5.4 Estimation of Trunk Circuits

After estimation of the future traffic, by using the Erlang's loss formula (2.4), the number of trunk circuits between two Zone Centres has been estimated under the following conditions:

Interexchange Traffic	Conditions
- Less than 200 erlangs	Erlang's B Loss Formula at G.O.S. = 0.01
- 200 erlangs or more	80% occupancy limit per line
N.B. G.O.S. = Grade of Sei	rvice

The detailed results of traffic forecast every 5 years (1990 - 2015 A.D.) are summarized in Tables III-12 thru III-14 for Kota Kinabalu (Sabah) and Tables III-15 thru III-17 for Kuching (Sarawak), respectively.

As a result of our study, we have roughly estimated the number of the trunk circuits between Zone Centres, depending on the GDP growth rates per annum as follows:

 Between Peninsular Malaysia and Kota Kinabalu Zone Centre Area

GDP p.a.	<u>'90</u>	'95	100	<u>'05</u>	<u>'10</u>	<u>'15</u>
28	505	549	602	724	804	901
48	564	752	950	1,186	1,500	1,914
68	633	964	1,362	1,945	2,794	4,057

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(2) Between Peninsular Malaysia and Kuching Zone Centre Area

GDP p.a.	<u>'90</u>	<u>י95</u>	<u>'00</u>	<u>'05</u>	<u>'10</u>	15
28	1,010	1,106	1,231	1,368	1,523	1,719
48	1,138	1,422	1,800	2,279	2,904	3,727
68	1,298	1,845	2,635	3,787	5,482	8,007
aa se finn s	a ta an		q = -2		· .	

(3) Between Peninsular Malaysia and Sabah/Sarawak

GDP p.a.	<u>'90</u>	<u>195</u>	<u>'00</u>	<u>'05</u>	<u>'10</u>	<u>'15</u>
28						
48	1,702	2,174	2,750	3,465	4,404	5,641
68	1,931	2,809	3,997	5,732	8;276	12,064

The above three results, (1) - (3) are illustrated in Figure III-12 indicating exponential trends between time and the number of the trunk circuits.

The following equations have been obtained according to the above data (3):

- For 2%, $Y = 1,194.76 \cdot Exp^{(0.0222472 \cdot x)}$, r = 0.9986 (5.1) - For 4%, $Y = 1,058.54 \cdot Exp^{(0.0476585 \cdot x)}$, r = 0.9999 (5.2) - For 6%, $Y = 932.43 \cdot Exp^{(0.0729322 \cdot x)}$, r = 0.9999 (5.3)

where,

Y = Number of trunk circuits

x = Time

r = Multiple correlation coefficient

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By using these equations, the total number of trunk circuits as of 1985 is estimated below.

For 2%, 1,336 circuits (1500 was actually provided)
For 4%, 1,344 circuits (1500 was actually provided)
For 6%, 1,343 circuits (1500 was actually provided)

These estimated equations (5.1, 5.2 or 5.3) show an approximate relationship between time and the number of the trunk circuits between Peninsular Malaysia and Sabah/Sarawak and are applicable to estimate the number of the trunk circuits at a certain point of time.

In our study, however, as stated in paragraph 3.3 earlier, the values estimated at 4% GDP growth rate (by formula 5.2) are considered to be reasonable to design the new submarine cable system from technical and economical points of view.

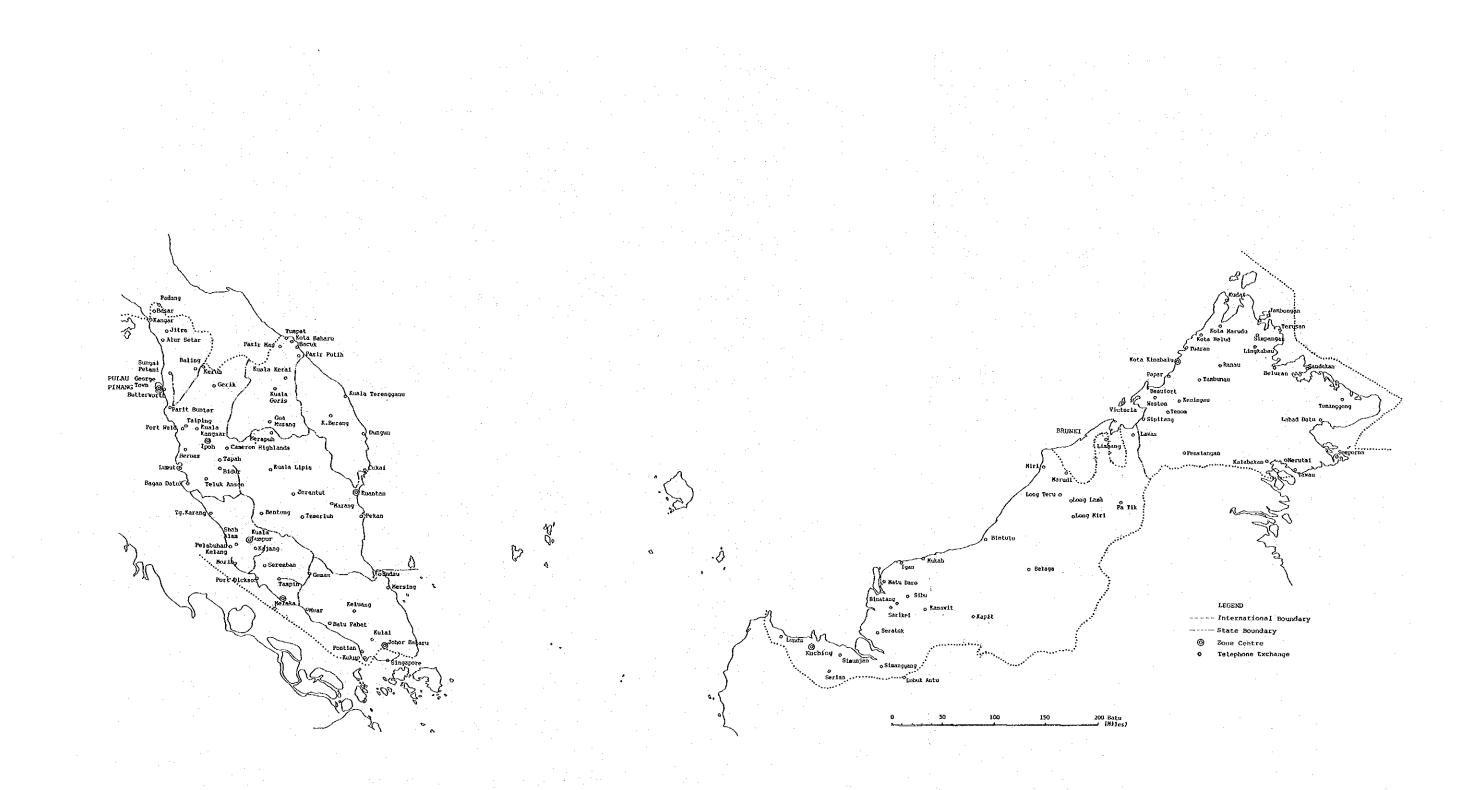


Figure III-9 Location of Major Telephone Exchanges in Malaysia

Carried Traffic

Carried Traffic

20	۰.		:					C X	2				
I/C	Erl Ccts							14.50 141	10.70				
0/0	Ccts Er]			•				134 28.29	17.50	·			
· · ·							۲. ۲. ۲.	Area				, ,	
	ഹി	_											
	li S S	: 12		14		36		135		7		23	
0/C	Erl Ccts	11	5.61	4.07 14	3.40	4.02 36	5.05	58,09 135	49.10	2.31 7	1.60	5.60 23	5.07
0/0		5.05			3.40	2	5.05		49.10	2.31 7	1.60		5.07
0/0		5.05				2	2.54 5.05		59.10 49.10	0.78 2.31 7			4.58 5.07
0/0		5.05	1.87 5.61	4.07		4.02		58,09	-			5.60	

Outgoing Incoming Upper figures: T Lower figures: 7 0/G: 7 1/C: 1

Traffic readings at KK Zone Centre Traffic reasings at Other Zone Centres

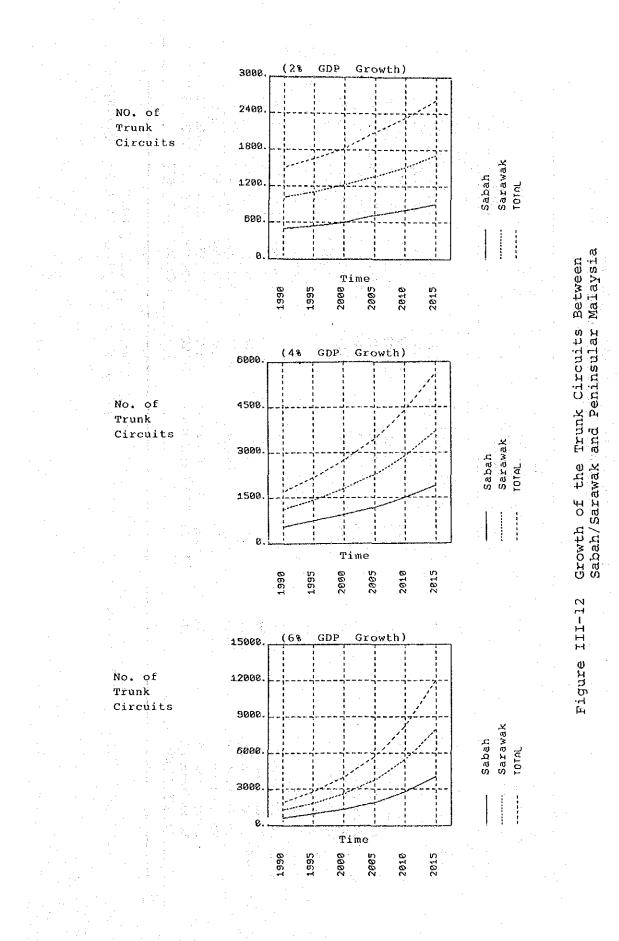
(Notes)

Figure III-10 Carried Toll Traffic Diagram for Kota Kinabalu

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	2C		XX		•	S S
fic	I/C Erl Ccts		17.50 77 28.29			at KZ Zone Centre at Other Zone Centres
Carried Traffic						
Carr	0/G Ccts Erl	 1	82 10.70 14.50		4	Traffic reasings at Traffic reasings at Outgoing Incoming
			Area	<u>,</u>		g etc. Se
	0/G <u>Erl</u> Ccts 2.60 11 4.03	1.50 13 2.00 2.40 21	49.70 86 155.60	2.60 6 2.10 4.10 21 1.15		figures: figures: o/G: I/C:
Carried Traffic	ы ·		15			s) Upper Lower
Carried	I/C <u>s Erl</u> 3.10 2.29	1.40 0.70 2.50 4.45	43.90	1.30 1.40 2.70. 1.49		(Notes)
	2C I, Ccts PG 6	1P 9 KN 25	KL 72 214	AB AC 6		
	67 P.	н х	×	רי ג		

Figure III-11 Carried Toll Traffic Diagram for Kuching



Routes	Highest Values by the Current Measurements (a) (Erl)	Safety Margin (b) (a) X1.5	Network Improvement (c) Factor (b) x1.2	Additional New Services (c)x1.3	subs. (1985)	Subs. (1990)	Traffic 1990	
. Outgoing Circuits								·
From KK to PG	5.61	8.42	OI OI	13.13	119,381	131,610	14.39	
From KK to IP	4.07	6.11	7.33	9.52	95,860	105,288	10.42	
From KK to KN	5.05	. •	60.6		75,736	83,178	12.95	
From KK to KL	58.09	87 14	104.56	135.93	352,238	386,407	148.60	
From KK to MC	2.31	3 47	4.16	5.41	64,864	71,596	5.94	
From KK to JB	5.60	8 40	10.08	13.10	112,337	123,187	14 33	·
From KK to KG	28.29	42.44	50.92	66.20	68,790	75,807	72.64	
No. of KK Subs.		•			69,392	75,807		
			•			·		
Incoming Circuits		· · · · ·		-			···.	
TO KK from PG	2.29	3.44	4.12	5.36	119,381	131,610	5.88	
TO KK From IP	2.98	4.47	5.36	6.97	95,860	105,288	7.63	
To KK from KN	2.51	3.77	4.52	5.87	75,736	83,178	6.43	
TO KK From KL	59.10	88.65	106.38	138.29	352,238	386,407	151.18	
TO KK From MC	0.80	1.20	1.44	1.87	64,864	71,596		
TO KK from JB	4.58	6.87	8.24	0.7	112,337	123,187	•	
To KK from KG	14.50	21.75	26.10	33.93	68,790	75,807	37.23	
No. of KK Subs.				•	69,392	75,807		
						÷		

W. Codio a Maine 1 1 1 1 1 ф Д to 2015 A.D. β くん ビイリオナシン Recults TTT-6 (1/2)

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Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 2% GDP Growth) Table III-6 (2/2)

	•				-					
	Subs. (1995)	Traffic 1995	Subs. (2000)	Traffic 2000	Subs. (2005)	Traffic 2005	Subs. (2010)	Traffic 2010	Subs. (2015)	Traffic 2015
ourgoing uircuits			- - 5 - 5 - 5			- 2				
From KK to PG	144,773	15.83	161,843	17.70		19.78	202,092	22.10	228,759	25.02
From KK to IP	115,818	11.47	129,475	12.82		14.33	161,674	16.01	183,008	18.12
From KK to KN	91,496	14.24	102,285	15.92	114,310	17.79	127,722	19.88	144,576	22.50
From KK to KL	425,052	163.46	475,172	182.73		204.22	593,343	228.18	671,638	· •
From KK to MC	78,756	6.54	88,043	7.31		8.17	109,938	9.12	124,445	μ,
From KK to JB	50	15.77	151,485	17.62		19.70	189,158	22.01	214,119	24.91
From KK to KG	83,389	<u>.</u> 6	93,222	89,32		99.82	116,405	311.54	131,765	2
No. of KK Subs.	83,389		93,222			~	116,405	÷	131,765	
Incoming Circuits										
To KK from PG	144,773	6.46	161,843	7.22	180,871	8.07	202,092	9.02	228,759	10.21
	115,818	8.39	129,475	9.38	144,697	10.49	161,674	11.72	183,008	13.26
To KK from KN	91,496	7.07	102,285	1.91	114,310	8.84	127,722	9.87	144,576	11.17
ХX	425,052	166.30	475,172	185.91	531,036	207.76	593,343	232:14	671,638	262.77
TO KK from MC	78,756	2.26	88,043	2.53	98,394	2.82	109,938	3.15	124,445	3.57
	135,507	12.90	151,485	14.42	169,295	16.12	189,158	18.01	214,119	20.39
Ä	83,389	40.95	93,222	45 . 78	104,181	51.16	116,405	57.17	131,765	64.71
No. of KK Subs.	83,389		93,222		104,181		116,405		131,765	

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Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 4% GDP Growth) Table III-7 (1/2)

Routes	Highest Values by the Current	Safety Margin	Network Improvement	Additional New	Subs.	.sqnS	Traffic
	Measurements (a) (Erl)	(b) (a)xl.5	(c) Factor (b) x1.2	Services (c)x1.3	(1985)	(0661)	1990
Outgoing Circuits							
From KK to PG	5.61	8.42	10.10	13.13	119,381	149,158	16.31
From KK to IP	4.07	6.11	7.33	9.52	95,860	119,326	11.81
From KK to KN	5.05	7.58	60.6	11.82	75,736	94,268	14.67
From KK to KL	58.09	87.14	104.56	135.93	352,238	437,928	168.41
From KK to MC	2.31	3.47	4.16	5.41	64,864	81,142	6.73
From KK to JB	5.60	8.40	10.08	13.10	112,337	139,612	16.24
From KK to KG	28.29	42.44	50.92	66.20	68,790	85,915	82.32
No. of KK Subs.				 1.	69,392	85,915	•
	•		•			1. 	
Incoming Circuits	·		·. ·		•		
To KK from PG	2.29	3.44	4.12	5.36	119,381	149,158	6.66
ź	2.98	4.47	5.36	6.97	95,860	119,326	8.65
TO KK from KN	2.51	3.77	4.52	5.87	75,736	94,268	7.29
TO KK from KL	59.10	88.65	106.38	138.29	352,238	437,928	171.34
TO KK From MC	0.80	1.20	1.44	1.87	64,864	81,142	2.33
TO KK from JB	4.58	6.87	8.24	10.72	112,337	139,612	13.29
TO KK from KG	14.50	21.75	26.10	33.93	68,790	85,915	42 19
No. of KK Subs.					69,392	85,915	
					•		

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-

Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 4% GDP Growth) Table III-7 (2/2)

fic Subs. Traffic
ເທີ່
240,155
.91 192,124 19.02
.51 151,778 23.62
.50 705,094 271.15
.50 130,644 10.84
.49 224,785 26.15
138,329 132.54
138,329
.40 240,155 10.72
.91 192,124 13.93
151,778 11.73
.19 705,094 275.86
130,644 3.75
224,785 21.40
53.24 138,329 67.93 176,307

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Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 6% GDP Growth) Table III-8 (1/2)

	Highest Values hv the Current	Safety Marcin	Network Tmorrovement	Additional New	ດ ເ ເ	Suba	ر الم ال	
Routes	Measurements	(p)	(c) Factor	Services		•) 	
	(a) (Erl)	(a) x1.5	(d) x1.2	(c)x1.3	(1985)	(0661)	0661	
								1.
1. Outgoing Circuits	Ŋ							
From KK to PG	5.61	8.42	10.10	13.13	119,381	171,093	18.71	
From KK to IP	•	6.11	7.33	9.52	95,860	136,874	13.55	
From KK to KN	5.05	7.58	9.09	11.82	75,736	108,131	16.83	
From KK to KL	~	87.14	104.56	135.93	352,238	502,329	193.18	
From KK to MC	2.31	3.47	4.16	5.41	64,864	93,075	7.72	
From KK to JB	5.60	8.40	10.08	13.10	112,337	160,143	18.63	÷ .
From KK to KG	28.29	42.44	50.92	66.20	68,790	98,550	94.43	
No. of KK Subs.		•			69,392	98,550		-
				•		•	•	
2. Incoming Circuits	ល្អ				۰. ۱		· · ·	
To KK from PG	~	3.44	4.12	5.36	119,381	171,093	7.64	
TO KK From IP	2.98	4.47	5.36	6.97	95,860	136,874	9.92	
TO KK From KN	2.51	3.77	4.52	5.87	75,736	108,131	8.36	
TO KK from KL	59.10	88.65	106.38	138.29	352,238	502,329	196.53	
TO KK From MC	0-80	1.20	1.44	1.87	64,864	93,075	2.67	
TO KK from JB	4.58	6.87	8.24	10.72	112,337	160,143	15.25	. •
TO KK from KG	14-50	21 75	26.10	33,93	68,790	98,550	48.40	•
No. of KK Subs.				•	69,392	98,550		
		:.					· · · · · · · · · · · · · · · · · · ·	

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я Г	Traffic 2015		120.41 87.21 108.31	,243.23 49.71	• •		49.10 63.85 53.79	410	• •
a Kinabalu	Subs. (2015)	• •	,101,095 880,876 695,892	,232,815 1 598,996	,030, 634, 634,	r C	, ±01, 09 880, 87 695, 89	•	634,23 634,23 634,23
Between Kota GDP Growth)	Traffic 2010		81.99 1 59.38 73.75	58 85		t s		• •	2.10
A. 68 . 68 .	Subs. (2010)		749,792 599,834 473,869	,201,38 407,88		i i	,499,834 599,834 473,869	•	
to 2015 Case of	Traffic 2005	· .	56.29 40.77 50.64	· • •	9 4 0	· .	25.15 25.15	чœч	• •
ting up t Area (In	Subs. (2005)		514,786 411,829 325,345	,511,41 280,04	481,839 296,517 296,517			,51 28 28	401,039 296,517 296,517
Forecasting Centre Area	Traffic 2000		38.82 28.12 34.92	ωÇ	ຜູ້ທີ່		20.59 20.59 17.34	• •	
Traffic ach Zone	Subs. (2000)	-	355,011 284,009 224,367	3,12	000	2	284,009 284,009 224,367	,042, 193,	204,486 204,486 204,486
lts of and E	Traffic 1995		26.91 19.49 24.21	ч. 1. 1.	26.80 135.83	6	10.99 14.27 12.02		69.62
(2/2) Resu (KK)	Subs. (1995)		246,113 196,891 155,544	722,589 133,886	230,362 141,761 141,761		246,113 196,891 155,544	722,589 133,886	230,362 141,761 141,761
Table III-8 (.		Outgoing Circuits	From KK to PG From KK to IP From KK to KN	KK KK to	From KK to JB From KK to KG No. of KK Subs.	coming Ci	TO KK TYOM PG TO KK from IP TO KK from KN	KK from KK from	TO KK From JB TO KK from KG No. of KK Subs.
		- 			49 -	2.			

