Data: Output from Line Multiplier module
Use: Input for Datamaster Module (*columns A - N*)
Input for Convergence Module (*columns A - Y*)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070113019	1	351	9	3,614	623	1.734	277.33	48.75		STV-FSL	4.238	98.2	500.24	21.046	5.291
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070113021	1	11	11	7,913	659	0.369	1,099.88	48.75		STV-FSL	4.238	178.64	446.6	25.578	7.714
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070113011	1	326	34	10,336	842	0.287	1,746.73	48.75		STV-FSL	4.238	226.36	570.9	32.697	9.861
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070113029	1	5	5	10,526	346	1.203	221.95	48.75		STV-FSL	4.238	53.4	277.98	12.915	2.937
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070113022	1	340	20	11,421	934	0.317	1,815.82	48.75		STV-FSL	4.238	253.44	633.6	38.288	10.944
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070112005	1	326	34	12,280	347	0.089	3,109.27	48.75		STV-FSL	4.238	94.16	236.4	13.482	4.088
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070112004	1	320	40	12,624	736	0.159	2,654.71	55.00		SL	3.675	200.2	500.5	28.689	8.645
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070114013	2	76	14	6,424	473	1.034	352.83	43.28	HARD	STV-FSL	4.888	73	379.8	16.426	4.016
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070114012	2	47	43	7,173	610	0.952	494.92	48.75		STV-FSL	4.238	94.2	489.84	21.196	5.181
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070114019	2	121	31	8,144	864	3.044	218.15	48.75		STV-FSL	4.238	133.4	693.88	30.015	7.337
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070114014	2	56	34	11,479	626	1.156	417.07	57.62		FSL	4.190	96.6	502.32	21.736	5.313
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070114011	2	60	30	15,603	618	0.723	577.92	57.62		FSL	4.190	146.3	443.08	22.99	5.652
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070114029	2	110	20	17,114	1,087	4.713	178.02	43.28	HARD	STV-FSL	4.888	167.8	872.58	37.785	9.229
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070116001	3	221	41	6,400	369	0.906	314.43	48.75		STV-FSL	4.238	57	286.4	12.825	3.136
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070114032	3	148	32	10,370	2,054	1.539	903.33	43.28	HARD	STV-FSL	4.888	486.5	1473.4	76.45	19.48
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070115008	3	170	10	13,374	1,308	3.962	253.17	48.75		STV-FSL	4.238	201.6	1049.32	45.38	11.088
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070115002	3	155	25	15,701	796	0.145	3,385.23	56.43		FSL	2.589	216.04	540.1	30.933	9.329
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070126025	3	213	33	19,654	76	2.183	31.15	56.43		STV-FSL	2.589	3.4	88.38	2.584	0.68
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070113012	4	293	23	4,810	394	0.727	417.93	48.75		STV-FSL	4.238	80.8	316.16	13.68	3.344
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070117018	4	287	17	10,144	295	0.820	278.17	43.28	HARD	STV-FSL	4.888	45.6	237.12	10.28	2.508
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070116009	4	240	30	10,946	1,287	6.510	152.53	48.75		STV-FSL	4.238	186.6	1032.72	44.886	10.923
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070117011	4	308	36	11,428	1,413	0.588	1,457.55	55.00		SL	3.675	383.24	958.1	54.873	16.548
ASTNRIAN	NEW ENGLAND TEL CO - RI	440070117029	4	276	6	15,585	36	1.312	24.39	56.43		FSL	2.589	1.6	32.64	1.216	0.32

S	T	U	V	W	X	Y
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		from [illegible]	416,[illegible]	149,[illegible]	28,417	8,[illegible]
		computed totals	417,372	149,444	28,459	8,[illegible]
		percent difference	0.13%	-0.[illegible]%	0.15%	-0.[illegible]%

		U	V	W	X	Y
	line multiplier table	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	0	1.045	0	0.02	0.035	0
	10	1.119	0.02	0.05	0.038	0.01
	100	1.298	0.04	0.2	0.046	0.013
	500	1.479	0.08	0.35	0.055	0.014
	1000	1.622	0.1	0.44	0.063	0.016
	5000	2.108	0.3	0.7	0.08	0.020

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Data: Datamaster Output
Use: Input for Loopmaster module

A	B	C	D	E	F	G	H	I	J	K	L
company	ctll	census blck grp	Quadrant	B	"A" Portn Fdr	Dist Distrib	[illegible]	density-[illegible]	Dist Ds Multiplr	Fdr Ds Multiplr	[illegible]
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070113019	1	3,573	-	5,215	623	277	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070113021	1	7,755	-	2,406	659	1,100	0.924	1.146	6.748
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070113011	1	8,528	4,405	2,157	842	1,749	0.924	1.146	6.748
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070112004	1	9,645	7,091	1,581	738	2,855	1.018	1.421	8.397
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070112005	1	10,193	6,121	1,039	347	3,109	1.088	1.562	9.242
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070113029	1	10,485	-	4,343	346	222	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070113022	1	10,738	2,404	2,230	934	1,816	0.924	1.146	6.748
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070114012	2	5,227	2,337	3,863	610	495	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070114013	2	6,224	-	4,028	473	353	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070114019	2	7,853	78	6,909	864	219	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070114014	2	9,520	3,573	4,262	626	417	0.279	0.279	1.404
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070114011	2	13,451	5,662	3,368	618	578	0.279	0.279	1.404
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070114029	2	16,071	153	8,597	1,067	178	0.388	0.417	1.958
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070116001	3	4,795	1,725	3,770	369	314	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070114032	3	8,816	2,185	4,912	2,054	903	0.924	1.146	6.748
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070115009	3	13,185	-	7,902	1,306	253	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070115002	3	14,283	5,513	1,508	796	3,385	1.323	1.847	10.916
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070126025	3	16,465	6,833	5,851	76	31	10.088	0.541	2.545
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070113012	4	4,441	-	3,377	394	418	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070117011	4	9,278	4,629	3,061	1,413	1,458	0.858	1.047	6.154
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070116009	4	9,503	-	10,104	1,287	153	0.388	0.417	1.958
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070117019	4	9,726	493	3,585	295	278	0.407	0.407	1.885
NEW ENGLAND TEL CO - RI	ASTNRIAN	440070117029	4	15,494	-	4,536	36	24	6.656	0.378	1.908
NEW ENGLAND TEL CO - RI	ASWYRIYB	440090507006	1	9,031	-	9,702	359	53	1.164	0.417	1.958

