;
  - iii) For RCOM, subscriber base is considered as per data published by TRAI as on 31st March 2016;
  - iv) In the traffic forecasting, 80% of the traffic considered as inter-operator traffic initially (given relatively small size of RJIL subscriber base), this gradually decreases to 50% as the RJIL subscriber base reaches 100 million.

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As per this, the service area wise details of E1s requirements are as per following. The E1 requirement in the first column (with RJIL base of 22 million) is our immediate demand for Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help RCOM to plan interconnect capacity in advance.

Coming Asses	RJIL base 22 mn		RJIL base 50 mn		RJIL base 75 mn		RJIL base 100 mn		Current E1s	
Service Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	58	22	207	42	266	54	295	60	23	5
Assam	56	6	49	11	62	14	69 1	16	23	5
Bihar	47 [	18	122	35	157	45	174	50	28	7
Delhi	132	32	337	63	433	80	481	89	25	6
Gujarat	74	24	213	45	274	58	304	65	12	5
Haryana	65	8	77	16	98	20	109	23	12	5
Himachal Pradesh	152	7	31	15	40	19	44	21	14	6
Jammu & Kashmir	73	4	33	8	43	10	47 !	11	2	1
Karnataka	74	23	212	45	273	58	303	65	23	5
Kerala	50	9	88	18	114	22	126	25	23	5
Kolkata	143	19	199	37	256	48	285	53	18	10
Madhya Pradesh	142	48	339	94	436	120	484	134	70	18
Maharashtra	52	22	167	43	214	55	238	61	23	5
Mumbai	140	23	397 1	44	510	57	567 1	63	21	1
North East	27	2	13	4	17	4	19 !	5	23	5
Odisha	50	8	40	15	52	20	57	22	24	2
Punjab	40	7	70	13	90	17	100	19	13	5
Rajasthan	86 1	27	152	53	196	68	217	75	2	2
Tamil Nadu	65	27	242	51	311	66	345	73	14	1
Uttar Pradesh (East)	78 ;	37	209	72	269	92	298	103	2	1
Uttar Pradesh (West)	81	24	166	47	214	61	237	67	23	1
West Bengal	52	13	80	26	103	34	115	37	23	3
Total	1,737	410	3,443	797	4,428	1,022	4,914	1,137	441	104

- 4. It may be noted from the above that the E1s allocated by RJIL at POIs at current levels are inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing POI congestion in few circles during the testing phase of our network.
- 5. In view of the above, we request you to direct your teams to urgently issue demand notes for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing to pay the demand notes immediately, we request you to treat this as a firm demand by RJIL.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh Authorized Signatory

O INFOCOMIZA

## Reliance Jio

RJIL/Airtel/2016-17/158 21<sup>st</sup> June, 2016 Infocomm Limited

To

Mr. Ravi P. Gandhi, Chief Regulatory Officer (Policy), Bharti Airtel Limited, Plot no 16, 6<sup>th</sup> Floor, Udyog Vihar, Phase IV, Gurgaon-122015, Haryana.

Subject: Augmentation of POIs for Access and NLD Services.

Reference:

1. RJIL letter no. RJIL/Airtel/2015-16/510 dated 18.01.2016

2. Airtel letter no. RP/15-16/113/001 DATED 21.01.2016

Dear Sir,

- This is in continuation to the aforementioned letter from Reliance Jio Infocomm Limited (RJIL)
  dated 18.01.2016 requesting augmentation of POIs for Access, NLD and ILD services and Bharti
  Airtel Limited (Airtel) letter dated 21.01.2016 denying the augmentation on the grounds of
  insufficient traffic levels.
- 2. In this regard we wish to bring to your attention that RJIL is currently conducting test trials of its services before its commercial launch. As you are aware, RJIL is deploying an IP-based network with an initial capacity to support over 200 million subscribers.
- 3. RJIL, on reasonable grounds, is expecting over 100 million subscribers in the first year post launch of services. This combined with the initial pent-up demand for services may result in upwards of 25 million subscribers coming on the network within the first quarter post launch. In order to help provide seamless connectivity to the targeted subscribers, RJIL will require sufficient interconnect capacity for inter-operator traffic at the Points of Interconnection ("POIs").
- 4. Based on the above, RJIL has carried out an exercise to forecast the E1 requirements as per the following assumptions:
  - 0.03 Erl busy hour traffic per subscriber (2 BHCA calls per subscriber with an average call duration of 54 seconds);
  - ii) Initial scenario of 22 million RJIL subscribers (for which number series is already allotted), and amping up to 100 million by end of year, translating to 25 million every three months;
  - iii) For Airtel, subscriber base is considered as per data published by TRAI as on 31st March 2016;
  - iv) In the traffic forecasting, 80% of the traffic considered as inter-operator traffic initially (given relatively small size of RJIL subscriber base), this gradually decreases to 50% as the RJIL subscriber base reaches 100 million.