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F.		Traffic 1990		34	5.12	.16	• 03	.68	10.49	.23			.95	.59	.43	295.97	.60	6.91	.64	
ich i ng		Traff. 1990		OF F			398.03		: : :	- i			7	m	11	295		1		
Between Kuching DP Growth)		.sdus. (1990)		131,610	105,288	83,178	386,407	71,596	123,187	75,807	75,807	• .	131,610		83,178	m.		123,187	:	75,807
28.0		Subs.		119,381	95,860	75,736	352,238	64,864	112,337	68,790	69,392		119,381	95,860	75,736	352,238	64,864	112,337	68,790	69,392
up to 2015 / (In Case of		Additional New Services (c) x1.3		9.43	4.68	5.62	364.10	6.08	9.59	33.93			7.25	3, 28	10.44	270.74	3.28	6.32	66.20	
Forecasting Centre Area		Network Improvement (c) Factor (b) X1.2		7.25	3.60	4.32	280.08	4.68	7.38	26.10			5.58	2.52	8.03	208.26	2.52	4.86	50.92	•
f Traffic Each Zone		Safety Margin (b) (a)x1.5		6.05	3.00	3.60	233.40	3.90	6.15	21.75			4.65	2.10	6.69	173.55	2.10	4.05	42 44	
Results of (KG) and Ea	-	Highest Values by the Current Measurements (a) (Erl)		4.03	2.00	2.40	155.60	2.60	4.10	14.50			3.10	1.40	4.46	115.70	1.40	2.70	28.29	
Table III-9 (1/2)		Routes Y	Outgoing Circuits	From KG to PG	From KG to IP	From KG to KN	From KG to KL	From KG to MC	From KG to JB	From KG to KK	No. of KG Subs.	Incoming Circuits	To KG from PG	TO KG from IP	To KG from KN	To KG from KL	To KG from MC	To KG from JB	To KG from KK	No. of KG Subs.
									•			2	•,			•				

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Kuching	н)
Between	3DP Growt
2015 A.D.	se of 2% (
l up to	(In Ca
Forecasting	Centre Area
Results of Traffic Forecasting up to 2015 A.D. Between Kuching	(KG) and Each Zone Centre Area (In Case of 2% GDP Growth)
Results	(KG) and
9 (2/2)	
Table III-	

		Subs. (1995)	Traffic 1995	Subs. (2000)	Traffic 2000	Subs. (2005)	Traffic 2005	Subs. (2010)	Traffic 2010	Subs. (2015)	Traffic 2015
н. Н	Outgoing Circuits										
	From KG to PG	144,773	11.37	161,843	12.71	180,871	14.20	202,092	15.87	228,759	17.97
	From KG to IP	115,818	5.64	129,475	6.30	144,697	7.04	161,674	7.87	183,008	8.91
	From KG to KN	91,496	6.77	102,285	7.57	114,310	8.46	127,722	9.45	144,576	10.70
	From KG to KL	425,052	437.84	475,172	489.47	531,036	547.01	593,343	611.20	671,638	691.84
	From KG to MC	78,756	7.35	88,043	8.21	98,394	9.18	109,938	10.25	124,445	11.61
	From KG to JB	135,507	11.54	151,485	12.90	169,295	14.42	189,158	16.11	214,119	18.24
	From KG to KK	83,389	40.95	93,222	45.78	104,181	51.16	116,405	57.17	131,765	64.71
	No. of KG Subs.	83,389		93,222		104,181		116,405		131,765	
°.	Incoming Circuits							•			
	To KG from PG	144,773	8.74	161,843	9.77	180,871	10.92	202,092	12.20	228,759	13.81
	To KG from IP	115,818	3.95	129,475	4.42	144,697	4.94	161,674	5.51	183,008	6.24
	To KG from KN	91,496	12.58	102,285	14.06	114,310	15.71	I27,722	17.56	144,576	19.87
	To KG from KL	425,052	325.57	475,172	363,96	531,036.	406.75	593,343	454.48	671,638	514.45
	To KG from MC	78,756	3.96	88,043	4.43	98,394	4.95	109,938	5.53	124,445	6.26
		135,507	7.61	151,485	8.50	169,295	9.50	189,158	10.62	214,119	
	To KG from KK	83,389	79.90	93,222	89.32	104,181	99.82	116,405	111.54	131,765	126.25
	No. of KG Subs.	83,389	·	93,222		104,181		116,405		131,765	

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Highest Values Safety Network Additional Subs.	Table III-10 (1/2)	Results o (KG) and	f Traffic Each Zone) 				
Outgoing Circuits 0.04going Circuits From KG to FG 4.03 6.05 7.25 9.43 119,381 149,158 1 From KG to FG 4.03 6.05 7.25 9.43 119,381 149,158 1 From KG to KG 2.00 3.00 3.60 4.22 5.62 75,736 94,268 From KG to KL 155.60 233.40 280.08 364.10 355,238 437,228 From KG to KL 155.60 23.340 280.08 364.10 355,238 437,228 From KG to KK 14.10 6.15 7.38 9.59 112,337 139,612 1 From KG to KK 14.50 21.75 26.10 33.93 69,392 85,915 4 No. of KG subs. 1.4.50 21.75 26.10 33.28 95,860 119,326 139,612 1 Incoming Circuits 1.446 5.58 7.25 119,381 149,158 1 1 1 437,236 85,915 437,928 437,928 437,928 437,928 437,928 437,9128 437,928 <th>Routes</th> <th></th> <th>Safety Margin (b) (a) x1.5</th> <th>Network Improvement (c) Factor (b) x1.2</th> <th>Additional New Services (c) x1.3</th> <th>Subs. (1985)</th> <th>. sdbs. (0990)</th> <th>Traffic 1990</th>	Routes		Safety Margin (b) (a) x1.5	Network Improvement (c) Factor (b) x1.2	Additional New Services (c) x1.3	Subs. (1985)	. sdbs. (0990)	Traffic 1990
From KG to FG 4.03 6.05 7.25 9.43 119,381 149,158 1 From KG to KN 2.00 3.60 4.68 95,860 119,326 94,268 45,860 119,326 From KG to KN 2.40 3.60 4.32 5.62 75,736 94,268 45,757 94,268 45,736 94,268 45,736 94,268 45,7928 45,9158 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928 45,7928<								- -
From KG to IP2.003.003.604.6895,860119,326From KG to Ku155.603.604.325.6275,73694,268From KG to Ku155.603.904.6885,73694,268From KG to Ku155.603.904.6885,73694,268From KG to Ku2.603.904.6881,142From KG to Ku14,502.1.752.61033.9369,39285,915From KG to KK144.5021.7526.1033.9368,79085,9154From KG to KK144.5021.7526.1033.9368,79085,9154From KG to KK144.5021.7526.1033.9368,79085,9154From KG from PG3.104.655.587.25119,381149,158To KG from IP1.402.102.523.2894,268119,326To KG from Ku11402.102.523.2895,860119,326To KG from Ku11402.102.523.2895,238437,92833To KG from Ku11.402.102.523.2895,238437,92833To KG from Ku11.402.102.523.2895,238437,92833To KG from Ku11.402.102.523.2895,238437,92833To KG from Ku1.402.102.522.074.36119,326119,326To KG from Ku1.40 <td< td=""><td>ģ</td><td>4.03</td><td>6.05</td><td>7.25</td><td>9.43</td><td>119,381</td><td>149,158</td><td>11.71</td></td<>	ģ	4.03	6.05	7.25	9.43	119,381	149,158	11.71
From KG to KN2.403.604.325.6275,73694,268From KG to KL155.60233.40280.08364.10352,238437,92845From KG to NC2.603.904.686.0864,86481,1421From KG to NC2.603.904.686.0864,86481,1421From KG to NC2.603.904.686.0864,86481,1421From KG to NC14.5021.7526.1033.9368,79085,9154From KG to KK14.5021.7526.1033.9368,79085,9154Incoming Circuits21.7526.1033.9368,79085,9154Incoming Circuits14.655.587.25119,381149,158To KG from PG1.402.102.523.2894,2681To KG from NL115.70173.55208.265.70.74352,238437,92833To KG from NC1.402.102.523.2894,2681149,158To KG from NC1.402.102.523.2864,86481,142To KG from NC1.402.102.523.2894,268139,326To KG from NC1.402.102.523.2864,86481,142To KG from NC2.102.523.2864,86481,142To KG from NC2.102.102.523.2864,86481,142To KG from NC <td>ç t</td> <td>2.00</td> <td>3.00</td> <td>3.60</td> <td>4.68</td> <td>95,860</td> <td>119,326</td> <td>5.81</td>	ç t	2.00	3.00	3.60	4.68	95,860	119,326	5.81
From KG to KI155.60233.40280.08364.10352,238437,92845From KG to MC2.603.904.686.0864,86481,1421From KG to MC2.603.904.686.0864,86481,1421From KG to KG14.5021.7526.1033.9368,79085,9154From KG to KG14.5021.7526.1033.9368,79085,9154From KG to KG14.5021.7526.1033.9368,79085,9154Froming Circuits14.5021.7526.1033.9368,79085,9154To KG from FG3.104.655.587.25119,381149,15833To KG from FR1.402.102.523.2894,268119,326To KG from MC1.402.102.523.2864,86481,142To KG from MC1.402.102.523.2894,268139,326To KG from MC1.402.102.523.2864,86481,142To KG from JB2.102.523.2894,268139,326To KG from JB2.102.523.2864,86481,142To KG from JB2.704.054.8666.2068,790To KG from JB2.704.054.8666.2069,392To KG from KK28.2942.4450.9266.2069,392No. of KG subs.66.3266.2066.32<	ų.	2.40	3.60	4.32	5.62	75,736	94,268	6.98
From KG to MC2.603.904.686.0864,86481,142From KG to UB4.106.157.389.59112,337139,6121From KG to KK14.5021.7526.1033.9368,79085,9154From KG to KK14.5021.7526.1033.9368,79085,9154From KG to KK14.5021.7526.1033.9369,39285,9154For KG from KG1.4.655.587.25119,381149,1581To KG from FR1.402.102.523.2895,860119,3261To KG from KN4.4665.587.25119,381149,1581To KG from KN4.4665.5102.523.2895,860119,3261To KG from KN1.402.102.523.2895,860119,3261To KG from KN1.402.102.523.2895,860119,3263To KG from KN1.402.102.523.2895,860119,3263To KG from KN1.402.102.523.2895,860119,3263To KG from KN1.402.102.523.2864,86481,142To KG from KN1.402.102.523.2864,86481,142To KG from DS1.402.102.523.2864,86481,142To KG from DS2.704.054.056.2068,79085,915 <td>မ္မ</td> <td>155.60</td> <td>ത</td> <td>280.08</td> <td>364.10</td> <td>352,238</td> <td>437,928</td> <td>451.10</td>	မ္မ	155.60	ത	280.08	364.10	352,238	437,928	451.10
From KG to JB4.106.157.389.59112,337139,6121From KG to KK14.5021.7526.1033.9368,79085,9154No. of KG subs.14.5021.7526.1033.9368,79085,9154Incoming Circuits69,39285,915469,39285,9154To KG from FG3.104.655.587.25119,381149,158To KG from IP1.402.102.523.2895,860119,326To KG from KL115.70173.55208.26270.74352,238437,928To KG from KL115.70173.55208.26270.74352,238437,928To KG from MC1.402.102.523.2864,86481,142To KG from MC1.402.102.523.2864,86481,142To KG from MC1.402.102.523.2864,86481,142To KG from MC1.402.102.523.2864,86481,142To KG from MC2.704.054.666.32112,337139,612To KG from KK28.2942.4450.9266.2068,79085,91585,915	KG to	2.60	3.90	4.68	6.08	64,864	81,142	7.57
From KG to KK14.5021.7526.1033.9368,79085,9154No. of KG Subs.No. of KG Subs.5.517.25119,381149,158Incoming Circuits3.104.655.587.25119,381149,158To KG from PG3.104.655.587.2595,860119,326To KG from IP1.402.102.523.2895,860119,326To KG from KN4.466.698.0310.4475,73694,2681To KG from KL115.70173.55208.26270.74352,238437,92833To KG from KL115.70173.55208.26270.74352,238437,92833To KG from KL115.70173.552.623.2864,86481,142To KG from KK28.2942.4450.9266.2068,79085,9158To KG from KK28.2942.4450.9266.2069,39285,9158	KG to	4.10	6.15	7.38	9.59	112,337	139,612	11.89
No. of KG Subs. 69,392 85,915 Incoming Circuits 200 4.65 5.58 7.25 119,381 149,158 To KG from FP 3.10 4.65 5.58 7.25 119,381 149,158 To KG from FP 1.40 2.10 2.52 3.28 95,860 119,326 To KG from FP 1.40 2.10 2.52 3.28 94,268 1 To KG from KL 115.70 173.55 208.26 270.74 352,238 437,928 33 To KG from MC 1.40 2.10 2.52 3.28 64,864 81,142 To KG from MC 1.40 2.10 2.52 3.28 64,864 81,142 To KG from KK 28.29 42.65 66.20 68,790 85,915 8 No. of KG Subs. 86.202 66.20 69,392 85,915 8	KG to	•	21.75	26.10	33,93	68,790	85,915	42.19
Incoming CircuitsTo KG from PG3.104.655.587.25119,381149,158To KG from IP1.402.102.523.2895,860119,3261To KG from KN4.466.698.0310.4475,73694,2681To KG from KL115.70173.55208.26270.74352,238437,92833To KG from MC1.402.102.523.2864,86481,142To KG from MC1.402.102.523.2864,86481,142To KG from MC2.704.054.866.32112,337139,612To KG from KK28.2942.4450.9266.2068,79085,9158No. of KG Subs.80.591585,915885,9158			·			69,392	85,915	
from PG3.104.655.587.25119,381149,158from IP1.402.102.523.2895,860119,3261from KN4.466.698.0310.4475,73694,2681from KL115.70173.55208.26270.74352,238437,92833from MC1.402.102.523.2864,86481,142from MC1.402.102.523.2864,86481,142from JB2.704.054.866.32112,337139,612from KK28.2942.4450.9266.2068,79085,9158	2. Incoming Circuits							
from IP1.402.102.523.2895,860119,326from KN4.466.698.0310.4475,73694,2681from KL115.70173.55208.26270.74352,238437,92833from MC1.402.102.523.2864,86481,142from MC1.402.102.523.2864,86481,142from MC1.402.102.523.2864,86481,142from JB2.704.054.866.32112,337139,612from KK28.2942.4450.9266.2068,79085,915KG Subs.6.5.2066.2069,39285,915	KG from	3.10	4.65	5.58	7.25	119,381	149,158	9.01
Érom KN4.466.698.0310.4475,73694,2681Érom KL115.70173.55208.26270.74352,238437,92833Érom MC1.402.102.523.2864,86481,142Érom MC1.402.102.523.2864,86481,142Érom JB2.704.054.866.32112,337139,612Érom KK28.2942.4450.9266.2068,79085,9158KG Subs.20.9266.2069,39285,9158	from	1.40	2.10	2.52	3.28	95,860	119,326	4.07
KG from KL 115.70 173.55 208.26 270.74 352,238 437,928 33 KG from MC 1.40 2.10 2.52 3.28 64,864 81,142 35 KG from JB 2.70 4.05 4.86 6.32 112,337 139,612 8 KG from JB 2.70 42.44 50.92 66.20 68,790 85,915 8 of KG Subs. 28.29 42.44 50.92 66.20 68,790 85,915 8	from	4.46	6.69	8.03	10.44	75,736	94,268	12.96
KG from MC 1.40 2.10 2.52 3.28 64,864 81,142 KG from JB 2.70 4.05 4.86 6.32 112,337 139,612 8 KG from KK 28.29 42.44 50.92 66.20 68,790 85,915 8 of KG Subs. of KG Subs. 69,392 85,915 8	ЮM	115.70	L.**	208.26	270.74	352,238	437,928	335.44
XG from JB 2.70 4.05 4.86 6.32 112,337 139,612 KG from KK 28.29 42.44 50.92 66.20 68,790 85,915 8 of KG Subs. 66.20 69,392 85,915 8	М	1.40	2.10	2.52	3.28	64,864	81,142	4.08
KG from KK 28.29 42.44 50.92 66.20 68,790 85,915 8 of KG Subs. 69,392 85,915	М М	2,70	4.05	4.86	6.32	I12,337	139,612	7.84
	U M		2	50.92		68,790	85,915	82.32
	No. of KG Subs.			•		69,392	85,915	:

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			(KG) and	and Each Zone Centre	one Cent	re Area	(In Case	0 1 4 8	GDP Growth)	â	-
		Subs. (1995)	Traffic 1995	subs. (2000)	Traffic 2000	Subs. (2005)	Traffic 2005	Subs. (2010)	Traffic 2010	Subs. (2015)	Traffic 2015
1											
H	. Outgoing Circuits								:		
	From KG to PG	188,204	14.78	240,155	18.86	306,089	24.04	392,469	30.82	506,321	39.76
	From KG to IP	150,563	7.33	192,124	9.35	244,871	11.92	313,975	15.28	405,057	19.71
	From KG to KN	118,945	8.80	151,778	11.23	193,448	14.32	248,041	18.35	319,995	23.68
	to KI	552,568	569.20	705,094	726.31	898,677	925.72 1	1,152,290	1,186.96 1	,486,558	I,531.29
		102,383	ີ. ດ	130,644	12.18	166,512	15.53	213,503	19.91	275,438	25.69
	KG to JB	176,159	15.	224,785	19.14	286,499	24.40	367,351	31.29	473,916	40.36
	From KG to KK	108,406	53.	138,329	67.93	176,307	86.58	226,062	111.02	291,641	143.23
	No. of KG Subs.	108,406		138,329		176,307		226,062		291,641	
3.	. Incoming Circuits										
	To KG from PG	188,204	11.36	240,155	14.50	306,089	18.48	392,469	23.70	506,321	30.57
	ЮМ	150,563	5.14	192,124	6.55	244,871	8.35	313,975	10.71	405,057	13.82
	TO KG From KN	118,945	16.35	151,778	20.86	193,448	26.59	248,04I	34.10	319,995	43.99
	To KG from KL	552,568	423.25	705,094	540.07	898,677	688.35]	1,152,290	882.61 I		i,138.65
	To KG from MC	102,383	•	130,644	6.57	166,512	8.38	213,503	10.74	275,438	13.86
	To KG from JB	176,159	9.89	224,785	12.62	286,499	16.08	367,351	20.62	473,916	26.60
	TO KG from KK	108,406	103.87	138,329	132.54	176,307	168.93	226,062	216.61	H.	279.44
	No. of KG Subs.	108,406		Ψ.		176,307		226,062		291,641	
		-					-				

Results of Traffic Forecasting up to 2015 A.D. Between Kuching (KG) and Each Zone Centre Area (In Case of 4% GDP Growth) Table III-10 (2/2)

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Results of Traffic Forecasting up to 2015 A.D. Between Kuching	(In Case of 6% GDP Growth)
Forecasting	Centre Area
Results of Traffic	(KG) and Each Zone
Table III-11 (1/2)	

												a en La pe			:			• 14 15 1	
Traffic 1990		13-44	6.66	8.00	517.45	8,68	13.64	48.40	-		•	10.33	4.67	14 86	384.77	4.58	8.99	94.43	
. sqnS (1990)		171,093	136,874	108,131	502,329	93,075	160,143	98,550	98,550			171,093	136,874	108,131	502,329	93,075	160,143	98,550	98,550
Subs. (1985)		119,381	95,860	75,736	352,238	64,864	112,337	68,790	69,392	••	•	119,381	95,860	75,736	352,238	64,864	112,337	68,790	69,392
Additional New Services (c)x1.3		9.43	4.68	5.62	364.10	6.08	9.59	33.93	•			7.25	3.28	10.44	270.74	3.28	6.32	66.20	
Network Improvement (c) Factor (b) x1.2		7.25	3.60	4.32	280.08	4.68	7.38	26.10			· ·	5.58	2.52	8,03	208.26	2.52	4.86	50.92	
<pre>Safety Margin (b) (a)x1.5</pre>		6.05	3.00	3.60	233.40	06° C	6.15	21.75			•	4.65	2.10	6.69	173.55	2.10	4.05	42 44	
Highest Values by the Current Measurements (a) (Erl)		4.03	2.00	2.40	155.60	2.60	4.10	14.50				3.10	1.40	4.46	115.70	1.40	2.70	28.29	
Routes	Outgoing Circuits	From KG to PG	From KG to IP	From KG to KN	From KG to KL	0 M	From KG to JB	From KG to KK	No. of KG Subs.		Incoming Circuits	To KG from PG	Ц М	N M	S M	To KG from MC	В М	TO KG from KK	No. of KG Subs.
	, न ्	' ÷		•			-	•		-	3						••••		

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	Traffic 2015	86.48 42.87 51.50 330.09 55.87 87.78 311.47	66.49 30.05 95.66 476.21 30.14 57.85 607.70	
ween Kuching Growth)	Subs. (2015)	,101,095 880,876 695,892 695,892 732,815 598,996 634,231 634,231 634,231	,101,095 880,876 695,892 598,996 598,996 634,231 634,231	
Between GDP Growt	Traffic 2010	58.89 1 29.19 35.07 35.07 38.04 59.77 1 212.10	454.27 1 20.46 65.14 686.18 3 20.52 413.82 413.82	
5 A.D. of 6%	Subs. (2010)	749,792 599,834 473,869 473,869 407,887 701,805 431,880 431,880	749,792 599,834 473,869 407,887 701,805 431,880 431,880	
up to 201 (In Case	Traffic 2005	40.43 20.04 24.08 1,556.89 26.12 41.04 145.62	31.08 14.05 44.72 1,157.68 27.04 284.12 284.12	
scasting tre Area	Subs. (2005)	514,786 411,829 325,345 325,345 280,043 481,839 296,517 296,517	514,786 411,829 325,345 1,511,411 280,043 481,839 296,517 296,517	
lfic Forecast Zone Centre 1	Traffic 2000	27.88 13.82 16.60 1,073.67 18.01 28.30 100.42	21.44 9.69 30.84 798.37 9.72 18.65 195.93	
of Tra d Each	Subs. (2000)	355,011 284,009 224,367 1,042,312 193,126 332,290 204,486 204,486	355,011 284,009 224,367 1,042,312 193,126 332,290 204,486 204,486	
Results (KG) an	Traffic 1995	19.33 9.58 11.51 744.33 19.62 69.62 69.62	14.86 6.72 5.1.38 553.47 6.74 12.93 135.83	
1 (2/2)	subs. (1995)	246,113 196,891 155,544 722,589 133,886 133,886 230,362 141,761 141,761	246,113 196,891 155,544 722,589 133,886 230,362 141,761 141,761	
Table III-11	1. Outgoing Circuits	From KG to PG From KG to IP From KG to KN From KG to KL From KG to JB From KG to JB No. of KG Subs.	 Incoming Circuits To KG from PG To KG from IP To KG from KU To KG from MC To KG from JB To KG from JB To KG from KK 	
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Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 2% GDP Growth) Table III-12 (1/2)