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Data: Datamaster Logic Tables
Use: Calculate line multipliers

Urban Copper Cable Table

Cost Multiplier Surface	UG $	Aerial $
RockH	1.53	0.69
RockS	1.22	0.48
Normal	1.11	0.48

Rural Copper Cable Table

Cost Multiplier Surface	UG $	Aerial $
RockH	0.68	0.8
RockS	0.35	0.54
Normal	0.21	0.44

Urban Fiber Table

Cost Multiplier Surface	UG $	Aerial $
RockH	9.02	3.5
RockS	7.22	2.5
Normal	6.56	2.5

Rural Fiber Table

Cost Multiplier Surface	UG $	Aerial $
RockH	3	4.25
RockS	1.45	2.9
Normal	1.02	2.3

CostFactorTable

Row #	Plant Type	Urban/Rural	Density	Surface Category	Weighted Cost Factor
1	Distribution	Urban	>2550	RockH	1.4208
2				RockS	1.066
3				Normal	1.0176
4	Distribution	Urban	850-2550	RockH	1.194
5				RockS	0.924
6				Normal	0.858
7	Distribution	Rural	650-850	RockH	0.709
8				RockS	0.4166
9				Normal	0.2905
10	Distribution	Rural	200-650	RockH	0.702
11				RockS	0.407
12				Normal	0.279
13	Distribution	Rural	5-200	RockH	0.688
14				RockS	0.388
15				Normal	0.266
16	Distribution	Rural	0-5	RockH	0.674
17				RockS	0.369
18				Normal	0.233
19	Feeder	Urban	>2550	RockH	1.9684
20				RockS	1.5616
21				Normal	1.4208
22	Feeder	Urban	850-2550	RockH	1.446
23				RockS	1.146
24				Normal	1.047
25	Feeder	Rural	650-850	RockH	0.688
26				RockS	0.388
27				Normal	0.256
28	Feeder	Rural	200-650	RockH	0.702
29				RockS	0.407
30				Normal	0.279
31	Feeder	Rural	5-200	RockH	0.709
32				RockS	0.4166
33				Normal	0.2905
34	Feeder	Rural	0-5	RockH	0.716
35				RockS	0.426
36				Normal	0.302
37	Fiber	Urban	>2550	RockH	11.5456
38				RockS	9.2416
39				Normal	8.3968
40	Fiber	Urban	850-2550	RockH	8.468
41				RockS	6.748
42				Normal	6.154
43	Fiber	Rural	650-850	RockH	3.25
44				RockS	1.74
45				Normal	1.276
46	Fiber	Rural	200-650	RockH	3.375
47				RockS	1.885
48				Normal	1.404
49	Fiber	Rural	5-200	RockH	3.4375
50				RockS	1.9575
51				Normal	1.468
52	Fiber	Rural	0-5	RockH	3.5
53				RockS	2.03
54				Normal	1.532

1.26

Distribution UG/Aerial Mix Table

Density	UG%	Aerial%
0-5	90	10
5-200	80	20
200-650	70	30
650-850	65	35
850-2550	60	40
>2550	50	50

Copper Feeder UG/Aerial Mix Table

Density	UG%	Aerial%
0-5	60	40
5-200	65	35
200-650	70	30
650-850	80	20
850-2550	90	10
>2550	100	0

Fiber Feeder UG/Aerial Mix Table

Density	UG%	Aerial%
0-5	60	40
5-200	65	35
200-650	70	30
650-850	80	20
850-2550	90	10
>2550	100	0

***Variables and Notes*:**

NormalUGDe	24	Normal Placement Depth for Buried/Underground Copper Cable
NormalFiber	36	Normal Placement Depth for Buried/Underground Fiber
>2550 struct	1.26	Cost multiplier for block groups in density >2550 HH/SQ MI

RockH	=Hard rock above plowing depth - requires dynamite or rock saw to place
RockS	=Soft rock above plowing depth - requires more costly trenching, backhoeing, etc
Normal	=Straight plowing with minimal surface impact

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Surface texture table

Texture	Impact?	Description of Texture
	0	Blank
BY	1	Bouldery
BY-SICL	1	Bouldery & Silty Clay Loam
BYV	1	Very bouldery
BYV-FSL	1	Very Bouldery & Fine Sandy Loam
BYV-L	1	Very bouldery & Loamy
BYV-LS	1	Very Bouldery & Loamy Sand
BYV-SIL	1	Very Bouldery & Silt
BYV-SL	1	Very bouldery & Sandy Loam
BYX	1	Extremely Bouldery
BYX-L	1	Extremely Bouldery & Loamy
BYX-SIL	1	Extremely Bouldery & Silt Loam
C	0	Clay
CB	0	Cobbly
CBA	1	Angular Cobbly
CB-C	0	Cobbly & Clay
CB-CL	0	Cobbly & Clay Loam
CB-COSL	0	Cobbly & Coarse Sandy Loam
CB-L	0	Cobbly & Loamy
CB-LS	0	Cobbly & Loamy Sand
CB-S	0	Cobbly & Sand
CB-SIL	0	Cobbly & Silt Loam
CB-SL	1	Cobbly & Sandy Loam
CBV	1	Very cobbly
CBV-C	1	Very Cobbly & Clay
CBV-CL	1	Very Cobbly & Clay Loam
CBV-L	1	Very cobbly & Loamy
CBV-SIL	1	Very Cobbly & Silt
CBV-SL	1	Very Cobbly & Sandy Loam
CBX	1	Extremely Cobbly
CE	0	Coprogenous Earth
CIND	0	Cinders
CL	0	Clay Loam
CM	1	Cemented
CN	0	Channery
CN-FSL	0	Channery & Fine Sandy Loam
CN-L	0	Channery & Loam
CN-SIL	0	Channery & Silty Loam
CN-SL	0	Channery & Sandy Loam
CNV	0	Very Channery
CNV-L	0	Very Channery & Loam
CNV-SIL	0	Very Channery & Silty Loam
CNV-SL	0	Very Channery & Sandy Loam
CNX	0	Extremely Channery
CNX-SL	0	Extremely Channery & Sandy Loam
COS	0	Coarse Sand
COSL	0	Coarse Sandy Loam
CR	0	Cherty
CRC	1	Coarse Cherty
CR-L	1	Cherty & Loam
CR-SIL	1	Cherty & Silty Loam
CRV	1	Very Cherty
CRV-L	1	Very Cherty & Loam
CRX	1	Extremely Cherty
DE	0	Diotomaceous Earth
FB	0	Fibric Material

