			Quarterly F	Performa	nce Monito	ring Repo	rt (PMR) on Quality	of Service	of Wirel	ess Data Serv	ices		
		Report for quarte	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	Δ11 Ge	enerations	99.00		99.78		99.99	98	100	100.00
	1	/Provisioning	95% success	All Ge	2G	99.00	98.00	99.10		99.99	90	100	100.00
		, , , , , ,	rate.		3G		98.00						
	2	Successful data	>80%	All Ge	enerations		30.00				100	100	
		transmission download		2G	(GSM)	100.00	97.42	100.00					100.00
		attempts			3G	100.00	96.32	100.00					
					4G					100.00			
	3	Successful data	>75%	All Ge	enerations						100	100	
		transmission upload		2G	(GSM)	100.00	95.72	100.00					100.00
		attempts			3G	100.00	97.01	100.00					
					4G					100.00			
	4	Minimum download	To be measured	CDMA	Plan 1						71(Photon whiz)		
		speed (Kbps)	for each Plan and Reported to TRAI		Plan 2						2142(Photon plus)		
				2G	Plan 1	165.62	43.86(Data plan- 96,1499,2799,3999)	135(Open plan)			132(EDGE)	90.4	133.13(Rs 125 plan with 1GE free
esh				3G	Plan 1	1676.13	521.74(Data plan- 96,1499,2799,3999)	2449(Open plan)					
rad				4G	Plans					4718.24		1140.4067	
ų.	5	Average Throughput for	>75% of the	CDMA	Plan 1						74(Photon whiz)		
Andhra Pradesh		Packet data (Kbps)	subscribed speed.		Plan 2						2178(Photon plus)		
⋖				2G	Plan 1	199.74	136.56(Data plan- 96,1499,2799,3999)	142(Open plan)			137(EDGE)	162.1	188.06(Rs 12) plan with 1GH free
				3G	Plan 1	2334.37	2187.28(Data plan- 96,1499,2799,3999)	3741(Open plan)					
				4G	Plans					21090.30		6575.1267	
	6	Latency	Data <250ms		enerations						96	208	
				2G	(GSM)	85.00		134.00					120.50
					3G	42.00	149.00	27.00					
					4G					60.71			
	7	PDP Context Activation	≥95%		enerations	00.67	20.5	20 5			98	98.2	22 = 5
		Success Rate		2G	(GSM)	99.65		99.70					99.57
					3G 4G	99.99	99.98	97.10		00.01			
	8	Drop rate :	≤5%		enerations					99.81	0.8	0.42	
	°	Drop rate :	≥370		(GSM)	2.63	1.81	0.89			0.8	0.42	3.12
					3G	0.61		0.89					3.12
					4G	0.01	1.01	0.17		0.40			
	<u> </u>	L								0.40			

			Quarterly P	erforma	nce Monito	ring Report	(PMR) on Qualit	y of Service	of Wirel	ess Data Servic	es		
		Report for quarte	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	A11 G	enerations	97.00		99.85		98.77			99.96
	1	/Provisioning	95% success	All G	2G	97.00	100.00	99.03		90.11			99.90
		, , , , , ,	rate.		3G		100.00						
	2	Successful data	>80%	All Ge	enerations		100.00						
		transmission download		20	GSM)	100.00	98.30	100.00					100.00
		attempts			3G	100.00	98.30						100.00
					4G					100.00			
	3	Successful data	>75%	All Ge	enerations								
		transmission upload		20	GSM)	100.00	97.30	100.00					100.00
		attempts			3G	100.00	97.30						100.00
					4G					100.00			
	4	Minimum download	To be measured	CDMA	Plan 1								
		speed (Kbps)	for each Plan and		Plan 2								
			Reported to TRAI		Plan 3								
				2G	Plan 1	110.85	78 (All plans)	75(Open plan)					125.33(pack @699)
				3G	Plan 1	2278.17	1247(All plan)						2995.37
					Plan 2								
					Plan 3								
Ħ				4G	Plans					3432.29			
Assam	5	Average Throughput for	>75% of the	CDMA	Plan 1								
¥		Packet data (Kbps)	subscribed speed.	2G	Plan 1	167.11	135 (All plans)	147(Open plan)					145.56(pack @699)
				3G	Plan 1	3601.39	2897(All plan)						3266.20
					Plan 2								
					Plan 3								
				4G	Plans					15789.34			
	6	Latency	Data <250ms		enerations								
				20	GSM)	234.00	170.10	99.00					183.67
					3G	36.80	164.30						64.67
				(CDMA								
					4G					51.91			
	7	PDP Context Activation Success Rate	≥95%		enerations	00.00	00.00	00 =0					00 =
		Success Rate		20	GSM)	99.99	98.00	99.79					99.79
					3G	99.90	97.60						96.88
				(CDMA 4G					00.92			
	8	Drop rote :	/F0/	A11 C						99.83			
	ð	Drop rate :	≤5%		enerations (GSM)	3.25		0.16					2.73
				20	3G	0.91	1.30	0.16					0.73
					4G	0.91	1.30			0.34			0.73
			1		10					0.34			

			Quarterly P	erforma	nce Monito	oring Repor	rt (PMR) on Qualit	y of Service	of Wirel	ess Data Serv	rices		
		Report for quarte	r ending: March	2018					Comp	liance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Ge	enerations	96.00		99.82		99.97	100	100	99.99
	1	/Provisioning	95% success		2G	90.00	100.00			99.91	100	100	99.93
		,	rate.		3G		100.00						
I	2	Successful data	>80%		enerations						100	100	
		transmission download		2G	(GSM)	98.05	100.00	100.00					100.00
		attempts			3G	99.87	100.00	100.00					
					4G					100.00			
	3	Successful data	>75%		enerations						100	100	
		transmission upload			(GSM)	98.96	100.00						100.00
		attempts			3G	97.27	100.00	100.00					
_	4	M:::::::::::::::::::::::::::::::::::::	T- 1 1		4G					100.00	40/Dl/ 1:3		
		Minimum download speed (Kbps)	To be measured for each Plan and	CDMA	Plan 1 Plan 2						42(Photon whiz) 1234(Photon		
		specu (Rops)	Reported to TRAI								plus)		
				2.0	Plan 3		## 0/00 P : 110	00/0			100/77 67	110 =	44077149 1777 00
				2G	Plan 1	57.64	55.9(2G Postpaid)	92(Open plan)			103(EDGE)	118.7	140(VMC+VFL_30 B+30d_2G_2G RC 199 Y_2G
					Plan 2		51.9(Prepaid 2G data)						
				3G	Plan 1	1854.17	702.3(3G Postpaid data plans)	plan)					
and					Plan 2		489.3(3G Prepaid data plan)						
kh					Plan 3								
haı				4G	Plans					4597.73		1424.2767	
Bihar and Jharkhand		Average Throughput for Packet data (Kbps)	>75% of the subscribed speed.	CDMA	Plan 1 Plan 2						61(Photon whiz) 1741(Photon		
har			opecu.		Plan 3						plus)		
Bij				2G	Plan 1	149.72	104.6(2G Postpaid)	189(Open plan)			122(EDGE)	174.3	173(VMC+VFL_30 B+30d_2G_2G R0 199 Y_2G
					Plan 2		104.6(Prepaid 2G data)						_
				3G	Plan 1	4365.14	1717.4(3G Postpaid data plans)						
					Plan 2		1717.4(3G Prepaid data plan)						
					Plan 3								
				4G	Plans					22189.56		2604.2067	
	6	Latency	Data <250ms		enerations						107.45	206.1	
				2G	(GSM)	235.00	221.60	236.00					122.00

	Report for quarter	ending: March	2018				Compl	iance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
			3G	135.00	119.20	117.00					
			4G					60.04			
7	PDP Context Activation	≥95%	All Generations						98.75	99.2	
	Success Rate		2G (GSM)	99.87	97.90	97.75					Ğ
			3G	98.64	96.90	92.99					
			4G					99.58			
8	Drop rate :	≤5%	All Generations						0.53	0.52	
			2G (GSM)	3.61		2.19					
			3G	0.15	0.90	0.22					
			4G					0.43			

