4. CASE STUDY

Introduction

1. The preceding section of this document dealt with the structure and functioning of the model. In this section, screen-shot extracts will be given to show how actual numbers flow through the model.

2. In order to calculate the LRIC of each service, the model performs a series of iterations that simulates the following:

    1) Initially the model calculates the total costs of each network element for a given set of input cost assumptions, input technical assumptions and original input demand volumes.
    2) Removes the service volumes of each service one at a time
    3) Upon removal of each service volume, it recalculates new total costs of each network element for the given set of input cost assumptions, input technical assumptions and the reduced input demand volumes.
    4) It subtracts the new total cost from the original total costs to produce the pure LRIC associated with each service.
    5) It identifies the increment specific fixed costs (ISFCs) and network-wide common costs (FCCs) and marks up the pure LRIC to produce , D-LRIC and full LRIC for each service
    6) The output after each iteration is posted to the 'BU Output' sheet.

3. The following case study provides calculation steps, intermediate outputs and final outputs to demonstrate how the model determines the Pure LRIC for the Residential Access service

4. In order to make the presentation of results clearer, we have chosen to simplify that reporting somewhat. The simplifications are that

    a. we look at the direct capital costs GRC and annualized cost elements of the LRIC and leave out network opex and indirect capex derived from expense factors.

    b. we explicitly trace through the impact on two network elements--line-sensitive MGs and the DP/dropwire component of the access network). However, the impacts on all network elements appear at the end of the case study.

c. We produce demonstrate the calculation of the Pure LRIC values only in summary fashion as drilling down would require case studies of additional services.

5. Again, we have made these simplifications to facilitate presentation. Upon request we will be happy to provide a more detail demonstration of the Model.

6. This case study is for instructional purposes only and therefore costs and volume numbers presented in this case study may not be consistent with those submitted in the actual model and may not be representative of what C&W Cayman or other operators face.

The Starting Point

7. For this case study we have assumed that the number of lines served by the fixed network operator totals 21,500. We also assume that there are 8,000 business lines, and 13,500 residential access lines. This is captured in the *Volume Input for TD Sheet* and shown in the Extract 1 below.

8. The *Routing factors Input Sheet* is a key input to the model that captures the extent to which each Network Element is used by each service. From this the components of the LRIC for residential access will be the line-sensitive components of the MGs and various components of the access network. This is captured in Extract 2 below.

9. For the MG calculations and consistent with the scorched node methodology, the starting point is a list of all locations of C&W Cayman Remote Switching units (RSUs) and the installed line capacity. This input is captured in the *MG Dimensions Sheet* shown in Extract 3 below. Given the advent of hurricane Ivan the maximum capacity of pre and post Ivan is taken.

   Based on the *MG Dimensions Sheet* inputs, the *MG Calculations Sheet* gives the locations and the associated costs of each MG as shown below in Extract 4.

10. The volume driver column is calculated by scaling the current installed lines for each RSU by the lines volume driver using the formula:

    10.1 *Volume Driver for each MG = Installed lines * Dimensioned Demand / total installed lines max point*

11. The MG cost for each node is then calculated in the total cost per MG column via the following formula:

    *Cost = (Volume Driver / MG fill ratio) * MG cost per port + Fixed Cost per MG*

12. With respect to the fixed vs. variable cost, we note that, although most of the MG costs vary by the number of access lines , there remain some costs which are fixed. The break-down between fixed and variable comes from the "MG analysis" sheet. We have assumed that the proportion of MG fixed cost is 2.6% of the total. Thus total variable line related costs, in this example, is $764,224.

13. This figure appears in the *NGN Costs Sheet*, column 'G', which in turn is used to derive GRC and depreciation by network element. We note that, in addition to the relevant equipment costs, a "management system" component ($13,379) enters the line-sensitive.MG costs. See Extract 5 below.

14. Please note that, for the purposes of this case study we have assumed a WACC of 10.52%.

15. The resulting depreciation and GRC are carried over to the *Cost Summary and Mapping Sheet*. See Extract 6 below.

16. Similarly, we can trace the impact on the DP/dropwires/NIDs. Working backwards this time, we see in the *Cost Summary and Mapping Sheet* above, that the annualized cost and GRC associated with DP/dropwires is $829,762 and $4,986,598 respectively. These figures are determined in the *Access Cost Sheet*. See Extract 7 below.

17. Working backwards we see that the Access Cost figures originated from the *Cost Assumptions Sheet* shown in Extract 8 below.

Calculating BU LRIC

18. The following steps describe the calculation process involved in computing the LRIC for the Residential Access service. We will follow the two network elements identified above--the line sensitive component of the MG (or concentrator) and DPs/dropwires--and observe changes in those elements after the Residential Access service is eliminated. Other network elements are impacted by a change in the residential access line volumes as well, but to ease the presentation we will just track the MG and DP/dropwire/NID costs. However, we show the calculation of the comprehensive set of impacts at the end of the case study.

19. In calculating the incremental cost of residential access line, we first set the volume of the service to zero using the *Scenario Volume Sheet*.

20. The reduction in the access line volume carries through to the *Demand Calculation Sheet* to the various network elements. See Extract 9 below.

21. This drop in 13,500 PSTN Access residential lines lowers the variable MG element cost to $677,126 as shown in 'MG Calculations' sheet, cell F76.

22. The annualized cost is reduced from $494,096 (sum of cells G42 and G43 in NGN Cost sheet) down to $188,653 and the GRC falls from $1,848,394 to $705,745 (sum of cells G35 and G37 in NGN Cost sheet. The differences between the GRC and annualized costs before and after zero-ing out the residential access service volume are the components of the Long Run Incremental Costs. For Residential access the LRIC GRC is $1,142,650 (subtract 1,848,394 - 705,745) and the annualized LRIC cost is $305,443 (subtract 494,096 – 188,653). These LRIC results are shown in the 'BU Output' sheet, column D, rows 35 and 36.

MG-line sensitive plus	Before	After	LRIC
Annualised Cost	494,096	188,653	305,443
GRC	1,848,394	705,745	1,142,650

23. Similarly, the DP/dropwire/NID elements' annualized cost moves from $829,762 down to $327,665 and GRC moves from $4,986,598 down to $1,969,159. This is shown in the 'Access Costs' sheet, column C, cell C118 for annualized cost and cell C110 for the GRC.

24. To give a flavour of the other impacts, in the table below we present the GRC results from all the elements of the Access network (whether they are impacted or not).

	Original GRC	Reduced GRC	Reference
Access ducting	44,941,980	44,941,980	Cost Summary & Mapping sheet, cell D34
DPs, Dropwires	4,986,598	1,969,159	Cost Summary & Mapping sheet, cell K28
Access Cable	4,276,462	4,276,462	Cost Summary & Mapping sheet, cell C28
Access joints	22,903,966	22,903,966	Cost Summary & Mapping sheet, cell D28
Access manholes	3,691,200	3,691,200	Cost Summary & Mapping sheet, cell G28
TOTAL	80,800,206	77,782,767	