Texture	Impact?	Description of Texture
FL	0	Flaggy
FL-L	0	Flaggy & Loam
FL-SICL	0	Flaggy & Silty Clay loam
FL-SIL	0	Flaggy & Silty Loam
FLV	1	Very Flaggy
FLX	1	Extremely Flaggy
FLX-L	1	Extremely Flaggy & Loamy
FRAG	0	Fragmental Material
FS	0	Fine Sand
FSL	0	Fine Sandy Loam
G	0	Gravel
GR	0	Gravelly
GRC	0	Course Gravelly
GR-C	0	Gravel & Clay
GR-CL	0	Gravel & Clay Loam
GR-COS	0	Gravel & Course Sand
GR-COSL	0	Gravel & Coarse Sandy Loam
GRF	0	Fine Gravel
GR-FS	0	Gravel & Fine Sand
GR-FSL	0	Gravel & Fine Sandy Loam
GR-L	0	Gravel & Loam
GR-LCOS	0	Gravel & Loamy Course Sand
GR-LFS	0	Gravel & Loamy Fine sand
GR-LS	0	Gravel & Loamy Sand
GR-S	0	Gravel & Sand
GR-SCL	0	Gravel & Sandy Clay Loam
GR-SIC	0	Gravel & Silty Clay
GR-SIL	0	Gravel & Silty Loam
GR-SL	0	Gravel & Sandy Loam
GRV	1	Very Gravelly
GRV-CL	1	Very gravelly & Clay Loam
GRV-COS	1	Very Gravelly & Course Sand
GRV-COSL	1	Very Gravelly & Course Sandy Loam
GRV-FSL	1	Very Gravelly & Fine Sandy Loam
GRV-L	1	Very Gravelly & Loam
GRV-LCOS	1	Very Gravelly & Loamy Course Sand
GRV-LS	1	Very Gravelly & Loamy Sand
GRV-S	1	Very Gravelly & Sand
GRV-SCL	1	Very Gravelly & Sandy Clay Loam
GRV-SIL	1	Very Gravelly & Silt
GRV-SL	1	Very Gravelly & Sandy Loam
GRX	1	Extremely Gravelly
GRX-COS	1	Extremely Gravelly & Coarse Sand
GRX-L	1	Extremely Gravelly & Loam
GRX-S	1	Extremely Gravelly & Sand
GRX-SL	1	Extremely Gravelly & Sandy Loam
GYP	1	Gypsiferous Material
HM	0	Hemic Material
ICE	1	Ice or Frozen Soil
IND	1	Indurated
L	0	Loam
LCOS	0	Loamy Course Sand
LFS	0	Loamy Fine Sand
LS	0	Loamy Sand
LVFS	0	Loamy Very Fine Sand
MARL	0	Marl
MK	0	Mucky
MK-C	0	Mucky Clay
MK-CL	0	Mucky Clay Loam
MK-FSL	0	Muck & Fine Sandy Loam

Texture	Impact?	Description of Texture
MK-L	0	Mucky Loam
MK-SIL	0	Mucky Silt
MK-VFSL	0	Mucky & Very Fine Sandy Loam
MPT	0	Mucky Peat
MUCK	0	Muck
PEAT	0	Peat
PT	0	Peaty
RB	1	Rubbly
S	0	Sand
SC	0	Sandy Clay
SCL	0	Sandy Clay Loam
SG	0	Sand and Gravel
SH	0	Shaly
SH-CL	0	Shaly & Clay
SH-L	0	Shale & Loam
SH-SICL	0	Shaly & Silty Clay loam
SH-SIL	0	Shaly & Silt Loam
SHV	1	Very Shaly
SHV-CL	1	Very Shaly & Clay Loam
SHX	1	Extremely Shaly
SI	0	Silt
SIC	0	Silty Clay
SICL	0	Silty Clay Loam
SIL	0	Silt Loam
SL	0	Sandy loam
SP	0	Sapric Material
SR	0	Stratified
ST	0	Stony
ST-C	0	Stony & Clay
ST-CL	0	Stony & Clay Loam
ST-COSL	0	Stony & Course Sandy Loam
ST-FSL	0	Stony & Fine Sandy Loam
ST-L	0	Stony & Loamy
ST-LCOS	0	Stony & Loamy Course Sand
ST-LFS	0	Stony & Loamy Fine Sand
ST-LS	0	Stony & Loamy Sand
ST-SIL	0	Stony & Silt Loam
ST-SL	0	Stony & Sandy Loam
STV	1	Very Stony
STV-CL	1	Very Stony & Clay Loam
STV-FSL	1	Very Stony & Fine Sandy Loam
STV-L	1	Very Stony & Loamy
STV-MUC	1	Very Stony & Muck
STV-SICL	1	Very Stony & Silty Clay Loam
STV-SIL	1	Very Stony & Silty Loam
STV-SL	1	Very Stony & Sandy Loam
STX	1	Extremely Stony
STX-C	1	Extremely Stony & Clay
STX-CL	1	Extremely Stony & Clay Loam
STX-L	1	Extremely stony & Loamy
STX-LCO	1	Extremely Stony & Loamy Course Sand
STX-SIL	1	Extremely Stony & Silty Loam
STX-SL	1	Extremely stony & Sandy Loam
SY	1	Slaty
SY-SIL	1	Slaty & Silty Loam
SYV	1	Very Slaty
SYX	1	Extremely Slaty
UNK	0	Unknown
UWB	1	Unweathered Bedrock
VAR	0	Variable
VFS	0	Very Fine Sand
VFSL	0	Very Fine Sandy loam
WB	1	Weathered Bedrock

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Data: **Datamaster Calculations**
Use: **Calculate line multipliers**