					_							
	Report for quarte								iance Status			
No.		Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
1	Service Activation	Within 4 hrs with	All Ge	enerations		100.00						
	/Provisioning	95% success		3G								
2	Successful data	>80%	All Ge	enerations								
	transmission download		20	GSM)		95.93						
	attempts			3G		97.75						
			(CDMA								
				4G								
3		>75%	All Ge	enerations								
	transmission upload		20	GSM)		97.53						
	attempts			3G		97.95						
			(CDMA								
				4G								
4		To be measured	CDMA	Plan 1								
	speed (Kbps)	for each Plan and		Plan 2								
		Reported to TRAI		Plan 3								
			2G	Plan 1		72.00						
			3G	Plan 1		577.00						
				Plan 2								
				Plan 3								
			4G	Plans								
Ę		>75% of the	CDMA	Plan 1								
	Packet data (Kbps)	subscribed speed.		Plan 2								
		specu.	0.0	Plan 3		110.00						
			2G	Plan 1		142.00						
			3G	Plan 1		2907.00						
				Plan 2								
			4G	Plan 3								
-	Latency	Data <250ms		Plans enerations								
,	Latericy	Data \230iiis		GSM)		249.00						
			20	3G		93.00						
			(CDMA		93.00						
				4G								
<u> </u>	7 PDP Context Activation	≥95%	Δ11 G	enerations								
'	Success Rate	29370		GSM)		97.46						
			20	3G		98.79						
			(CDMA		50.19						
				4G								
- 8	B Drop rate :	≤5%	A11 G	enerations								
	21001400.	2370		GSM)		1.71						
			20	3G		1.79						
			(CDMA		2.77						
				4G								

	Report for quarte	r ending: March (2018					Compli	ance Status			
S1. No.	Parameters Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
1	Service Activation	Within 4 hrs with	All Ge	enerations	99.00		99.22	99.36	99.99	98		99.7
	/Provisioning	95% success		3G								
2	Successful data	>80%	All Ge	enerations						100		
	transmission download			GSM)	99.73		100.00	94.89				99.1
	attempts			3G	100.00		100.00	98.79				98.9
			(CDMA								
				4G					100.00			
3	Successful data	>75%	All Ge	enerations						100		
	transmission upload		20	GSM)	99.72		100.00	89.94				99.3
	attempts			3G	100.00		100.00	97.62				99.1
			(CDMA								
				4G					100.00			
4	Minimum download	To be measured	CDMA	Plan 1						72(Photon whiz)		
	speed (Kbps)	for each Plan and Reported to TRAI		Plan 2						1584(Photon plus)		
				Plan 3						2038(Photon max)		
			2G	Plan 1	24.00		60(Open plan)	90.70				79.45(Rs 12 Rental plan wit 1GB free
			3G	Plan 1	1874.00		1074(Open plan)	696.87				1034(Rs 25 Rental plan wit 1GB fre
				Plan 2								
				Plan 3								
			4G	Plans					5970.69			
5	Average Throughput for	>75% of the	CDMA	Plan 1						82(Photon whiz)		
	Packet data (Kbps)	subscribed speed.		Plan 2						2031(Photon plus)		
				Plan 3						2786(Photon max)		
			2G	Plan 1	85.24		154(Open plan)	98.42				178.14(Rs 12 Rental plan wit 1GB fre
			3G	Plan 1	2954.00		5161(Open plan)	920.39				2439.79(Rs 25 Rental plan wit 1GB fre
				Plan 2								
				Plan 3								
			4G	Plans					27706.33			
6	Latency	Data <250ms		enerations				138.33		77.5		
				GSM)	227.00		132.00					205.3
				3G	87.00		56.00					71.0

	Report for quarter	ending: March 2	2018				Compli	ance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
			CDMA								
			4G					44.16			
7	PDP Context Activation	≥95%	All Generations				99.33		96.4665		
	Success Rate		2G (GSM)	99.96		99.66					99.
			3G	100.00		99.03					99.
			CDMA								
		-	4G					99.76			
8	Drop rate :	≤5%	All Generations				2.90		0.6795		
			2G (GSM)	2.08		0.17					1.8
		-	3G	0.53		0.67					1.
			CDMA								
		-	4G					0.34			

			Quarterly P	erforma	nce Monito	oring Report	t (PMR) on Qualit	y of Service	of Wirel	ess Data Serv	rices		
		Report for quarte	r ending: March	2018					Compl	liance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with		nerations	99.00	98.00	99.57		100.00	100	100	99.97
		/Provisioning	95% success		(GSM)								
	2	Successful data	>80%		nerations		99.00				100	100	
		transmission download			(GSM)	100.00		100.00					99.65
		attempts			3G	100.00		100.00					100.00
					DMA								
_					4G					100.00			
	3	Successful data	>75%		nerations		98.00				100	100	
		transmission upload			(GSM)	100.00		100.00					99.18
		attempts			3G	100.00		100.00					99.98
				C	DMA								
-		251	m .	07344	4G					100.00	F (7)		
		Minimum download	To be measured	CDMA	Plan 1						74(Photon whiz)		
		speed (Kbps)	for each Plan and Reported to TRAI		Plan 2						1280(Photon plus)		
					Plan 3								
				2G	Plan 1	78.61		91(Open plan)			86(EDGE)	126.5	84.29(2G MI199)
				3G	Plan 1	785.54	1416 Kbps	2026(Open plan)					2101.17(3G MI850)
					Plan 2						2239(Photon 3G)		
					Plan 3						3473(Photon 3G+)		
				4G	Plans					5895.72		2828.1371	
at		Average Throughput for	>75% of the	CDMA	Plan 1						87(Photon whiz)		
Gujarat		Packet data (Kbps)	subscribed speed.		Plan 2						1982(Photon plus)		
					Plan 3								
				2G	Plan 1	159.00	1899 Kbps	172(Open plan)			137(EDGE)	175.3	138.12(2G MI199)
				3G	Plan 1	3540.51		4773(Open plan)					4149.67(3G MI850)
					Plan 2						3407(Photon 3G)		
					Plan 3						5273(Photon 3G+)		
				4G	Plans					29320.10		3318.2496	
	6	Latency	Data <250ms	All Ge	nerations		94 ms				67.6	128.7	
				2G	(GSM)	239.00		100.00					133.67
					3G	156.00		48.00					51.00
					CDMA								
					4G					55.72			

		Quarterly P	erformance Monito	ring Repo	rt (PMR) on Qualit	y of Service	of Wirele	ess Data Serv	ices		
	Report for quarter	ending: March	2018				Compl	iance Status			
S1.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
No.											
7	PDP Context Activation	≥95%	All Generations		98.10				99.2	99.4	
	Success Rate		2G (GSM)	99.99		99.97					99.71
			3G	99.37		99.99					99.39
			CDMA								
			4G					99.83			
8	Drop rate :	≤5%	All Generations		1.10				2	0.79	
			2G (GSM)	4.78		0.35					4.97
			3G	0.26		0.77					0.53
			CDMA								
			4G					0.48			