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	Routes	Highest Values by the Current Measurements (a) (Erl)	Safety Margin (b) (a)x1.5	Network Improvement (c) Factor (b) x1.2	Additional New Services (c) x1.3	Estimated Traffic Values in 1990	Estimated No. of Circuits in 1990	Estimated Traffic Values in 1995	Estimated Traffic Circuits in 1995
4	Aurdorug Surofina				-		•		•
	From XK to PG	5.61	8.42	10.10	13.13.	14.39	23	15,83.	25
	From KK to IP	4.07	6.11	7,33	9.52	10.42	18	11.47	20
	From KK to KN	5.05	7.58	9.09	11.82	12.95	22	14.24	23
	From KK to KL	58.09	87.14	104.56	135.93	148.60	168	163.46	184
	From KK to MC	2.31	3.47	4 I6	5.41	5.94	13	6.54	13
	From KK to JB	5.60	8.40	10.08	13.10	14.33	23	15.77	25
	From KK to KG	28.29	42.44	50,92	66.20	72.64	88	79.90	95
	Total (except KG)					206.63	267	227.31	290
		•							
2.	Incoming Circuits								
	To KK from PG	2.29	3.44	4.12	5.36	5 88	12	6.46	13
	TO KK from IP	2.98	4.47	5,36	6.97	7.63		8,39	16
	TO KK from KN	2.51	3.77	4,52	5.87	6.43	13	7.07	4
	TO KK from KL	59.10	88.65	106.38	138.29	151.18	171	166.30	187
	XX	0.80	1.20	1 44	1.87	2.05	· 2	2.26	.7
	To XK from JB	4.58	6.87	8,24	10.72	11.73	20	12.90	22
	To KK from KG	14.50	21.75	26.10	33.93	37.23	50	40.95	54
	Total (except KG)			•		184.90	238	203.38	259
•			-						
•		•	•						
ά.	Grand Total (1 + 2)					391,53	505	430.69	549

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Circuits Estimated in 2015 No. of Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 2% GDP Growth) 18 22 328 328 9 36 28 323 323 323 474 474 901 31 80 427 Estimated in 2015 Traffic 10.21 13.26 11.17 262.77 3.57 20.39 64.71 321.37 Values 18.12 22.50 258.29 10.33 24.91 126.25 359.17 25.02 680.54 Estimated Circuits in 2010 No. of 17 20 290 290 28 28 28 28 28 382 382 804 Estimated Values in 2010 Traffic 22.10 16.01 19.88 228.18 9.12 22.01 111.54 317.30 9.02 11.72 9.87 9.87 232.14 232.14 232.14 15.01 57.17 57.17 57.17 601.21 Circuits in 2005 Estimated No. of 724 119 119 119 119 119 119 25 65 343 30 23 255 255 255 16 36 381 381 Estimated in 2005 Traffic 8.07 10.49 8.84 8.84 207.76 2.82 2.82 16.12 51.16 19.78 14.33 17.79 204.22 Values 8.17 19.70 99.82 283.99 538.09 Estimated Circuits in 2000 No. of 602 Estimated Traffic in 2000 17.70 12.82 15.92 15.92 182.73 7.31 7.31 17.62 89.32 89.32 254.10 7.22 9.38 7.91 185.91 2.53 14.42 45.78 45.78 Values 481.47 Table III-12 (2/2) () + Incoming Circuits Outgoing Circuits Total (except KG) (except KG) t To KK from PG To KK from TP To KK from KN To KK from KL To KK from MC To KK from JB To KK from JB From KK to KN From KK to KL From KK to MC From KK to JB From KK to KG н Н From KK to PG Grand Total From KK to Routes Total . m Ч, . .-i

Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 4% GDP Growth) Table III-13 (1/2)

Routes	Highest Values by the Current Measurements (a) (Erl)	Safety Margin (b) (a) x1.5	Network Improvement (c) Factor (b) x1.2	Additional New Services (c)x1.3	Estimated Traffic Values in 1990	Estimated No. of Circuits in 1990	Estimated Traffic Values in 1995	Estimated Traffic Circuits in 1995
Outgoing Circuits								
From KK to PG	5.61	8.42	10.10	13.13	16.31	26	20.58	31
From KK to IP	4.07	6.11	7.33	9.52	11.81	20	14.91	24
Ж	5.05	7.58	9.09	11.82	14.67	24	18.51	28
From KK to KL	58.09	87.14	104.56	135.93	168.41	189	212.50	266
From KK to MC	2.31	3.47	4.16	5.41	6.73	74	8.50	16
From KK to JB	5.60	8.40	10.08	13.10	16.24	26	20.49	31
From KK to KG	28.29	42.44	50.92	66.20	82.32	66	I03.87	121
Total (except KG)					234.17	299	295.49	396
Incoming Circuits						*	·	
To KK from PG	2.29	3.44	4.12	5.36	6.66	74	8.40	16
To KK from IP	2.98	4.47	5.36	6.97	8.65	16	10.01	6 H
М	2.51	3.77	4.52	5.87	7.29	14	9.19	. 17
TO KK from KL	59.10	88.65	106.38	138.29	171.34	192	216.19	270
To KK from MC	0.80	1.20	1.44	1.87	2,33	4	2.94	00
Ж	4.58	6.87	8.24	10.72	13.29	22	16.77	26
To KK from KG	14.50	21.75	26.10	33.93	42.19	с С	53.24	67
Total (except KG)					209.56	265	264.40	356
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t L) (atom Dorad)	2)		-			د <i>ر</i> ر		()

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Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 4% GDP Growth) Table III-13 (2/2)

					• •				
۰.		Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
•	Routes	Traffic Values	No. of Circuits						
		in 2000	in 2000	in 2005	in 2005	in 2010	in 2010	in 2015	in 2015
,									
-	Outgoing Circuits	·							;
	From KK to PG	26.26	37	33.47	46	42.92	95	55.37	70
	From KK to IP	19.02	29	24.24	35	31.08	43	40.10	53
	From KK to KN	23.62	34	30.11	42	38.60	51		64
	From KK to KL	271.15	339	345.60	432	443.13	554		715
	From KK to MC	10.84	19	с,	23	17.72	27		33
	From KK to JB	26.15	37	33.33	45	42.74	56	•	69
	From KK to KG	132.54	151		ω	216.61	271	279.44	349
	Total (except KG)	377.04	495	480.57	623		787	4 0	1,004
3.	Incoming Circuits	·							
	To KK from PG	10.72	6T	13.66	22	-	27	22 - 60	e e e
	To KK from IP	13.93	30	17.75	27	22.76	33	29.36	41
	TO KK From KN	11.73	20	14.95	24	19.17	29	24.73	36
	TO KK From KL	275.86	345	351.60	440	450.82	564		727
	X	3.75		4.78	FT FT	6.12	13	7.90	15
	Ă	21.40	32	27.28	39	34.97	47	45.12	58
	Ň	67:93	C B J	86.58	103	11.1.02	129	e.	163
		337,39	455	430.02	563	551,36	713	711.31	016
ς. Υ	Grand Total (1 + 2)	714.43	950	910.59	1,186	1,167.55	1,500	1,506.26	1,914
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Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 6% GDP Growth) Table III-14 (1/2)

	Routes	by the Current Measurements (a) (Erl)	Margin (b) (a)x1.5	<pre>Improvement (c) Factor (b) x1.2</pre>	New Services (c)x1.3	Traffic Values ín 1990	No. of Circuits in 1990	Traffic Values in 1995	Traffic Circuits in 1995
	Outgoing Circuits								
	From KK to PG	5.61	8.42	10.10	13.13	18.71	29	26.91	38
	From KK to IP	4.07	6.11	7.33	9.52	13.55	22	19.49	29
	From KK to KN	5.05	7.58	60.6	11.82	16.83	26	24.21	35
	From KK to KL	58.09	87.14	104.56	135.93	193.18	214	277.88	348
	From KK to MC	2.31	3.47	4.16	5.41	7.72	S L	11.11	6 1
	From KK to JB	5.60	8.40	10.08	13.10	18.63	28	26.80	38
	From KK to KG	28.29	42.44	50.92	66.20	94.43	111	135.83	155
	Total (except KG)					268.62	334	386.40	507
2.	Incoming Circuits								
	TO KK from PG	2.29	3.44	4.12	5.36	7.64	15	10.99	6 1
	To KK from IP	2.98	4.47	5.36	6.97	9.92	18	14.27	23
	TO KK From KN	2.51	3.77	4.52	5.87	8.36	91	12.02	20
	TO KK From KL	59.10	88.65	106.38	138.29	196.53	218	282.71	353
	To KK from MC	0.80	1.20	1.44	1.87	2.67	œ	3.84	0 H
	TO KK From JB	4.58	6.87	8.24	10.72	15.25	24	21.93	32
	To KK from KG	14.50	21.75	26.10	33.93	48.40	62	69.62	85
÷	Total (except KG)					240.37	299	345.76	457

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Results of Traffic Forecasting up to 2015 A.D. Between Kota Kinabalu (KK) and Each Zone Centre Area (In Case of 6% GDP Growth) Table III-14 (2/2)

				-					
-,		Estimated	Estimated	Estimated	Estimated	÷Ч.	Estimated	Estimated	Estimated
	Rontes	Traffic	No. of	Traffic	No. of	Traffic	No. of	Traffic	No. of
	2	Values	Circuits	Values	Circuits	Va	Circuits		Circuits
		in 2000	in 2000	in 2005	in 2005	in 2010	in 2010	in 2015	in 2015
н Н	Outgoing Circuits			·			-		
	From KK to PG	38.82	51	56.29	1L	1.9	86	120.41	139
	From KK to IP	28.12	6°	0	57 4,	59.38	74	87.21	104
	From KK to KN	34,92	47	0	65	3.7	89		126
	From KK to KL	400.84	501	581.24	727	846.58	I,058	1,243.23	1,554
	From KK to MC	16.03	25	ന	34	33,85	46		63
	From KK to JB	38.66	51	56.06	70	9.	98	119.90	138
	From KK to KG	195.93	217	4	355	8	517	607.70	760
	Total (except KG)	557.39	714	· co	1,021	1,177.20	1,463	1,728.77	2,124
2.	Incoming Circuits								
	TO KK from PG	15.85	25	2.9	34	33.47	46	49.15	63
	TO KK from IP	20.59	31	29.85	41	43.48	57	63.85	79
	To KK from KN	17.34	27	*	36	36,63	49		68
	To KK from KL	407.79	510	591.33	739	861.27	1,077	1,264.81	1,581
	КK	5.54	72	•	15	· ·	20	Ч	27
	To KK from JB	31.64	43	45.87	59	66.81	82	98.12	115
	Щ	100.42	118	45.6	165	Ч	265		389
	Total (except KG)	498.75	648	723.21	924	с. С.	1,331	1,546.90	1,933
						-			
ς. Μ	Grand Total (1 + 2)	1,056.14	1,362	1,531.45	1,945	2,230.56	2,794	3,275.67	4,057

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Results of Traffic Forecasting up to 2015 A.D. Between Kuching (KG) and Each Zone Centre Area (In Case of 2% GDP Growth) Table III-15 (1/2)

	Routes	Measurements (a) (Erl)	(b) (a) x1.5	(c) Factor (b) x1.2	Services (c)x1.3	Values in 1990	Circuits in 1990	Values in 1995	Circuits in 1995
	Outgoing Circuits								
	From KG to PG	4.03	6.05	7.25	9.43	10.34	100	11.37	20
	From KG to IP	2.00	3.00	3.60	4.68	5.12	11	5.64	12
	From KG to KN	2.40	3.60	4.32	5.62	6.16	13	6.77	4
	From KG to KL	155.60	233.40	280.08	364.10	398,03	498	437.84	547
	From KG to MC	2.60	3.90	4.68	6.08	6.68	41	7.35	14
	From KG to JB	4.10	6.15	7.38	9.59	10.49	61.	11.54	20
	From KG to KK	14.50	21.75	26.10	33.93	37.23	50	40.95	54
	Total (except KK)					436.82	573	480.51	627
	· · · · · · · · · · · · · · · · · · ·					· .		•	
5	Incoming Circuits								
	To KG from PG	3.10	4.65	5.58	7.25	7.95	5 H	8.74	16
	To KG from IP	1.40	2.10	2.52	3.28	3.59	თ	3.95	OT -
	To KG from KN	4.46	6.69	8.03	10.44	11.43	20	12.58	21
	To KG from KL	115.70	173.55	208.26	270.74	295.97	370	325.57	407
	To KG from MC	1.40	2.10	2.52	3.28	3.60	бл ,	3.96	OT
	KG	2.70	4.05	4.86	6.32	6.91	14	7.61	5T.
:	TO KG from KK	28.29	42.44	50.92	66.20	72.64	88	79-90	96
	Total (except KK)					329.45	437	362.41	479
			· · · ·						

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Results of Traffic Forecasting up to 2015 A.D. Between Kuching (KG) and Each Zone Centre Area (In Case of 2% GDP Growth) Table III-15 (2/2)

	Values Circuits Values in 2005 in 2005 in 2010	Circuits
or cuits 2005		
53	14 20 23	06 71
1 1 1	7.04 14	
16		8.46
584	-	547.01
17		9.18
23		14.42
65		51.16
177		600.31
Н9		10.92
11	4.94 11	
25	•	15.71
508		406.75
Ч		4.95
Ц		9.50
117		
291		452.77
368	.053.08 1,368	1,231 1,053.08 1,368

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Results of Traffic Forecasting up to 2015 A.D. Between Kuching (KG) and Each Zone Centre Area (In Case of 4% GDP Growth) Table III-16 (1/2)

Estimated Circuits Traffic in 1995 20 529 111 121 121 615 Estimated Estimated Estimated Traffic in 1995 5.15 Values 8.80 569.20 11.36 5.14 16.35 9.89 471.14 9.55 15.00 53.24 123.25 103.87 14.78 7.33 524.66 Circuits in 1990 No. of 493 99 Traffic in 1990 9.01 4.07 12.96 335.44 7.84 11.71 5.81 6.98 451.10 7.57 11.89 42.19 Values 373.40 82.32 195.06 Additional Services (c) x1.3 5.62 364.10 9.59 33.93 7.25 3.28 3.28 10.44 270.74 3.28 6.32 66.20 9.43 4.68 6.08 New Improvement (c) Factor Network (b) x1.2 4.32 280:08 7.38 26.10 2.52 8.03 208.26 2.52 4.86 5.58 7.25 3.60 4.68 (a) x1.5 Margin Safety 233.40 3.90 6.15 21.75 2.10 6.69 173.55 6.05 3.00 3.60 4.65 2.10 4.05 42.44 මු Highest Values by the Current Measurements (a) (Erl) 4.03 2.00 2.40 155.60 2.60 1.40 2.70 28.29 115.70 4.10 1.40 4.46 14.50 3.10 Outgoing Circuits Incoming Circuits Total (except KK) (except KK) From KG to KN From KG to KL From KG to MC To KG from MC To KG from JB ሮ Å From KG to JB From KG to KK g Z To KG from KK From KG to IP TO KG From KL 出 ç To KG from from To KG from Routes С М To KG Total нола ~

1.422

1,095.80

1,138

868,46

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Grand Total

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		and Each	Zone	Centre Area (In	(In Case	0f 4% GDP G	(drowen)		· · · · · · · · · · · · · · · · · · ·
		Estimated	Estimated	Estimated	Estimated	Ш.	Estimated	нı	Estimated
Boites	va	Traffic	No. of	Traffic	No. of		No. of		No. of
	001	Values	Circuits	Values	Circuits	Values	Circuits	-	H
	•	in 2000	in 2000	in 2005	in 2005		in 2010	in 2015	in 2015
1. Outgo	Outgoing Circuits					· ·	•		
From	KG to PG	18.86	29		35	- o	43	39.76	53
From		9.35	17		20	15.28	24	19.71	30
	KG to KN	11.23	19		23	ω.	28	23.68	34
	KG to KL	726.31	908		1,158	9	1,484	1,531.29	1,914
From	KG to MC	12.18	21	15.53	25		30	25.69	37
ноля	KG to JB	19.14	29	•	35	H.	43	40.36	53
From	KG to KK	67.93	83	86.58	103		129	143.23	163
Total	(except KK)	797.07	1,023	1,015.93	1,296	1,302.61	1,652	1,680.49	2,121
:									
Z. Incoming	Ing Circuits						·		
To KG	from PG	14.50	24	18.48	28	23.70	34 8	30,57	42
		6.55	13	•	16	10.71	19	13.82	23
	from KN	ω.	ΊE		38	34.10	46	43.99	57 :
		540.07	675	688.35	860	882.61	1,103	1,138.65	1,423
To KG	from MC	6.57	13	8.38	16	10.74	19	13.86	23
		12.62	21	16.08	. 25	20.62	31	26.60	38
To KG		S	151	168.93	189	216.61	12 ·	4	349
Total	(except KK)	•	777	766.23	983	982.48	1,252	1,267.49	1,606

Results of Traffic Forecasting up to 2015 A.D. Between Kuching (KG) and Each Zone Centre Area (In Case of 6% GDP Growth) Table III-17 (1/2)

		Highest Values by the Current	Safety Marqin	Ne twork Improvement	Additional New	Estimated Traffic	Estimated No. of	Estimated Traffic	Estimated Traffic
-	koutes	Measurements	(व)	(c) Factor	Services	Values	Circuits	Values	Circuits
		(a) (Erl)	(a)x1.5	(b) x1.2	(c)x1.3	1990 in	in 1990	in 1995	in 1995
-	Ourgoing Liteures								
	From KG to PG	4.03	6.05	7.25	9.43	13.44	22	19.33	29
	From KG to IP	2.00	3.00	3.60	4.68	6.66	14	9.58	17
	From KG to KN	2.40	3.60	4.32	5.62	8.00	15	11.51	20
	From KG to KL	155.60	233.40	280.08	364.10	517.45	647	744.33	930
	From KG to MC	2.60	3.90	4.68	6.08	8.68	16	12.49	21
	From KG to JB	4 10	6.15	7.38	9.59	13.64	22	19.62	30
	From KG to KK	14.50	21.75	26.10	33.93	48.40	62	68.62	84
	Total (except KK)			·		567.87	736	816.86	1,047
	•								• .
5.	Incoming Circuits								
	To KG from PG	3.10	4.65	5.58	7.25	10.33	18	14.86	24
	TO KG From IP	1.40	2.10	2.52	3.28	4.67	15	6.72	14
	To KG from KN	4.46	6.69	8.03	10.44	14,86	24	21.38	32
	TO KG FROM KL	115.70	173.55	208.26	270.74	384.77	481	553.47	692
	To KG from MC	1.40	2.10	2.52	3.28	4.68	TT	6.74	14
	TO KG from JB	2.70	4.05	4.86	6.32	8,99	17	12.93	22
	TO KG From KK	28.29	42.44	50.92	66.20	94.43	111	135.83	155
	Total (except KK)	· · .				428.30	562	616.10	798
:									
m	Grand Total (1 + 2)	(996.17	1,298	1,432.96	1,845
				-					

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Results of Traffic Forecasting up to 2015 A.D. Between Kuching (KG) and Each Zone Centre Area (In Case of 6% GDP Growth) Table III-17 (2/2)

Estimated Circuits in 2015 No. of 103 4,163 104 389 4,561 113 3,095 760 3,446 8,007 9 9 9 տ Չ 70 82 42 42 72 Estimated Traffic in 2015 30.05 95.66 30.14 57.85 Values 55.87 87.78 86.48 42.87 51.50 66.49 6,410.99 311.47 3,330.09 3,654.59 607.70 2,756.40 2,476.23 Estimated Circuits in 2010 No. of 2,835 5,482 517 265 2,108 2,361 4 4 C 7 C 3,121 31 80 80 52 41 31 Estimated Traffic in 2010 Values 29.19 65.14 39.39 413.82 35.07 20.46 20.52 4,365.54 58.89 38.04 45.27 1,686.18 1,876.96 2,267.62 59.77 212.10 2,488.58 Circuits Estimated in 2005 No. of 1,946 1,447 1,632 3,787 23 38 355 37 54 165 2,155 35 30 30 30 43 533 Estimated Traffic in 2005 Values 40.43 20.04 24.08 31.08 14.09 2,997.26 14.05 44.72 27.04 284.12 26.12 41.04 1,157.68 1,288.66 1,556.89 145.62 1,708.60 Estimated Circuits in 2000 No. of 1,342 118 1,498 32 18 998 217 1,137 2,635 28 43 18 28 39 23 26 40 Estimated Traffic in 2000 30.84 798.37 Values 100.42 21.44 9.69 9.72 195.93 195.93 888.71 2,066.99 27.88 13.82 16.60 28.30 1,073.67 18.0I 1,178.28 () + Incoming Circuits Outgoing Circuits Total (except KK) (except KK) Grand Total (1 ğ To KG from JB g Д From KG to JB В Д Д TO KG From KN To KG from KL To KG from MC from XX From KG to KK С Д Ч ç р ф t t KG to From KG to from KG from Routes ЮМ ЮM From KG To KG To KG Total From From From 0 E • •--1 3 'n

6. CONCLUSION

6. Conclusion

The telephone demand forecast up to 2015 A.D. has been made according to the constant annual GDP growth rates (2%, 4% or 6%). But it is difficult to forecast the other non-telephone demand for telex, telegram, telefax and data communication (MAYPAC), etc. up to the 2015 A.D. Accordingly, we have estimated the number of trunk circuits between Peninsular Malaysia and Sabah/Sarawak by adding a margin of 30% for the non-telephone demand to the basic traffic value.