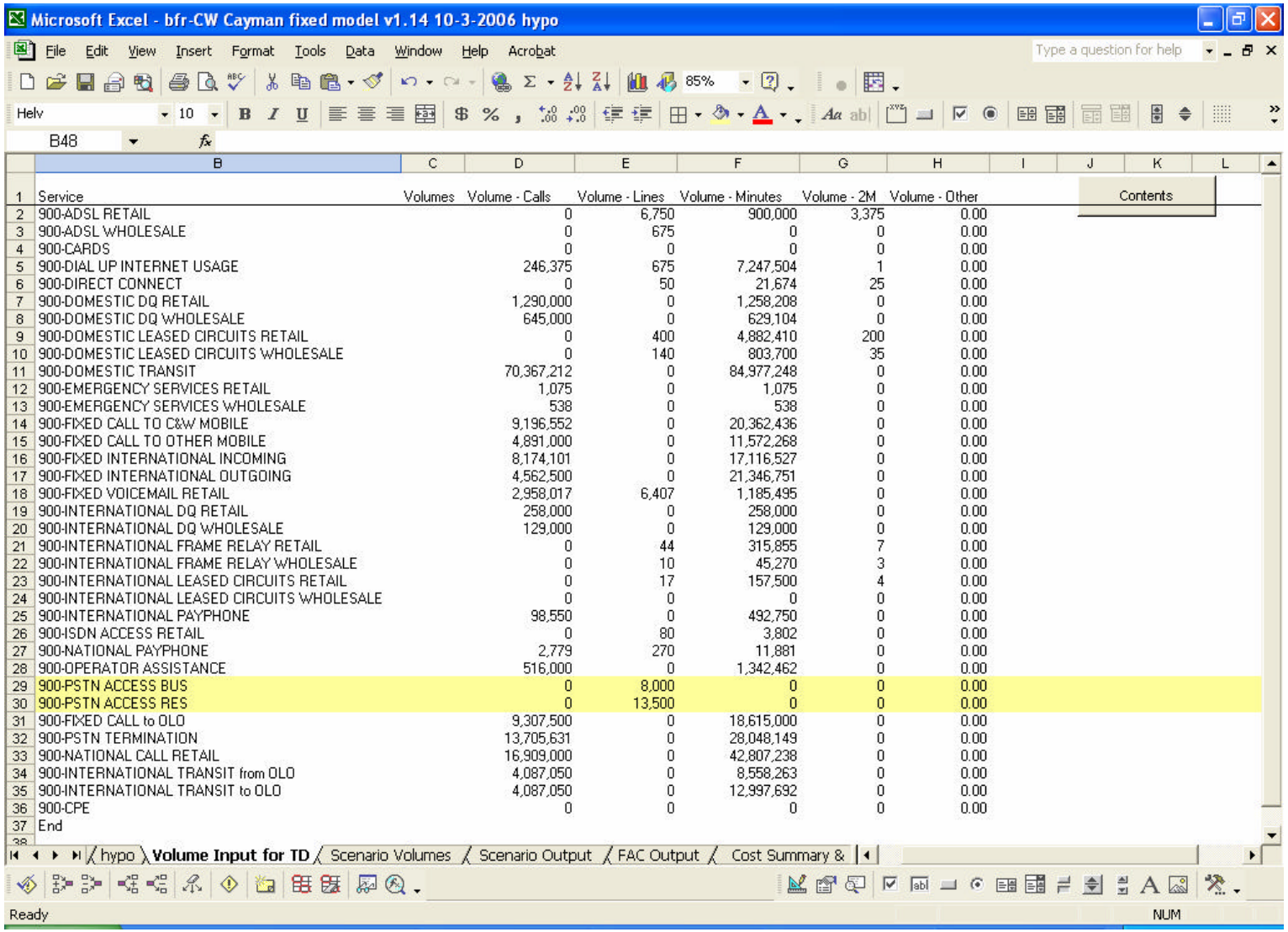
GRC LRIC Local Loop 80,800,206 – 77,782,767 = 3,017,439

25. Pulling all these elements together, we get the total bottom-up pure LRIC for the access service. These results are seen in the BU Output sheet, column D, rows 35, 36, 38 and 39.

Summary BU pure LRIC results for PSTN Access Residential service

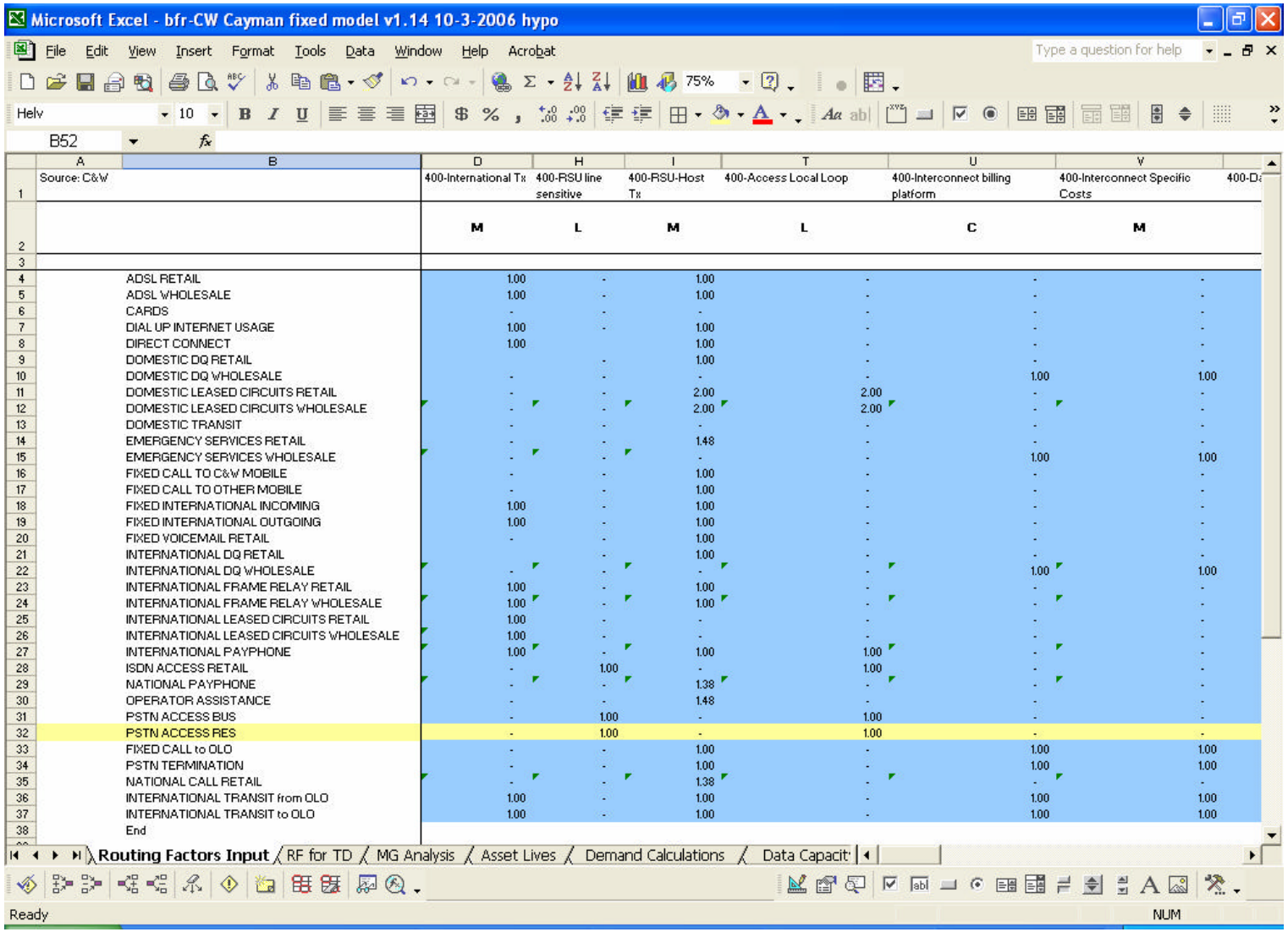
WACC 10.52%
Volume - lines 13,500

A	B	C
Network Element	**LRIC value – GRC**	**LRIC value – Annualised Costs**
400-PSTN Access	$3,017,439	$ 502,097
400-MG line sensitive	$1,142,650	$ 305,443
TOTAL PURE LRIC	**$4,160,089**	**$ 807,540**