	Donout for avents	n anding, Manch	0010					O1	lianaa Ctatura			
	Report for quarte								liance Status			1 0
S		Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
-	Service Activation	Within 4 hrs with	All Ge	enerations	100.00	100.00	99.04		99.99	100		100.00
-	/Provisioning	95% success		GSM)	100.00	100,00	33.0.		33.33	100		100.00
	,	rate.		3G								
				CDMA								
9	Successful data	>80%		enerations		91.00				100		
-	transmission download	0070		GSM)	100.00	31.00	100.00			100		100.00
	attempts			3G	100.00		100.00					100.00
				4G	100.00		100.00		100.00			
	Successful data	>75%	Δ11 G	enerations		90.00			100.00	100		
,	transmission upload	71370		GSM)	100.00	90.00	100.00			100		100.00
	attempts		20	3G	100.00		100.00					100.00
	P			4G	100.00		100.00		100.00			
	Minimum download	To be measured	CDMA	Plan 1					100.00	59(Photon whiz)		
-	speed (Kbps)	for each Plan and		Plan 2						718(Photon plus)		
	speed (Kbps)	Reported to TRAI										
			2G	Plan 1	118.00	73.00	157(Open plan)			57(EDGE)		145.34(Talk invitation 5)
			3G	Plan 1	1320.96	856.00	1594(Open plan)					
पू				Plan 2			piaii)					
de				Plan 3								
Pra			4G	Plans					4648.79			
<u>=</u>	Average Throughput for	>75% of the	CDMA	Plan 1					7070.79	73(Photon whiz)		
, ch	Packet data (Kbps)	subscribed	CDMA	Plan 2						1306(Photon		
Himachal Pradesh	r deriet data (risps)	speed.		I Idii Z						plus)		
#			2G	Plan 1	178.00	101.00	172(Open plan)			94(EDGE)		170.46(Talk invitation 5)
			3G	Plan 1	4249.60	1430.00	2905(Open plan)					
				Plan 2			P)					
				Plan 3								
			4G	Plans					23569.69			
-	Latency	Data <250ms		enerations		84.00			23309.09	124.42		
,	Latericy	Data \250iiis		GSM)	226.00	04.00	222.00			127.72		194.17
			20	3G	163.00		168.00					194.17
					103.00		100.00		46.70			
-	DDD Contest Astisstics	>050/	A11 C	4G		00.00			46.79			
7	PDP Context Activation Success Rate	≥95%		enerations	00.00	98.90	100.00			96.44		99.90
	Success Nate		20	G (GSM)	99.88							99.90
				3G	100.00		100.00		00.00			
		.50/	411.0	4G		6.00			99.88	0.70		
8	Drop rate:	≤5%		enerations		0.90				0.72		
			20	GSM)	1.61		2.23					1.98
				3G	0.76		0.98					

Quarterly Performance Monitoring Report (PMR) on Quality of Service of Wireless Data Services

		Quarterly P	erformance Monitor	ring Repo	rt (PMR) on Qualit	y of Service	of Wirele	ess Data Serv	ices					
Report for quarter ending: March 2018 Compliance Status St. Postmeters Report for Quarter and Status Report for Quarter and														
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone			
			4G					0.31						

			Quarterly P	erforma	nce Monito	oring Report	(PMR) on Quality	y of Service	of Wirel	ess Data Serv	ices		
		Report for quarte	r ending: March 2	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Ge	enerations	100.00	97.00	99.76		100.00	100		99.95
		/Provisioning	95% success	20	GSM)								
	2	Successful data	>80%	All Ge	enerations		87.00				100		
		transmission download		20	GSM)	100.00		100.00					100.00
		attempts			3G	100.00		100.00					100.00
					4G					100.00			
	3	Successful data	>75%	All Ge	enerations		85.33				100		
		transmission upload		20	GSM)	100.00		100.00					100.00
		attempts			3G	100.00		99.99					100.00
					4G					100.00			
		Minimum download speed (Kbps)	To be measured for each Plan and	CDMA	Plan 1						31.44(Photon whiz)		
			Reported to TRAI		Plan 2						1092.20(Photon plus)		
				2G	Plan 1	170.00	78.67	151(Open plan)			59.96(EDGE)		140.49(PLAN-198 Rs/2GB)
				3G	Plan 1	1495.04	932.33	1842(Open plan)			803.02(Photon 3G)		4551.65(PLAN- 198 Rs/2GB)
					Plan 2						1167.85(Photon 3G)		
					Plan 3						1285.35(Photon 3G+)		
				4G	Plans					14166.00			
Haryana		Average Throughput for Packet data (Kbps)	>75% of the subscribed	CDMA	Plan 1						71.02(Photon whiz)		
Нат			speed.		Plan 2						1341.37(Photon plus)		
					Plan 3								
				2G	Plan 1	179.00	111.67	179(Open plan)			105.38(EDGE)		190.82(PLAN-198 Rs/2GB)
				3G	Plan 1	3276.80	1625.33	3472(Open plan)			2659.98(Photon 3G)		8758.31(PLAN- 198 Rs/2GB)
					Plan 2						3456.35(Photon 3G)		
					Plan 3						4206.17(Photon 3G+)		
				4G	Plans					36496.00			
	6	Latency	Data <250ms	All Ge	enerations		113.67				69.4		
				20	GSM)	212.00		127.00					88.80
					3G	81.00		26.00					18.35
					4G					49.89			
	7	PDP Context Activation	≥95%		enerations		95.80				99.2		
		Success Rate		20	GSM)	99.87		98.74					92.15

		Quarterly F	Performance Monitor	ring Repor	t (PMR) on Qualit	y of Service	of Wirele	ess Data Serv	ices		
	Report for quarter	r ending: March	2018				Compli	iance Status			
S1.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
No.											
			3G	100.00		98.25					79.08
			4G					99.79			
8	Drop rate :	≤5%	All Generations		4.11				1.3		
			2G (GSM)	0.79		1.55					5.03
			3G	0.29		1.92					1.07
			4G					0.43			

	Report for quarte	r ending: March	2018					Compl	iance Status			
S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
1	Service Activation	Within 4 hrs with	All Ge	enerations	100.00	96.40	99.36		99.84			99.9
	/Provisioning	95% success		3G								
2	Successful data	>80%		enerations		94.00						
	transmission download		20	GSM)	100.00		100.00					100.0
	attempts			3G	100.00		100.00					
				4G					100.00			
3	Successful data	>75%	All Ge	enerations		88.00						
	transmission upload		20	GSM)	100.00		100.00					100.0
	attempts			3G	100.00		100.00					
				4G					100.00			
4	Minimum download	To be measured	CDMA	Plan 1								
	speed (Kbps)	for each Plan and Reported to TRAI	2G	Plan 1	186.73	12.00	113(Open plan)					136.41(99_1GI
			3G	Plan 1	3174.40	359.00	2075(Open plan)					
			4G	Plans					4546.09			
5	Average Throughput for	>75% of the	CDMA	Plan 1								
	Packet data (Kbps)	subscribed speed.	2G	Plan 1	222.49	29.00	140(Open plan)					159.32(99_1G
			3G	Plan 1	4915.20	419.00	4440(Open plan)					
			4G	Plans					20308.46			
6	Latency	Data <250ms	All Ge	enerations		114.00						
			20	GSM)	192.00		202.00					132.6
				3G	93.00		173.00					
				4G					47.41			
7	PDP Context Activation	≥95%	All Ge	enerations		96.00						
	Success Rate		20	GSM)	100.00		100.00					99.8
			_	3G	99.00		100.00					
				4G					99.83			
8	Drop rate :	≤5%	All Ge	enerations		1.20						
			20	GSM)	2.75		1.09					1.7
				3G	0.63		1.18					
				4G					0.36			

			Quarterly P	erforma	nce Monito	oring Report	(PMR) on Quality	of Service	of Wirel	ess Data Serv	rices		
		Report for quarter	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Ge	enerations	95.00		99.54		99.77	99		99.99
		/Provisioning	95% success		3G								
	2	Successful data	>80%		enerations		96.33				100		
		transmission download			(GSM)	100.00		100.00					99.85
		attempts			3G	100.00		100.00					100.00
				C	DMA								
					4G					100.00			
	3	Successful data	>75%		enerations		94.66				100		
		transmission upload			(GSM)	100.00		100.00					99.91
		attempts			3G	100.00		100.00					99.83
				C	DMA					100.00			
	4	Minimum download	To be measured	CDMA	4G Plan 1					100.00	F2/D1 +1- :-)		
	4	speed (Kbps)	for each Plan and	CDMA	Plan 1 Plan 2						53(Photon whiz) 980(Photon plus)		
		speed (Rops)	Reported to TRAI		Plan 2						980(Photon plus)		
				2G	Plan 1	171.20	43.00	135(Open plan)			59(EDGE)		163.96(Postpaid PayG unlimited)
					Plan 2								
				3G	Plan 1	6142.16	645.00	2731(Open Plan)					3150.34(Postpaid PayG unlimited)
					Plan 2								
					Plan 3								
				4G	Plans					8274.18			
ત	5	Average Throughput for	>75% of the	CDMA	Plan 1						75(Photon whiz)		
Kolkata		Packet data (Kbps)	subscribed speed.		Plan 2						1304(Photon plus)		
**				2G	Plan 1	209.30	78.30	165(Open Plan)			151(EDGE)		204.16(Postpaid PayG unlimited)
				3G	Plan 1	6581.10	1776.00	3995(Open plan)					7242.31(Postpaid PayG unlimited)
					Plan 2								
					Plan 3								
				4G	Plans					30437.30			
	6	Latency	Data <250ms		enerations		111.66				104.94		
					(GSM)	125.00		125.00					136.33
					3G	62.00		63.00					54.00
					DMA								
					4G					47.27			
	7	PDP Context Activation Success Rate	≥95%		enerations	60.00	20.25	22.5			98.79		22
		Success Kate			(GSM)	99.93	99.89	99.99					99.77
					3G	99.87	99.94	99.22					96.81
					2DMA 4G					99.83			
					40					99.83			