As for the GDP growth rate in Malaysia, 4% is considered to be reasonable for the long-term forecasting, as compared with the past experiences of 20 upper middle-income countries (including Malaysia) and 19 industrial market economies from 1965 to 1984 inclusive.

To conclude, the total number of the trunk circuits estimated at 4% GDP growth rate every 5 years is expected in the Malaysian telecommunications network. But to design economically the new system the total number of 3,200 circuits as of 2003 A.D. is allocated the project.

The more data are available, the more accurate results can be obtained. However, our study was requested to estimate the number of the trunk circuits between Peninsular Malaysia and Sabah/Sarawak by the very long-term forecast. Since this forecast has not been made for the short-term provisioning purpose, the results of our study should be reviewed according to the economic outlook, etc. of the nation as well as in the framework of the JTM's master plan from time to time.

ANNEX III-1

emand Growth 1980 - 1985 in Malaysia

Chata		19	30			198	81			198	32			198	33			198	4	,		198	5	
State	D	В	R	B/D(%)	D	В	R	B/D(%)	D	В	R	B/D(%)	D	В	R	B/D(%)	D	В	·····	B/D(%)	D	В	R	B/D(%)
Johor Sub-total JB	54,131	22,055	32,076	40.7	68,629	23,909	44,720	34.8	85,903	26,443	59,460	30.8	100,800	27,464	73,336	27.2	120,546	29,702	90,844	24.6	133,735	30,662	103,073	22.9
Melaka N. Sembilan Sub-total MC	15,269 17,541 32,810	5,675 6,493 12,168	9,594 11,048 20,642	37.0	17,924 20,952 38,876	5,854 7,038 12,892	12,070 13,914 25,984	33.6	20,448 25,955 46,403	6,643 8,522 15,165	13,805 17,433 31,238	32.8	24,187 31,277 55,464	7,089 9,061 16,150	17,098 22,216 39,314	29.0	28,118 41,739 69,857	7,999 10,460 18,459	20,119 31,279 51,398	25.1	31,647 45,572 77,219	8,460 10,781 19,241	23,187 34,791 57,978	23.7
Selamgor W. Persekutuan Sub-total KL	98,353 106,878 205,231	30,246 50,772 81,018	68,107 56,106 124,213	47.5	120,206 125,991 246,197	36,456 58,664 95,120	83,750 67,327 151,077	46.6	139,020 152,880 291,900	41,263 69,047 110,310	97,757 83,833 181,590	45.2	153,883 177,126 331,009	44,109 79,093 123,202	109,774 98,033 207,807	44.7	174,125 196,719 370,844	48,618 84,068 132,686	125,507 112,651 238,158	42.7	188,825 220,754 409,579	47,880 95,512 143,392	125,242	43.3
Kedah Perlis P. Pinang Sub-total PG	16,097 2,347 50,638 69,082	6,559 1,092 19,330 26,981	9,538 1,255 31,308 42,101	46.5 38.2	21,221 3,079 60,569 84,869	7,545 1,258 21,590 30,393	13,676 1,821 38,979 54,476	40.9 35.6	25,499 3,537 70,400 99,436	8,594 1,370 23,153 33,117	16,905 2,167 47,247 66,319	38.7 32.9	30,105 4,497 81,919 116,521	9,388 1,562 25,700 36,650	20,717 2,935 56,219 79,871	34.7	36,129 5,667 93,549 135,345	10,989 1,829 26,879 39,697	25,140 3,838 66,670 95,648	32.3 28.7	41,395 7,319 102,945 151,659	11,173 2,121 29,709 43,003	30,222 5,198 73,236 108,656	29.0 28.9
Perak Sub-total IP	51,775	18,295	33,480	35.3	64,803	20,933	43,870	32.3	79,247	23,477	55,770	29.6	92,312	24,890	67,422	27.0	107,660	28,516	79,144	26.5	114,383	28,730	85,653	25.1
Kelantan Pahang Terengganu Sub-total KN	11,142 16,042 5,284 32,468	3,860 7,409 2,614 13,883	7,282 8,633 2,670 18,585	46.2 49.5	13,639 20,265 6,869 40,773	4,911 8,288 2,879 16,078	8,728 11,977 3,990 24,695	40.9 41.9	17,131 24,470 11,598 53,199	5,659 8,563 4,418 18,640	11,472 15,907 7,180 34,559	35.0 38.1	21,939 29,890 15,273 67,102	6,171 9,402 5,326 20,899	15,768 20,488 9,947 46,203	31.5 34.9	26,430 35,452 18,495 80,377	6,567 10,120 6,074 22,761	19,863 25,332 12,421 57,616	28.5 32.8	29,286 40,226 20,650 90,162	6,804 10,737 6,022 23,563	22,482 29,489 14,628 66,599	26.7
Sabah Sub-total KK	38,620	17,767	20,853	46.0	43,414	18,003	25,411	41.5	58,735	22,928	35,807	39.0	68,769	27,624	41,145	40.2	79,130	30,202	48,928	38.2	82,609	30,862	51,747	37.4
Sarawak Sub-total KG	45,122	18,518	26,604	41.0	51,059	20,200	30,859	39.6	60,372	22,981	37,391	38.1	67,951	25,071	42,880	36.9	75,912	27,857	48,055	36.7	81,893	29,201	52,692	35.7
Total	529,239	210,685	318,554	39.8	638,620	237,528	401,092	37.2	775,195	273,061	502,134	35.2	899,928	301,950	597,978	33.6	1,039,671	329,880	709,791	31.7	1,141,239	348,654	792,585	30.6

D: Demand B: Business R: Residential

Note: Prepared by JTM.

Table 2 Telex Demand Forecast 1986 - 1990

1,410 310 670 2,731 5,804 1,536 2,048 1,707 2,390 231 261 1,044 17,070 Dec. 90 8,535 163 350 341 854 13,315 1,922 1,602 1,323 292 628 2,563 5,447 16,020 153 328 320 217 245 980 **I,44**2 12,496 Dec.89 2,243 8,010⁵ 801 1,812 1,510 2,416 5,134 1,247 275 592 7,550 143 310 302 204 231 924 11,778 15,100 2,114 755 1,359 Dec.88 1,675 1,396 1,153 254 547 2,234 4,746 13,960 133 286 279 698 188 214 855 10,889 l,257 Dec.87 I,954 6,980 l,164 1,552 1,293 1,068 235 507 2,069 4,396 174 198 792 12,930 123 265 258 646 10,085 Dec.86 1,810 6,465 1,085 1,466 1,170 1,018 217 476 1,946 4,068 Demand 1.1.86 525 157 186 742 9,335 11,971 1,711 100 213 212 6,014 Capacity 1.1.86 2,026 5,489 2,500 2,020 **I,435** 16,020 1,200 300 500 2,000 120 230 200 550 135 500 800 11,500 7,515 P. Pinang Kedah/Perlis N. Sembilan Melaka Semenanjung Kelantan Terengganu Pahang Selangor Wilayah P. Malaysia State Sabah Sarawak Selatan Tengah Perak Timur Johor Utara

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Source:

ANNEX III-2

Name of Fvchandee	Citottor Dato	with a construction of the second sec	10 3 3	Working	Period	Total Tre	iffic Carri	Total Traffic Carried (erlangs)	Name of Pointstrated
		TIPE & COURTE	38	cures Subs.	or Observed	Outgoing	Incoming	Incoming Intra-office	
Zone Centre		ARM	0/G	1,246 996	May 30, '86 10-11 a.m.	273.90	237.20		Miss Gon Sook Ha
Tandem (KLT)		NEAX Max. 30 K ccts	0/G	11,553 7,368	May 30, '86 10-11 a.m.	3,716.20	3,655.82	I	Mr. Samuel Sellathurai
Local Exchange (KLC)		NEAX	0/G 1/C 12,23	0/G 2,500 1/C 2,103 12,232 Subs.	May 30, '86 10-11 a.m.	814.07	797.02	115.36	Mr. Mohd Shah
Local Exchange (FJ2)	Dec. 12, '82	NEAX	0/6 2 1/C 2 7,000 \$	2,518 2,583 10 Subs.	May 31, '86 10-11 a.m.	1,156.60 1,147.92	1,147.92	N.A.	Mr. Adam B. Karno Mr. Lim Pak Hoong

Table 1 Summary of Traffic Survey at Kuala Lumpur

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Table 2 Summary of Traffic Survey at Kota Kinabalu

Momentary A. Concerned			Working	Period	Total Tra	ffic Carri	Total Traffic Carried (erlangs)	
NOR DI PACINGIAS		טערטימי אַקריפ אַזְעָר א רמטַמנאריץ	or Subs.	or Observed	Outgoing	Incoming	Outgoing Incoming Intra-office	Name of Counterparts
Zone Centre	1976	ARF 201/4 2,000	0/G 702 I/C 686 Total 1,388	May 26, '86 10-11 a.m.	190.17	263.36		Mr. Daviđ
Tandem and Group		NEAX	0/G 1,272	9:00-10:00	700-00	476.39	187.61	Mr. Rassin
Centre (KB2)		+ 7 000 S		10:00-11:00	529.83	351.47	147.11	
			12,031 Subs.	11:00-12:00	667.46	442.39	187.88	•
· · · ·	•			14:00-15:00	669.29	433.19	185.44	
Telex Data	Dec. 29, '85 Not yet operated	AXB 20 1,000 AXB30	40 Subs. + 92 ccts	May 26, '86	И.А.	И.А.	1	Mr. Kamal
والمحافظ والمح								
				•		• .		

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Table 3 Summary of Traffic Survey at Kuching

Name of Fvrhanrae	Cutovar Data	1 increi 3 anut	Working	Period Meesured	Total Tra	Total Traffic Carried (erlangs)	(erlangs)	Name of Pointernerts
	5 5 7 7 7 7 7 7 7		or Subs.	or Observed	Outgoing	Incoming Intra-office	ntra-office	
Zone Centre	Oct. 29, 77	ARM	0/G 706 I/C 463	June 6, '85 10-11 a.m.	225.10	182.60	1	Network O&M Centre Mr. Lim Ping Mr. Poh Jeng Seng Mr. Dong Jun Kong Mr. Lim Ah Lek
Tandem and Group Centre	Feb. 5, '77	KGT1 ARF KGT2 AXE	0/G 1,070 I/C 1,317	June 6, '86 10-11 a.m.	255.30	342.40	1	Network O&M Centre Mr. Lim Ping Mr. Poh Jeng Seng Mr. Dong Jun Kong Mr. Lim Ah Lek
Local (KCH3)	Dec. 18, '83	AXE 20 Klines	8,325 Subs. 0/G 251	14-15 p.a.	213.00	152.30	64.50	Network O&M Centre Mr. Lim Fing Mr. Poh Jeng Seng Mr. Dong Jun Kong Mr. Lim Ah Lek
Stampin (STM)	Feb. 20, ¹ 83	NEAX 5 Klines	I/C 291		И.А.	N.A.	N.A.	Network O&M Centre Mr. Lim Ping Mr. Poh Jeng Seng Mr. Dong Jun Kong Mr. Lim Ah Lek
Telex	0ct. ¹ 76	TWK12 400	158 trunks KCH + BTU + Others	N.A.				Mr. Charles Lee
AOM	184	768 Kbytes						Mr. Fam Shin Fong

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TTE2 Feb. 16, '84 NEAX-61 Zone Centre Feb. 16, '84 NEAX-61 Feb. 16, '84 NEAX-61 Feb. 16, '84 NEAX-61 Group Centre 1974 ARF Local Centre 1983 NEAX-61 15,000 Telex Apr. 13, '86 AXB 20 1,000				Incoming Intra-office N.A 97.56 - 111.41 - 192.21 - 207.35 -	Mr. Abdul Wahab Ayub Mr. Abdul Wahab Ayub
Feb. 16, '84 Feb. 16, '84 Feb. 16, '84 1983 1983 Apr. 13, '86					Mr. Abdul Wahab Ayub Mr. Abdul Wahab Ayub
Centre Feb. 16, '84 Feb. 16, '84 Centre 1983 Centre 1983 Apr. 13, '86		-			Mr. Abdul Wahab Ayub Mr. Abdul Wahab Ayub
Feb. 16, '84 Centre 1983 Centre 1983 Apr. 13, '86					Mr. Abdul Wahab Ayub
Feb. 16, '84 Centre 1983 Centre 1983 Apr. 13, '86					Mr. Abdul Wahab Ayub
Centre 1983 Centre 1983 Apr. 13, '86					
Centre 1983 Centre 1983 Apr. 13, '86		May 24, '86			
Centre 1983 Apr. 13, '86	I/C	10:00-11:00 May 24, ¹ 86	41.90	N.A	Mr. S.V. Sivam Mr. Chan
Apr. 13, ¹ 86	4,500	10:00-11:00 May 24, '86	216.66	173.32 53.02	
	KUA 124 Cthers 24 Total 148	May 24, '86	И.А.	N.A. N.A.	Ms. Kayati
	KLA 90 KUB 138 KBC 45				
Local Centre 1979 ARF 10,000	7,800				
					· ·

Table 4 Summary of Traffic Survey at Kuantan

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Table 5 Summary of Traffic Survey at Johor Baru

Namo of Evokandee Cutonor Date		it incred i	Working	Feriod	Total Trai	Total Traffic Carried (erlangs)	d (erlangs)	officiant fraction of the second seco
Name of the the sector of the		Type a capacity	or Subs.	or Observed	Outgoing	Incoming	Outgoing Incoming Intra-office	אמווני אין אמוויין אמוויין אמוויין
Zone Centre	End ¹ 75	ARM 2,200	0/G 785 I/C 714	Jun. 3, '86 10:00-11:00	242.74	185.16	1	Mr. Khoo Swee Seng
Group Centre	Sept. '83	NEAX	0/G 2,181 I/C 2,503	Jun. 3, '86 10:00-11:00	1,202.99 1,106.71	1,106.71		
Local Centre	Beg. '76	ARF 10 Klines	0/G 437 I/C 441 7,593 Subs.	Jun. 3, '86 10:00-11:00	219.26	229.86	64.00	Mr. Lee Soon Huat
Telex	Mar. 16, '86	AXB 20 1 Kline	400 Subs.	N.A.				Mr. Mesran Bin Tahir
Telex		THR	300 Subs.	N.A.				
MAYPAK	Apr. '85	9.6 Kbytes	5 Subs.	- -				Mr. Wong Yok Sang

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Table 6 Summary of Traffic Survey at Malacca

	And Antimation		Working	Period	Total Tra	ffic Carrie	Traffic Carried (erlangs)	
Name of Excuences		יזער א נמעמניני	or Subs.	or Observed	Outgoing	Inconing	Intra-office	Name of Lognice Dat is
Zone Centre	1977	ARM	0/G 972 1/C 1,093	Jun. 2, '86 9-10-11 a.m.	292.39	323.51	2 	Mr. Low Ah Heng
Local Switch	Apr. 27, '86	AXE 20 Klines	12,200 Subs. 0/G 764 I/C 761	Jun. 5, '86 10:30-11:30	361.40	334.30	194.60	Mr. Yosof Hussein
SSC	Apr. 27, '86	8 Kccts	0/G 375 I/C 439	Jun. 5, ¹ 86 10:30-11:30	125.70	127.70	I	Mr. Yosof Hussein
44 	- - -					• .		
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		•			· ·	:	•	
			· · · · · · · · · · · · · · · · · · ·					
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) Name of Consternants	· · ·	Mr. Liew Chong Wai	Mr. Abd Azíz Bakar Mr. Harudin B. Mat Rod		Miss Hemalatha Arumugam
	Total Traffic Carried (erlangs)	Outgoing Incoming Intra-office	ł	I	214.75	
at Ipoh	iffic Carrie	Incoming	283.60	817.10	350.06	•
Survey	Total Tra	Outgoing	240.34	762.90	414.20	
Summary of Traffic Survey at Ipoh	Períod Measured	or Observed	Jun. 13, '86 10-11 a.m.	Jun. 13, '86 10-11 a.m.	Jun. 13, '86 10-11 a.m.	. A. N
mary o	Working Circuits	Subs.	883 853 853	1,722 1,836	596 854	ots Subs.
		· .	9 0 1	0/G I/C	0/G	96 ccts 433 Subs
Table 7	Tvne & Canarity		ARM 2,200 ccts	AXE 6 Kccts	NEAX	AXB Concentrator 1 Kline
			July 15, 174	Oct. 13, '84		Mar. '84
	Name of Exchances Cutover Date		Zone Centre	Group Centre & Tandem	Local Ipoh 4 (IP-4)	Telex

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	Name of
urvey at Penang	Total Traffic Carried (erlangs)
Traffic 8	Perlod Measured
Summary of Traffic Survey at	Working Circuits
Table 8	Ype & Capacity

Dec. '72ARMO/G566Dec. '72ARMO/G566Sept. '77ESKBus. 3,8911Sept. '77ESKBus. 3,8911Sept. '77ESKBus. 3,8911Jul. '85AXE0/G432Jul. '85AXE0/G432Jul. '85AXE0/G432Jul. '85AXE0/G432Jul. '85AXE0/G432Jul. '85AXE0/G443Bus. '9, 91813,80916Jul. '85AXE0/G443Bus. '9, 91816149Mar. 4, '84NEAX0/G149Mar. 4, '84NEAX0/G149Mar. 4, '84NEAX0/G149Concentrator819 Subs.1	Name of Duritor			Working	Period	err Teror	lotal tratile carried (erlangs)	a (ertangs)	Mame of Counterparts
Dec. '72 XeW O(G 567 11-12 a.m. 213.27 - Mr. Clew Poh Hoo Mr. Tar Lee Peng W Sept. '77 ESK Bus. 3,991 N.A. Mr. Tar Lee Peng W Sept. '77 ESK Bus. 3,991 N.A. Mr. Ter Peng W Sept. '77 ESK Bus. 3,991 N.A. Mr. Ter Haun Chu 20 Klines Bus. 3,991 N.A. Mr. Ter Huan Chu 20 Nul. '8S ME Mr. Ter Huan Chu Mr. Ter Huan Chu 20 Nul. '8S Mr. Mamaed B. Che Mr. Ter Huan Chu 20 Nul. '8S Mr. Max 90.70 66.58 Mr. Mubaned B. Che 20 Nul. '8S Mr. 4, '84 Mr. 4, '84 Mr. 58 Mres 20 Klines 0/G 149 10-11 a.m. 90.70 66.58 Mr. Shaharuddin Ist 10 Klines 0/G 149 10-11 a.m. 90.70 64.0 66.65 Mr. Shaharuddin Ist 10 Klines 0/G 149	additionary to anish	רתונסאפד המופ		or Subs.	or Observed	Outgoing		Intra-office	אסוויב הא אסוויב
Sept. '77 Ex 391 N.A. 20 Klines Bus. 3,991 N.A. Mr. Teh Huan Chu 20 Klines Res. 3,993 11-12 a.m. 377.90 400.90 66.58 Mr. Muhamed B. Che 20 Klines 0/G 443 11-12 a.m. 377.90 400.90 66.58 Mr. Muhamed B. Che 20 Klines 0/G 443 11-12 a.m. 377.90 400.90 66.58 Mr. Muhamed B. Che 20 Klines 0/T 13,909 400.90 66.58 Mr. Muhamed B. Che 20 Klines 0/T 13,909 400.90 66.56 Mr. Muhamed B. Che 20 Klines 0/T 13,909 400.90 66.56 Mr. Muhamed B. Che 20 Klines 0/T 12 11-12 a.m. 377.90 400.90 66.56 20 Klines 1/T 10,316 10-11 a.m. 90.70 68.40 8.66 Mr. Shaharuddin Is 21 10 Klines 10/2 125 10-11 a.m. 90.70 68.40 8.66 Mr. Shaharuddin Is 235 Cues 235 Cues 235 14 10-11 a.m. 90.70 68.40 8.66 Mr. Shaharuddin Is 20 Klines 14 10 13 14 10 10 <td>Zone Centre</td> <td></td> <td>ARM</td> <td></td> <td></td> <td>217,78</td> <td>213.27</td> <td></td> <td>Mr. Chew Poh Hoo Mr. Lim Lye San Mr. Haridas A/L Villamayer Mr. Tan Lee Peng Wah</td>	Zone Centre		ARM			217,78	213.27		Mr. Chew Poh Hoo Mr. Lim Lye San Mr. Haridas A/L Villamayer Mr. Tan Lee Peng Wah
(KOMTAR LC) Jul. '85 AXE 0/G 432 11-12 a.m. 377.90 400.90 66.58 Mr. Muhamed B. Che 20 Klines 1/C 443 11-12 a.m. 377.90 400.90 66.58 Mr. Muhamed B. Che Res. 3,376 Bus. 6,922 Res. 3,376 Miss Susar A/P Texander Res. 3,376 Bus. 6,922 Res. 3,376 Texander Texander Res. 3,376 10-11 a.m. 90.70 68.40 8.66 Mr. Shaharuddin Is: Total 10,316 166/6) 149 10-11 a.m. 90.70 68.40 8.66 Mr. Shaharuddin Is: (GEUUGOR U2) Mar. 4, '84 NEAX 0/G 149 10-11 a.m. 90.70 68.40 8.66 Mr. Shaharuddin Is: CCB 74 235 74 235 74 235 74 74 Total 4,180 74 1,90 68.40 8.66 Mr. Shaharuddin Is: 74 CCB 74 235 74 235 74 74 74 </td <td>Local Switch & Tandem/GC</td> <td>Sept. 177</td> <td>ESK 20 Klines</td> <td></td> <td>N.A.</td> <td></td> <td></td> <td></td> <td>Mr. Teh Huan Chu</td>	Local Switch & Tandem/GC	Sept. 177	ESK 20 Klines		N.A.				Mr. Teh Huan Chu
(GELUGOR U2) Mar. 4, '84 NEAX 10 Klines 1/C 125 10-11 a.m. 90.70 58.40 8.66 Res. 3,842 Res. 3,842 CCB 74 UTM 29 Total 4,180 Concentrator 819 Subs. N.A.	Local (KOMTAR LC)	1	AXE 20 Klines		11-12 a.m.	377,90	400.90	66.58 6	Che
Concentrator 819 Subs. N.A.	Local (GELUGOR U2)	Mar. 4,	NEAX 10 KIInes		10-11 a.m.	90.70	68.40	8 66	Mr. Shaharuddin Ismail
	Telex		Concentrator	819 Subs.	N.A.				Miss Oci Chooi Yee