"Formerly, Infotel Broadband Services Limited" CIN: U72900MH2007PLC2347

Operating Office: D-7, Dhawandeep Building, 6, Jantar Mantar Road, New Delhi-110001, India. Tel: 01143323795; Fax 2014334453 Registered Office: 9th Floor, Maker Chambers IV, 222, Nariman Point, Mumbai-400021, India. Tel: 024-22785500; Fax 10142785560 As per this, the service area wise details of E1s requirements are as per following. The E1 requirement in the first column (with RJIL base of 22 million) is our immediate demand for Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help Airtel to plan interconnection capacity in advance.

Service Area	RJIL base 22 mn		RJIL base	50 mn	RJIL base	75 mn	RJIL base 1	00 mn	Current E1s	
Service Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	243	93	868	177	1,116	227	1,240	252	7	1
Assam	247	24	214	48	275	61	306	68	2	1
Bihar	294	111	769	218	989	280	1.098 1	311	5	2
Delhi	183	44	466	86	600 [	111	666	123	7	3
Gujarat	106	34	307	65	394	84	438 1	93	4	1
Haryana	97	12	114	24	147	30	163	34	2	1
Himachal Pradesh	238	11	49	23	62	29	69 1	32	2	1
Jammu & Kashmir	262	14	119	27	152	35	169	39	2	1
Karnataka	262	82	751	159	965 1	205	1,073	227	3	2
Kerala	99	18	178	35	228	45	253	50	8	1
Kolkata	144	19	200	37	257	48	285	53	4	2
Madhya Pradesh	148	50	353	98	454	125	504	139	4	2
Maharashtra	123	53	399	102	513	131	569	145	3	1
Mumbai	140	23	398	44	512	57	569	63	9	1
North East	273	16	135	32	174	41	193	45	2	1
Odisha	273	41	219	83	282	106	313	118	4	1
Punjab	194	32	338	63	434	81	483 1	90	3	1
Rajasthan	248	76	441	152	567	195	629	217	4	3
Tamil Nadu	163	68	610	129	785	165	872 1	184	3	1
Uttar Pradesh (East)	174	82	465	160	598	205	664	228	4	1
Uttar Pradesh (West)	112	33	230	65	296	84	328 1	93	3	1
West Bengal	229	58	358	116	460	149	511	165	3	1
Total	4,252	994	7,981	1,943	10,260	2,494	11,395	2,769	88	30

- 5. It may be noted from the above that the E1s allocated by Airtel at POIs at current levels are grossly inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing serious POI congestion reaching upto 200% in most of the circles during the testing phase of our network.
- 6. RJIL, having foreseen the capacity constraints, has been requesting Airtel to augment the POIs as per the terms of the Interconnection Agreement from circle level as well as at Headquarter level. However, repeated requests, telephonically and written, during last 6 months for augmentation have not been responded to by Airtel. Such continued non-cooperation by Airtel will only result in avoidable inconvenience to subscribers of both operators.
- 7. In view of the above, we request you to direct your teams to urgently issue demand notes for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing to pay the demand notes immediately, we request you to treat this as a firm demand by RJIL.

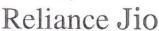
Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh





RJIL/Telewings/2016-17/163 21st June, 2016

Infocomm Limited

To
Mr. Pankaj Sharma,
Sr. VP and Head, Regulatory,
Telewings Communications Services Private Limited,
The Masterpiece, Plot No.10, Golf Course Road,
Sector-54, DLF Phase-V,
Opposite IBIS Hotel, Gurgaon – 122002.

Subject: Augmentation of POIs for Access and NLD Services.