			Performance Monito	ring Repo	rt (PMR) on Qualit	y of Service	of Wirele	ess Data Serv	ices		
	Report for quarter	r ending: March	2018				Compli	ance Status			
S1.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
No.											
8	Drop rate :	≤5%	All Generations						1.65		
			2G (GSM)	2.55		1.39					3.84
			GSM (OSS)								
			3G	0.12		1.53					0.66
			3G (OSS)								
			CDMA								
			4G					0.31			

			Quarterly P	erforma	nce Monite	oring Report	(PMR) on Quality	y of Service	of Wirel	ess Data Serv	rices		
		Report for quarte	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Ge	enerations	100.00		99.77		99.99	100		99.99
		/Provisioning	95% success	2G	(GSM)								
	2	Successful data	>80%	All Ge	enerations		95.90				100		
		transmission download		2G	(GSM)	100.00		100.00					100.00
		attempts			3G	100.00		100.00					100.00
				C	DMA								
					4G					100.00			
	3	Successful data	>75%		enerations		95.23				100		
		transmission upload		2G	(GSM)	100.00		100.00					100.00
		attempts			3G	100.00		100.00					100.00
				C	DMA								
_					4G					100.00			
		Minimum download	To be measured	CDMA	Plan 1						58(Photon whiz)		
		speed (Kbps)	for each Plan and Reported to TRAI		Plan 2						1515(Photon plus)		
					Plan 3						1538(Photon max)		
				2G	Plan 1	90.50	38.47	117(Open plan)			64(EDGE)		106.96(3GB VMC 199 plan)
				3G	Plan 1	1801.39	485.33	1514(Open plan)					1778.83
					Plan 2			pian			1226(Photon 3G)		
					Plan 3						2317(Photon		
				40	DI					F466.40	3G+)		
-	5	Average Throughput for	>75% of the	4G CDMA	Plans					5466.40			
Kerala		Packet data (Kbps)	subscribed speed.	CDMA	Plan 1 Plan 2						73(Photon whiz) 1655(Photon		
×			specu.		Plan 3						plus) 1828(Photon		
				2G	Plan 1	147.00	75.18	117(Open			max) 117(EDGE)		152.08(3GB VMC
								plan)					199 plan)
				3G	Plan 1	3832.13	1177.36	1833(Open plan)					3311.19
					Plan 2						3649(Photon 3G)		
					Plan 3						4954(Photon 3G+)		
				4G	Plans					21497.50			
	6	Latency	Data <250ms	All Ge	enerations		140.09				59.5		
					(GSM)	220.00		120.00					65.33
					3G	99.00		39.00					33.00

	Report for quarter	ending: March 2	2018				Compl	iance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
			CDMA								
			4G					49.78			
7	PDP Context Activation	≥95%	All Generations		97.08				98.7		
	Success Rate		2G (GSM)	100.00		99.73					99.
			3G	98.15		98.40					88.
			CDMA								
			4G					99.88			
8	Drop rate :	≤5%	All Generations		0.81				1.6		
			2G (GSM)	1.10		1.71					3.5
			3G	0.16		1.17					1.
			CDMA								
			4G					0.44			

			Quarterly P	erforma	nce Monito	oring Report	(PMR) on Quality	y of Service	of Wirel	ess Data Serv	ices		
		Report for quarter	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Ge	nerations	99.00	100.00	94.94		99.98	96		99.98
		/Provisioning	95% success	2G	(GSM)								
	2	Successful data	>80%		enerations						100		
		transmission download			(GSM)	100.00	99.63	100.00					100.00
		attempts			3G	100.00	99.69						100.00
					CDMA								
					4G					100.00			
	3	Successful data	>75%	All Ge	enerations						100		
		transmission upload			(GSM)	100.00	100.00	100.00					100.00
		attempts			3G	100.00	100.00						100.00
					CDMA								
					4G					100.00			
	4	Minimum download speed (Kbps)	To be measured for each Plan and	CDMA	Plan 1						45.13(Photon whiz)		
			Reported to TRAI		Plan 2						1055.73(Photon plus)		
					Plan 3						1280.12(Photon max)		
				2G	Plan 1	109.92	37.19	168(Open plan)			65(EDGE)		96.59(2 GB unlimited @MRP199)
				3G	Plan 1	1691.49	1506.83						7313.75
					Plan 2						1536(Photon 3G)		
					Plan 3						921(Photon3G+)		
				4G	Plans					3913.24			
ıtaka	5	Average Throughput for Packet data (Kbps)	>75% of the subscribed	CDMA	Plan 1						69.50(Photon whiz)		
Karnataka			speed.		Plan 2						1668.67(Photon plus)		
					Plan 3						2170.50(Photon max)		
				2G	Plan 1	178.04	105.01	167(Open plan)			124.25(EDGE)		109.34(2 GB unlimited @MRP199)
				3G	Plan 1	3645.86	3743.69						10306.79
					Plan 2						2588(Photon 3G)		
					Plan 3						2520(Photon 3G+)		
				4G	Plans					21971.45			
	6	Latency	Data <250ms	All Ge	enerations		119.83				70.2		
				2G	(GSM)	113.00		138.00					149.75

	Report for quarter	ending: March 2	2018				Compl	iance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
			3G	77.90							40.5
			CDMA								
			4G					59.86			
7	PDP Context Activation	≥95%	All Generations		42.37				98.6		
	Success Rate		2G (GSM)	99.58		99.52					99.6
			3G	99.83							87.6
			CDMA								
			4G					99.83			
8	Drop rate :	≤5%	All Generations		0.51				0.4		
			2G (GSM)	2.63		0.33					2.1
			3G	0.78							0.3
			CDMA								
			4G					0.52			

			Quarterly F	Performa	nce Monito	oring Repor	t (PMR) on Qualit	y of Service	of Wirel	ess Data Serv	ices		
		Report for quarte	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	A11 G	enerations	99.00	99.00	98.69		99.97	99	100	99.98
	-	/Provisioning	95% success		GSM)	33.00	33.00	50.05		33.31	33	100	33.30
	2	Successful data	>80%		enerations		93.00				100	100	
		transmission download		20	G (GSM)	100.00		100.00					100.00
		attempts			3G	100.00		100.00					100.00
					4G					100.00			
	3	Successful data	>75%		enerations		90.00				100	100	
		transmission upload		20	G (GSM)	100.00		100.00					100.00
		attempts			3G	100.00		100.00					100.00
				an	4G					100.00	50.10/01		
	4	Minimum download speed (Kbps)	To be measured for each Plan and	CDMA	Plan 1						69.43(Photon whiz)		
			Reported to TRAI		Plan 2						792.4(Photon plus)		
				2G	Plan 1	82.21	97.00	95(Open plan)			59.7(EDGE)	124.6	133.12(Rs. 599 unlimited 2G data plan)
				3G	Plan 1	1821.11	3000.00	3119(Open plan)					2532.06(Unlimited 2G & 3G data plan)
					Plan 2						5108.02(Photon 3G)		
					Plan 3						2391.68(Photon 3G+)		
				4G	Plans					4908.53		854.14667	
tra	5	Average Throughput for Packet data (Kbps)	>75% of the subscribed	CDMA	Plan 1						79.66(Photon whiz)		
Maharashtra			speed.		Plan 2						1390.31(Photon plus)		
ah					Plan 3						- ,		
M				2G	Plan 1	153.04	113.00	174(Open Plan)			121.4622(EDGE)	197.4	215.81(Rs. 599 unlimited 2G data plan)
					Plan 2			5026(Open Plan)					
					Plan 3								
				3G	Plan 1	2877.68	2850.00						6951.20(Unlimited 2G & 3G data plan)
					Plan 2						7728.59(Photon 3G)		
					Plan 3						4466.29(Photon 3G+)		