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ANNEX III-3

	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
ALTT		0.00	172.00	227	КВ10
SPTE		0.00	59,75	100	INMO
ESEO		0.02	37.02	82	PPGO
KB3I		0.77	16.63	52	PPTO
KB11	186	95.55	0.25		KB30
INMI	123	51.80	0.00		JBT1
PPGI	75	34.33	0.00		MBA2
PPTI	25	8.25	0.00		MBOO
MBAI		0.00	2.00		MB01
MBDI		1.77	0.41		MB02
KTIC		0.00	2.22		MB03
KOIC		0.00	0.13		MB04
JBTI	4	0.86	0.00		MB05
KNIC	5	0.00	0.00		MB06
LBNI	50	9.86	0.00		MB07
LHDJ	30	6.16	0,25		MB08
SKNI	75	17.86	2,55		MB09
BFTI	25	6.11	2,33		MBOA
KGUI	26	10.61	1.86	10	KOSO
KDTL	27	7.69	0.91	5	JBTO
RNUI	13	5.13	0.80	5	KNOG
TWUI	30	12.61	14.00	50	LBNO
BSBI		0.00	2.00	28	LHDO SKNO
SBIC	14	0.88	14.86	65 24	BFTO
KGTI	15	3.00 0.27	3.77 8.69	24	KGUO
LGIC	5	0.75	12.91	23	кото
MRIC	12 10	1.88	5.05	11	RNUO
KGZI SEZI	10	0.00	12.19	46	TWUO
PGZ1	3	0.33	0.00	10	BSBO
IPZI	7	0.44	1,22	10	SBOG
MCZI	6	0.02	2.77	15	KGTO
JBZI	3	0.22	0.16	4	LGOG
KT4I	7	0.00	3,83	12	MROG
PJTI	2	0.00	2,11	10	KGZO
KLZI	0	0.00	0.00		SEZO
BTUI	20	0.88	1.94	4	PGZO
KNZI	15	1.44	2.16	4	IPZO
MTXI	36	4.11	0.47	5	MCZO
KBZI	116	21.86	0.69	3	JBZO
KDSI	12	1.30	0.00	7	KT4O
TSTI		0.00	6.58	22 11	PJTO KLZO
KINI	12	2.33	7,69	11	KTOG
MGTI	70	4.86	0.00		KOOG
KBDI	30	4.75 12.55	1.05	20	BTUO
TRNI	22	6.25	4.41	35	MTXO
TPLI	39 29	6.05	36.52	106	KBZO
IM2I PPRI	34	7.94	3.02		TSTO
* 1 1/1	54		1,36	15	KNZO
			1.50		ISDO
			2.33	12	KINO
			28,58	82	MGTO
			6.66	30	KBDO
			18.38	30	TRNO
			5,86	36	TPLO
			4.94	25	IM2O
			13.02	12	PPRO
			0.00		TBNO
Total	1,213	351.49	529.83	1,263	Total

Table 1 Results of Traffic Measurement for Kota Kinabalu Tandem/U2

Table 2 Traffic Distribution in Kota Kinabalu Tandem/U2

o Outgoing

<pre>Traffic (erl) 21.33 0.77 Working (cct) 40 5 Traffic 4.03 0.15 Distribution (%) 4.03 0.15</pre>				•			i.		Ì	1	
40 1 (%) 4.03	S	2.47	2.46	2.44	2.24	13.90	480.34	j	0.52	3.36	529.83
ution (%) 4.03		4	20	4	ω	TL	1,111	1		1	1,263
		0.47	0.46	0.46	0.42	2.62	90.66	} 	01.0	0.63	100-00
						· .					
o Incomine											
· · · · · · · · · · · · · · · · · · ·											
KL MC		e I	Ŋ	ъ	JB	КG	X	ITE1	ITE2	SE	Total
Traffic (erl) 3.29 0.08		0.63	1.45	0.48	1.30	8.18	333.58	ł	1.56	0.94	351.49
Working (cct) 9	Ś	4	20	۲	۲.	76	1,085		· . 1	• 1 • • •	1,213
Traffic (%) 0.94 0.02 Distribution (%)	. 1	0.18	0.41	0.14	0.37	2.33	94.90	l	0.44	0.27	100.00
			ч. 2 г.								

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	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
KKU1	102	31.47	22.40	50	KKU1
	102	55.45	5.81	116	KKU2
KKU2 INM	110	55.45	7.40	30	INM
PPG	· ·		1.94	12	PPG
PTŊ			2.42	8	PTN
TRN			0.62	6	TRN
	8	3.64	0.66	6	RNU
RNU KBD	0	5.04	0.25	5	KBD
KDT	11	1.19	0.41	19	KDT
	24	14,48	5.67	16	BFT
BFT	40	15.12	5.63	35	LBN
LBN		9.68	6.40	35 17	KGU
KGU	17	15.25	20.38	50	SKN
SKN	40	18.72	13.04	50 21	TWU
TWU	21		4.96	14	LHD
LHD	17	5.40	4.96 3.70	14	KGZ
KGZ	15	2.49			1
KGT	25	0.69	5.57	25 12	KGT MRU1
MRU1	12	0.94	3.35	4	MRU1 MRU2
MRU2	7	0.93	0.69	5	LG
LG	4	0,53	1.00	15	BSB
BSB	16	2.51	5.15 1.02	3	MTX1
MTX1	3	1.01	1.02	2	MTX2
MTX2	2	0.24	0 10	2	MTX3
MTX3	3	1.17	0.10	20	MTX4
MTX4	20	6.82	5.02	20	MTX5
MTX5	2	0.74	0.08 17.47	30	SE
SE	30	11.34	5,44	36	KLZ
KLZ	15	7.66	25.61	40	KLT4
KLT4	38	24.61		40 16	PJT2
PJT2	16	6.37	4.69	16	
PGZ	6	1.57	2.61 0.86	6 4	PGZ IPZ
IPZ	4	0.92		4 6	IPZ IPT2
IPT2	8	1.43	0.74		
MCZ	2	0.70		2 8	MCZ TROSC
JBGSC	8	0.97	1.88		JBGSC
JBZ	4	0.53	1.38	4 2	JBZ KNGSC
KNGSC	2	0.06	0.32		
KNZ KNITE2	18 30	18.74	1 24 2.72	14 23	KNZ KNITE2
				· · · · · · · · · · · · · · · · · · ·	
Total	686	263.37	190.17	702	Total

Table 3 Results of Traffic Measurement for Kota Kinabalu Zone Centre

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Table 4 Traffic Distribution in Kota Kinabalu Zone Centre

Outgoing	
0	

	Ŗ	MC	е Н	KN	ЪG	สภา	KG	Ř	ITEL	ITE2	SE	Total
Traffic (erl)	36.76	1.54	1.60	1.56	2.61	3.36	1¢.39	·	2.72		17.47: 108.16	11,001
Working (cct)	95	19	10	16	ω	5T	63		23	30	440	702
Traffic Distribution (%)	19,33	0.81	0,84	0.82	1.37	1.76	7.57	0	1.43	9.19	56.88	100.00
o Incoming		• .				· · ·						
	Ŕ	MC	I.P.	ICN	Ðđ	J.B	KG	X	ITEI	ITE2	SE	Total
Traffic (erl)	39,65	0.70	2.35	0.06	1.81	2.67	6.32		18.74	11.34	11.34 179.73	263.37
											-	

686

30 432

30

65

15

ω

20

12

2

72

Working (cct)

100.00

68.24

4.31

7.12

0

2.40

1.01

0.69

0.02

0.89

0.27

15,05

Traffic Distribution (%)

84

Table 5 Total Traffic Distribution in Kota Kinabalu Zone Centre Combined with Tandem Centre

		()	
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			••	

Traffic (erl) 58.09 2.31 4.07 4.02 5.05 5.60 28.50 - 3.24 20.83 Working (cct) 135 7 14 36 12 23 134 1,551 - 23 30 Traffic 0.32 0.57 0.56 0.70 0.78 3.93 81.74 - 0.45 2.90	20.83	30	2.90	
58.09 2.31 4.07 4.02 5.05 5.60 28.29 588.50 135 7 14 36 12 23 134 1,551 1(%) 8.07 0.32 0.57 0.56 0.70 0.78 3.93 81.74	3.24	23	0.45	
58.09 135 1 (%) 8.07	I	I	'n	
58.09 135 1 (%) 8.07	588.50	1,551	81.74	
58.09 135 1 (%) 8.07	28.29	134	3,93	
58.09 135 1 (%) 8.07	5.60	23	0.78	
58.09 135 1 (%) 8.07	5.05	12	0.70	
58.09 135 1 (%) 8.07	4.02	36	0.56	
58.09 135 1 (%) 8.07	4.07	14	0.57	
(%)	2.31	7	2	
Traffic (erl) Working (cct) Traffic Distribution (%)	58.09	135	8.07	
	Traffic (erl)	Working (cct)	oution (%)	

I,965

100.001

720.00

Total

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ITE2

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o Incoming

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	Ϋ́	MC	đI	KN	ଅ ଜୁ	аг аг	КG	X	ITEL	ITE 2	ß	Total
Traffic (erl)	42.94	0.78	2.98	1.51	2.29	3.97	14.50	14.50 513.31	ł	20.30	12.28	614.86
Working (cct)	81	œ	19	40	Ч	22	141	141 1,517	I	30	30	1,899
Traffic Distribution (%)	6.98	0.13	0.48	0.25	0.37	0.65	2.36	2.36 83.48	1	3.30	2:00	100.00

	INCOMING	and An ann an An		OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
SAN	25	7.7	9.2	28	SAN
KLZ	18	0.4	7.7	25	SAN-3
SB1	20	8.5	20.9	40	KLZ
KBUZ	15	1.8			
MRT1	23	11.0	5.5	20	SB1
BTU1	18	5.9	2.0	15	KBUZ
LG1	13	1.0	11.5	18	MRT1
BSB	12	4.9	5.2	18	BTU1
ITE2	18	8.3	1.5	13	LG1
IPZ	4	0.2	2.9	14	BSB
IPT2	5	1.1	3.3	18	ITE2
PJT2	21	14.3	0.6	4	IPZ2
TBZ	7.	0.6	0.9	9	IPT2
JBT1	8	1.9	9.7	18	PJT2
MCZ	6	1.2	0.6	10	JBZ
KNZ	21	2.3	3.5	8 -	JBT1
KNT1	4	0.0	2.6	6	MCZ
PGZ	6	2.9	2.0	18	KNZ
SEZ	30	15.2	0.4	3	KNT1
KGT1	10	0.0	2.5	6	PGZ
KOI 1	10	0.0	19.7	30	SEZ
KGT2	60	34,1	35.5	158	KGT1
KG12 KG2	32	15.3	13.1	1.20	AGIT
KBUT1	10		א קיו	10	KGT2
MR2	10	0.9	17.4 2.7	40 10	
KLT4	33	8.0 25.9	5.8		KBUT1
				10	MR2
AFA	2	0.0	19.0	23	KLT4
cho	20	0.7	0.3	39	AFA
SB2	28	9.2	0.4	· •	NO12 1
			0.1	5	MTX-1
			0.1	5 S	MTX-2
•			0.0		MTX-3
			0.0	3	MTX-4
			0.1	4	MTX-5
		· · · · ·	0.0	4	MTX~6
			0.3	6	MTX-7
• 1			0.1	6	MTX-8
			6.8	20	MTX-9
$(1,1) \in \mathbb{R}^{n}$			4.8	17	MTX-10
	n an		19.9	32	SB2
Total	463	182.6	225.1	706	Total

Table 6 Results of Traffic Measurement for Kuching Zone Centre Table 7 Traffic Distribution in Kuching Zone Centre

o Outgoing

•		Ł	MC	ЧЪ	AT4	ኃ ት	J. B.	ХG	XX	TETL	2	ITE2 SE	Tetor
Traffic (erl)	-	49.7	2.6	1.5	2.4	2.6	с Т.4	131.6	7.6			19.7	225.1
Working (cct)		86	9	13	21	ΤT	21	458	42	1 ·	18	30	706
Traffic Distribution (%)		22.1	1.2	0.7	н., н	ц. 2	8 1	58.5	ω. 4		ະ ເ	8.5	100.00

		÷							· · · ·	·		
	뉤	мС	Да Н	N.	Ðđ	JB	KG	XK	IIEI	ITE2	Е С	Total
Traffic (erl)	40.6	1.2	1.3	2.3	2.9	2.5	2.5 100.7	7.6	ł	6. 8	15.2	182.6
Working (cct)	72	Ŷ	თ	25	Q	15	245	37	t	81	30	463
Traffic Distribution (%)	22.2	0.7	0.7	1.3	9* 1	1.4	55.1	4.2	1.	4.5	8 8	100.00

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	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
KG2	152	49.2	0.6	25	KBUZ
SNR1Z	40	12.2	2.5	15	KBUT
KBUZ	25	6.1	12.2	35	SB1
KBUT	15	3.2	0.6	23	LG1
SB1	35	13.3	1.7	28	BTU1
LG1	25 I	1.1	5.9	33	MRT1
BTU1	30	6.2	1.0	10	MR2
MRT1	36	4.6	5.6	18	BAU
MR2	10	3.6	2.6	8	LDU
BAU	27	6.1	1.6	28	SNR1Z
LDU	14	3.7	100.3	210	KG1
KGŻ	60	15.0	0.8	4	BKW
KG1	267	97.2	1.0	4	MT
BKW	10	0.8	:0.9	6	SMN
MT	4	1.5	0.7	2	SJN
SMN	8	1.8	1.1	6	SNN
TBU	4	1.2	1.1	4	NNK
SJN	8	5.1	0.0	100	PRJ1
SNN	6	0.9	0.0	92	STM1
NNK	8	2.8	100.5	278	KGT2
104	2	0.1	0.0	60	PPN2
101	6.	1.2	10.9	46	BSA
102	2	0.5	3.7	35	KGMTX
103	3	2.1	5.7	55	NOMIN
112	10	0.1			
PRJ	60	0.0			
STM	60	0.0		· · ·	
KGT2	258	90.6			
PPN2	50	0.0			1
CCB	10	0.5			·
100	6	1.4			
999	3 .	0.1			
BSA	28	4.9	. '		
KGMTX	35	5.3	."		and the second
			- <i>p</i>	·** .2-	
Total	1,317	342.4	255.3	1,070	Total
	· · · · · · · · · · · · · · · · · · ·				
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					+ 1

Table 8 Results of Traffic Measurement for Kuching Tandem Centre

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Traffic Distribution in Kuching Tandem Centre Table 9

o Outgoing

	Ŗ	MC	Д П	N	ЪĞ	JB .	Ŋ	¥	IIII	ITE2	S S	Total
Traffic (erl)	3		1.	,		5	252.2	3.1	I	· · · · · · · · · · · · · · · · · · ·		255.3
Working (cct)	I			J	ı	I	1,030	40	. 1	Ī		1,070
Traffic Distribution (%)	1 *	• • •	ן י)		t 	8	1-2	1 1 1 1 1 1 1	1	1	100.00
· · · · · · · · · · · · · · · · · · ·		·										·
o Incoming											:	
	Ā	MC	đi	KN	PG	ЛВ	KG	X	ITE1	ITE2	SE ∵	Total

	KL	MC	τ₽	KN	ÐG	JB	KG	KK	ITE1	ITE2	SE :	Total
Traffic (erl)	3 3	1.0	0.1	0.2	0.2	0.2 0.2 326.5	326.5	ი ი	I	0.7	0.7 1.2	342.4
Working (cct)	I	ı	ł	1	. I.,	ŧ.	1,277	40	1	ł	I	1,317
Traffic Distribution (%)	1.0	0.0	0.0	0.1	г і о	0.1	0.1 95.4	2.9	• I	0.2	0.4	

Table 10 Total Traffic Distribution in Kuching Zone Centre Combined with Tandem Centre

o Outgoing

					5	2	Ĵ,			1211		・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・
		2	-									
Traffic (erl)	49.7	2.6	۲.5 ۲	2.4	2,6	4.1	383.8	10.7	1	3.3	19.7	480.4
Working (cct)	86	9	13	21	LL L	21	1,488	82	1	18	30	1,776
Traffic Distribution (%)	10.4	Q • G	0.3	0.5	0.5	6 °0	79.9	2.2	1	0.7	4.1	100.00
						·						
o Incoming	:	•	•									
	Ŕ	MC	di L	KN	PG	JB	SM	X	ITEL	ITE2	SE	Total
Traffic (erl)	43.9	1 3	1.4	2.5	3.1	2.7	427.2	17.5	·)	0.6	16.4	525.0
Working (cct)	72	Q :	ത	25	Q	12	1,522	77	1 -1	18	30	1,780
Traffic Distribution (%)	8 4	0.2	e.0	0.5	0.6	0.5	81.4	з . З	1	1.7	3.1	00-00T

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	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
PGT	11	3.97	9.72	32	KT4
SJT	15	6.97	0.80	13	KGT
PGZ	16	7.25	5.11	25	PJT
IPT	16	2.02	0.75	40	KLZ
IPZ	30	5.36	2,27	30	ISC
KT4	16	0.00	7.00	18	SEZ
KGT	23	2.30	1.25	21	KGZ
PJT	18	2.02	0.00	18	KBZ
KLZ	30	4.36	1.69	15	PGZ
MCT	13	4.86	5.86	30	IPZ
MCZ	18	6.83	12.72	26	MCZ
JBT	18	10.25	11.00	25	JBZ
JBZ	25	9.30	3,80	30	RB
ISC	30	5.38	5.58	48	BE
KGZ	18	1.63	5.33	27	KI
KBZ	14	1.11	12,52	40	МT
SEZ	18	6.91	9.50	43	PKN
RB	30	3.02	14.36	40	TG
BE	42	5.41	30.83	42	ко
KI	18	4.80	29.08	90	KNG
MT	44	16.66	11.86	150	KN2
PKN	43	3.83	2.00	8	PGT
TG	41	11.05	0.00	· ••	IPT
ко	50	13.75	7.97	14	MCT
KBT	15	2.72	1.58	15	KBT
KNG	80	29,16	10.25	18	\mathbf{JBT}
KN2	150	35,55	3.94	15	SJT
SJA	3	0.19	0.02	3	SJA
PGI	3	0.16	0.41	3	PGI
КВМ	3	0.00	0.02	2	KBM
KGM	3	0.00	0.00	3	KGM
			0.63	15	PBR
Total	854	206.82	207.85	899	Total

Table 11 Results of Traffic Measurement for Kuantan Zone Centre

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Table 12 Traffic Distribution in Kuantan Zone Centre

o Outgoing

	Ŗ	MC	요 H	KN	Ðđ	съ В	KG	X	ITEI	ITE2	E S	Total
Traffic (erl)	15.58	20.69	5,86	130.15	3.69 3	21.25	2.05	1.58		1	7.00	207.85
Working (cct)	16	40	30	185	23	43	34	Ċ C	I	i	8 H	899
Traffic Distribution (%)	7.50	9.95	2.82	62.61	1.78	10.22	0.99	0.76	1 · · ·	• 12 • • • •	3.37	100.00
- To State			•			· .	•				• •	. :
			. *	· .			: 					
	보	Ŵ	а Н	N.	Ъд	а Г	ХÇ	Ř	ITEI	ITE2	SE	Total
Traffic (erl)	6.38	11.69	7.38	138.23	11.22	19-55	1,63	3.83	1.		6.91	206.82
Working (cct)	64	31	46	578	27	43	18	29		21" 	80 F1	854
Traffic Distribution (%)	3.08	5.65	3.57	66.84	5.43	9.45	-64-0	1.85			3.34	100.00