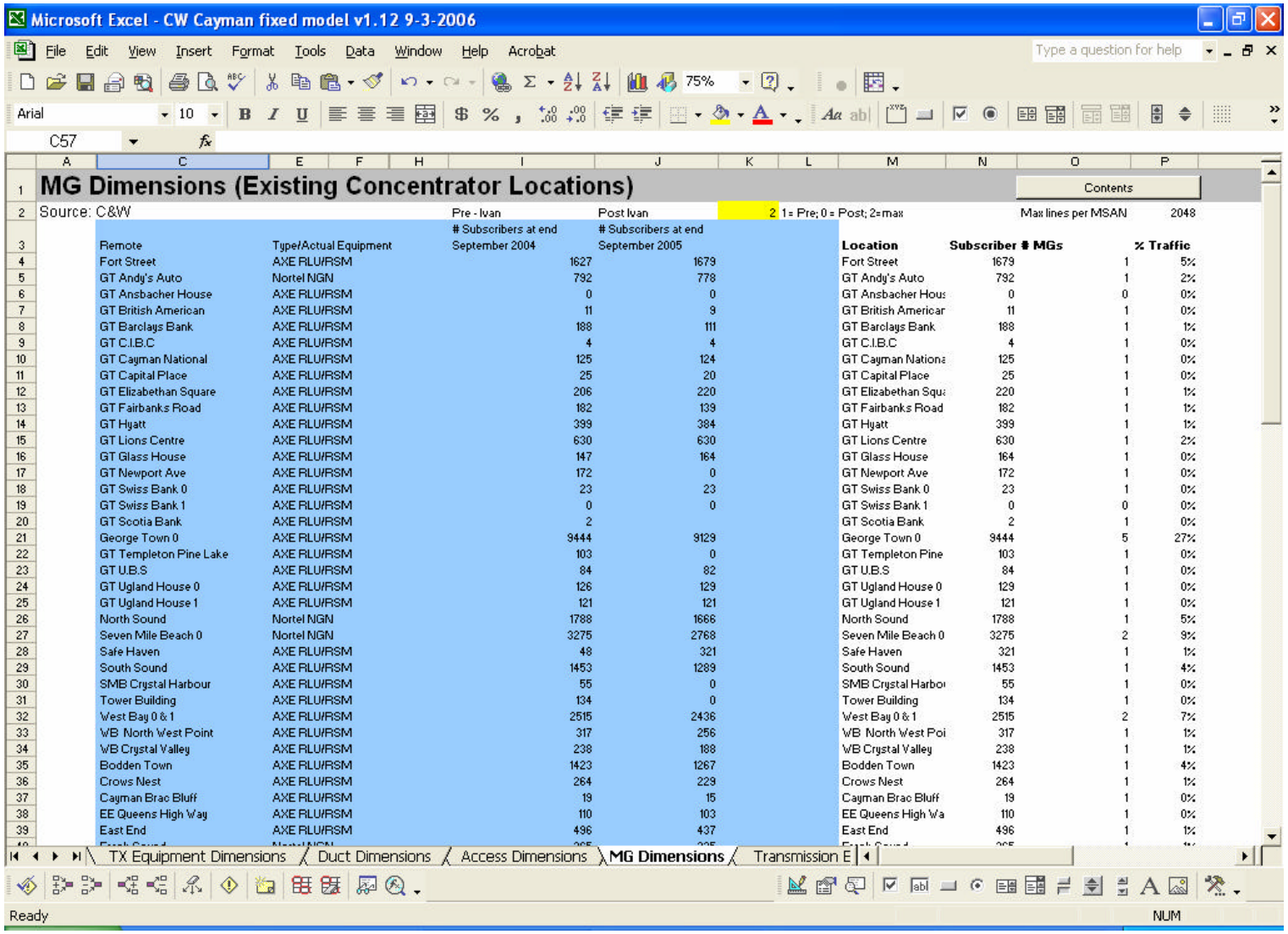
	Service	Volumes	Volume - Calls	Volume - Lines	Volume - Minutes	Volume - 2M	Volume - Other
2	900-ADSL RETAIL		0	6,750	900,000	3,375	0.00
3	900-ADSL WHOLESALE		0	675	0	0	0.00
4	900-CARDS		0	0	0	0	0.00
5	900-DIAL UP INTERNET USAGE		246,375	675	7,247,504	1	0.00
6	900-DIRECT CONNECT		0	50	21,674	25	0.00
7	900-DOMESTIC DQ RETAIL		1,290,000	0	1,258,208	0	0.00
8	900-DOMESTIC DQ WHOLESALE		645,000	0	629,104	0	0.00
9	900-DOMESTIC LEASED CIRCUITS RETAIL		0	400	4,882,410	200	0.00
10	900-DOMESTIC LEASED CIRCUITS WHOLESALE		0	140	803,700	35	0.00
11	900-DOMESTIC TRANSIT		70,367,212	0	84,977,248	0	0.00
12	900-EMERGENCY SERVICES RETAIL		1,075	0	1,075	0	0.00
13	900-EMERGENCY SERVICES WHOLESALE		538	0	538	0	0.00
14	900-FIXED CALL TO C&W MOBILE		9,196,552	0	20,362,436	0	0.00
15	900-FIXED CALL TO OTHER MOBILE		4,891,000	0	11,572,268	0	0.00
16	900-FIXED INTERNATIONAL INCOMING		8,174,101	0	17,116,527	0	0.00
17	900-FIXED INTERNATIONAL OUTGOING		4,562,500	0	21,346,751	0	0.00
18	900-FIXED VOICEMAIL RETAIL		2,958,017	6,407	1,185,495	0	0.00
19	900-INTERNATIONAL DQ RETAIL		258,000	0	258,000	0	0.00
20	900-INTERNATIONAL DQ WHOLESALE		129,000	0	129,000	0	0.00
21	900-INTERNATIONAL FRAME RELAY RETAIL		0	44	315,855	7	0.00
22	900-INTERNATIONAL FRAME RELAY WHOLESALE		0	10	45,270	3	0.00
23	900-INTERNATIONAL LEASED CIRCUITS RETAIL		0	17	157,500	4	0.00
24	900-INTERNATIONAL LEASED CIRCUITS WHOLESALE		0	0	0	0	0.00
25	900-INTERNATIONAL PAYPHONE		98,550	0	492,750	0	0.00
26	900-ISDN ACCESS RETAIL		0	80	3,802	0	0.00
27	900-NATIONAL PAYPHONE		2,779	270	11,881	0	0.00
28	900-OPERATOR ASSISTANCE		516,000	0	1,342,462	0	0.00
29	900-PSTN ACCESS BUS		0	8,000	0	0	0.00
30	900-PSTN ACCESS RES		0	13,500	0	0	0.00
31	900-FIXED CALL to OLO		9,307,500	0	18,615,000	0	0.00
32	900-PSTN TERMINATION		13,705,631	0	28,048,149	0	0.00
33	900-NATIONAL CALL RETAIL		16,909,000	0	42,807,238	0	0.00
34	900-INTERNATIONAL TRANSIT from OLO		4,087,050	0	8,558,263	0	0.00
35	900-INTERNATIONAL TRANSIT to OLO		4,087,050	0	12,997,692	0	0.00
36	900-CPE		0	0	0	0	0.00
37	End						