Column	Name	Data or Calculation
A	cli	ASTNRIAN
B	company	NEW ENGLAND TEL CO - RI
C	census blck grp	440070113019
D	Quadrant	1
E	Omega	351
F	Alpha	9
G	Cntrd dist ft	3,614
H	tothh	623
I	area-sq mi	2
J	density-tothh/sqmi	277
K	Rock Depth	49
L	Rock Hrdns	
M	Surf Tex	STV-FSL
N	Wtr Tbl Dpth	4.2375
O		
P	B	=B7*COS((PI()/180)*B6)
Q	A	=B7*SIN((PI()/180)*B6)
R	Ttl Fdr Distnc	=IF(B17>(0.5*B22),B16+B17-(0.5*B22),B16)
S	"A" Portn Fdr	=B18-B16
T	Distr Distnc	=0.75*B22
U	area-sq mi	=B9
V	D	=SQRT(B21)*5280
W		
X	Urban?	=IF(B$10>850,"Y","N")
Y	Surfc Indicator	=IF(ISBLANK(B13),"",VLOOKUP(B$13,SurfaceTextureTable,2,FALSE))
Z	Copper Depth Condition	=IF(AND(B$11<'=NormalUGDepth,B$12'="HARD"),1,IF(AND(B$11>NormalUGDepth,B$25'=0),3,2))
AA	Fiber Depth Condition	=IF(AND(B$11<'=NormalFiberDepth,B$12'="HARD"),1,IF(AND(B$11>NormalFiberDepth,B$25'=0),3,2))
AB	Dist Ca Multplr	=IF(B$14<3,1.3,1)*INDEX(CostFactorTable,0+IF(B$24'="Y",IF(B$10>2550,0,3),IF(B$10>650,6,IF(B$10>200,9,IF(B$10>5,12,15))))+B$26,6)
AC	Fdr Ca Multplr	=IF(B$14<3,1.3,1)*INDEX(CostFactorTable,18+IF(B$24'="Y",IF(B$10>2550,0,3),IF(B$10>650,6,IF(B$10>200,9,IF(B$10>5,12,15))))+B$26,6)
AD	Fiber Multplr	=IF(B$14<3,1.3,1)*INDEX(CostFactorTable,36+IF(B24'="Y",IF(B$10>2550,0,3),IF(B$10>650,6,IF(B$10>200,9,IF(B$10>5,12,15))))+B$27,6)

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For Discussion Purposes Or

Data: Loopmaster Output
Use: Input for Convergence Module

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK
		FEEDER		Copper Feeder									Total															
[illegible]	[illegible]	[illegible] A	[illegible] B	[illegible] A	[illegible] Length B	[illegible] in B	[illegible] Count	[illegible] Count	[illegible] B	[illegible] A	[illegible]	[illegible]	[illegible]	[illegible] A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ASTNRIAN	1	-	3,573	N/A	1,800	-	35,382	-	35,382	-	17,208	6,303	23,500	N/A	-	24	3,281	-	-	-	23,500	5,215	78,430	31,107	107,500	191,040	277	623
ASTNRIAN	1	-	4,183	N/A	900	-	26,062	-	26,062	-	44,230	45,626	90,000	N/A	-	24	3,005	-	-	-	90,000	2,408	35,301	32,010	67,010	157,705	1,100	600
ASTNRIAN	1	4,405	773	-	-	-	-	-	-	-	-	-	-	12	2,730	24	721	-	-	-	150,711	2,157	31,053	29,247	60,000	220,011	1,740	842
ASTNRIAN	1	7,001	1,118	-	-	-	-	-	-	-	-	-	-	12	4,462	18	670	-	-	-	100,000	1,501	23,223	23,032	46,054	210,000	2,005	730
ASTNRIAN	1	6,121	540	-	-	-	-	-	-	-	-	-	-	12	3,000	12	340	-	-	-	111,204	1,030	7,000	8,400	15,302	127,000	3,100	347
ASTNRIAN	1	-	202	N/A	-	-	-	-	-	-	-	-	-	N/A	-	12	170	-	-	-	57,074	4,343	32,722	13,310	46,000	103,713	222	340
ASTNRIAN	1	2,404	253	-	-	-	-	-	-	-	-	-	-	12	1,495	12	157	-	-	-	100,432	2,230	32,724	30,237	62,001	231,300	1,010	934
ASTNRIAN	2	2,337	5,227	900	1,800	-	51,771	-	51,771	14,445	43,612	15,075	58,500	N/A	-	18	3,035	-	-	-	50,000	3,003	90,015	23,042	70,000	130,245	405	610
ASTNRIAN	2	-	900	N/A	600	-	5,664	-	5,664	-	28,200	10,354	38,622	N/A	-	18	790	-	-	-	38,622	4,028	30,344	12,330	42,004	81,310	353	473
ASTNRIAN	2	76	1,030	-	-	-	-	-	-	-	-	-	-	12	47	18	1,227	-	-	-	134,003	0,000	101,247	41,200	142,450	276,510	210	004
ASTNRIAN	2	3,573	1,000	-	-	-	-	-	-	-	-	-	-	12	2,147	12	1,001	-	-	-	103,411	4,202	62,454	17,425	79,879	183,200	417	020
ASTNRIAN	2	5,002	3,031	-	-	-	-	-	-	-	-	-	-	12	3,402	12	2,302	-	-	-	100,043	3,300	40,357	13,771	03,127	171,170	570	010
ASTNRIAN	2	153	2,020	-	-	-	-	-	-	-	-	-	-	12	91	12	1,001	-	-	-	170,037	0,507	195,767	75,957	271,724	440,001	170	1,007
ASTNRIAN	3	1,725	4,705	600	600	-	27,261	-	27,261	9,605	37,065	13,577	50,642	N/A	-	18	3,010	-	-	-	50,642	3,770	20,403	11,900	30,003	90,005	314	300
ASTNRIAN	3	2,105	4,021	-	-	-	-	-	-	-	-	-	-	12	1,350	18	3,110	-	-	-	331,703	4,012	120,900	111,703	232,702	504,405	903	2,054
ASTNRIAN	3	-	4,300	N/A	-	-	-	-	-	-	-	-	-	N/A	-	12	2,025	-	-	-	203,327	7,002	170,720	73,140	252,077	450,203	253	1,300
ASTNRIAN	3	5,513	1,000	-	-	-	-	-	-	-	-	-	-	12	3,404	12	004	-	-	-	105,500	1,500	22,153	20,300	51,450	247,010	3,305	700
ASTNRIAN	3	6,033	2,101	-	-	-	-	-	-	-	-	-	-	12	4,070	12	1,200	-	-	-	40,722	5,001	12,252	123,000	135,002	170,074	31	70
ASTNRIAN	4	-	4,441	N/A	600	-	25,246	-	25,246	-	25,246	9,248	34,494	N/A	-	18	3,343	-	-	-	34,494	3,377	25,444	10,300	35,000	70,204	410	304
ASTNRIAN	4	4,629	4,037	-	-	-	-	-	-	-	-	-	-	12	2,877	18	3,742	-	-	-	245,100	3,001	00,540	50,072	120,221	374,300	1,450	1,413
ASTNRIAN	4		225	N/A					-	-	-	-	-	N/A	-	12	134	-	-	-	100,410	10,104	230,005	00,273	310,300	517,700	153	1,207