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	INCOMING	an an Arian An an Arian		OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
KLT4	60	47.64	25.07	32	KLZ
KLGT	24	4.08	46,92	73	KLT4
PJT	33	18.74	3.38	24	KLGT
KG	3	0.34	18.50	24	PJT
KBU	7	1.22	2.41	4	KG
MT	25	12.40	0.96	7	KBU
TG	25	20.18	12.84	20	MT
ко	22	20.41	17.50	22	TG
RB	17	1.71	15.44	.20	ко
IPT2	11	2.36	2.07	12	RB
		4	2.35	10	IPT2
		· · · · · · · · · · · · · · · · · · ·			
Total	227	129.08	147.44	248	Total

Table 13 Results of Traffic Measurement for Kuantan Group Centre

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Table 14 Traffic Distribution in Kuantan Group Centre

Traffic (erl) 93.87 - 2.35 47.85 10 74			147.44 248
orking (cct) 153 - 10 74 - raffic Distribution (%) 63.68 - 1.59 32.45 Incoming XL MC IP XN PG JB raffic (erl) 70.46 - 2.36 54.70		I I	
<pre>raffic Distribution (%) 63.68 - 1.59 32.45 Incoming KL MC IP KN PG JB raffic (erl) 70.46 - 2.36 54.70</pre>		1 2 1	
Incoming KL MC IP KN PG JB raffic (erl) 70.46 - 2.36 54.70	CO-0 50-T		100.00
Incoming KL MC IP KN PG JB raffic (erl) 70.46 - 2.36 54.70 - 1			
KL MC IP KN PG JB 70.46 - 2.36 54.70 - 1			
70.46 - 2.36 54.70	KG KK I'	ITEI ITE2 SE	Total
	0.34 1.22		129-08
Working (cct) 117 - 11 89	3		227
Traffic 54.58 - 1.83 42.38	0.26 0.95	l f	100.00

Table 15 Total Traffic Distribution in Kuantan Zone Centre Combined with Group Centre

o Ottaoina

o outgoing												: •
	Ŋ	MC	е Н	NCN	ਹਰ	н Н	KG	X	LTEL	ITE 2	SE	Total
Traffic (erl)	109.45	20.69	8.21	178.00	69°. °	21.25	4.46	2.54	1) 	7.003	355.29
Working (cct)	250	40	40	655	23	43	38	40	i	ï	13	1,147
Traffic Distribution (%)	30.81	5.82	2.31	50.10	1.04	5,98	1.26	12.0	I	I	1.97	100.00
o Thcoming	·								,			
	Ŕ	MC	ЧI	MN	ЪG	ΒΓ	ВЖ	XX	LTEI	ITE2	SE	Total
Traffic (erl)	76.84	11.69	9.74	192.93	11.22	19.55	1.97	5.05	1	ł	6.91	335.90
Working (cct)	181	31	57	667	27	43	21	36	I	1	80 11	1,081

100.00

2,06

I

ł

1.50

0.59

5.82

3.34

57.44

2.90

3.48

22.87

Traffic Distribution (%)

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SEZ 56 17.5 28.5 64 SEZ TM 12 1.9 1.4 12 TM KLT4 99 20.8 12.7 126 KLM RUT2 87 47.2 7.5 58 RJT2 AS 9 5.2 2.0 10 AS BE 14 0.3 0.5 12 BE TG 28 1.3 1.8 17 TG K1 10 0.9 0.0 10 K1 N1 0 0.9 0.0 10 K1 N2 2.0 1.4 0.6 29 SN JBT 20 1.4 0.6 20 JBT PCT 20 1.4 0.6 20 JBT JBZ 32 1.3 2.5 30 JBZ JBZ 32 1.3 2.5 30 JBZ JBZ 32 <th></th> <th>······</th> <th></th> <th></th> <th></th> <th>· ·</th>		······				· ·
SECTIANUE (cct) (er1) (er1) (cct) EACTINE SEZ 56 17.5 28.5 64 SEZ TM 12 1.9 1.4 12 TM KLT4 99 20.8 12.7 126 KLT4 PDT2 87 47.2 7.5 58 PJ72 AS 9 5.2 2.0 10 AS BE 14 0.3 0.5 12 BE TG 28 1.3 1.8 17 TG RO 16 2.0 2.1 31 KO KIT 10 0.9 0.0 10 K1 MT 15 2.0 2.4 20 MT PD 10 2.9 1.2 16 PD SN 32 1.3 5.6 29 SN JBZ 32 1.4 0.6 20 JET JBZ		INCOMING			OUTGOING	
TH 12 1.9 1.4 12 TH KLT4 99 20.8 12.7 126 KLT4 KLGT 47 18.6 31.0 44 KLGT PUT2 87 47.2 7.5 58 PJ72 AS 9 5.2 2.0 10 AS BE 14 0.3 0.5 12 BE TG 28 1.3 1.8 17 TG K0 16 2.0 2.1 13 RO K1 10 0.9 0.0 10 K1 MT 15 2.0 2.4 20 MT FD 10 2.9 1.2 16 PD RB 10 0.5 0.8 10 RB SN 32 12.3 5.6 29 SN JBT 20 1.4 0.6 20 JBT JBZ 32 9.4 17.6 40 IPZ JBZ 32 1.3 2	Exchange			Traffic (erl)		Exchang
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	SEZ	56	17.5	28.5		SEZ
KLT4 99 20.8 12.7 126 KLGT KLGT 47 18.6 31.0 44 KLGT PJT2 87 47.2 7.5 58 PJT2 AS 9 5.2 2.0 10 AS BE 14 0.3 0.5 12 BE TG 28 1.3 1.8 17 TG K0 16 2.0 2.1 31 K0 K1 10 0.9 0.0 10 K1 PD 10 2.9 1.2 16 PD RE 10 0.5 0.8 10 RB SN 32 12.3 5.6 29 SN JET 20 1.4 0.6 20 JBT POT 20 1.3 2.5 30 JBZ RMZ 40 0.5 4.3 30 KNZ PGT 20 1.4 0.6 20 JBZ KNZ 40 0.5 <t< td=""><td>TM</td><td>12</td><td>1.9</td><td></td><td>12</td><td>TM</td></t<>	TM	12	1.9		12	TM
KLGT 47 18.6 31.0 44 KLG7 PJT2 87 47.2 7.5 58 PJT2 AS 9 5.2 2.0 10 AS BE 14 0.3 0.5 12 BE TG 28 1.3 1.8 17 TG K0 16 2.0 2.1 31 K0 K1 10 0.9 0.0 10 K1 MT 15 2.0 2.4 20 MT RB 10 0.5 0.8 10 RB NT 15 2.0 2.4 20 MT PD 10 2.9 1.2 16 PD RB 10 0.5 0.8 10 RB PCT 20 1.4 0.6 29 SN JBT 20 1.4 0.6 20 JBT JBZ 32 9.5 5.1 32 PGZ KNZ 40 0.5 5.1	KLT4	99		12.7	126	KLT4
PJT2 87 47.2 7.5 58 PJT2 AS 9 5.2 2.0 10 AS BE 14 0.3 0.5 12 BE TG 28 1.3 1.6 17 TG RO 16 2.0 2.1 31 KO K1 10 0.9 0.0 10 K1 MT 15 2.0 2.4 20 MT RB 10 0.5 0.8 10 RB SN 32 12.3 5.6 29 SN JEE 32 1.3 2.5 30 JBZ VET 20 13.9 10.5 38 PGT JEZ 32 1.3 2.5 30 JBZ MCZ 48 3.2 5.4 40 MCZ K0Z 40 5.5 5.1 32 PGZ RNZ 30.2		47			44	KLGT
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0.5 8 MDH1 0.3 6 MDH2 1.1 10 TNP				1.1	10	KPU2
0.3 6 MDH2 1.1 10 TNP				0.5	8	MDH1
1.1 10 TNP			1. A.	0.3	6	MDH2
Total 1,018 260.1 247.9 1,224 Tota			·	1.1	10	TNP
	Total	1,018	260.1	247.9	1,224	Total
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	· .				· · · ·	

Table 16 Results of Traffic Measurement for Kuala Lumpur Zone Centre

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		4							Total	260.1	1,018	100.00			
		SE	28 • 5 7	64	5•11 1				SE	17.5	56	6.7	· · ·		
		ITE2			1 1 				ITE2	I)	ľ			
entre Sentre		TTEL		ł	1	•			ITE1	l	i	i			
Zone (۳ میں ۱۹۹۵ - ۲۰۱۹ ۱۹۹۹ - ۲۰۱۹ ۱۹۹۹ - ۲۰۱۹ - ۲۰۱۹ ۱۹۹۹ - ۲۰۱۹ - ۲۰۱۹	KK	22.0	29	8°0			•	X	7.0	42	2.7			
Tuamun	4	KG	1 1 8	21	0.7				ХG	24.9	45	9 . 6			
Kuala		ст В	с. С.	50	1.3				Щ. Г	2.7	52	0.I	-		
Traffic Distribution in Kuala Lumpur Zone Centre		PG	18.0	100	7.3				୨ ଜ	26.6	68 8	10.2			
stribut		KDN	11.1	110	4. 13				KN	10.7	145	4. L			
fic Di		IP	17.6	40	7.1				- di I	13.1	67	5.0	-	·	
17 Traf		MC	13.0	95	5.2				MC	18.9	100	7.3			
Table 1		KL	132.8	715	53 . 5			-	Ł	138.7	422	53.4			
					(%)			•. •				(%)			
	o Outgoing		Traffic (erl)	Working (cct)	Traffic Distribution (%)		· .	o Incoming		Traffic (erl)	Working (cct)	Traffic Distribution (%)			

	INCOMING	· · · · · · · · · · · · · · · · · · ·	· · · · ·	OUTGOING	- 1.
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
ASX	13	9,61	12.50	14	ASX
SPX	20	6.75	8.50	18	SPX
PGT	90	81.22	93.16	97	PGT
PGZ	35	21,52	30.86	43	PGZ
TPX	20	16,91	9.88	15	TPX
IPT	97	79,80	87.91	100	IPT
KKX	12	3.00	6.08	12	KKX
SWX	12	6.66	10.16	14	SWX
-			8.22	10	THX
THX	10	2.47	9,52	22	TAX
TAX	25	18,91	28.58	81	IPZ
IPZ	44	16.27	10.94	14	KSX
KSX	20	14.05	35.44	45	PKG
PKG	45	43.75			
	1	13,13	75.22	137	KGT
KGT	135	98.75	63.13	80	KJX
KJX	-96	61.44	13.44	20	BNX
BNX	28	14.25	6.75	13	RB2
RB2	18	5.77	8.08	18	BEX
BEX	35	9.13	13.75	23	MTX
MTX	39	16.83	43.83	60	KNX
KNX	39 73	40.63	15.50	49	TGX
			27.75		
TGX KOX	53	18.38		61	KOX
	61	17.94	1.00	16	KNZ
KNZ	32	13.25	63.30	85	SNX
SNX	104	72.69	12.44	17	PDX
PDX	17	12.22	10.36	14	KPX
KPX	15	8.33	3.22	14	TNX
TNX	17	5.72	6.11	20	MU3
MU3	24	9.50	7.66	20	MU4
MU4	21	6.11	9.27	.66	MCZ
MCZ	70	29.52	10.97	18	SGT
SGT	24	10.38	15.41	40	BPX
BPX	62	11.75	2.86	44	PTN
PTN	52	2.00	9.83	38	KUX
KUX	43	10.02	73.47	120	JBT
JBT	115	77.47	1.97	.9	KTG
KTG	15	1.83	2.05	-31	JBZ
JBZ	24	2.88	24.27	33	KGZ
KGZ	33	19.88	24.86	38	KBZ
KBZ	40	27.02	136.36	165	SEZ
SEZ	165	133.33	20.77	99	KLZ
KLZ	62	8.00			· · · ·
			48.22	62	ISD
					N 18 1
GTX	48	9.80			
MD1	60	25.50			
SE2	57	34.58	32.58	60	SE2
BA2	60	45.83	2.83	79	SE3
BA3	55	33.72	24.16	51	MD1
BR1	90	42.22	51.16	85	BA2
DJ1	10	2.00	29.61	48	BA3
DJ2	8	1.36	12.33	48	GTX
BGI	22	18.11	43.58	80	BR1
RG1	30	20.94	2.27	26	DJ1
SE3	48	2.77	2.50	25	DJ2
KLC	355	199.94	4.94	20	RG3
RG3	20	4.66	17.41	20	RG1
			0.44	30	DJ3
Tota1	2,779	1,507.37	1,327.41	2,467	Total

Table 18 (1/3) Results of Traffic Measurement for Kuala Lumpur Tandem Centre

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	INCOMING			CUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
ML2	40	16,97	198.16	288	KLC
SBS	30	9.13			•
SGB	10	2.63	4.25	30	DJ4
SLB	30	5.72	12.16	30	ML2
DM1	75	49.52	0.38	10	SBS
BIN	337	240.47	3.08	10	SGB
KRT	78	50.13	3.80	27	SLB
TAR	164	152.50	58.11	93 ·	DM1
SP2	10	0.33	22,50	50	DM2
SDG	18	13.91	226.61	338	BIN
BG1	10	4.38	39.19	105	KRT
RG2	30	7.52	262.02	300	TAR
		35.08	11,55	15	SDG
DM2	51 5	1.16	0.13	9	SP2
SP1		2,72	1.75	. 9	SPl
KIP	10			2	BG1
KKB	24	8.25	8.36 7.61	20	RG2
TMX	12	4.19		7	KIP
MCT	35	33.55	3.52		
ISD	75	64.52	7.83	15	KKB
P2T	40	10.75	4.58	10	TMX
BR2	47	38.11	15.38	.40	P2T
ML1	56	20.55	16.27	19	BG1
KKM	1	0.00	28.55	50	BR2
GOX	27	13.25	20.52	36	ML1
MD2	44	18.97	22.02	42	MD2
KEI	49	8.11	11.05	25	GOX
BIND	25	18.30	7.69		KE1
PEX	21	2.63	1.05	30	SBSP
SJA	4	2.05	3,63	15	PEX
CRS	101	13,16	0.25	15	KE2
MWT	84	15.50	0.63	4	SJA
PKI	51	31.50	13.38	86	CRS
PK2	66	46,72	15,30	81	MWT
BRK	60	5.75	33,52	57	PK1
TAG	47	8.47	37.38	66	PK2
PGI	5	1.38	10.22	- 55	BRK
KGX	2	0.00	6.13	40	TAG
KBX	2	1.11	0.41	. 5	PGI
SJT	76	17.41	0.08	2	KGX
SBSE	25	0.02	0.05	2	KBX
SDGE	48	1.08	14.69	80	SJT
BG2		0.94	15,80	25	SBSV
-			1.38	42	SDGV
			1.55		BG2
	· · · · ·	2.24	0.00	30	KEX
MD1-C	60	26.80	41.05	81	MD1-G
SE2-C	43	35.50	55.11	78	SE2-G
BA2-C	41	27,11	70.27	110	BA2-G
BA3-C	60	36.63	43.13	69	BA3-G
KP3-C	30	4,97	9.05	10	SGB-G
BR1-C	24	13.41	8.86	16	DJ1-G
BR2-C	24	19.38	7.02	18	DJ2-6
DJ1-C	10	2.80	10.80	54	SE3-G
DJ2-C	15	3,91	8.11	30	DJ3-G
SGB-C	10	6.83	13.19	30	DJ4-G
DJ3-C	30	6.94	50.47	200	KLC-G
DJ4-C	30	13.19	3.44	10	SP1-C
KJ1-C	55	12.72	0.69	10	SP2-G
	· · · · · ·	1 100 00	1 420 23	2 020	m-4-3
Total	2,347	1,188.63	1,473.71	2,929	Total

Table 18 (2/3)Results of Traffic Measurement for
Kuala Lumpur Tandem Centre

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Table 18 (3/3)

Results of Traffic Measurement for Kuala Lumpur Tandem Centre

			· ·		
	INCOMING			OUTGOING	÷ .
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
КЗТ-С	144	21.83	39.02	50	ML2-G
PIT-C	-99	83.55	76.00		KEX-G
SAL-C	54	45.47	16.50	90	K3T-G
SLB-C	13	4.25	121.47	162	P1T-G
TNP-C	150	35.36	15.63	33	SLB-G
DM2-C	23	10.72		•-	
DM1-C	40	21.61		1 A. A.	
BIN-C	78	18.94		· ·	
KRT-C	43	20.36	8 g A -		· · · .
TAR-C	108	43.91	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		14 - C
KLC-C	105	22.41	47.77	60	MCT
SE3-C	20	3.33			
SP1-C	10	2.75	2.77	50	SBS-G
ML2-C	63	37.36	12.08	15	SDG-G
SBJ-C	6	5,86	12100		0000
KP1-C	19	17.08	76.66	120	MLÌ-G
KP2-C	15	13.86	41.05	58	GOX-G
PJC-C	35	33,19	51.55	121	MD2-G
SWY-C	- 49		26.11	92	KE1-G
		46.02		15	KE2-G
SP2-C SAG-C	10 11	0.58 2.33	3.16	12	KEZ-G
ond c		2.00			
SDG-C	20	14.41	27.80	180	CRS-G
SBS-C	35	7.36	52.25	180	MWT-G
TD1-C	72	55.52	49.72	51	PK1-G
KLZ-C	64	4.80	65.19	81	PK2-G
1002 0	0.1	1.00	18.02	135	BRK-G
ML1-C	87	54.30	25.08	71	TAG-G
GOX-C	45	29.27	37.05	40	SBSF
MD2-C	80	26.63	15.25	90	SDGF
KE1-C	30	18.11	10.10	20	0001
KE2-C	15	2.88	2 L	1. 1.	
CRS-C	114	12,13	1		
MWT-C	87	20,05	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
PK1-C	54	29.05			1.1
PK2-C	54	19,63	· · ·		1.1.1
BRK-C	65	7.47			
TAG-C	41	11.19			
KP3M	27	4.13			
SBJM	30	29.22			
SRSL	30	0.00		11.	
SDGL	60	1.52	;		
		1.4.94			
Total	2,105	838.44	820.13	1,694	Total
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Table 19 Traffic Distribution in Kuala Lumpur Tandem Centre

o Outgoing

	X	MC	ΪЪ	Ŋ	ÐĞ	Ξ	, Ю Х	KK	IIII	ITE 2	E S	Total
Traffic (erl)	2,591.00 160.13	160.13	160,35	80.56	80.56 160.34	159.81	99.57	24.91	48.22	1	136.36	3,621.25
Working (cct)	5,283	296	254	152	256	410	172	40	62	_ I	165	7,090
Traffic Distribution (%)	(\$) 71-55	4.42	4.43	2.22	4.43	4.41	2.75	0.69	1.33	· • •	3.77	00-00T
								1. 		t. E		
										·		-
o Incoming		. •							·			
	Ţ	MC	IP	NN.	Đđ	J.B	KG	XX	ITEI	ITE 2	SE	Total
Traffic (erl)	2,486.00 177.64	177.64	144.02	90.96	138.56	152.65	118.63	28.13	64.52	I	133.33	3,534.44
Working (cct)	5,341	303	220	228	238	677	170	42	75	Ĩ	165	7,231

100.00

3.77

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0.80 1.83

3.36

4.32

3.92

2.57

4.07

5.03

70.33

Distribution (%)

Traffic

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Table 20 (1/2) Results of Traffic Measurement for Petaling Jaya Tandem Centre

	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
SBS		0,00			
TNP	120	45,25	0.00		SBS
SDG	120	0.00	33.63	120	TNP
KIN		0.00	0.00	+40	SDG
SBJ	90	63.11	0.00		KIN
TDI	120	58.19	52.77	60	SBJ
PJ1	10	0.00	45.16	90	TDI
PJC	214	147.33	0.00	30	PJ1
KP2	30	18.13	128.86	210	RUC
KP1	46	31.77	9,77	28	KP2
SAL	100	61.47	23.50	47	KP1
SWY	136	89.13	41.13	80	SAL
KIH	15	3.13	96.47	164	SWY
AS	24	1.52	4.50	10	KIH
PGT	48	35.80	10.50	23	AS
SJT	32	7.97	41.52	48	PGT
IPT	52	30.66	7.36	28	SJT
IPZ	29	6.66	14.94	22	PGZ
KLG	144	54.47	36.19	54	IPT
KJ	57	27.97	14.63	.34	IPZ
BN	25	9.33	55.83	132	KLG
RB	10	3.80	28.13	57	KDO
BE	23	2.02	11.69	23	BN
MT	11	5.47	2.80	9	RB
KN	30	12.97	5,55	11	BE
KNZ	25	7.11	5.88	13	MT
TG	12	9.83	18.61	- 33	KN
KO	24	14.47	10.00	12	TG
SN	39	25.33	15.44	12	KO
MCT	39	21.22		18	KNZ
MU3	12	2.16	10.08 22.30	35	SN
MCZ	35	2.63	20.25	24	MCT
BP	12	4.58	17,41	37	MCZ
KU	16	3.25	6.61	19	BP
JBT	44	32.66	0.00	1.7	PTN
JBZ	18	3.11	3.88	- 20	KU
SEZ	72	47.16	29.27	45	JBT
KGZ	18	12.02	2.55	18	JBZ
KBZ	16	4.41	14,33	21	KGZ
KLZ	58	3.13	11.72	16	KBZ
PGZ	20	9.22	56.13	72	SEZ
ISC1	20	0.00	7.69	87	KLZ
: 1001	-	0100	1.05	07	NDO
SJ2	30	0.00	0.44	2	КВТ
KH2	12	2.13	0.00	30	SJ2
SJM	26	15.77	1.61	10	KH2
TD4	32	30.72	12.91	26	SJM
MU4	12	1.11	29.41	30	TD4
TIN	14	6.86	6.30	12	MU3
ISC2	7.4	0.00	2.72	12	MU4
PD	6	2.80	7.47	10	SGT
MC2	v	0.00	8.69	19	KS
KBT	22	9,58	0.00		SPG
SGT	12	4.30	0.00	50	KJ2
KS	23	6.36	0.00		SJ1
SPG	2.1	0.00	3.11	12	KAP
KJ2	50	0.00	10.47	51	ITE
KAP	12	3.38	18.52	20	KPD
SJ1	14	0.00	10.32	38	KL4
Total	2,068	1,001.45	1,029.11	2,090	Total