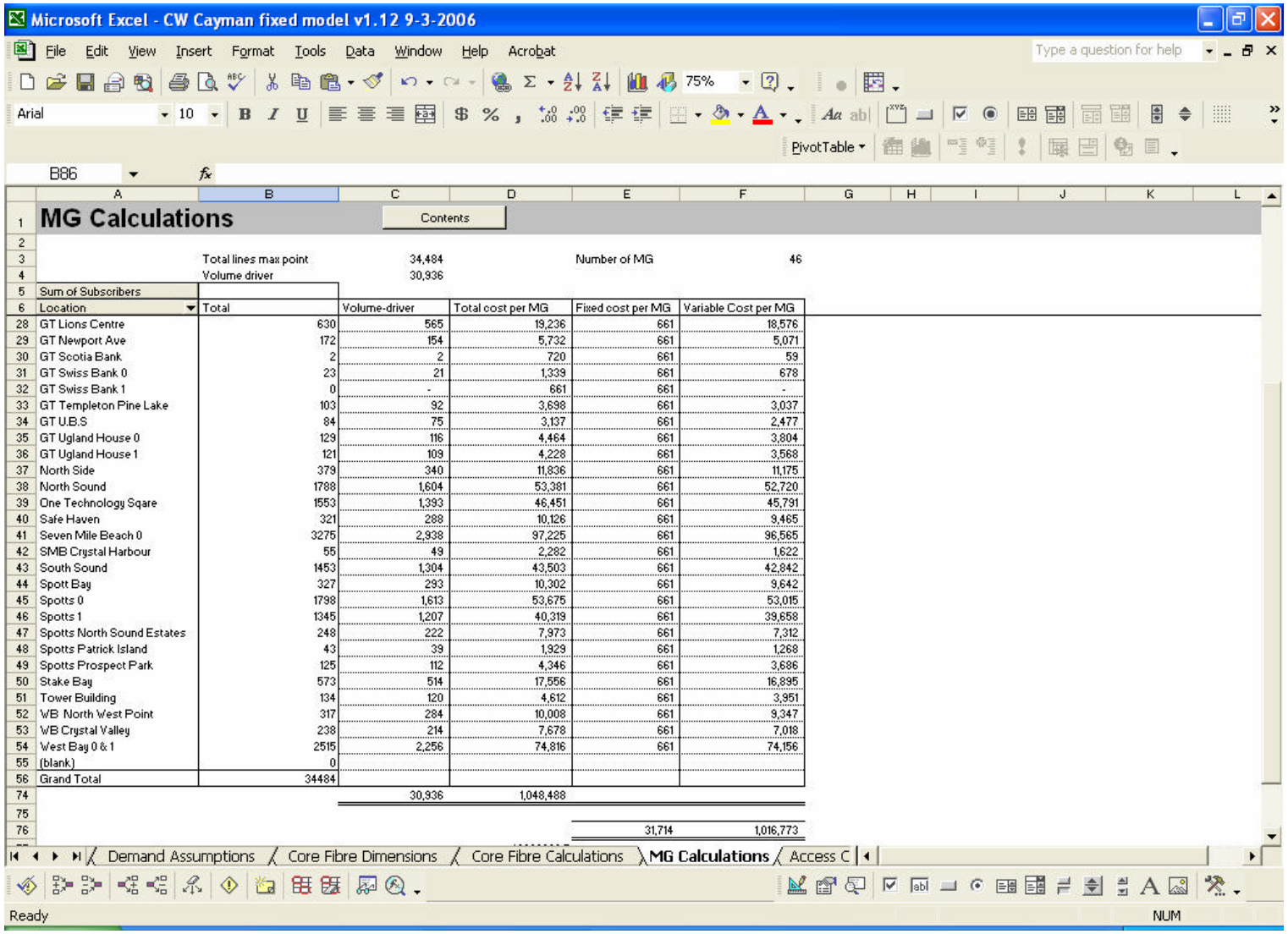
Extract 1



	A	B	D	H	I	T	U	V	
1	Source: C&W		400-International Tx	400-RSU line sensitive	400-RSU-Host Tx	400-Access Local Loop	400-Interconnect billing platform	400-Interconnect Specific Costs	400-D
2			M	L	M	L	C	M	
3									
4		ADSL RETAIL	1.00	-	1.00	-	-	-	
5		ADSL WHOLESALE	1.00	-	1.00	-	-	-	
6		CARDS	-	-	-	-	-	-	
7		DIAL UP INTERNET USAGE	1.00	-	1.00	-	-	-	
8		DIRECT CONNECT	1.00		1.00	-	-	-	
9		DOMESTIC DQ RETAIL		-	1.00	-	-	-	
10		DOMESTIC DQ WHOLESALE	-	-	-	-	1.00	1.00	
11		DOMESTIC LEASED CIRCUITS RETAIL	-	-	2.00	2.00	-	-	
12		DOMESTIC LEASED CIRCUITS WHOLESALE	-	-	2.00	2.00	-	-	
13		DOMESTIC TRANSIT	-	-	-	-	-	-	
14		EMERGENCY SERVICES RETAIL	-	-	1.48	-	-	-	
15		EMERGENCY SERVICES WHOLESALE	-	-	-	-	1.00	1.00	
16		FIXED CALL TO C&W MOBILE	-	-	1.00	-	-	-	
17		FIXED CALL TO OTHER MOBILE	-	-	1.00	-	-	-	
18		FIXED INTERNATIONAL INCOMING	1.00	-	1.00	-	-	-	
19		FIXED INTERNATIONAL OUTGOING	1.00	-	1.00	-	-	-	
20		FIXED VOICEMAIL RETAIL	-	-	1.00	-	-	-	
21		INTERNATIONAL DQ RETAIL		-	1.00	-	-	-	
22		INTERNATIONAL DQ WHOLESALE	-	-	-	-	1.00	1.00	
23		INTERNATIONAL FRAME RELAY RETAIL	1.00	-	1.00	-	-	-	
24		INTERNATIONAL FRAME RELAY WHOLESALE	1.00	-	1.00	-	-	-	
25		INTERNATIONAL LEASED CIRCUITS RETAIL	1.00	-	-	-	-	-	
26		INTERNATIONAL LEASED CIRCUITS WHOLESALE	1.00	-	-	-	-	-	
27		INTERNATIONAL PAYPHONE	1.00	-	1.00	1.00	-	-	
28		ISDN ACCESS RETAIL	-	1.00	-	1.00	-	-	
29		NATIONAL PAYPHONE	-	-	1.38	-	-	-	
30		OPERATOR ASSISTANCE	-	-	1.48	-	-	-	
31		PSTN ACCESS BUS	-	1.00	-	1.00	-	-	
32		PSTN ACCESS RES	-	1.00	-	1.00	-	-	
33		FIXED CALL to OLO	-	-	1.00	-	1.00	1.00	
34		PSTN TERMINATION	-	-	1.00	-	1.00	1.00	
35		NATIONAL CALL RETAIL	-	-	1.38	-	-	-	
36		INTERNATIONAL TRANSIT from OLO	1.00	-	1.00	-	1.00	1.00	
37		INTERNATIONAL TRANSIT to OLO	1.00	-	1.00	-	1.00	1.00	
38		End							

Extract 2


Microsoft Excel - CW Cayman fixed model v1.12 9-3-2006
MG Dimensions (Existing Concentrator Locations)
Contents
Source: C&W
Pre - Ivan
Post Ivan
1= Pre; 0 = Post; 2=max
Max lines per MSAN
2048
Subscribers at end September 2004
Subscribers at end September 2005
Remote
Type/Actual Equipment
Location
Subscriber #
MGs
% Traffic
Fort Street AXE RLU/RSM 1627 1679
GT Andy's Auto Nortel NGN 792 778
GT Ansbacher House AXE RLU/RSM 0 0
GT British American AXE RLU/RSM 11 9
GT Barclays Bank AXE RLU/RSM 188 111
GT C.I.B.C AXE RLU/RSM 4 4
GT Cayman National AXE RLU/RSM 125 124
GT Capital Place AXE RLU/RSM 25 20
GT Elizabethan Square AXE RLU/RSM 206 220
GT Fairbanks Road AXE RLU/RSM 182 139
GT Hyatt AXE RLU/RSM 399 384
GT Lions Centre AXE RLU/RSM 630 630
GT Glass House AXE RLU/RSM 147 164
GT Newport Ave AXE RLU/RSM 172 0
GT Swiss Bank 0 AXE RLU/RSM 23 23
GT Swiss Bank 1 AXE RLU/RSM 0 0
GT Scotia Bank AXE RLU/RSM 2
George Town 0 AXE RLU/RSM 9444 9129
GT Templeton Pine Lake AXE RLU/RSM 103 0
GT U.B.S AXE RLU/RSM 84 82
GT Ugland House 0 AXE RLU/RSM 126 129
GT Ugland House 1 AXE RLU/RSM 121 121
North Sound Nortel NGN 1788 1668
Seven Mile Beach 0 Nortel NGN 3275 2768
Safe Haven AXE RLU/RSM 48 321
South Sound AXE RLU/RSM 1453 1289
SMB Crystal Harbour AXE RLU/RSM 55 0
Tower Building AXE RLU/RSM 134 0
West Bay 0 & 1 AXE RLU/RSM 2515 2436
WB North West Point AXE RLU/RSM 317 256
WB Crystal Valley AXE RLU/RSM 238 188
Bodden Town AXE RLU/RSM 1423 1267
Crows Nest AXE RLU/RSM 264 229
Cayman Brac Bluff AXE RLU/RSM 19 15
EE Queens High Way AXE RLU/RSM 110 103
East End AXE RLU/RSM 496 437
TX Equipment Dimensions
Duct Dimensions
Access Dimensions
MG Dimensions
Transmission E
Ready
NUM
Extract 3