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Data: Loopmaster Cost Factors
Use: To correctly cost various sizes of fiber and feeder

Fiber Cable Size Table

FIBER COST

Cable Size	Cost UG	Cost Aerial	Density #0-5	Density #5-200	Density #200-600	Density [illegible]	Density [illegible]	Density [illegible]
144	5.56	5.24	4.35	4.36	4.37	4.40	4.42	4.45
96	3.80	3.53	2.95	2.96	2.98	3.00	3.02	3.04
72	2.84	2.65	2.21	2.22	2.23	2.24	2.26	2.27
60	2.41	2.23	1.87	1.88	1.88	1.90	1.91	1.93
48	1.98	1.84	1.54	1.54	1.55	1.56	1.57	1.58
36	1.60	1.46	1.24	1.24	1.25	1.26	1.27	1.28
24	1.18	1.05	0.90	0.91	0.91	0.92	0.93	0.94
18	0.98	0.85	0.74	0.75	0.75	0.76	0.77	0.78
12	0.79	0.66	0.59	0.60	0.60	0.61	0.62	0.63

Feeder Cable Size Table

FEEDER COST

Cable Size	Cost UG	Cost Aerial	Density #0-5	Density #5-200	Density [illegible]	Density [illegible]	Density [illegible]	Density [illegible]
[illegible]	25.70	25.40	20.46	20.48	20.49	20.51	20.54	20.56
[illegible]	22.20	21.90	17.66	17.68	17.69	17.71	17.74	17.76
[illegible]	18.80	18.50	14.94	14.96	14.97	14.99	15.02	15.04
[illegible]	14.30	14.10	11.38	11.38	11.39	11.41	11.42	11.44
[illegible]	12.44	12.24	9.89	9.90	9.90	9.92	9.94	9.95
[illegible]	10.68	10.00	8.33	8.35	8.38	8.44	8.49	8.54
[illegible]	7.82	7.51	6.16	6.17	6.18	6.21	6.23	6.26
[illegible]	7.13	7.05	5.68	5.68	5.68	5.69	5.70	5.70
[illegible]	4.56	4.62	3.67	3.66	3.66	3.66	3.65	3.65
[illegible]	2.36	2.33	1.88	1.88	1.88	1.88	1.89	1.89
100	1.26	1.27	1.01	1.01	1.01	1.01	1.01	1.01

Distribution cable size table

DISTRIBUTION COST

Cable Size	Cost UG	Cost Aerial	Density #0-5	Density #5-200	Density [illegible]	Density [illegible]	Density [illegible]	Density [illegible]
[illegible]	22.20	21.90	17.74	17.71	17.69	17.66	17.66	17.64
[illegible]	18.80	18.50	15.02	14.99	14.97	14.96	14.94	14.92
[illegible]	14.30	14.10	11.42	11.41	11.39	11.38	11.38	11.36
[illegible]	12.44	12.24	9.94	9.92	9.90	9.89	9.89	9.87
[illegible]	10.68	10.00	8.49	8.43	8.38	8.35	8.33	8.27
[illegible]	7.82	7.51	6.23	6.21	6.18	6.17	6.16	6.13
[illegible]	7.13	7.05	5.70	5.69	5.69	5.68	5.68	5.67
[illegible]	4.56	4.62	3.66	3.66	3.66	3.67	3.67	3.67
[illegible]	2.36	2.33	1.89	1.89	1.88	1.88	1.88	1.88
[illegible]	1.26	1.27	1.01	1.01	1.01	1.01	1.01	1.01
[illegible]	0.68	0.57	0.53	0.52	0.52	0.51	0.51	0.50

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Density/Fill Table

Density	Feeder	Distribution	
0	0.65	0.5	4
5	0.75	0.55	5
200	0.8	0.6	6
650	0.8	0.65	7
850	0.8	0.7	8
2550	0.8	0.75	9

Fiber Feeder UG/Aerial Mix Table

Density	UG%	Aerial%
0-5	60	40
5-200	65	35
200-650	70	30
650-850	80	20
850-2550	90	10
>2550	100	0

Copper Feeder UG/Aerial Mix Table

Density	UG%	Aerial%
0-5	60	40
5-200	65	35
200-650	70	30
650-850	80	20
850-2550	90	10
>2550	100	0

Distribution UG/Aerial Mix Table

Density	UG%	Aerial%
0-5	90	10
5-200	80	20
200-650	70	30
650-850	65	35
850-2550	60	40
>2550	50	50

Fiber cable cost factor=	0.8
Copper Cable Cost factor=	0.8
SLC Discounted $/Access Line=	150
AFC Discounted $/Access Line=	375
COE Switch Discounted $/Access Line=	0
COE Switch $/Minute=	0

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Data: Loopmaster Calculations
Use: Size and cost out the loop