		Quarterly P	erformance Monito	ring Repo	rt (PMR) on Quality	y of Service	of Wirel	ess Data Serv	ices		
	Report for quarter	ending: March	2018				Compl	iance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
			4G Plans					23765.51		1262.1	
6	Latency	Data <250ms	All Generations		123.00				66.7	224.4	
			2G (GSM)	230.00		150.00					120.90
			3G	54.40		96.00					37.10
			4G					70.15			
7	PDP Context Activation	≥95%	All Generations		96.45				99.4	99.4	
	Success Rate		2G (GSM)	100.00		99.82					99.85
			3G	100.00		99.99					99.40
			4G					99.77			
8	Drop rate :	≤5%	All Generations		2.43				1.5	0.68	
			2G (GSM)	0.00		1.95					0.71
			3G	0.00		1.07					0.27
			4G					0.47			

		Report for quarte	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Genera	tions	99.00		96.97		99.97	100		100.00
	1	/Provisioning	95% success	2G	.110118	99.00	98.20	90.91		99.91	100		100.00
		,	rate.	3G			98.20						
•	2	Successful data	>80%	All Genera	tions						100		
		transmission download		2G (GSM)		99.24	100.00	100.00					100.00
		attempts		3G		98.88	100.00	100.00					
				4G						100.00			
	3	Successful data	>75%	All Genera							100		
		transmission upload		2G (GSM)		99.11	100.00	100.00					100.00
		attempts		3G		98.75	100.00	100.00					
				4G						100.00			
	4	Minimum download	To be measured		Plan 1						48(Photon whiz)		
		speed (Kbps)	for each Plan and Reported to TRAI		Plan 2						482(Photon plus)		
				2G	Plan 1	102.55		68(Open plan)			71(EDGE)		82.82(MBB_C_V_1 99_30d_D2GB_FU _2G
				3G	Plan 1	2210.70	1498(3G Postpaid data plans-FMC-50)	1189(Open Plan)					
					Plan 2		1257(3G Postpaid data plans-FMC-225)	,			1275(Photon 3G)		
					Plan 3		1479(3G Postpaid data plans-FMC-501)				2955(Photon 3G+)		
radesh							1863(3G Postpaid data plans-FMC-666)						
Madhya Pradesh							2063(3G Postpaid data plans-FMC-901)						
F							1369(3G Prepaid data Recharge Vouchers-56)						
							1150(3G Prepaid data Recharge Vouchers-78)						
							1520(3G Prepaid data Recharge Vouchers-333)						
							1620(3G Prepaid data Recharge Vouchers-155)						

		Quarterly P	erforma	nce Monito	ring Repo	rt (PMR) on Quality	y of Service	e of Wirel	ess Data Servi	ices		
	Report for quarter	r ending: March	2018					Compl	iance Status			
S1. No.	Parameters	Benchmarks	Gene	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
						2010(3G Prepaid data Recharge Vouchers-197)						
						1358(3G Prepaid data Recharge Vouchers-369)						
						1267(3G Prepaid data Recharge Vouchers-444)						
						1335(3G Prepaid data Recharge Vouchers-561)						
			4G	Plans					4076.34			

			Quarterly I	Performa	nce Monito	oring Repo	rt (PMR) on Quality	y of Service	of Wirel	ess Data Serv	rices		
		Report for quarter	ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	5	Average Throughput for	>75% of the	CDMA	Plan 1						79(Photon whiz)		
		Packet data (Kbps)	subscribed speed.		Plan 2						1179(Photon plus)		
				2G	Plan 1	180.52		134(Open plan)			105(EDGE)		186.95(MBB_C_V_ 199_30d_D2GB_F U_2G)
				3G	Plan 1	3043.87	2369(3G Postpaid data plans-FMC-75)	3234(Open plan)					
					Plan 2		2546(3G Postpaid data plans-FMC-225)				2521(Photon 3G)		
					Plan 3		1948(3G Postpaid data plans-FMC-501)				5784(Photon 3G+)		
							2469(3G Postpaid data plans-FMC-666)						
							2200(3G Postpaid data plans-FMC-901)						
							2036(3G Prepaid data Recharge Vouchers-56)						
ч							2146(3G Prepaid data Recharge Vouchers-78)						
Madhya Pradesh							2032(3G Prepaid data Recharge Vouchers-333)						
Madhy							1958(3G Prepaid data Recharge Vouchers-155)						
							2185(3G Prepaid data Recharge Vouchers-197)						
							1958(3G Prepaid data Recharge Vouchers-369)						
							2046(3G Prepaid data Recharge Vouchers-444)						

		Quarterly l	Performa	nce Monito	ring Repor	t (PMR) on Quality	y of Service	of Wirel	ess Data Serv	ices		
	Report for quarter	ending: March	2018					Compl	iance Status			
S1. No.	Parameters	Benchmarks	Gene	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
						2246(3G Prepaid data Recharge Vouchers-561)						
			4G	Plans					21680.08			
6	Latency	Data <250ms	All Genera	tions						82		
			2G (GSM)		112.00	224.60	113.00					137.22
			3G		30.00	111.90	93.00					
			4G						66.70			
7	PDP Context Activation	≥95%	All Genera	tions						99.2		
	Success Rate		2G (GSM)		99.99	96.70	99.94					99.72
			3G		99.93	98.90	97.91					
			4G						99.79			
8	Drop rate :	≤5%	All Genera	tions						2		
			2G (GSM)		3.90		0.54					2.42
			3G		0.03	1.10	1.02					
			4G						0.37			

			Quarterly P	Performa	nce Monito	oring Report	(PMR) on Qua	ality of Service	of Wirele	ess Data Servi	ces		
		Report for quarte	r ending: March	2018					Compli	iance Status			
	S1. No.	Parameters	Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation /Provisioning	Within 4 hrs with 95% success	All Ge	enerations 3G	98.00		98.72	99.00	99.99			99.99
	0	Successful data	>80%	A11 C	enerations								
	2	transmission download	>80%		GSM)	100.00		100.00	99.89				100.00
		attempts		20	3G	100.00		100.00	100.00				100.00
		P			4G	100.00			100.00	100.00			100.00
	3	Successful data	>75%	Δ11 G	enerations					100.00			
	3	transmission upload	71370		GSM)	100.00		100.00	99.97				100.00
		attempts		20	3G	100.00		100.00	99.50				100.00
					4G	100.00			33.00	100.00			100.00
	4	Minimum download	To be measured	CDMA	Plan 1								
		speed (Kbps)	for each Plan and		Plan 2								
			Reported to TRAI	2G	Plan 1	170.60		76(Open plan)	55.06				121.37(VMC699U L)
				3G	Plan 1	3160.70			625.27				3573.74(MI 8GB)
•==				4G	Plans					5626.06			
Mumbai	5	Average Throughput for	>75% of the	CDMA	Plan 1								
un.		Packet data (Kbps)	subscribed		Plan 2								
M			speed.	2G	Plan 1	188.90		172(Open plan)	78.77				163.95(VMC699U L)
				3G	Plan 1	3559.40			965.88				7395.76(MI 8GB)
				4G	Plans					27194.13			
	6	Latency	Data <250ms	All Ge	enerations								
				20	GSM)	94.00		85.00					97.13
					3G	25.00			185.83				15.30
					4G					49.50			
	7	PDP Context Activation	≥95%		enerations				99.91				
		Success Rate		20	GSM)	99.99		98.93					99.61
					3G	99.96							99.73
		_			4G					99.85			
	8	Drop rate :	≤5%		enerations				1.83				
				20	GSM)	4.21		0.27					4.16
					3G	0.09				0.22			0.76
					4G					0.33			