Dear Sir,

- This is reference to augmentation of Reliance Jio Infocomm Limited Point of Interconnections (POIs) with Telewings Communications Services Private Ltd (Telewings) for Access and NLD services. In this regard we wish to bring to your attention that RJIL is currently conducting test trials of its services before its commercial launch. As you are aware, RJIL is deploying an IP-based network with an initial capacity to support over 200 million subscribers.
- 2. RJIL, on reasonable grounds, is expecting over 100 million subscribers in the first year post launch of services. This combined with the initial pent-up demand for services may result in upwards of 50 million subscribers coming on the network within the first quarter post launch. In order to help provide seamless connectivity to the targeted subscribers, RJIL will require sufficient interconnect capacity for inter-operator traffic at the Points of Interconnection ("POIs").
- Based on the above, RJIL has carried out an exercise to forecast the E1 requirements as per the following assumptions:
  - 0.03 Erl busy hour traffic per subscriber (2 BHCA calls per subscriber with an average call duration of 54 seconds);
  - ii) Initial scenario of 22 million RJIL subscribers (for which number series is already allotted), and ramping up to 100 million by end of year, translating to 25 million every three months;
  - For Telewings, subscriber base is considered as per data published by TRAI as on 31<sup>st</sup>
     March 2016;
  - iv) In the traffic forecasting, 80% of the traffic considered as inter-operator traffic initially (given relatively small size of RJIL subscriber base), this gradually decreases to 50% as the RJIL subscriber base reaches 100 million.

As per this, the service area wise details of E1s requirements are as per following. The E1 requirement in the first column (with RJIL base of 22 million) is our immediate of

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demand for Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help Telewings to plan interconnect capacity in advance.

Service Area	RJIL base 22 mn		RJIL base 5	RJIL base 50 mn		RJIL base 75 mn		00 mn	Current E1s	
Jei vice Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	59	23	210	43	269	55	299	61	4	1
Assam	-	-	-	-	-	-	- 1	-	-	-
Bihar	91	35	239	68	307	87	341	97	12	-
Delhi	- 1	(14)	-	(0+)	- 1	-	- 1	100	- 1	-
Gujarat	110	35	320	68	412	87	457	97	7	(20
Haryana	-	0-1	-		-	-	-	-	-	-
Himachal Pradesh	-	-	- 1	-		1-6	- 1	-	-	-
Jammu & Kashmir	-	-	-	-	-	-	- 1	-	-	-
Karnataka	-	-	-	-	- 1	-	- 1	- 1		-
Kerala	-	- 1	-	-	- 1	-	-	-	-	-
Kolkata	- 4	- 1	-		- 1	-		- 1	-	-
Madhya Pradesh	- 1	N=:	-	- 1	-	-	- 1	7-1	-	-
Maharashtra	75	32	242	62	312	80	346	88	2	1
Mumbai	-	- 1	-		- 1	-	- 1	-	-	-
North East	-	-	-	- 1	- 1	-		-		-
Odisha	-		- 1	-	- 1	-	- 1	-	-	-
Punjab	-	-	-	-	-	-		-	-	_
Rajasthan	-	- 1	-	- 1	-	-	-	-	-	
Tamil Nadu	-	-	-	-	- 1	-	-	- 1	-	_
Uttar Pradesh (East)	103	49	275	95	353	121	392	135	5	1
Uttar Pradesh (West)	115	34	237	67	305	86	338	96	6	3
West Bengal	-	-	-	-	-	-		-	- 1	-
Total	553	208	1,523	403	1,958	516	2,173	574	36	6

- 4. It may be noted from the above that the E1s allocated by RJIL at POIs at current levels are inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing POI congestion in few circles during the testing phase of our network.
- In view of the above, we request you to direct your teams to urgently issue demand notes for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing to pay the demand notes immediately, we request you to treat this as a firm demand by RJIL.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh





RJIL/Vodafone/2016-17/164 21<sup>st</sup> June, 2016

To
Mr. Sandip Kathuria,
Sr. Vice President - Regulatory Affairs,
Vodafone India Limited,
7th Floor, DLF Centre, Sansad Marg,
New Delhi – 110 001.

Subject: Augmentation of POIs for Access and NLD Services.