Microsoft Excel - CW Cayman fixed model v1.12 9-3-2006
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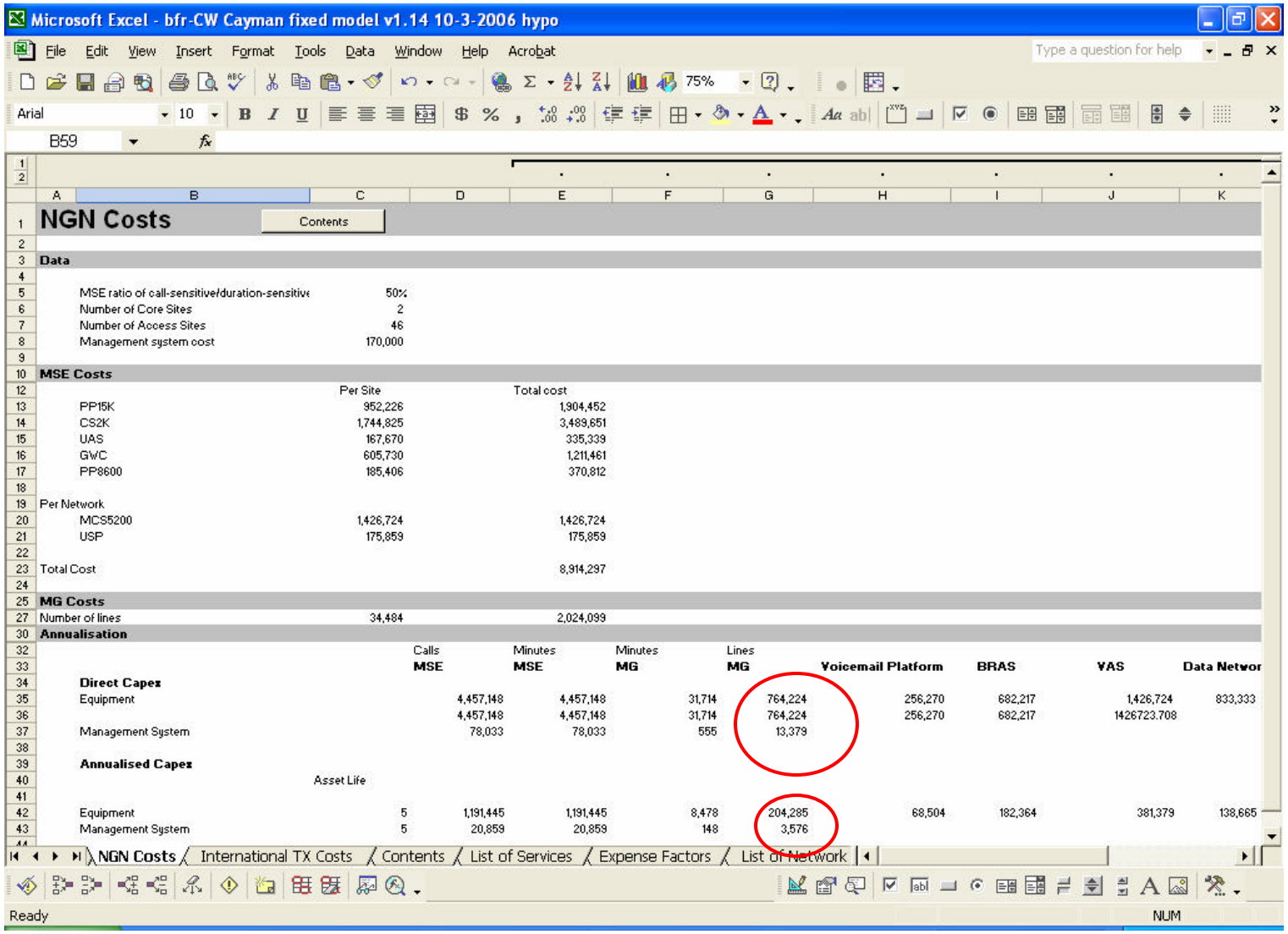
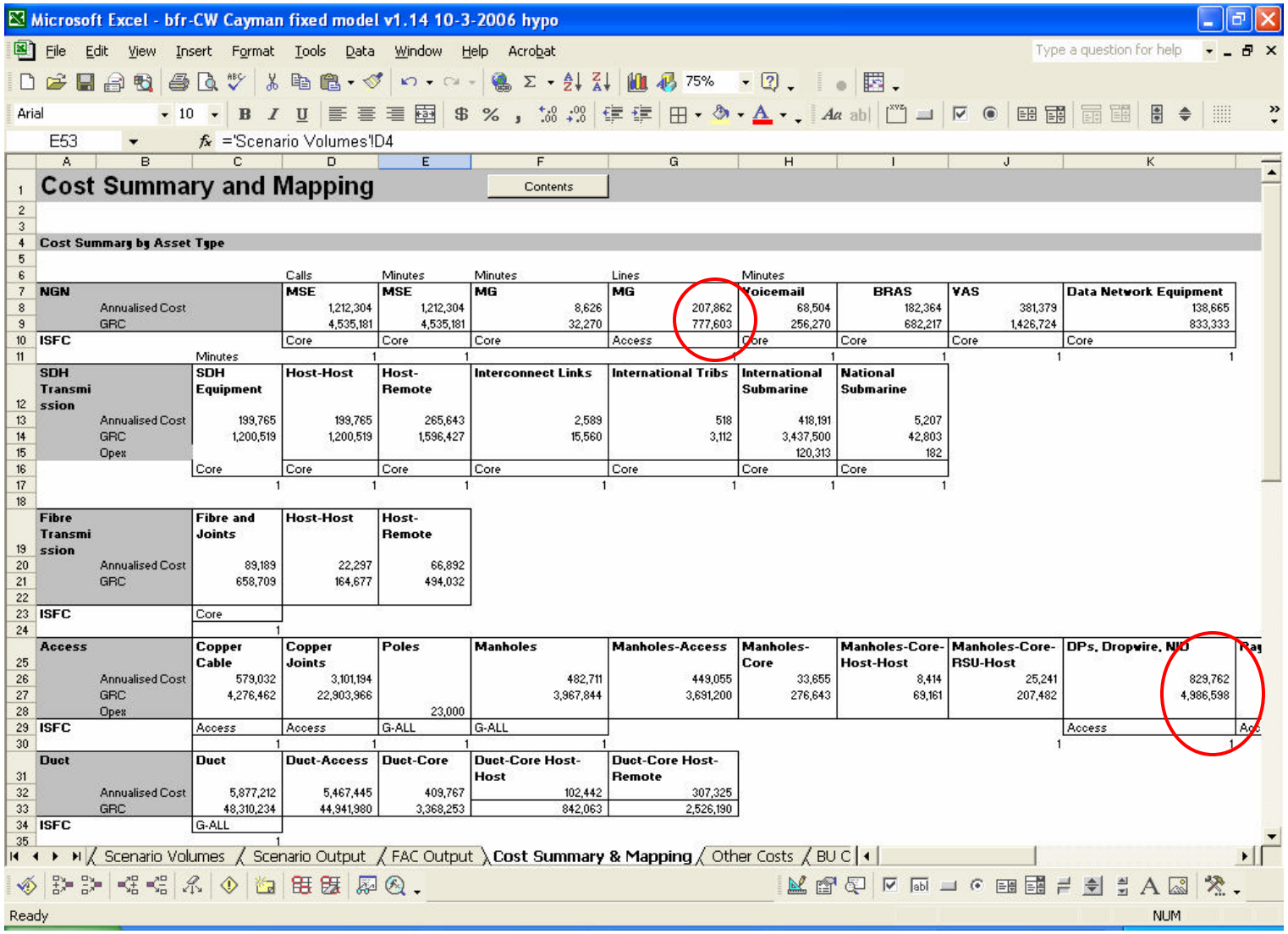
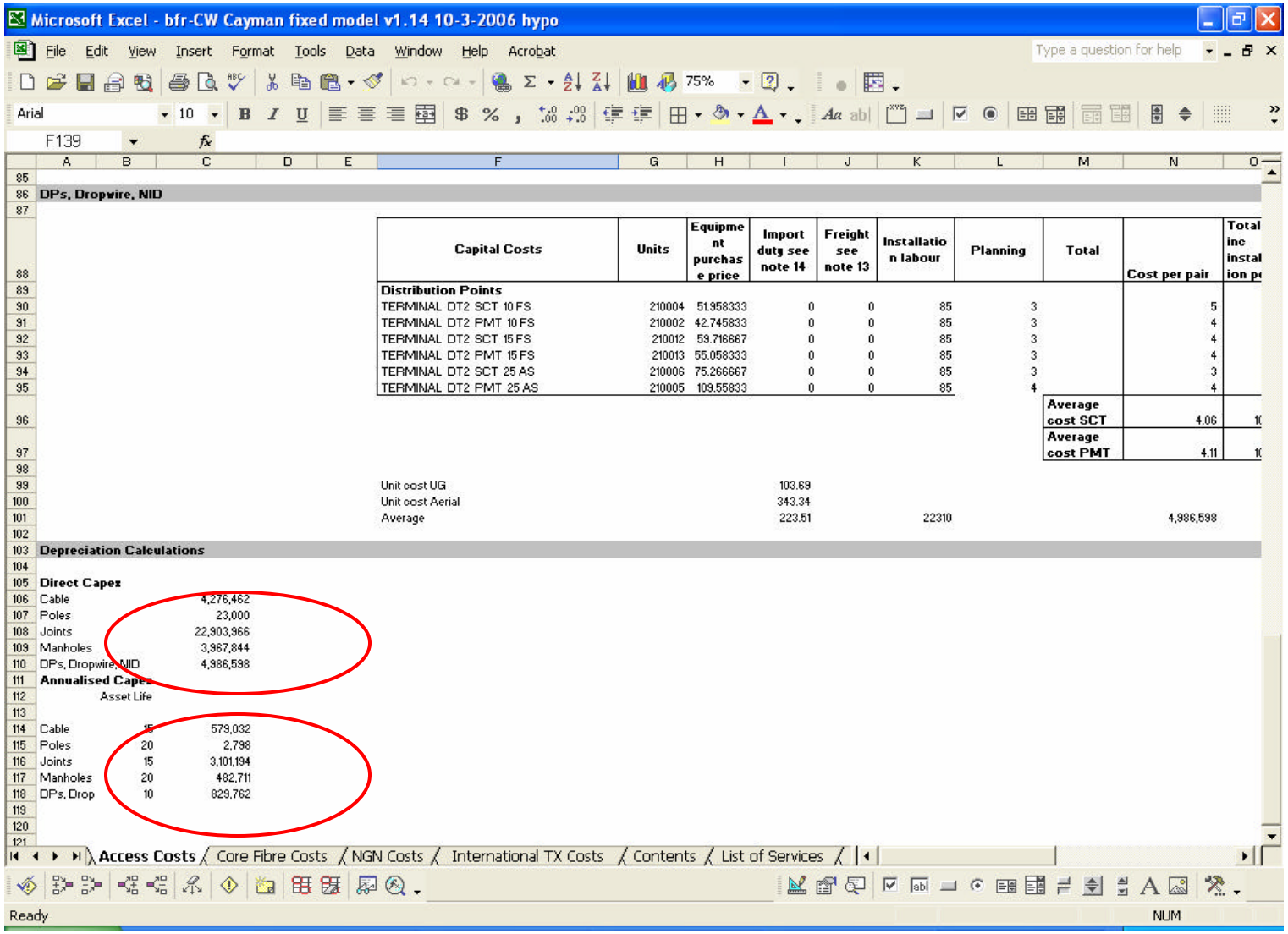
Type a question for help
Arial 10
PivotTable
B86
MG Calculations
Contents
Total lines max point 34,484
Volume driver 30,936
Number of MG 46
Sum of Subscribers
Location | Total | Volume-driver | Total cost per MG | Fixed cost per MG | Variable Cost per MG
GT Lions Centre 630 565 19,236 661 18,576
GT Newport Ave 172 154 5,732 661 5,071
GT Scotia Bank 2 2 720 661 59
GT Swiss Bank 0 23 21 1,339 661 678
GT Swiss Bank 1 0 - 661 661 -
GT Templeton Pine Lake 103 92 3,698 661 3,037
GT U.B.S 84 75 3,137 661 2,477
GT Ugland House 0 129 116 4,464 661 3,804
GT Ugland House 1 121 109 4,228 661 3,568
North Side 379 340 11,836 661 11,175
North Sound 1788 1,604 53,381 661 52,720
One Technology Sqare 1553 1,393 46,451 661 45,791
Safe Haven 321 288 10,126 661 9,465
Seven Mile Beach 0 3275 2,938 97,225 661 96,565
SMB Crystal Harbour 55 49 2,282 661 1,622
South Sound 1453 1,304 43,503 661 42,842
Spott Bay 327 293 10,302 661 9,642
Spotts 0 1798 1,613 53,675 661 53,015
Spotts 1 1345 1,207 40,319 661 39,658
Spotts North Sound Estates 248 222 7,973 661 7,312
Spotts Patrick Island 43 39 1,929 661 1,268
Spotts Prospect Park 125 112 4,346 661 3,686
Stake Bay 573 514 17,556 661 16,895
Tower Building 134 120 4,612 661 3,951
WB North West Point 317 284 10,008 661 9,347
WB Crystal Valley 238 214 7,678 661 7,018
West Bay 0 & 1 2515 2,256 74,816 661 74,156
(blank) 0
Grand Total 34484
30,936 1,048,488
31,714 1,016,773
Demand Assumptions Core Fibre Dimensions Core Fibre Calculations MG Calculations Access C
Ready
NUM