	Report for quarte	r ending: March	2018					Compl	iance Status			
S1. No.	Parameters	Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
1	Service Activation	Within 4 hrs with	All G	enerations	97.00		99.79		99.38			99.
	/Provisioning	95% success		2G		100.00						
		rate.		3G		100.00						
2	Successful data	>80%		enerations								
	transmission download		20	G (GSM)	100.00	100.00	100.00					100
	attempts			3G	100.00	100.00						100
				4G					100.00			
3	Successful data	>75%		enerations								
	transmission upload		20	G (GSM)	100.00	100.00	100.00					100
	attempts			3G	100.00	100.00						100
				4G					100.00			
4	Minimum download	To be measured	CDMA	Plan 1								
	speed (Kbps)	for each Plan and Reported to TRAI	2G	Plan 1	105.68	78.88	77(Open plan)					128.53(P @6
			3G	Plan 1	2889.74	1972.27						2876
				Plan 2								
				Plan 3								
			4G	Plans					5809.56			
5	Average Throughput for	>75% of the	CDMA	Plan 1								
	Packet data (Kbps)	subscribed speed.	2G	Plan 1	178.20	84.39	132(Open plan)					141.61(F @6
			3G	Plan 1	3647.60	1972.27						3304
				Plan 2								
				Plan 3								
			4G	Plans					27058.50			
6	Latency	Data <250ms		enerations								
			20	G (GSM)	232.00	242.00	105.00					179
				3G	36.90	220.00						63
				4G					61.35			
7	PDP Context Activation	≥95%		enerations								
	Success Rate		20	G (GSM)	99.99	153.42	99.57					99
				3G	99.90	141.91						97
				4G					99.83			
8	Drop rate :	≤5%		enerations								
			20	G (GSM)	2.86		0.18					•
				3G	1.55	0.48						1
		1		4G					0.46			

	Report for quarte	r ending: March 2	2018				Compl	iance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
1	Service Activation /Provisioning	Within 4 hrs with 95% success	All Generations 3G		100.00						
2	Successful data transmission download attempts	>80%	All Generations 2G (GSM) 3G		98.00						
3	Successful data transmission upload attempts	>75%	4G All Generations 2G (GSM) 3G 4G		98.00						
4	Minimum download speed (Kbps)	To be measured for each Plan and Reported to TRAI	CDMA Plan 1 2G Plan 1 3G Plan 1 Plan 2 Plan 3 4G Plans		379 Kbps						
5	Average Throughput for Packet data (Kbps)	>75% of the subscribed speed.	CDMA Plan 1 2G Plan 1 3G Plan 1 Plan 2 Plan 3 4G Plans		976 Kbps						
6	Latency	Data <250ms	All Generations 2G (GSM) 3G 4G		114 ms						
7	PDP Context Activation Success Rate	≥95%	All Generations 2G (GSM) 3G 4G		98.15						
8	Drop rate :	≤5%	All Generations 2G (GSM) 3G 4G		0.64						

		Report for quarte								iance Status			
	S1. No.	Parameters	Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Ge	enerations	97.00		97.07		99.97	99		99.53
	-	/Provisioning	95% success	- 111 00	2G	31100	100.00	31.01		33.3.	33		7,700
			rate.		3G		100.00						
	2	Successful data	>80%	All Ge	enerations						100		
		transmission download		2G	GSM)	100.00	100.00	100.00					100.00
		attempts			3G	100.00	100.00						100.00
					4G					100.00			
	3	Successful data	>75%	All Ge	enerations						100		
		transmission upload		2G	GSM)	100.00	100.00	100.00					100.00
		attempts			3G	100.00	100.00						100.00
					4G					100.00			
	4	Minimum download	To be measured	CDMA	Plan 1						69(Photon whiz)		
		speed (Kbps)	for each Plan and		Plan 2						1707(Photon		
			Reported to TRAI								plus)		
				2G	Plan 1	94.39	88.00	64(Open plan)			125(EDGE)		184.42(Plan- 99_1GB)
				3G	Plan 1	1877.02	1387.00						3651.24
					Plan 2								
					Plan 3								
				4G	Plans					5784.65			
ssa	5	Average Throughput for	>75% of the	CDMA	Plan 1						72(Photon whiz)		
Orissa		Packet data (Kbps)	subscribed speed.		Plan 2						1812(Photon plus)		
				2G	Plan 1	166.05	160.00				134(EDGE)		199.33(Plan- 99_1GB
				3G	Plan 1	3400.12	5360.00	154(Open plan)					3978.51
					Plan 2			- /					
					Plan 3								
				4G	Plans					31332.33			
	6	Latency	Data <250ms	All Ge	enerations						114.38		
				2G	GSM)	164.00	302.20	74.00					110.67
					3G	58.10	85.90						55.67
					4G					52.20			
	7	PDP Context Activation	≥95%	All Ge	enerations						98.79		
		Success Rate		2G	GSM)	99.55	98.60	99.68					99.64
					3G	99.81	98.70						98.50
					4G					99.76			
	8	Drop rate :	≤5%		enerations						0.95		
				2G	GSM)	3.76		1.70					2.35
					3G	0.17	1.30						0.66
			<u> </u>		4G					0.39			

			Quarterly P	erforma	nce Monito	oring Report	(PMR) on Quality	y of Service	of Wirel	ess Data Serv	ices		
		Report for quarte	r ending: March	2018					Compl	liance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with 95% success		enerations	99.00	100.00	98.59		100.00	100		99.69
_	_	/Provisioning			G (GSM)		2 - 22				100		
	2	Successful data transmission download	>80%		enerations G (GSM)	100.00	97.00	100.00			100		100.00
		attempts		20	3G	100.00		100.00					100.00
		•			4G	100.00		100.00		100.00			
H	3	Successful data	>75%	A11 G	enerations		96.11			100.00	100		
	0	transmission upload	7 7 0 7 0		G (GSM)	100.00	50.11	100.00			100		100.0
		attempts			3G	100.00		100.00					10010
					4G	100,00		100.00		100.00			
		Minimum download speed (Kbps)	To be measured for each Plan and	CDMA	Plan 1						24.34(Photon whiz)		
			Reported to TRAI		Plan 2						1016.71(Photon plus)		
					Plan 3						2384(Photon max)		
				2G	Plan 1	98.13		114(Open plan)			68.61(EDGE)		159.95(unlimited @ 199
				3G	Plan 1	1126.40	1136.13	2945(Open plan)			1185.13(Photon 3G)		
					Plan 2						1313.75(Photon 3G)		
					Plan 3						7388.67(Photon3 G+)		
				4G	Plans					4641.98			
Punjab		Average Throughput for Packet data (Kbps)	>75% of the subscribed	CDMA	Plan 1						63.45(Photon whiz)		
-			speed.		Plan 2						1766.45(Photon plus)		
					Plan 3						3062.42(Photon max)		
				2G	Plan 1	185.77		140(Open plan)			107.25(EDGE)		189.40(unlimited @ 199
				3G	Plan 1	1843.20	1545.12	4143(Open plan)			2162.83(Photon 3G)		
					Plan 2						2233.41(Photon 3G)		
					Plan 3						8513.08(Photon 3G+)		
	_	T .	D	4G	Plans					25873.78			
	6	Latency	Data <250ms		enerations	000.00		007.00			67.7		00.00
				20	G (GSM) 3G	208.00	146.49	227.00 56.00					90.89

	Report for quarter	ending: March 2	2018				Compl	iance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
			4G					46.29			
7	PDP Context Activation	≥95%	All Generations		97.46				99.2		
	Success Rate		2G (GSM)	99.94		100.00					99
			3G	100.00		100.00					
			4G					99.87			
8	Drop rate :	≤5%	All Generations		1.14				1.9		
			2G (GSM)	0.30		2.21					
			3G	0.19		0.32					
			4G					0.21			

		Report for quarte								iance Status			
	S1. No.	Parameters	Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	ТАТА	Telenor	Vodafone
	1	Service Activation /Provisioning	Within 4 hrs with 95% success rate.		enerations	99.00	95.00	99.79		99.99	100		100.00
					3G								
	2	Successful data	>80%	All Ge	enerations		99.00						
		transmission download			(GSM)	100.00		100.00					100.00
		attempts			3G	100.00		100.00					100.00
					DMA								
					4G					100.00			
	3	Successful data	>75%		enerations		98.00						
		transmission upload		2G	(GSM)	100.00		100.00					100.00
		attempts			3G	100.00		100.00					100.00
					CDMA								
					4G					100.00			
	4	Minimum download	To be measured	CDMA	Plan 1						79(Photon whiz)		
		speed (Kbps)	for each Plan and Reported to TRAI		Plan 2						823(Photon plus)		
				2G	Plan 1	142.46		148(Open plan)					122.09(unlimited GB(VL+VMC)@599)
				3G	Plan 1	2520.87	236.16(Postpaid data plan 50)	3136(Open plan)					4250.75
							221.44(Postpaid data plan 75)						
Rajasthan							245.10(Postpaid data plan 170)						
Raja							236.32(Postpaid data plan 225)						
							243.42(Postpaid data plan 501)						
							227.68(Postpaid data plan 666)						
							234.66(Postpaid data plan 901)						
							239.06(Postpaid data plan 1711)						
							232.46(Postpaid data plan 240)						
							248.75(Prepaid data STV 4)						
							245.77(Prepaid data STV 14)						