Dear Sir,

- This is with reference to augmentation of Reliance Jio Infocomm Limited (RJIL) Point of Interconnections (POIs) with Vodafone India Limited (Vodafone) for Access and NLD services. In this regard we wish to bring to your attention that RJIL is currently conducting test trials of its services before its commercial launch. As you are aware, RJIL is deploying an IP-based network with an initial capacity to support over 200 million subscribers.
- 2. RJIL, on reasonable grounds, is expecting over 100 million subscribers in the first year post launch of services. This combined with the initial pent-up demand for services may result in upwards of 25 million subscribers coming on the network within the first quarter post launch. In order to help provide seamless connectivity to the targeted subscribers, RJIL will require sufficient interconnect capacity for inter-operator traffic at the POIs.
- 3. Based on the above, RJIL has carried out an exercise to forecast the E1 requirements as per the following assumptions:
  - i) 0.03 Erl busy hour traffic per subscriber (2 BHCA calls per subscriber with an average call duration of 54 seconds);
  - ii) Initial scenario of 22 million RJIL subscribers (for which number series is already allotted), and ramping up to 100 million by end of year, translating to 25 million every three months;
  - For Vodafone, subscriber base is considered as per data published by TRAI as on 31<sup>st</sup>
     March 2016;
  - iv) In the traffic forecasting, 80% of the traffic considered as inter-operator traffic initially (given relatively small size of RJIL subscriber base), this gradually decreases to 50% as the RJIL subscriber base reaches 100 million.

As per this, the service area wise details of E1s requirements are as per following. The E1 requirement in the first column (with RJIL base of 22 million) is our immediate.

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demand for Access and NLD POIs, whereas Projected E1s in next three columns are at the end of 3 months, 6 months and 9 months respectively from the date of this letter. These projections will also help Vodafone to plan interconnection capacity in advance.

Service Area	RJIL base 22 mn		RJIL base 50 mn		RJIL base 75 mn		RJIL base 100 mn		Current E1s	
Service Area	Access	NLD	Access	NLD	Access	NLD	Access	NLD	Access	NLD
Andhra Pradesh	73	28	259	53	333	68	370	76	7	1
Assam	152	15	132	30	169	38	188	42	12	1
Bihar	98	38	257	73	331	94	367	104	9	4
Delhi	164	40	418	77	537	99	597	110	12	8
Gujarat	239	76	696	148	894	190	994	211	15	3
Haryana	181	22	213	44	274	56	304	62	16	3
Himachal Pradesh	63	3	13	6	17	8	19	9	7	1
Jammu & Kashmir	84	5	38	9	49	11	54	13	5	1
Karnataka	97	30	276	59	355	75	394	84	7	3
Kerala	168	30	301	59	387	76	430	84	7	1
Kolkata	166	21	230	43	296	55	329	61	7	2
Madhya Pradesh	81	27	193	53	248	69	275	76	23	6
Maharashtra	169	73	549	140	705	180	783	199	8	1
Mumbai	209	34	595	66	765	85	850	94	9	3
North East	108	6	53	13	68	16	76	18	7	1
Odisha	109	17	88	33	113	43	125	47	7	1
Punjab	124	20	216	40	277	52	308	58	8	5
Rajasthan	156	48	277	95	356	123	395	136	7	4
Tamil Nadu	147	61	550	116	707	149	785	166	11	2
Uttar Pradesh (East)	159	75	424	146	545	187	605	208	5	4
Uttar Pradesh (West)	155	46	319	90	410	116	456	129	7	2
West Bengal	273	69	427	138	549	177	610	197	7	5
Total	3,175	784	6,524	1,531	8,385	1,967	9,314	2,184	203	62

- 4. It may be noted from the above that the E1s allocated by Vodafone at POIs at current levels are inadequate in capacity when compared with projections provided by RJIL. The above shortfall is already causing POI congestion in few circles during the testing phase of our network.
- 5. In view of the above, we request you to direct your teams to urgently issue demand notes for augmenting the POI E1 capacities as per the demands made by RJIL. As RJIL is willing to pay the demand notes immediately, we request you to treat this as a firm demand by RJIL.

Thanking you,

Yours sincerely,

For Reliance Jio Infocomm Limited,

Mahipal Singh