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Table 20 (2/2)

Results of Traffic Measurement for Petaling Jaya Tandem Centre

	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (er1)	Traffic (erl)	Working (cct)	Exchange
1TE	30	18.61	30.19	60	PKG
KPD	10	6.77	0.00		SP2
KL4	40	11.83	0.00	10	RG
PKG	70	39.27	7.35	12	TIN
			3.83	6	SWN
SP2		0.00	4.50	15	TPG
RG	14	0.00	1.38	6	KK
SWN	6	2.69	8.13	70	KPC
TPG	17	4 80	15.86	55	KJA
KK	.6	2.33	7.22	9	BGI
KPC	57	9.33	6.00	21	SAG
КJA	60	19.50	0.00		SDP
BGI	12	7.94	0.00	40	LTS
SAG	23	4.08			1
SDP		0.00			
LTS	40	0.00	r = 1		•
Total	385	127.15	84.46	304	Total

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Table 21 Traffic Distribution in Petaling Jaya Tandem Centre

o Outgoing

KL MC IP KN I c1) 638.05 72.09 68.08 68.36 74 c1) 1,626 132 127 114 c1) 1,626 132 127 114 c1) 61.78 6.47 6.11 6.14 6 xL MC IP XN F c1) 766.11 58.63 54.00 55.67 54							
(%) 61.78 5.47 5.11 6.14 (%) 51.78 5.47 5.11 6.14 KL MC IP KN 765.11 58.63 54.00 55.67	đi		JB KG	¥	IT III	ITE2 SE	Total
ct) 1,626 132 127 114 ion (%) 61.78 6.47 6.11 6.14 6 kt. MC IP KN F c1) 766.11 58.63 54.00 55.67 54	68.08		49.78 14.33	3 12.16	10.47	г 56.13	.3 1,113.77
ion (%) 61.78 6.47 6.11 6.14 6	127		112 211	18	51	• • • •	72 2,394
c1) 766.11 58.63 54.00 55.67 54	6.11		4.47 1.29) I.09	0.94	5 °04	100.00
cl) 766.11 58.63 54.00 55.67 54					·		· ·
rl) 766.11 58.63 54.00 55.67 54		·					
KL MC IP KN F 766.11 58.63 54.00 55.67 54							
766.11 58.63 54.00 55.67 54	фГ		JB KG	XX	TTEL I	ITE2 SE	Total
	54.00		47.90 12.02	2 13.99	18.61	- 47.16	16 1,128.60
	146 124	135 124	102 18	38	30	1	72 2,453
Traffic 67.89 5.19 4.78 4.93 4.83 Distribution (%)	4.78		4.24 1.07	1.24	1.65	- Н - Н - С	100.00

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Table 22 Total Traffic Distribution in Kuala Lumpur Zone Centre Combined with Tandem Centre

o onreamd		:	· . ·	· ·								
	Κ	MC	ŢĿ	KN	ЪС	цЪ	NC SX	X	ITEL	ITE2	я S	Total
Traffic (erl)	3,411.9	245.2	246.0	160.0	252.7	212.7	115.7	59.1	58.7	- I	221.0	4,983.0
Working (cct)	7,624	523	421	376	477	572	214	87	TT3	1	TOE	10,708
Traffic Distribution (%)	68.5	4.0	4.9	3.2	5.1	4.3	2.3	1.2	4 . 4	l .	4	100.00
·					·						·	
o Incomina								÷				

	ХI	MC	е Н	Ŋ	ហ ជ	Др	ВЖ	X	Iari	ITE2	SE	Total
Traffic (erl)	3,390.8	255.2	211.1		157.3 219.7	203.3	155.6	49.1	83.1	t	198.0	198.0 4,923.2
Vorking (cct)	7,427	549	411	508	451	603	233	122	105 1	•	293	10,702
Traffic Distribution (%)	68.8	5.2	4.3	3.2	4.5	4 1	3.2	0. T	1.7	1	4 0	100.00

MTX4 2 PB 18	-	Traffic			
SEZ 1 IPZ 2 KLT4 4 KO 10 AS 3 PJT2 2 SJAT 26 MTX1 3 MTX4 3 PB 18 MTX5 3 KM 16 SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 ITE2 12 KBU 29 JUNK-MB 29 HY 26 KZ 21 MCZ 12 MTX3 9 JBT 10		(erl)	Traffic (erl)	Working (cct)	Exchange
SEZ 1 IPZ 2 KLT4 4 KO 10 AS 3 PJT2 2 SJAT 28 MTX1 3 PB 18 MTX4 3 PB 18 MTX5 3 KM 18 SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 ITE2 12 KBU 29 JUNK-MB 29 HY 28 KZ 21 MCZ 12 MTX3 29 PH-B/W 29 MTX3 3 TG 6 JBT 10					
SEZ 1 IPZ 2 KLT4 4 KO 10 AS 3 PJT2 2 SJAT 26 MTX1 3 PB 18 MTX4 3 PB 18 MTX5 3 KM 16 SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 ITE2 13 KBU 29 JUNKMB 29 HY 28 KZ 21 MCZ 13 MTX3 29 PH-B/W 90 PH-B/W 90 MTX3 29 JBT 10	2	6.61	4.44	40	KLZ
IPZ 2: KLT4 4: KO 10 AS 3: PJT2 2: SJAT 28 MTX1 2 MTX1 2 MTX4 2 PB 18 MTX5 2 KM 18 SP 24 KLGT 6 IPT2 1; KNZ 1; KGZ 6 ITE2 1; KBU 2; JUNKMB 2; HY 26 KZ 21 MCZ 1; PGT 90 PH-B/W 2; MTX3 2; JBT 10	7	4.39	11.04	16	SEZ
KLT4 4 KO 10 AS 3 PJT2 2 SJAT 28 MTX1 3 MTX4 3 PB 18 MTX5 3 KM 18 SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 JUNK-MB 29 JUNK-MB 29 HY 28 KZ 21 MCZ 12 PGT 90 PH-B/W 9 MTX3 9 JBT 10		17.00	15.61	23	IPZ
K0 10 AS 31 PJT2 21 SJAT 26 MTX1 11 MTX4 12 PB 18 MTX5 12 KM 18 SP 24 KLGT 6 IPT2 12 KNZ 19 KGZ 6 JUNKMB 29 JUNKMB 29 HY 26 KZ 21 MCZ 12 PGT 90 PH-B/W 13 MTX3 29 JBT 10	3	14.86	18.69	35	KLT4
AS 3' PJT2 2' SJAT 2' MTX1 1' MTX4 1' PB 1' MTX5 1' KM 1' SP 2' KLGT 6' IPT2 1' KNZ 1' JUNKMB 2' HY 2' KZ 2' MCZ 1' PGT 9' PH-B/W 1' MTX3 2' JBT 1')	4.02	16.85	24	SP
PJT2 23 SJAT 28 MTX1 3 MTX4 3 PB 18 MTX5 3 MTX5 3 KM 18 SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 JUNKMB 29 HY 28 KZ 21 PGT 90 PH-B/W 6 MTX2 13 MTX3 5 JBT 10	7	22.69	21.82	40	SJAT
MTX1	2	12.78	30,75	35	AS
MTX1		17.77	4.53	20	PJT2
MTX4 18 PB 18 MTX5 18 KM 18 SP 24 KLGT 6 IPT2 12 KNZ 19 KGZ 6 ITE2 12 KBU 29 JUNKMB 29 HY 28 KZ 21 PGT 90 PH-B/W 29 MTX2 11 MTX3 29 JBT 10	3	0.78	1.84	3	MTX1
PB 18 MTX5 2 KM 18 SP 2 KLGT 6 IPT2 12 KNZ 19 KGZ 6 ITE2 12 KBU 2 JUNK-MB 29 HY 28 KZ 21 PGT 90 PH-B/W 2 MTX2 11 MTX3 2 JBT 10	2	0:00	0.00	2	MTX4
MTX5 18 KM 18 SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 ITE2 13 KBU 29 JUNK-MB 29 HY 28 KZ 21 PGT 90 PH-B/W 29 MTX2 11 MTX3 29 JBT 10		14.38	0.00	2	MTX5
KM 18 SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 ITE2 13 KBU 9 JUNK-MB 29 HY 28 KZ 21 MCZ 13 PGT 90 PH-B/W 9 MTX2 13 MTX3 9 JBT 10	2	1.05	0,32	4	ITE2
SP 24 KLGT 6 IPT2 13 KNZ 19 KGZ 6 ITE2 13 BU 9 JUNKMB 29 HY 26 KZ 21 MCZ 13 PGT 90 PH-B/W 9 MTX2 13 MTX3 9 JBT 10		8,35	3.61	11	MTX2
KLGT 6 IPT2 13 KNZ 19 KGZ 6 ITE2 13 KBU 9 JUNKMB 29 HY 28 KZ 21 MCZ 13 PGT 90 PHB/W 9 MTX2 13 MTX3 9 JBT 10		10.24	0.14	5	MTX 3
IPT2 1; KNZ 1; KGZ 6; ITE2 1; KBU 2; JUNKMB 2; HY 26; KZ 21; MCZ 1; PGT 90; PH-B/W 2; MTX2 1; MTX3 2; JBT 1;		4.01	2.12	6	ТG
KNZ 19 KGZ 6 ITE2 17 KBU 9 JUNKMB 29 HY 26 KZ 21 MCZ 12 PGT 90 PH-B/W 9 MTX2 13 MTX3 9 JBT 10	-	3.39	6.57	34	BW3
KGZ 6 ITE2 17 KBU 9 JUNKMB 29 HY 28 KZ 21 MCZ 12 PGT 90 PH-B/W 9 MTX2 11 MTX3 9 JBT 10		2.32	0.08	6	KLGT
ITE2 12 KBU 2 JUNKMB 25 HY 28 KZ 21 MCZ 12 PGT 90 PH-B/W 25 MTX2 13 MTX3 25 TG 6 JBT 10		2.98	0.39	10	LEVEL2
KBU Second state JUNKMB 25 HY 26 KZ 21 MCZ 12 PGT 90 PHB/W 25 MTX2 12 MTX3 25 TG 6 JBT 10		9.67	0.12	5	LEVEL21
JUNKMB 25 HY 26 KZ 21 MCZ 12 PGT 90 PHB/W 9 MTX2 13 MTX3 9 JBT 10		5.61	0.17	5	LEVEL23
HY 28 KZ 21 MCZ 12 PGT 90 PH-B/W 9 MTX2 11 MTX3 9 TG 6 JBT 10		1.58	0.03	5	LEVEL24
KZ 21 MCZ 12 PGT 90 PH-B/W 9 MTX2 11 MTX3 9 TG 6 JBT 10		6.31	0.02	· · · 5	LEVEL25
MCZ 12 PGT 90 PH-B/W 9 MTX2 11 MTX3 9 TG 6 JBT 10		14.37	0.30	5	LEVEL26
PGT 90 PH-B/W 91 MTX2 11 MTX3 92 TG 62 JBT 10		6.00	0.64	5	LEVEL27
PH-B/W 9 MTX2 11 MTX3 9 TG 6 JBT 10		9.30	2.78	23	HY
MTX2 11 MTX3 5 TG 6 JBT 10		4.20	18.27	20	KZ
MTX3 9 TG 6 JBT 10		2.53	2.29	6	KQZ
TG (JBT 10		0.37	1.87	9	KBU
JBT 10		2.70	7.06	12	MCZ
		2.12	11.80	1.8	PB
		0.89	1,66	10	GLR1
	,	0.00	10.14	10	KM
			1.18	7.	TJB1
			3,57	16	KNZ
			0.47	10	BYB
			1.07	9	PH-BW
			0.03	10	BY
		-	0.34	3	BI
			2.50	4	JBT
			0.03	4 7	and the second
			10.84	30	BF PGT
11 A.		* .	10.84	8	JBZ
· · · · · ·	• у		4.00		0.02
Total 56	<u></u>	213.27	217.78	566	Total

Table 23 Results of Traffic Measurement for Penang Zone Centre

Table 24 Traffic Distribution in Penang Zone Centre

o Outgoing

	KL	MC	ЧI	NN	ሆ ቢ	JB	КG	X	TTEL	ITE 2	SE	Total
Traffic (erl)	29.58	7.06	15.61	3.57	3.57 142.00	4.44	2.29	1.87	I	0.32	11.04	217.78
Working (cct)	104	12	23	9 H	355	17	° OD	11	I	4	16	566
Traffic Distribution (%)	13.58	3.24	7.17	1.64	65.20	2.04	1,05	0.86	1	0.15	5.07	100.00
						-	- -					
o Incoming						·						
	ЧĽ	MC	đi	NN.	94 9	лв.	Ŋ	s ⊻	ITE1	ITE 2	S S	Total
Traffic (erl)	39.04	6.00	20.39	2.32	118.44	3.38	4.03	5.61	I	9+67	4.39	213.27
Working (cct)	106	12	36	5 H	325	25	ω	11	1	12	17	567
Traffic Distribution (%)	18.31	2.81	9.56	1.09	55.54	1.58	1.89	2.63	١	4.53	2.06	100.00

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IPZ 20 9.9 10.6 30 IPZ PGZ 30 27.3 50.2 90 PGZ IPT2 30 26.2 23.9 28 IPT2 SP 62 43.5 28.9 52 SP BM 90 60.3 46.3 69 BM TUBU1 79 29.9 71.3 100 TJBU1 BYB 110 71.7 22.8 25 BYB BF 37 17.2 18.3 35 BF BI 24 19.2 18.3 19 BI GLUU1 181 111.7 132.6 180 GLUU1 GLUU2 54 34.8 44.5 65 GLUU2		INCOMING			OUTGOING	
PGZ 30 27.3 50.2 90 PGZ IPT2 30 26.2 23.9 28 IPT2 SP 62 43.5 28.9 52 SP BM 90 60.3 46.3 69 BM TJBU1 79 29.9 71.3 100 TJBU1 BYB 110 71.7 22.8 25 BYB BF 37 17.2 18.3 35 BF BI 24 19.2 18.3 19 BI GLUU1 181 111.7 132.6 180 GLUU1 GLUU2 54 34.8 44.5 65 GLUU2	Exchange	-				Exchang
PGZ3027.350.290PGZIPT23026.223.928IPT2SP6243.528.952SPBM9060.346.369BMTJBU17929.971.3100TJBU1BYB11071.722.825BYBBF3717.218.335BFBI2419.218.319BIGLUU1181111.7132.6180GLUU1GLUU25434.844.565GLUU2	IPZ	20	9.9	10.6	30	IPZ
IPT23026.223.928IPT2SP6243.528.952SPBM9060.346.369BMTJBU17929.971.3100TJBU1BYB11071.722.825BYBBF3717.218.335BFBI2419.218.319BIGLUU1181111.7132.6180GLUU1GLUU25434.844.565GLUU2	PGZ		27.3	50.2	90	PGZ
SP6243.528.952SPBM9060.346.369BMTJBU17929.971.3100TJBU1BYB11071.722.825BYBBF3717.218.335BFBI2419.218.319BIGLUU1181111.7132.6180GLUU1GLUU25434.844.565GLUU2	IPT2		26 2	23.9	28	IPT2
BM9060.346.369BMTJBU17929.971.3100TJBU1BYB11071.722.825BYBBF3717.218.335BFBI2419.218.319BIGLUU1181111.7132.6180GLUU1GLUU25434.844.565GLUU2	SP	62		28.9	52	SP
BYB11071.722.825BYBBF3717.218.335BFBI2419.218.319BIGLUU1181111.7132.6180GLUU1GLUU25434.844.565GLUU2	BM	90			69	BM
BF 37 17.2 18.3 35 BF BI 24 19.2 18.3 19 BI GLUU1 181 111.7 132.6 180 GLUU1 GLUU2 54 34.8 44.5 65 GLUU2	TJBU1	79	29.9		100	TJBU1
BI 24 19.2 18.3 19 BI GLUU1 181 111.7 132.6 180 GLUU1 GLUU2 54 34.8 44.5 65 GLUU2	BYB	110	71.7		25	BYB
BI2419.218.319BIGLUU1181111.7132.6180GLUU1GLUU25434.844.565GLUU2	BF	37	17.2	18,3	35	BF
GLUU2 54 34.8 44.5 65 GLUU2	BI	24	19.2		19	BI
	GLUU1	181	111.7	132.6		GLUU1
AT 108 97.3 153.7 166 AT	GLUU2	54	34.8	44.5	65	GLUU2
na 100 5770 10077 100	AI	108	97.3	153.7	166	AI
	: 	·			<u> </u>	
Total 825 549.0 621.4 859 Total	Total	825	549.0	621.4	859	Total

Table 25	Results of Traffic Measurement for	
	Penang Tandem Centre	

	INCOMING	·		OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
SEZ	44	12.64	0.00	15	тамов
SET	54	22,91	7.98	25	KNZ
KLZ	30	1.73	2.24	20	MOB2
KLT4	31	1.21	0.20	2	SAMTX
ITE2	16	2.00	0.00	2	SKMTX
PJT	18	2.23	0.21	. 3	NOMTX
PGZ	8	2.63	3.44	20	SOMTX
PGT	12	1.78	1.29	6	CEMTX
IPZ	12	1.03	3.60	10	PAR
IPT	12	2,38	1.09	3	KBUT
KLAT	6	0.56	0.51	7	KGZ
MCZ	16	5.26	0.27	·. 4	KBUZ
KTIN	40	10.62	1.22	- 9	PEN
BP	40	14.64	0.67	12	ITE2
KLA	31	6,43	· .		
MER	18	6,93	13.14	42	SEZ
PON	50	4.54	37.31	43	SET
PEN	14	1.80	22.21	32	KLZ
KNZ	25	10,47	5.31	24	KLT4
MOB3	4	2.86	3.94	18	\mathbf{PJT}
SAT	25	8.13	2.11	10	PGZ
KCA1	8	6.30	2.29	12	PGT
MOB4	··· 4 ··	1.12	9.68	18	\mathbf{IPZ}
KBUT	4	0.56	0.96	9	KLAT
JB3	112	32.95	1.17	12	MCZ
KGZ	10	0.25	10.96	40	KTIN
KBUZ	4	1.20	19.45	40	BP
SOMTX	20	6.44	10.44	35	KLA
NOMTX	3	0.36	4.70	14	MER
SAMTX	2	0.79	14.83	44	PON
SKMTX	2	0.00	0 . 90	6	KUL
CEMTX	6	1.36	0.65	4	MOB3
SR	15	6.17	8.56	.30	JBU2
PAR	18	4.88	10.71	60	PEL
÷.,			8.16	.32	SMT
i i i	:		28.55	108	JBU3
			3.86	10	SR
			0.13	4	MOB4
Total	714	185.16	242.74	785	Total

Table 26 Results of Traffic Measurement for Johor Baru Zone Centre

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Table 27 Traffic Distribution in Johor Baru Zone Centre

o Outgoing

KL Traffic (erl) 32.75 Working (cct) 80	Ъ	άr	KN	ЪС Г	а	U A	21. 47	4404	7953	А V	
32.		4	1111		90	54	YY	रियन्त	1	10	TELOT.
	1.95	9.68	7.98	4 61	132.58	0.51	1.56	ł	0.67	50.45	242.74
	20	00 ⊢f	25	25	502	- თ	σ	I	12	85	785
Traffic 13.49 Distribution (%)	0.80	3.99	3.29	1.90	54.62	0.21	0.64	۰ ۱ ۰	0.28	20.78	100.00
									·		
o Incoming				•		4. 				· · · ·	
1	MC	d I	N.	PG	ц Ц Ц	ВМ	¥	ITE1	ITE2	SE	Total
Traffic (erl) 6.53	9.24	3.41	10.47	4.77	110.39	0.25	2.55	1	2.00	35.55	185.16
Working (cct) 85	24	24	25	23	397	12	01 10	а. 1 19 19 (19) 19 (19)	9 7	86	714
Traffic 3.53 Distribution (%) 3.53	4.99	1.84	5.65	2.58	59.61	0.14	90 • • • • •	I.	1.08	19.20	100.00