		Quarterly I	Performan	ice Monito	ring Repo	rt (PMR) on Quality	y of Service	of Wirel	ess Data Servi	ces		
	Report for quarter	r ending: March	2018					Compl	iance Status			
S1. No.	Parameters	Benchmarks	Gene	rations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
						244.27(Prepaid data STV 31)						
						265.02(Prepaid data STV 39)						
						245.36(Prepaid data STV 56)						
						265.34(Prepaid data STV 78)						
						244.45(Prepaid data STV 98)						

			Quarterly I	Performa	nce Monito	ring Repo	rt (PMR) on Quality	y of Service	of Wirel	ess Data Serv	ices		
		Report for quarte	r ending: March	2018					Compl	iance Status			
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
							236.07(Prepaid data STV 155) 256.94(Prepaid data						
							STV 198)						
							254.77(Prepaid data STV 444)						
							238.61(Prepaid data 561)						
							254.52(Prepaid data 821)						
							241.82(Prepaid data 1949)						
							244.51(Prepaid data 3099)						
							243.21(Prepaid data 549)						
				4G	Plans		,			4937.90			
	5	Average Throughput for	>75% of the	CDMA	Plan 1					1507.50	81(Photon whiz)		
료		Packet data (Kbps)	subscribed	CDMI	Plan 2						1337(Photon		
Rajasthan		racket data (HSps)	speed.			170.01		100/0			plus)		
Raja				2G	Plan 1	158.24		189(Open plan)					182.93(unlimited GB(VL+VMC)@599)
				3G	Plan 1	2920.16	243.55	5144(Open plan)					8156.72
				4G	Plans					30892.07			
	6	Latency	Data <250ms		nerations		94 ms				100.1		
					(GSM)	162.00		110.00					116.00
					3G	70.80		55.00					107.75
					CDMA 4G					66.49			
	7	PDP Context Activation	≥95%		nerations		100.00			00.49	98.2		
	l '	Success Rate	29370		(GSM)	99.97		98.78			90.2		99.49
					3G	100.00		98.96					97.25
					CDMA								
					4G					99.87			
	8	Drop rate :	≤5%		nerations		0.15				1.54		
					(GSM)	2.06		0.12					4.26
					3G	0.42		0.21					0.66
					DMA					0.04			
				1	4G					0.34			

		Daniel Company	a andtan second d	0016						! C/ /			
	~1	Report for quarte					D0111			iance Status			
	S1. No.	Parameters	Benchmarks	Gen	erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
	1	Service Activation	Within 4 hrs with	All Ge	nerations	99.00	100.00	98.22		99.94	100		100.00
		/Provisioning	95% success		(GSM)								
	2	Successful data	>80%		nerations						100		
		transmission download			(GSM)	100.00	96.59	100.00					100.00
		attempts			3G	100.00	97.12						100.00
				C	CDMA								
					4G					100.00			
	3	Successful data	>75%	All Ge	nerations						100		
		transmission upload		2G	(GSM)	100.00	95.50	100.00					100.00
		attempts			3G	100.00	95.76						100.00
				C	DMA								
					4G					100.00			
	4	Minimum download	To be measured	CDMA	Plan 1						53(Photon whiz)		
		speed (Kbps)	for each Plan and Reported to TRAI		Plan 2						782(Photon plus)		
				2G	Plan 1	181.00	49.45	86(Open plan)			73(EDGE)		116.83(199 unlimited 2GB)
				3G	Plan 1	5268.00	848.38						3085.48(650 unlimited 3GB
_				4G	Plans					3861.60			
夏	5	Average Throughput for	>75% of the	CDMA	Plan 1						87(Photon whiz)		
Tamilnadu		Packet data (Kbps)	subscribed speed.		Plan 2						1234(Photon plus)		
Ta				2G	Plan 1	192.68	94.71	147(Open plan)			114(EDGE)		170.17(199 unlimited 2GB
				3G	Plan 1	7568.67	1785.27						7233.28(650 unlimited 3GB
				4G	Plans					21703.03			
	6	Latency	Data <250ms		nerations						102.22		
		•			(GSM)	191.00	453.84	110.00					113.00
					3G	48.90	121.84						33.67
				C	DMA								
					4G					60.70			
	7	PDP Context Activation	≥95%	All Ge	nerations						96.58		
		Success Rate		2G	(GSM)	100.00	99.04	99.79					99.62
					3G	100.00	99.24						98.94
				C	DMA								
					4G					99.86			
	8	Drop rate :	≤5%		nerations						1.15		
				2G	(GSM)	0.29	0.07	1.50					3.35
					3G	0.29	0.14						0.74
				C	DMA								
					4G					0.34			

Quarterly Performance Monitoring Report (PMR) on Quality of Service of Wireless Data Services

			Quarterly P	erforma	nce Monito	oring Report	(PMR) on Quality	y of Service	of Wirel	ess Data Serv	rices				
		Report for quarte	r ending: March	2018					Compl	iance Status					
	S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone		
	1	Service Activation	Within 4 hrs with	All Ge	nerations	100.00	98.10	96.63		100.00	99	100	100.00		
		/Provisioning	95% success	20	(GSM)										
	2	transmission download	>80%	All Generations			85.00				100	100			
				20	(GSM)	100.00		100.00					99.64		
		attempts			3G	100.00		100.00					99.71		
			FF0/		4G		00 =0			100.00	100	400			
	3	Successful data transmission upload attempts	>75%		enerations	100.00	82.70	100.00			100	100	00.0		
				20	(GSM) 3G	100.00		100.00 100.00					99.8 ² 99.73		
					4G	100.00		100.00		100.00			99.73		
		speed (Kbps)	To be measured for each Plan and	CDMA	Plan 1					100.00	66.22(Photon whiz)				
			Reported to TRAI		Plan 2						1155.59(Photo plus)				
					Plan 3						2050.335(Photon max)				
				2G	Plan 1	118.72	91.00	114(Open plan)			117.80(EDGE)	71.4	136.76(Rs. 1599 12GB free		
(East)				3G	Plan 1	1543.63	1845.00	2869(Open plan)					5536.71(Rs. 1599 12GB free		
sh				4G	Plans					6935.07		1927.5728			
Prade			>75% of the subscribed speed.	CDMA	Plan 1						72.60(Photon whiz)				
Uttar Pradesh (East)					Plan 2						1363.06(Photon plus)				
				I			Plan 3						2383.49(Photon max)		
				2G	Plan 1	244.66	143.00	122(Open plan)			132.12(EDGE)	90.6	12GB free		
				3G	Plan 1	3013.24	2037.00	3363(Open plan)					10207.40(Rs 1599 12GB free		
				4G	Plans					30857.91		2084.741			
	6	Latency	Data <250ms		enerations	210.00	240.00	101.00			83.22	127.7	170.15		
				20	3G	210.00 130.00		181.00 94.00					179.17 49.42		
					4G	130.00		94.00		56.66			49.42		
	7	PDP Context Activation	≥95%	All Ge	enerations		99.38			55.00	98.78	99.3			
		Success Rate			(GSM)	99.90		99.82					99.77		
					3G 4G	100.00		99.19		99.84			99.23		
	8	Drop rate :	≤5%	Δ11 C4	enerations		3.77			99.84	0.43	0.8			
	J	Diop rate.	20/0		(GSM)	2.51	3.11	1.01			0.43	0.0	6.36		
					3G	0.83		1.39					0.44		