Column	Name		Data or Calculation
A		Office	= Main Logic'!A1
B		Quadrant	= Main Logic'!B1
C	FEEDER	Distance A	= Input'!F1
D		Distance B	= Main Logic'!E1
E	Copper Feeder	Size A	=IF(C4'=0,"N/A", Main Logic'!AA1)
F		Size Last B	= Main Logic'!X1
G		#Max Ca in B	= Main Logic'!Y1
H		Last B Cost	=IF(F4'=0,0,D4*VLOOKUP(F4,$AM$20:$AU$30,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE))
I		Max Ca Costs	=D4*G4*VLOOKUP($G$1,$AM$20:$AU$30,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE)
J		B Sgmt $	=H4+I4
K		A Sgmt $	=IF(OR(C4'=0,E4'=0),0,C4*VLOOKUP(E4,$AM$20:$AU$30,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE))
L		BG $ w/realloc	=K4+ Shared Allocation'!K1
M		Structure $	=L4* Main Logic'!T1
N	Total	Cpr BG $	=L4+M4
O	Fiber Base Data	Size A	=IF(AND(NOT(C4'=0),OR(Main Logic'!F1'="AFC", Main Logic'!F1'="SLC")),12,"N/A")
P		A $	=IF(O4'="N/A",0,C4*VLOOKUP(O4,$AM$6:$AU$14,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE))
Q		Size B	= Main Logic'!AG1
R		SLC B Sgmt $	=IF(Main Logic'!AF1'=0,0,D4*(Main Logic'!L1/ Main Logic'!AF1)*VLOOKUP(Q4,$AM$6:$AU$14,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE))
S		SLC A Sgmt $	=IF(Main Logic'!F1'="SLC",P4,0)
T	SLC on Fiber	BG $ w/realloc	=S4+ Shared Allocation'!Q1
U		Structure $	=T4* Main Logic'!U1
V		Electronics $	=IF(Main Logic'!F1'="SLC",$AS$66*AK4,0)
W	Total	SLC $	=SUM(T4:V4)
X		AFC B Sgmt $	=IF(Main Logic'!AF1'=0,0,D4*(Main Logic'!O1/ Main Logic'!AF1)*VLOOKUP(Q4,$AM$6:$AU$14,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE))
Y		A Sgmt $	=IF(Main Logic'!F1'="AFC",P4,0)
Z		BG $ w/realloc	=Y4+ Shared Allocation'!W1
AA		Structure $	=Z4* Main Logic'!U1
AB		Electronics $	=IF(Main Logic'!F1'="AFC",$AS$68*AK4,0)
AC	Total	AFC $	=SUM(Z4:AB4)
AD	Total	Feeder Cost	=N4+W4+AC4
AE		Distr Dist	= Input'!G1
AF		Distr Base Cost	=AE4*4*VLOOKUP(Main Logic'!AD1,$AM$35:$AU$45,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE)+AE4*4* Main Logic'!AE1*VLOOKUP($L$1,$AM$35:$AU$45,VLOOKUP(AJ4,$AM$50:$AP$55,4),FALSE)
AG		Distr Structure	=AF4* Input'!J1
AH	Total	Distr Cost	=AF4+AG4
AI	Grand Total	Ttl Loop Cost	=AD4+AH4
AJ		Density	= Input'!I1
AK		Households	= Main Logic'!G1