Extract 4

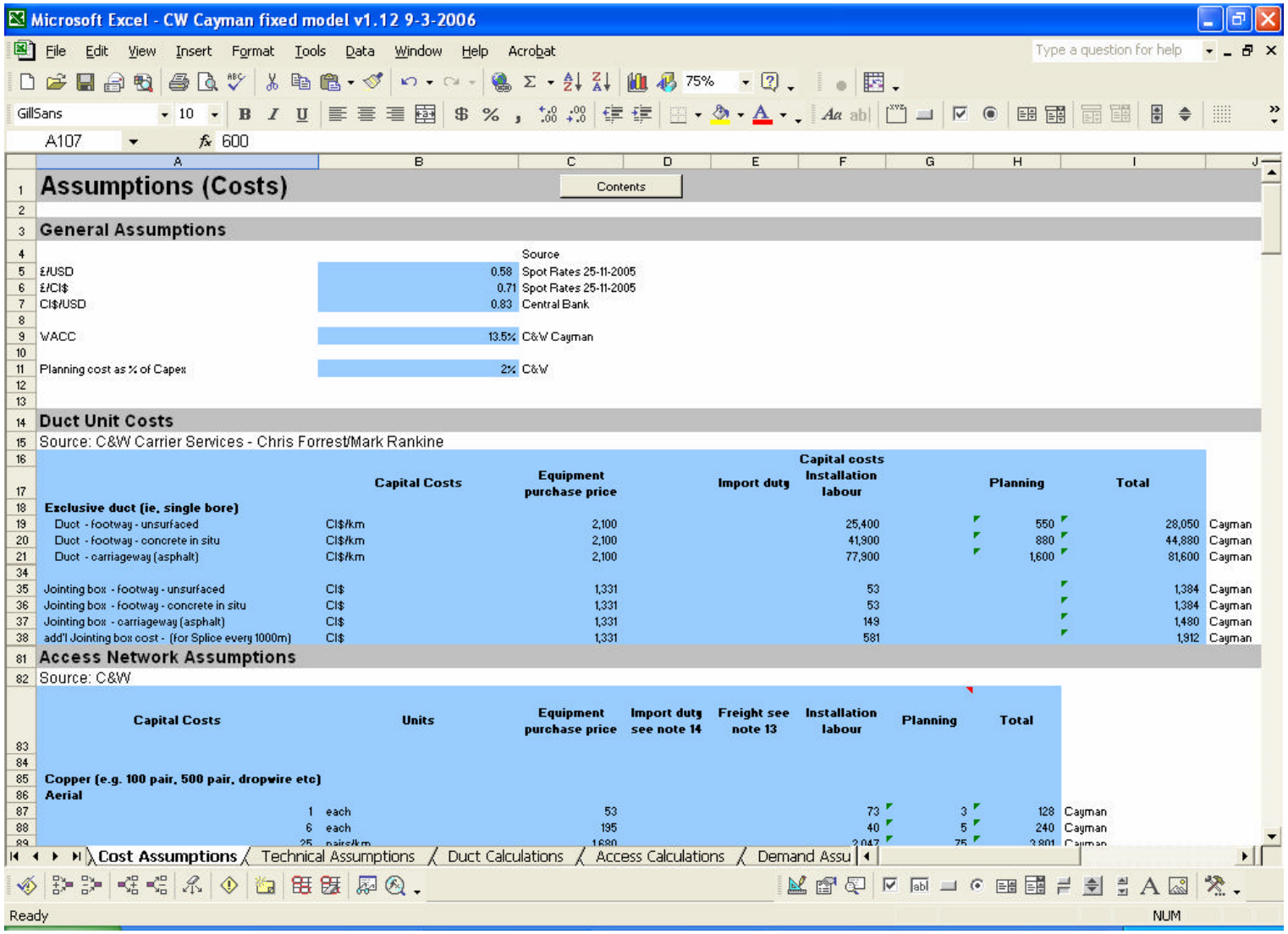

Microsoft Excel - bfr-CW Cayman fixed model v1.14 10-3-2006 hypo
NGN Costs
Contents
Data
MSE ratio of call-sensitive/duration-sensitive 50%
Number of Core Sites 2
Number of Access Sites 46
Management system cost 170,000
MSE Costs
Per Site
Total cost
PP15K 952,226 1,904,452
CS2K 1,744,825 3,489,651
UAS 167,670 335,339
GWC 605,730 1,211,461
PP8600 185,406 370,812
Per Network
MCS5200 1,426,724 1,426,724
USP 175,859 175,859
Total Cost 8,914,297
MG Costs
Number of lines 34,484 2,024,099
Annualisation
Calls MSE
Minutes MSE
Minutes MG
Lines MG
Voicemail Platform
BRAS
VAS
Data Networ
Direct Capex
Equipment 4,457,148 4,457,148 31,714 764,224 256,270 682,217 1,426,724 833,333
4,457,148 4,457,148 31,714 764,224 256,270 682,217 1426723.708
Management System 78,033 78,033 555 13,379
Annualised Capex
Asset Life
Equipment 5 1,191,445 1,191,445 8,478 204,285 68,504 182,364 381,379 138,665
Management System 5 20,859 20,859 148 3,576
NGN Costs
International TX Costs
Contents
List of Services
Expense Factors
List of Network
Ready
NUM
Extract 5


Microsoft Excel - bfr-CW Cayman fixed model v1.14 10-3-2006 hypo
File Edit View Insert Format Tools Data Window Help Acrobat
Type a question for help
Arial 10
E53 ='Scenario Volumes'!D4
Cost Summary and Mapping
Contents
Cost Summary by Asset Type
NGN
Annualised Cost
GRC
ISFC
Calls
Minutes
Minutes
Lines
Minutes
MSE
MSE
MG
MG
Voicemail
BRAS
VAS
Data Network Equipment
1,212,304
4,535,181
1,212,304
4,535,181
8,626
32,270
207,862
777,603
68,504
256,270
182,364
682,217
381,379
1,426,724
138,665
833,333
Core
Core
Core
Access
Core
Core
Core
Core
Minutes
SDH Transmission
SDH Equipment
Host-Host
Host-Remote
Interconnect Links
International Tribs
International Submarine
National Submarine
Annualised Cost
GRC
Opex
199,765
1,200,519
199,765
1,200,519
265,643
1,596,427
2,589
15,560
518
3,112
418,191
3,437,500
120,313
5,207
42,803
182
Core
Core
Core
Core
Core
Core
Core
Fibre Transmission
Fibre and Joints
Host-Host
Host-Remote
Annualised Cost
GRC
89,189
658,709
22,297
164,677
66,892
494,032
ISFC
Core
Access
Copper Cable
Copper Joints
Poles
Manholes
Manholes-Access
Manholes-Core
Manholes-Core-Host-Host
Manholes-Core-RSU-Host
DPs, Dropwire, NID
Annualised Cost
GRC
Opex
579,032
4,276,462
3,101,194
22,903,966
23,000
482,711
3,967,844
449,055
3,691,200
33,855
276,643
8,414
69,161
25,241
207,482
829,762
4,986,598
ISFC
Access
Access
G-ALL
G-ALL
Access
Duct
Duct
Duct-Access
Duct-Core
Duct-Core Host-Host
Duct-Core Host-Remote
Annualised Cost
GRC
5,877,212
48,310,234
5,467,445
44,941,980
409,767
3,368,253
102,442
842,063
307,325
2,526,190
ISFC
G-ALL
Scenario Volumes
Scenario Output
FAC Output
Cost Summary & Mapping
Other Costs
BU C
Ready
NUM