Quarterly Performance Monitoring Report (PMR) on Quality of Service of Wireless Data Services											
Report for quarter ending: March 2018 Compliance Status											
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone
			4G					0.38			

Transmission download attempts 2G (GSM) 100.00 10				Quarterly P	CITOTINA	nce Monito	oring Report	(PMR) on Qualit	y of Service	oi wirel	ess Data Serv	ices			
Si. Parameters Benchmarks Generations Airtel BSNL Idea MTNL Reliance JIO TATA			Report for quarte	r ending: March	2018					Comp	iance Status				
Provisioning 95% success 2G (GSM)						erations	Airtel	BSNL	Idea			TATA	Telenor	Vodafone	
Successful data transmission download attempts	t	1	Service Activation		All Ge	nerations	100.00	97.70	97.93		100.00	98	100	99.99	
Tansmission download attempts 2G (GSM) 100.00 100			/Provisioning	95% success	2G	(GSM)									
Successful data transmission upload attempts	İ	2	Successful data	>80%	All Ge	nerations		94.60				100	100		
Solution CDMA CDM					2G	(GSM)	100.00		100.00					100.00	
Successful data transmission upload attempts			attempts				100.00		100.00					99.41	
Successful data transmission upload attempts				C	DMA										
Transmission upload attempts 2G (GSM) 100.00 100.						4G					100.00				
A Minimum download speed (Kbps) To be measured for each Plan and Reported to TRAI	ľ	3	Successful data	>75%	All Ge	nerations		91.70				100	100		
A Minimum download speed (Kbps) To be measured for each Plan and Reported to TRAI Plan 1 Plan 2 Plan 3 Plan 3 Plan 1 Plan 2 Plan 3 Plan 3 Plan 1 Plan 2 Plan 3 Plan 3 Plan 3 Plan 4 Plan 5 Plan 5 Plan 5 Plan 6 Plan 6 Plan 7 Plan 8 Plan 8 Plan 8 Plan 8 Plan 9 Pla					2G	(GSM)	100.00		100.00					99.98	
CDMA			attempts						100.00					99.71	
A Minimum download speed (Kbps)															
4 Minimum download speed (Kbps) To be measured for each Plan and Reported to TRAI Plan 2											100.00				
Speed (Kbps) For each Plan and Reported to TRA Plan 2 Plan 3 2G Plan 1 93.45 97.70 95(Open plan) 107(ED)	ŀ	4	Minimum download	To be measured	CDMA							75(Photon whiz)			
Reported to TRAI			speed (Kbps) for each Pl									1117(Photon			
2G Plan 1 93.45 97.70 95(Open plan) 107(EDC)												plus)			
Second 1913						Plan 3									
Figure F					2G	Plan 1	93.45	97.70	95(Open plan)			107(EDGE)	125.1	50.78(250 with 1GB	
Plan 3 Second Point Plan 3 Second Point Plan 3 Second Point Plan 3 Second Point Plan 4 Plan 5 Second Point Plan 5 Plan 6 Plan 7 Packet data (Kbps) Plan 1 Plan 2 Plan 1 Plan 2 Plan 1 Plan 3 Plan 1 Plan 1 Plan 1 Plan 2 Plan 1 Plan 3 Plan 1 Plan 3 Plan 1 Plan 1 Plan 1 Plan 1 Plan 1 Plan 2 Plan 1 Plan 3 Plan 1 Plan 1 Plan 1 Plan 2 Plan 1 Plan 3 Plan 1 Plan 1 Plan 1 Plan 2 Plan 1 Plan 3 Plan 1 Plan 2 Plan 1 Plan 1 Plan 1 Plan 1 Plan 1 Plan 1 Plan 2 Plan 1 Plan					3G	Plan 1	1345.34	1913.70						846.59	
3G Plan 1 2422.58 2959.70 5106(Open plan)						Plan 2						2615(Photon 3G)			
3G Plan 1 2422.58 2959.70 5106(Open plan)						Plan 3									
3G Plan 1 2422.58 2959.70 5106(Open plan)					4G	Plans					5971.22		1464.1933		
3G Plan 1 2422.58 2959.70 5106(Open plan)	ŀ	5		subscribed								81(Photon whiz)			
3G Plan 1 2422.58 2959.70 5106(Open plan)					subscribed								1415(Photon plus)		
3G Plan 1 2422.58 2959.70 5106(Open plan)						Plan 3						1 /			
3G Plan 1 2422.58 2959.70 5106(Open plan)					2G		197.16	129.00	, -			134(EDGE)	157.8	200.54(with 1GB data)	
					3G	Plan 1	2422.58	2959.70	5106(Open					4911.29	
						Plan 2						3344(Photon 3G)			
Plan 3	ĺ					Plan 3									
4G Plans 32897.16	6				4G						32897.16		2143.7314		
		6	Latency	Data <250ms				223.30			3237.10	80	123.7		
2G (GSM) 182.00 114.00							182.00	220.00				00	120.7	191.40	
3G 57.00 54.00														95.28	
CDMA S1.00	١						37.00		01.30					50.20	
4G 59.93											59.93				
	ŀ	7	PDP Context Activation	≥95%				97.50			22.50	99.2	99.6		
Success Rate 2G (GSM) 99.91 99.87							99.91	2.100						99.50	

		Quarterly F	Performance Monitor	ring Repo	rt (PMR) on Qualit	y of Service	of Wirele	ess Data Serv	ices				
	Report for quarter	ending: March	2018	Compliance Status									
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone		
			3G	99.95		98.77					97.66		
			CDMA										
			4G					99.83					
8	Drop rate :	≤5%	All Generations		2.40				1.5	0.66			
			2G (GSM)	0.76		1.76					4.18		
			3G	0.54		1.40					0.67		
			CDMA										
			4G					0.36					

	Report for quarte	r ending: March	2018					Comp	liance Status				
S1. No.	Parameters	Benchmarks		erations	Airtel	BSNL	Idea	MTNL	Reliance JIO	TATA	Telenor	Vodafone	
1	Service Activation	Within 4 hrs with	All Ge	enerations	96.00	98.90	98.80		99.96	100		100.	
	/Provisioning	95% success		3G									
2	Successful data	>80%		enerations		99.06				100			
	transmission download		2G	GSM)	100.00		100.00					99	
	attempts			3G	100.00							99	
				CDMA									
				4G					100.00				
3	Successful data	>75%		enerations		99.03				100			
	transmission upload		2G	GSM)	100.00		100.00					99	
	attempts			3G	100.00							99	
			CDMA										
				4G					100.00				
4	Minimum download	To be measured	CDMA	Plan 1						40(Photon whiz)			
	speed (Kbps)	for each Plan and		Plan 2									
		Reported to TRAI	2G	Plan 1	98.01	175.60	135(Open plan)			78(EDGE)		97.33(2GB p	
			3G	Plan 1	1652.31	10478.00						2642(5GB p	
				Plan 2									
			4G	Plans					6788.10				
	Average Throughput for	>75% of the	CDMA	Plan 1						67(Photon whiz)			
	Packet data (Kbps)	subscribed		Plan 2									
		speed.	2G	Plan 1	135.45	207.60	169(Open plan)			168(EDGE)		138.33(2GB p	
				3G	Plan 1	2882.42	14752.90						5590(5GB p
				Plan 2									
			_		Plan 3								
				4G	Plans					28749.13			
6	Latency	Data <250ms	All Ge	enerations		120.00				137.58			
			2G (GSM)		230.00		199.00					134	
				3G	45.50							40	
				CDMA									
				4G					63.40				
7	PDP Context Activation	≥95%		enerations		95.58				98.79			
	Success Rate		2G	GSM)	99.92		99.91					99	
				3G	99.92							91	
				CDMA									
				4G					99.76				
8	Drop rate :	≤5%		enerations						2.46			
			2G	GSM)	3.13		1.30					•	
				3G	0.51								
				G(OSS)									
			C	CDMA									
				4G					0.45				

	Report for quarte		erformance Monitor	ing Kepor	t (rmk) on Quant	y of Service	iance Status			
S1. No.	Parameters	Benchmarks	Generations	Airtel	BSNL	Idea	 Reliance JIO	TATA	Telenor	Vodafone
	Note 1: The text in the Note 2: In case of all o									