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For Discussion Purposes Onl

Data: Wire Center Output
Use: Input for Convergence Module

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ASTNRIAN	1	16,959.39	121.37	9.43	527.00	0.29	0.37	32.00	0.04	12.83	2.53	1.93	1.28	0.72	17.80	2	0.00	2.00	672.00	2.67	66	0.00	104	0.31	38	0.04	11.50	
ASWYRIYB	1	2,814.72	273.54	24.67	77.00	0.75	0.33	5.00	0.12	12.08	2.53	1.92	1.28	0.72	17.76	2	0.03	2.00	134.00	2.38	16	0.24	16	0.27	4	0.10	10.34	local DEMs, thousands
BLSSRIOT	1	403.82	318.57	77.39	10.00	1.21	0.30	1.00	0.30	11.96	2.53	1.89	1.28	0.72	19.67	2	0.32	2.00	19.00	2.35	2	0.00	2	0.25	1	0.30	10.04	773[illegible]
CNTNRIPH	1	44,707.91	109.08	7.44	1,491.00	0.11	0.40	86.00	0.02	13.53	2.53	1.94	1.28	0.72	17.46	2	0.00	2.00	2,430.00	2.72	184	0.05	280	0.33	74	0.01	13.47	intrastate DEMs, thousands
CNTYRIST	1	7,343.95	192.00	21.79	192.00	0.36	0.31	12.00	0.09	11.81	2.53	1.91	1.28	0.72	17.97	2	0.01	2.00	344.00	2.34	24	0.11	38	0.38	10	0.05	10.45	769111
CRLHRIMA	1	4,431.12	244.13	15.80	114.00	0.68	0.31	7.00	0.10	11.72	2.53	1.90	1.28	0.72	17.65	2	0.02	2.00	200.00	2.32	14	0.20	23	0.28	6	0.09	10.81	intrastate DEMs, thousands
EGRNRICH	1	17,682.45	121.17	9.05	558.00	0.34	0.38	33.00	0.05	13.08	2.53	1.93	1.28	0.72	17.49	2	0.00	2.00	921.00	2.60	66	0.11	110	0.31	28	0.04	11.67	2108041
EPRVRINB	1	26,744.91	117.53	12.43	805.00	0.04	0.41	54.00	0.01	13.63	2.53	1.95	1.28	0.72	17.49	2	0.00	2.00	1,482.00	2.73	112	0.01	178	0.33	45	0.01	13.72	total DEMs, thousands
GLCSRIWG	1	7,882.60	180.98	20.02	230.00	0.28	0.35	14.00	0.04	12.39	2.53	1.92	1.28	0.72	17.58	2	0.00	2.00	392.00	2.45	29	0.00	46	0.28	12	0.00	10.51	1691[illegible]
HPVYRIMA	1	2,519.86	276.38	27.78	82.00	0.92	0.30	4.00	0.09	11.98	2.53	1.90	1.28	0.72	17.80	2	0.02	2.00	116.00	2.30	8	0.17	13	0.28	4	0.08	10.84	intraLATA tandem fraction
JMTWRINA	1	5,776.77	221.17	27.70	177.00	0.75	0.37	11.00	0.12	12.84	2.53	1.93	1.28	0.72	17.60	2	0.01	2.00	286.00	2.56	22	0.23	35	0.30	9	0.10	11.01	0.2
LTCMRIWE	1	2,153.92	264.61	31.91	58.00	0.68	0.32	4.00	0.11	11.92	2.53	1.93	1.28	0.72	17.66	2	0.03	2.00	103.00	2.38	8	0.23	12	0.27	3	0.08	10.48	switched access line fraction
NKTWRIPH	1	9,348.70	158.75	17.12	270.00	0.53	0.36	16.00	0.06	12.43	2.53	1.92	1.28	0.72	17.54	2	0.01	2.00	481.00	2.47	34	0.17	53	0.38	14	0.07	10.82	0.2
NPRVRIMB	1	36,198.31	112.98	9.19	1,199.00	0.13	0.48	71.00	0.02	13.47	2.53	1.94	1.28	0.72	17.47	2	0.00	2.00	1,888.00	2.71	148	0.04	235	0.32	59	0.02	13.35	interoffice traffic fraction
NRGNRIMA	1	13,919.14	122.49	11.49	415.00	0.84	0.38	25.00	0.13	12.61	2.53	1.92	1.28	0.72	17.51	2	0.01	2.00	666.00	2.50	51	0.20	82	0.29	21	0.11	10.91	0.05
NWPTRIBU	1	29,486.94	116.00	11.29	967.00	0.83	0.39	58.00	0.12	13.37	2.53	1.94	1.28	0.72	17.47	2	0.00	2.00	1,574.00	2.67	119	0.26	189	0.32	48	0.10	12.97	
PRVDRIBR	1	31,822.43	115.60	10.72	1,089.00	0.04	0.41	63.00	0.01	13.69	2.53	1.95	1.28	0.72	17.47	2	0.00	2.00	1,701.00	2.74	131	0.01	205	0.34	52	0.01	13.88	line multiplier
PRVDRIGR	1	66,888.82	88.24	10.55	2,394.00	-	0.42	142.00	-	13.60	2.53	1.95	1.28	0.72	17.47	4	0.00	2.00	3,777.00	2.75	294	-	469	0.34	115	-	14.28	density zones
PSCORIPA	1	8,607.42	169.77	19.59	240.00	0.43	0.33	15.00	0.07	12.21	2.53	1.92	1.28	0.72	17.95	2	0.00	2.00	416.00	2.43	30	0.13	47	0.27	12	0.05	10.02	0
PTMORIEM	1	9,001.70	147.49	16.16	313.00	0.49	0.36	19.00	0.07	13.00	2.53	1.94	1.28	0.72	17.83	2	0.00	2.00	517.00	2.61	39	0.15	62	0.31	16	0.08	12.00	10
PWTCRIHI	1	79,918.75	93.37	9.19	2,716.00	0.15	0.41	161.00	0.02	13.72	2.53	1.95	1.28	0.72	17.47	4	0.00	2.00	4,338.00	2.74	334	0.05	533	0.34	134	0.02	14.19	100
RVSDRIBO	1	22,602.44	119.25	7.08	744.00	0.09	0.40	44.00	0.01	13.49	2.53	1.94	1.28	0.72	17.48	2	0.00	2.00	1,210.00	2.70	92	0.00	149	0.32	37	0.01	12.94	500
SCTTRIBI	1	4,347.11	246.68	16.10	113.00	0.28	0.31	7.00	0.04	11.78	2.53	1.91	1.28	0.72	17.65	2	0.01	2.00	200.00	2.33	14	0.08	22	0.25	6	0.03	10.49	1000
TVTNRIHA	1	7,797.84	184.91	20.52	230.00	0.41	0.37	15.00	0.08	12.63	2.53	1.94	1.28	0.72	17.90	2	0.01	2.00	380.00	2.55	30	0.13	47	0.30	12	0.05	11.37	5000
WKPGRIWA	1	2,276.49	263.24	30.72	62.00	0.66	0.33	4.00	0.16	12.09	2.53	1.92	1.28	0.72	17.84	2	0.04	2.00	100.00	2.37	8	0.31	13	0.29	4	0.16	10.34	total multiplier
WNSCRICL	1	36,790.81	111.78	8.58	1,289.00	0.50	0.40	77.00	0.06	13.48	2.53	1.94	1.28	0.72	17.47	2	0.00	2.00	2,088.00	2.69	159	0.16	253	0.33	64	0.08	13.39	1045
WRLYRIMA	1	9,001.94	151.42	16.53	309.00	0.98	0.38	19.00	0.15	13.08	2.53	1.94	1.28	0.72	17.54	2	0.01	2.00	500.00	2.61	38	0.30	60	0.31	15	0.12	12.30	1110
WRRNRIEV	1	18,685.75	120.44	9.14	638.00	0.28	0.39	38.00	0.04	13.28	2.53	1.94	1.28	0.72	17.49	2	0.00	2.00	1,041.00	2.65	79	0.08	135	0.32	32	0.08	12.17	1200
WRWKRIW	1	32,900.36	114.52	10.11	1,089.00	0.28	0.40	65.00	0.04	13.49	2.53	1.94	1.28	0.72	17.47	2	0.00	2.00	1,794.00	2.71	134	0.08	214	0.33	54	0.08	13.22	1470
WWWKRIW	1	16,579.83	111.74	9.62	1,259.00	0.26	0.38	75.00	0.04	13.35	2.53	1.94	1.28	0.72	17.47	2	0.00	2.00	2,080.00	2.68	155	0.08	247	0.32	62	0.05	12.66	1022
																												2100
																												two-line rate fraction
																												0
																												0.02
																												0.04
																												0.05
																												0.1
																												0.3
																												bus fraction
																												0.02
																												0.05
																												0.2
																												0.35
																												0.44
																												0.7
																												SA fraction
																												0.000
																												0.000
																												0.000
																												0.000
																												0.000
																												0.00
																												public fraction
																												[illegible]
																												total dedicated access trunks
																												total dedicated transport
																												total common trunks
																												state
																												RI
																												company
																												NEW ENGLAND TEL CO
																												local direct-routed fraction
																												maximum trunk usage, CCS
																												average trunk usage fraction

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Data: Wire Center calculations
Use: Wire Center -- Pivot Table / Lines and Locations