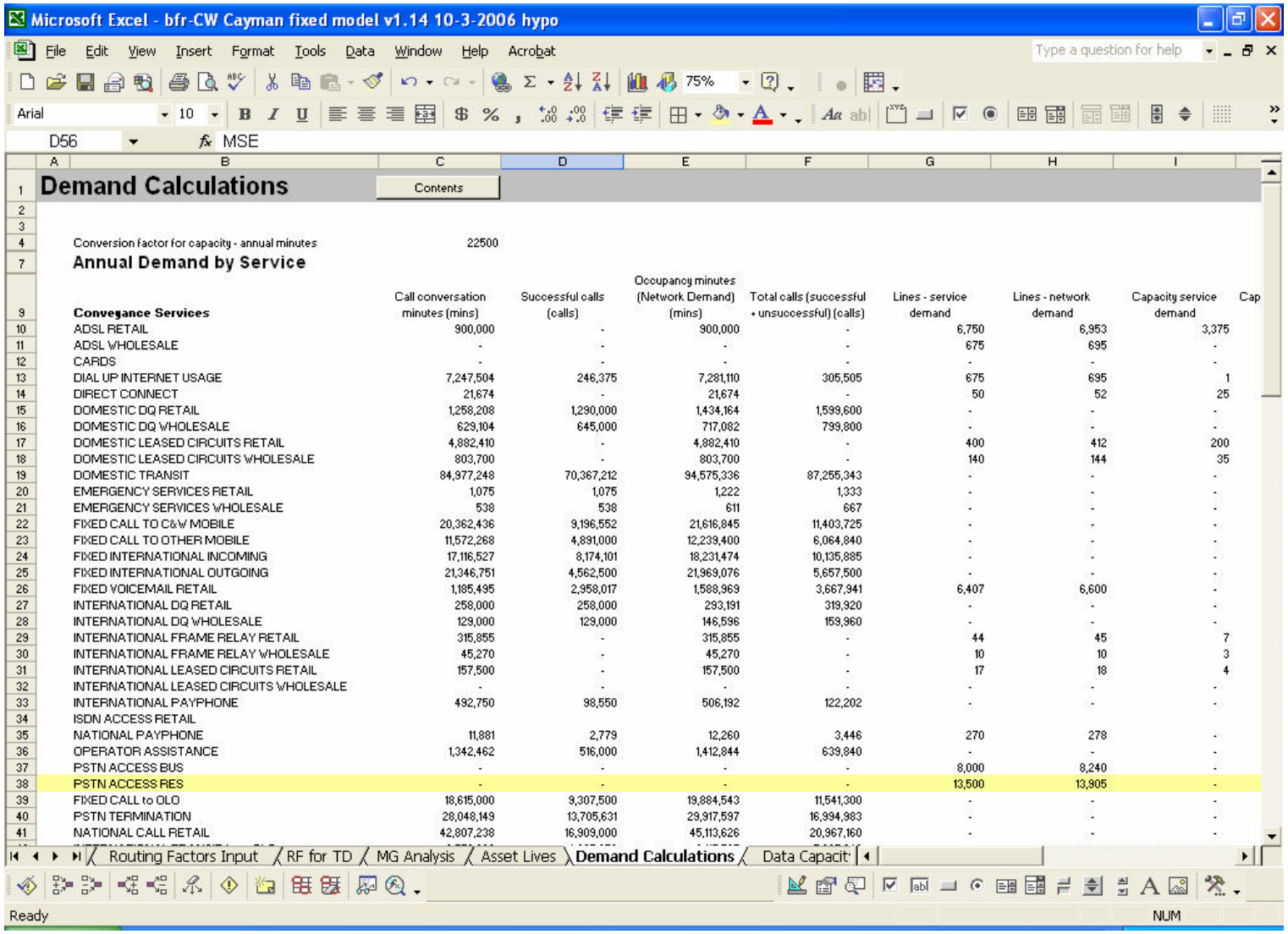
Extract 6


Microsoft Excel - bfr-CW Cayman fixed model v1.14 10-3-2006 hypo
DPs, Dropwire, NID
Capital Costs
Units
Equipment purchase price
Import duty see note 14
Freight see note 13
Installation labour
Planning
Total
Cost per pair
Total inc installation p
Distribution Points
TERMINAL DT2 SCT 10 FS 210004 51.958333 0 0 85 3 5
TERMINAL DT2 PMT 10 FS 210002 42.745833 0 0 85 3 4
TERMINAL DT2 SCT 15 FS 210012 59.716667 0 0 85 3 4
TERMINAL DT2 PMT 15 FS 210013 55.058333 0 0 85 3 4
TERMINAL DT2 SCT 25 AS 210006 75.266667 0 0 85 3 3
TERMINAL DT2 PMT 25 AS 210005 109.55833 0 0 85 4 4
Average cost SCT 4.06
Average cost PMT 4.11
Unit cost UG 103.69
Unit cost Aerial 343.34
Average 223.51 22310 4,986,598
Depreciation Calculations
Direct Capex
Cable 4,276,462
Poles 23,000
Joints 22,903,966
Manholes 3,967,844
DPs, Dropwire, NID 4,986,598
Annualised Capex
Asset Life
Cable 15 579,032
Poles 20 2,798
Joints 15 3,101,194
Manholes 20 482,711
DPs, Drop 10 829,762
Access Costs
Core Fibre Costs
NGN Costs
International TX Costs
Contents
List of Services
Ready
NUM

Extract 7


Microsoft Excel - CW Cayman fixed model v1.12 9-3-2006
Assumptions (Costs)
Contents
General Assumptions
Source
£/USD 0.58 Spot Rates 25-11-2005
£/Cl$ 0.71 Spot Rates 25-11-2005
Cl$/USD 0.83 Central Bank
WACC 13.5% C&W Cayman
Planning cost as % of Capex 2% C&W
Duct Unit Costs
Source: C&W Carrier Services - Chris Forrest/Mark Rankine
Capital Costs
Equipment purchase price
Import duty
Capital costs Installation labour
Planning
Total
Exclusive duct (ie. single bore)
Duct - footway - unsurfaced Cl$/km 2,100 25,400 550 28,050 Cayman
Duct - footway - concrete in situ Cl$/km 2,100 41,900 880 44,880 Cayman
Duct - carriageway (asphalt) Cl$/km 2,100 77,900 1,600 81,600 Cayman
Jointing box - footway - unsurfaced Cl$ 1,331 53 1,384 Cayman
Jointing box - footway - concrete in situ Cl$ 1,331 53 1,384 Cayman
Jointing box - carriageway (asphalt) Cl$ 1,331 149 1,480 Cayman
add'l Jointing box cost - (for Splice every 1000m) Cl$ 1,331 581 1,912 Cayman
Access Network Assumptions
Source: C&W
Capital Costs
Units
Equipment purchase price
Import duty see note 14
Freight see note 13
Installation labour
Planning
Total
Copper (e.g. 100 pair, 500 pair, dropwire etc)
Aerial
1 each 53 73 3 128 Cayman
6 each 195 40 5 240 Cayman
Cost Assumptions
Technical Assumptions
Duct Calculations
Access Calculations
Demand Assu
Ready
NUM

Extract 8



Conveyance Services	Call conversation minutes (mins)	Successful calls (calls)	Occupancy minutes (Network Demand) (mins)	Total calls (successful + unsuccessful) (calls)	Lines - service demand	Lines - network demand	Capacity service demand	Cap
ADSL RETAIL	900,000	-	900,000	-	6,750	6,953	3,375	
ADSL WHOLESALE	-	-	-	-	675	695	-	
CARDS	-	-	-	-	-	-	-	
DIAL UP INTERNET USAGE	7,247,504	246,375	7,281,110	305,505	675	695	1	
DIRECT CONNECT	21,674	-	21,674	-	50	52	25	
DOMESTIC DQ RETAIL	1,258,208	1,290,000	1,434,164	1,599,600	-	-	-	
DOMESTIC DQ WHOLESALE	629,104	645,000	717,082	799,800	-	-	-	
DOMESTIC LEASED CIRCUITS RETAIL	4,882,410	-	4,882,410	-	400	412	200	
DOMESTIC LEASED CIRCUITS WHOLESALE	803,700	-	803,700	-	140	144	35	
DOMESTIC TRANSIT	84,977,248	70,367,212	94,575,336	87,255,343	-	-	-	
EMERGENCY SERVICES RETAIL	1,075	1,075	1,222	1,333	-	-	-	
EMERGENCY SERVICES WHOLESALE	538	538	611	667	-	-	-	
FIXED CALL TO C&W MOBILE	20,362,436	9,196,552	21,616,845	11,403,725	-	-	-	
FIXED CALL TO OTHER MOBILE	11,572,268	4,891,000	12,239,400	6,064,840	-	-	-	
FIXED INTERNATIONAL INCOMING	17,116,527	8,174,101	18,231,474	10,135,885	-	-	-	
FIXED INTERNATIONAL OUTGOING	21,346,751	4,562,500	21,969,076	5,657,500	-	-	-	
FIXED VOICEMAIL RETAIL	1,185,495	2,958,017	1,588,969	3,667,941	6,407	6,600	-	
INTERNATIONAL DQ RETAIL	258,000	258,000	293,191	319,920	-	-	-	
INTERNATIONAL DQ WHOLESALE	129,000	129,000	146,596	159,960	-	-	-	
INTERNATIONAL FRAME RELAY RETAIL	315,855	-	315,855	-	44	45	7	
INTERNATIONAL FRAME RELAY WHOLESALE	45,270	-	45,270	-	10	10	3	
INTERNATIONAL LEASED CIRCUITS RETAIL	157,500	-	157,500	-	17	18	4	
INTERNATIONAL LEASED CIRCUITS WHOLESALE	-	-	-	-	-	-	-	
INTERNATIONAL PAYPHONE	492,750	98,550	506,192	122,202	-	-	-	
ISDN ACCESS RETAIL								
NATIONAL PAYPHONE	11,881	2,779	12,260	3,446	270	278	-	
OPERATOR ASSISTANCE	1,342,462	516,000	1,412,844	639,840	-	-	-	
PSTN ACCESS BUS	-	-	-	-	8,000	8,240	-	
PSTN ACCESS RES	-	-	-	-	13,500	13,905	-	
FIXED CALL to OLO	18,615,000	9,307,500	19,884,543	11,541,300	-	-	-	
PSTN TERMINATION	28,048,149	13,705,631	29,917,597	16,994,983	-	-	-	
NATIONAL CALL RETAIL	42,807,238	16,909,000	45,113,626	20,967,160	-	-	-	

Extract 9