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	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (ect)	Exchange
PGT	15	4.33	7.25	15	PGT
PG2	. 4	2,69	3,77	10	PGZ
IPT	26	4.36	5.41	22	1PT
IPZ	6	3.86	0.00	4	IPZ
MCG	25	12.30	10.91	26	MCG
KLG	24	6.08	10.33	21	KLG
PJT	45	33.86	39.27	44	PJT
KLZ	20	0.91	2.83	8	KLZ
SN	12	2.44	4.55	8	SN
MR3	8	5.38	4.72 4.94	8 7	MR3 MR4
MR4	8 34	4.52	8.30	36	MCZ
MCZ SEZ	104	3.44 91.33	132.69	140	SEZ
ISC	16	4.38	1.05	140	ISC
KNZ	18	9.55	9.94	18	KNZ
KGZ	8	0.88	0.88	8	KGZ
KBZ	ŝ	1.38	0.97	8	KBZ
BP	5 45	18,94	22.63	45	BP
PTN	66	12.75	13.41	60	PTN
KUI	45	10.41	14.47	45	KU
KTG	39	16.30	13.05	36	KTG
ME	14	3.36	6.02	12	ME
SGT	- 25	8.66	7.94	20	SGT
JRZ	108	12.66	46.80	112	JBZ
JR2	218	123,38	142.30	192	JB
PGI	315	246.86	234.44	315	PGI
PDN	32	8.19	21.58	28	PDN
TP1	45	20.91	29.41	45 60	TP1 TP3
TP3	45	41.08	52.55 67.08	· 96	SC
SC	98 20	52.80 6.44	0.00	-	SC1
MTX KU2	20	9.08	6.16	20	MTX
TI	90	18.47	23.50	80	TI
SNI	. 87	16.61	11.86	74	SNI
MBD	124	22.58	0.00	30	T2L
T2L	30	0.00	78.02	100	PGD
PND	15	13.13	5.69	28	TPL
KUL	102	35.41	4.05	6	GH
TPL	16	19,58	4.72	20	ABN
GH	6	5.02	1.47	25	TGA
ABN	35	8.36	1.75	4	KBT
TGA	30	2.63	9,16	45	TMP
SCD	75	3.33	0,69	15 93	PND KUL
KBT	5	0.97	41,88 85,33	115	KT4
PGD	125	72.02	7.61	24	KU2
TPP	16	5.83 14.16	1.11	10	KJ
TMP SC1	45	0.00	0.50	6	BN
KT4	120	81.08	0.00	-	SC2
KJ	11	1.75	0.00	3	ATR1
BN	6	0.08	0.00	3	ATR2
SC2	45	2.19	0.00	3	ATR3
Total	2,503	1,106.71	1,202,99	2,181	Total

Table 28Results of Traffic Measurement for
Johor Baru Group Centre

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Table 29 Traffic Distribution in Johor Baru Group Centre

o Outcoinc

									÷.			
	KĽ	MC	цЪ	KN	PG	дв	KG	KK	ITEI	ITE2	SE	Total
Traffic (erl)	144.07	19.58	7.28	11.48	16.11	862.12	0,98	3.02	1 	0.13	142.42	1,202.99
Working (cct)	200	62	26	18	25	1,690	00	12	ł	I	140	2,181
Traffic Distribution (%)	11.98	1.63	0-61	0.95	66 O	71.66	0.08	0.25	I	10.0	11.84	100.00
												-
o Incoming		·										
		:										
	Т. Д	щ	ф I	KN	ЪС	JB	KG	KK	IJLI	ITE 2	SE	Total
Traffic (erl)	122.38	16.37	8.45	10.27	7.35	844.57	06-0	2.52	ł	0.14	93.76	1,106.71
Working (cct)	2.09	59	32	18	19	2,041	ω	13	1	T	104	2,503
Traffic Distribution (%)	11.07	1.48	0.76	0.93	0.66	76.31	0.08	0,23	ł	0.01	8.47	100.00

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Table 30 Total Traffic Distribution in Johor Baru Zone Centre Combined with Group Centre

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									And a state of the		A REAL PROPERTY AND A REAL	
	Å	MC	đi	NY.	ъЗа	JB	ВЖ	KK	ITEL	ITE 2	SE	Total
Traffic (erl)	176.82 21.53	21.53	16.96	19.46	16.52	19.46 16.52 994.70	1.49	4. 58		0.80	192.87	192.87 1,445.73
Working (cct)	280	82	44	43	50	2,192	17	21	ł	12	225	2,966
Traffic Distribution (%)	12.23	1.49	Т.17	1.35	1.14	68.80	0.10	0+32	I	0-06	13.34	100,00
			1957									· · ·
			~									
o Incoming												
		C 2	р F	V.NI	Ú.	β	U X	1	1.402	TTTEO	сн С	

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3,217 100.00 1,291.87 TRIDIT 129.31 202 I0.0I S S 2.14 0.17 90 1-1 23.17 ł. 1 ł 13.17 0.39 23 5.07 2 0.09 1.15 20 2 2 2,438 954.96 19.57 n C 12.12 0.94 42 02 20.74 1.61 т М Z, 11.86 0.92 56 <u>ц</u> 25.61 83 1.98 5 294 86-6 128.91 2 Distribution (%) Working (cct) Traffic (erl) Traffic

	INCOMING	.:		OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
IPZ	18	5.55	3.96	18	DT
JBZ	30	1.74	0.35	15	AN
KLZ	40	4.82	4 42	40	101
PGZ	12	5.06	0.35	6	102
SEZ	49	21.16	3.79	6	103
KGZ	6	1.74	1.17	10	104/105
KBZ	2	1.39	2.16	6	100
KNZ	30	12.99	0.97	20	112
JBT	36	9.46	0.00	10	999
IPT2	22	3.84	4.84	30	CCB
PGT	17	2,62	47.06	62	MCG1
PGI PJT2	37	24.21	6.42	54	MCG2
KLT4	66	29.72	0.48	30	MCG3
KLGT	20	3,26	23.16	50	M6Z
KU	20	3,20	4.24	18	JBZ
SGT	18	6.95	6.55	18	IPZ
BP	10	4.98	5.49	12	PGZ
	2	0.04	10.59	49	SEZ
KBX	23	7.18	2.73	49	KLZ
PD	23 61	16.35	1.04	6	KGZ
SN	41	9.51		2	KBZ
TN			0.63	18	KNZ
KP	40	11,98	2.88	24	JBT
MUR3	36	15.12	4.31	24 12	IPT2
MUR4	36	9.08	4.82	12 15	PGT
ME2	16	4,05	5.78 5.50	35	PJT2
PG1X	20	0,44			KLT4
SBJX	6	3.78	36,36		KLGT
SJAX	3	0,46	1.32	18 5	*
KGX	2	0.02	4.25		KU
DT	22	6.45	0.68	12	ITE2 SGT
AN	25	4.97	4.58	17 23	· · ·
SCB	90	10.48	16.02		PD
MC2	86	1.35	23.66	52	SN
MCG (mi)	136	78,91	14.47	36	TN
MCG (mg)	30		3.88	40	KP MUD 2
			14.92	54	MUR3
		н. Н	0.01	3	SJAX BC1 V
			1.80	20	PG1X
			11.46	30	MUR4
			2,54	10	BP
			0.00	2	KBX
			0.02	2	KGX
·	· .		2.75	6	SBJX
	<u></u>				
Total	1,095	323.63	292.41	1,014	Total

Table 31 Results of Traffic Measurement for Melaka Zone Centre

Table 32 Traffic Distribution in Melaka Zone Centre

Traffic (erl) 48.66 183.54 11.37 Working (cct) 177 592 30 Traffic Distribution (%) 16.64 62.77 3.89 Distribution (%) 16.64 62.77 3.89 o Incoming KL MC IP	NX di	D D d	Щ Ц Ц	KG	KK	TELI	ITE2	SE	Total
<pre>orking (cct) 177 592 raffic Distribution (%) 16.64 62.77 Incoming KL MC KL MC</pre>	11.37 2.88	13.08	19.92	1.06.	0.63	l	0.68	10.59	292.41
<pre>raffic Distribution (%) 16.64 62.77 Incoming KL MC KL MC</pre>	30 18	50	74	¢	4	1	12	49	1,014
Incoming KL MC 65 79 175 43	3.89 0.98	4.48	6.81	0.36	0.22	ŧ	0.23	3.62	100.00
Incoming KL MC F5 (erl) 65 79 175 43			-						
Incoming KL MC F5 (erl) 65 79 175 43									
KL MC 65 79 175 43						į	ν.		
65 79 175 43	IP KN	ЪG	J.B	KG	KK	ITEL	ITE2	SE	Total
	9.39 12.99	8.58	27.10	1.76	1.43	i	1	21.16	323.63
Working (cct) 169 642 40	40 30	52	101	ω	4		I	49	1,095

100.001

6.54

1

ī

0.44

0.54

8.38

2.65

4.01

2.90

54.21

20.33

Traffic Distribution (%)

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······································	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
IPT2	6	2.8	2.6	6	IPT2
ISC2	14	3.2	0.5	6	ISC2
KNZ	14	5.4	4.3	15	KNZ
TN	44	9.8	7.3	38	TN
SN3	41	5.6	6.4	49	SN3
SNG	24	9.9	4.4	24	SNG
KP	28	2.0	2.7	30	KP
PD	20	2.0	1.8	32	PD
MUR3	29	10.4	7.2	35	MUR3
MUR4	29	5.3	9.5	35	MUR4
BP1	19	4.4	4.8	15	BP1
кU	10	3.5		10	ĸu
JBT	26	12.2	<u> </u>	25	JBT
SGT	24	4.1	_ -	22	SGT
KLT4	60	23.2	33.8	35	KLT4
PJT2	24	20.5	23.9	30	PJT2
KLGT	12	5.1	3.5	10	KLGT
KJ2	15	2.2	1.4	15	KJ2
MCZ	116	52,6	68.5	136	MCZ
AK	120	32.3	29.7	120	AK
TGB	60	20.0	21.1	60	$\mathbf{T}\mathbf{G}\mathbf{B}$
AG	85	21.7	19.9	75	AG
JN	64	19,3	17.8	52	JN
MJ	65	16.5	18.0	76	MJ
ML	31	11.5	13.5	25	ML
MC 2	220	161.6	177.3	220	MC2
ITE2	8	-		6	ITE2
KBUT	6	-		6	KBUT
Total	1,214	467.1	479.9	1,208	Total

Table 33 Results of Traffic Measurement for Melaka Group Centre Table 34 Traffic Distribution in Melaka Group Centre

o Outgoing

		•		.*							•	
	KL	MC	đI	KN	් පුරු ප	JB	КĢ	XX	Tati	ITE2	: EE :	Total
Traffic (erl)	73.9	379.5	5.3	2°	3.0	5° 0	0.3	0.2		0.7	5 7	479.9
Working (cct)	06	1,007	ی	15		72	1	Q	· 1	12	r :	1,208
Traffic Distribution (%)	15.4	1.67	1-1	0 · L	0.6	2.0	0 1	0	l	0.2	0.5	100.00
•				·								
o Incoming												
	K	MC	а, Н	KN	Эд	а С Э	KG	X	ITEI	ITE2	SE	Total
Traffic (erl)	61.8	61.8 356.4	4.3	7.5	1.4	28.6	0.3	0.2	- 1	3.2	3.4	467.1

	R	MC	д Т	KN	9 4	B	КG	XX	LTEI	ITE2	SE	Total
Traffic (erl)	61 - 8	61.8 356.4	4.3	7.5	1.4	1.4 28.6	е о О	0	- 1	3°5	ب 4	467.1
Working (cct)	111	976	Q	14		79	1	Q	ı	22	Г	1,214
Traffic Distribution (%)	13 ° 3	76.3	0.0	9° H	е. О	6.1	С 1	0.0	I.	0.7	0.7	100-00

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Table 35 Total Traffic Distribution in Melaka Zone Centre Combined with Group Centre

o Outgoing

Traffic (erl) 122.6		યં	NY4	р ч	Ω C	NG VG	44	דיביד	アコル	сE СE	TOTOT.
	6 563.0	0 16.7	7.9	16.1	29,4	4 •	0.8	1	Ц.	13.1	772.4
Working (cct) 26	267 1,599	9 36	33	50	146	ω	10	ŧ	24	49	2,222
Traffic 15.9 Distribution (%) 15.9	9 72.8	3 2.2	1.0	2.1	3.8	0.2	1.0	1	0.2	1.7	100.00
· ·							:				
o Incoming								· .			·
	WG	đΙ	KN	9 A	J.B	ЯG	X	ITE1	ITE2	E S	Total
Traffic (erl) 127.	127.6 531.8	3 13.7	20.5	10.0L	55.7	2.1	1 e		3.2	24.6	790.8
Working (cct) 28	280 I.618	3 46	44	52	180	ω	10	1	22	49	2,309
Traffic 16.1 Distribution (%)	1 67.2	2 1.7	2.6	н. В.	7.1	0.3	0.2		0.4	υ Έ Έ	100-00

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	INCOMING			OUTGOING	
Exchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchange
JBZ	18	10.18	0.86	12	JBZ
SJAMTX	21	3,92	1.03	21	SJAMTX
PGT	30	9.36	4.39	20	PGT
MW	12	6.01	1.21	6	BG
BR	18	4,60	4.08	12	MW
1011.	40	4.50	3.97	16	BR
101R	40	13.14	17.15	40	101
110L		0.00	1.14	7	110
110H	7	1.02	11.43	32	KLZ
KLZ	40	14.78	5,32	16	SEZ
SEZ	40	6.40	14.31	23	PGZ
PGZ	23	15.31	3.33	18	MCZ
MCZ	18	5.33	1.87	4	KO
ко	6	3.52	13.33	44	KLT4
and the second second	81	24.49	5.63	28	PJT2
KLT4 PJT2	25	16.39	31.99	20 59	TIN
and the second	38	15.77	8.02	31	KK
KK		22.74	21.45	51 66	TP
TIN	49	15.80	10.88	42	TH
TP	49	19.22	7.63	18	СН
TH	24	7.23	14.05	30	SW
CH	24 42	17.36	10.02	26	KRI
SW	42 29	11.89	9.04	37	IP4
KRI	4	0.00	4,67	24	51P3
JBT	4 15	2.45	11,21	72	IPT2
ITE2		5.77	4,59	43	TSK1
TM	18	7.25	0.00	12	OPR
KNZ	30	0.83	1,95	6	JBT
KGZ	4	1.18	5,35	16	TM
KBUZ	4 10	4.02	5.40	30	KNZ
KR2		2.52	0.45	10	ITE2
TG	8	1.18	0.18	4	KGZ
KBT	4	7.62	0.18	4	KBUZ
IPT2	60		1.06		TSK2
SBJMTX	3 6	1.53 0.09	0.20	24 7	KBT
KLG2	6 3	0.09	2.19	8	KR2
PG1MTX			0.47	3	SBJ (MTX)
KGMTX	2 1	0.12 0.02	0.47	6	KLGT2
KBMTX	T.	0.02	0.00	3	PG1 (MTX)
· · ·			0.00	2	KG (MTX)
· · · ·			0.02	2 1	KB (MTX)
			0.00		KD (EITY)
Total	853	283.60	240.34	883	Total
					<u></u>

Table 36 Results of Traffic Measurement for Ipoh Zone Centre

Table 37 Traffic Distribution in Ipoh Zone Centre

o Outgoing

	K	MC	д Н	KN	9 đ	IJВ	9XG	XX	ITEI	ITE2	SE	Total
Traffic (erl)	30.86	3.33	171.57	5.40	19.73	2.81	0.20	0.67	1	0.45	5.32	240.34
Working (cct)	107	13	599	30	67	18	ø	12	ı	10	16	883
Traffic Distribution (%)	12.84	1.39	71.39	2.25	8.21	1.17	0-08	0.28	1	6T.O	2.21	00.001
									· ·		-	
o Incoming							- - : - :			· .		·
	R	MC	Дı Н	Ŋ	Эd	JB	9 M	X	TTET	ITE2	S S	Total
Traffic (erl)	57.19	5.33	162.82	7.25	28.65	10.18	0.95	2.38	i	2.45	6.40	283.60
Working (cct)	149	8 H	511	30	77	22	9	െ	•	ц Ц	91	853
Traffic Distribution (%)	20.17	1.88	57.41	2.56	10.10	3.59	0.33	0.84	I	0.86	2.26	100.00

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	INCOMING			OUTGOING	
Sxchange	Working (cct)	Traffic (erl)	Traffic (erl)	Working (cct)	Exchang
TP	56	29.5	37.4	52	PJT2
ĈR	36	14.2	8.7	20	PR
GG	34	11.0	9.6	24	SEZ
IPT1	120	21.0	2.1	12	SP
IPZ	72	8.9	15.6	28	SW
IP3	148	77.6	19.3	44	TIN
PAA	8	3.9	11.1	30	CR
PUL	26	10.1	11.4	32	GG
SSA	66	20.2	18.9	110	1PT1
TJ	11	9.3	7.7	60	IPZ
TSK1	130	. 29.9	102.1	114	IP3
TT	15	5.6	5.0	6	PAA
TSKZA	72	24.8	9.1	19	PUL
BGA	69	24.7	17.8	60	SSA
PB	10	2.2	5.6	6	TJ
TH	27	8.6	38.3	104	TSK1
K01	10	0.6	5.1	15	T
IP4A	30	12.9	21.0	96	TSK2A
SJAT	15	8.8	22.6	44	BGA
MNG	14	2.7	26.9	50	TP
JPGA	24	2.8	8.8	33	TH
PPP1A	1	0.0	0.2	5	IP4A
TO	19	2.9	5.0	14	SJAT
MW	12	1.2	2.9	10	MNG
TM	6	1.3	4.0	16	JPGA PPP1A
PA	10	6.9	0.0	1	TO
IP4	165	143.0	3.9	17 12	MW
AS	15	1.7	3.0 1.0	6	TM
BV	30 8	6.2	143.0	165	IP4
CH ITE2	21	5.2	2.3	16	AS
JBT	22	4.0	4.0	6	PA
KBUZ	6	1.0	5.6	24	BV
KGZ	9	1.0	3.7	8	СН
BN2	. 6	0.6	1.8	27	ITE2
KK	30	17.3	4.9	26	JBT
KLGT	28	5.2	2.4	12	JBZ
KLT4	100	78.8	1.1	8	KBUZ
KN2	10	1.1	0.5	5	KGZ
KR1	26	9.6	14.6	22	KK
KR2	14	4.8	4.5	16	KLGT
MC3	8	3.2	77.1	97	KLT4
PGT1	28	21.0	1.3	35	KLZ
PJT2	54	41.4	2.7	16	KNZ
PR	23	7.8	2.0	11	KN2
SEZ	24	9.6	0.8	10	K02
SP	12	3.0	10.2	26	KBJ
SW	37	18.6	2.6	13	KR2 MC3
TIN	53	28.9	2.5	12 22	
KJ2	. 6	2.3	5.2	7	MCZ PB
PPP2A	25	4.4	3.2 25.6	30	PB PGT1
TSK2	17	0.0	25.0	13	PGII
PI	18	7.0	1.0	6	KJ2
			0.4	- 6	BN2
			4.6	16	PPP2A
			0.0	15	TSK2
			5.6	12	PI
			762.9	1,722	Total

Table 38 Results of Traffic Measurement for Ipoh Tandem Centre

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Table 39 Traffic Distribution in Ipoh Tandem Centre

o Outgoing

	벐	MC	д Г	KN	ម ស្ត	ar Br	KG	XX	LTTI	ITE2	ES S	Total
Traffic (erl)	120-3	7.7	573.7	4 - 7	36.2	7.3	in O	1-1	8	1,8	9°9	762.9
Working (cct)	200	34	Ι,302	27	57	38	ۍ	co ,	١	27	24	1,722
Traffic Distribution (%)	15.8	1.0	75.2	0.6	4.7	1 .0	1.0	1.0	ŧ	0.2	ч. Ч.	100.00
	-							-				
o Incoming							·					
	X	MC	đi	KN	ഗ പ	ЯЪ	УĊ	KK	ITE1	ITE2	E S	Total
Traffic (erl)	125.4	3.2	636.8	1. 1.	29.8	4.0	1.0	1.0	. 1	5.2	9,6	817.1
Working (cct)	182	00	1,511	10	43	22	თ	Ś	I.	51	24	1,836
Traffic Distribution (%)	15.4	0.4	77.9	0.1	3.7	0.5	F.O	T-0	t	0.6	- 7 -	100.00
											- **	

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	ICLAT ITAILLO DISCLITUACION	מידירט הי ייייייייייייייייייייייייייייייייייי	10 CT T T C C			יווי כעו	TOOL CONCIER COMPANIES WILL TAUREN VEHILLE		T 777 T M	מוורבווו ל	יבוו רד מ	
Outgoing			- - - -		·		- - - -		 		• .	
	KL	MC	ЧI	KN	PG	J.B	KG	XX	ITE1	ITE2	SE	Total
Traffic (erl)	151.2	0.LI	745.3	10.1	55.9	I.OI	0.7	1.8	I	2.3	I4.9	1,003.3
Working (cct)	307	52	1,901	57	124	56	11	20	i	37	40	2,605
Traffic Distribution (%)	15.1	ला • हो	74.2	1.0	e v	л . 0	г . о	0.2	- 1	0.2	ц.	100.00
Incoming									·			
	KL	MC	đI I	Ŋ	Эд	a D	ъ	¥	TTEI	ITE2	E S	Total
Traffic (erl)	182.6	8.5	799.6	8.4	58.5	14.2	2.0	3.4	I	7.7	16.0	1,100.9
Working (cct)	331	26	2,022	40	120	55	15	15	1	36	40	2,689
Traffic Distribution (%)	16.6	0.8	72.5	0 . 8	5 5	1.3	0.2	0.3	ι	0.7	с . Т	00 ° 00T

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