	Data						
clli	Sum of total lines	Sum of business lines	Sum of residential lines	Sum of special access lines	Sum of public telephone lines	V	H
(blank)	0	0	0	0	0	#N/A	#N/A
ASTNRIAN	16,796	3,470	12,550	613	164	4531	1237
ASWYRIYB	2,790	294	2,376	96	24	4656	1211
BLISRIOT	400	18	365	14	4	4677	1148
CNTNRIPH	44,206	11,837	30,174	1,697	502	4562	1220
CNTYRIST	7,280	604	6,362	249	64	4592	1232
CRLNRIMA	4,392	307	3,897	150	39	4636	1200
EGRNRICH	17,508	3,846	12,843	647	175	4581	1202
EPRVRINB	26,439	7,399	17,720	1,017	306	4545	1214
GLCSRIWG	7,923	1,166	6,410	278	70	4560	1245
HPVYRIMA	2,498	112	2,279	85	22	4634	1214
JMTWRINA	5,720	1,123	4,333	208	56	4602	1169
LTCMRIWE	2,175	175	1,906	74	19	4580	1146
NKTWRIPH	9,262	1,392	7,458	328	85	4599	1190
NPRVRIMS	35,795	9,345	24,676	1,371	404	4551	1233
NRGNRIMA	13,793	2,407	10,769	491	127	4623	1176
NWPTRIBU	29,138	7,381	20,342	1,099	318	4596	1160
PRVDRIBR	30,661	8,822	20,299	1,180	362	4554	1215
PRVDRIGR	67,872	20,771	43,683	2,601	818	4560	1219
PSCGRIPA	8,529	1,078	7,073	300	78	4556	1274
PTMORIEM	9,803	2,178	7,163	363	99	4566	1171
PWTCRIHI	78,090	22,997	51,166	3,000	928	4537	1223
RVSDRISO	22,359	5,726	15,536	854	244	4552	1205
SCTTRISI	4,309	321	3,803	147	38	4586	1243
TVTNRIHA	7,724	1,468	5,881	281	74	4557	1168
WKPGRIWA	2,259	239	1,923	78	20	4670	1194
WNSCRICL	38,319	10,164	26,273	1,450	432	4528	1257
WRLYRIMA	9,583	2,129	6,999	356	99	4669	1211
WRRNRIEV	19,466	4,679	13,860	728	199	4553	1187
WRWKRIWS	32,538	8,486	22,441	1,249	362	4570	1203
WWWKRIMA	38,167	9,492	26,614	1,447	413	4580	1217

STP locations

[illegible]				
130	4550	1219	4537	1223

[illegible]				
130	4550	1214	4550	1219

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Data: Wire Center calculations
Use: Wire Center -- Pivot Table / Lines and Locations

	Data	
wire center	Min of VERT	Min of HORIZ
	0	0
ASTNRIAN	4531	1237
ASWYRIYB	4656	1211
BLISRIOT	4677	1148
CNTNRIPH	4562	1220
CNTYRIST	4592	1232
CRLNRIMA	4638	1200
EGRNRICH	4581	1202
EPRVRINB	4545	1214
GLCSRIWG	4560	1245
HPVYRIMA	4634	1214
JMTWRINA	4602	1169
LTCMRIWE	4580	1146
NKTWRIPH	4599	1190
NPRVRIMS	4551	1233
NRGNRIMA	4623	1176
NWPTRIBU	4596	1160
PRVDRIBR	4554	1215
PRVDRIGR	4550	1219
PSCGRIPA	4556	1274
PTMORIEM	4568	1171
PWTCRIHI	4537	1223
RVSDRISO	4552	1205
SCTTRISI	4566	1243
TVTNRIHA	4557	1168
WKPGRIWA	4670	1194
WNSCRICL	4528	1257
WRLYRIMA	4669	1211
WRRNRIEV	4553	1187
WRWKRIWS	4570	1203
WWWKRIMA	4580	1217

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Data: Wire Center factors

Use: Wire Center calculations for end office, interoffice, and signalling investment

EO switching and traffic parameters							
high	slope	-0.000422	$	104.00	$ 75.00	107.5	134.4
	intercept	108.72		11,200	80,000	2818.0	
breakpoint	11,200						
low	slope	-0.0163	$	241.00	$ 104.00	241.2	301.5
	intercept	286.28		2,782	11,200	2770.0	

switch maximum line size	100,000
switch maximum BHCA	1,000,000
switch max line fill	0.80
switch max processor occupancy	0.90
processor feature loading multiplier	1.00
switch installation multiplier	1.1

(Offered load assumed for afternoon busy hour)

call attempts/BH		CCS
residential	1.3	1.950
business	3.5	5.250

average holding time, seconds	
residential	150
business	150

Total access lines in study area	
residential	416,820
business	149,893
public telephone	6,647
special	22,417

Interoffice parameters		
operator traffic fraction		0.02
total interoffice traffic fraction		0.65
local DEM fraction (no OS)		0.709
local interoffice traffic fraction		0.339
direct-routed fraction of local interoffice		0.6
Transmission parameters		
maximum trunk occupancy, CCS		27.5
trunk termination, per end	$	100.00
trunk per-mile investment	$	2.00
average direct route distance, miles		10
average trunk usage fraction		0.3
Tandem switching parameters		
real time limit, BHCA		1,500,000
port limit, trunks		120,000
common equipment investment	$	1,000,000
maximum trunk fill		0.8
maximum real time occupancy		0.9

Signaling parameters		
STP link capacity		720
STP maximum fill		0.8
STP investment, per pair	$	5,000,000
link termination, both ends	$	900
link transmission, per mile	$	1.00
signaling link bit rate		56,000
link occupancy		0.4
ISUP messages per interoffice BHCA		6
ISUP message length, bytes		25
TCAP messages per transaction		2
TCAP message length, bytes		100
fraction of BHCA requiring TCAP		0.10
SCP investment/transaction/second	$	20,000
total BHCA		1,066,492
total TCAP messages/s(BH)		59
total SCP investment per line	$	2.09
total per-BHCA message loading factor		0.0000117

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Operator position parameters

investment per position	$	3,500
maximum utilization per position, CCS		27
operator intervention factor		10

Wire center parameters

lot size, multiplier of switch room size	2

Power and frame investment

served lines in wire center		sum of power and frame
0	$	10,000
1,000	$	20,000
5,000	$	40,000
25,000	$	100,000
50,000	$	250,000

Switch room size table

switch size, lines		floor area required
0		250
1,000		500
5,000		1,000
25,000		1,500
50,000		2,500

Construction costs, per sq ft

switch size, lines		construction, $/sq ft
0	$	75
1,000	$	85
5,000	$	100
25,000	$	125
50,000	$	150

Land price, per sq ft

lines in wire center		price/sq ft
0	$	5.00
1,000	$	7.50
5,000	$	10.00
25,000	$	15.00
50,000	$	20.00

Toll traffic inputs

local DEMs, thousands	7,736,340
intrastate DEMs, thousands	769,111
interstate DEMs, thousands	2,108,641
total DEMS, thousands	10,614,092
intraLATA fraction of toll calls	0.285
interLATA fraction of toll calls	0.715
local fraction of total DEMs, less OS	0.709
intraLATA fraction of total traffic	0.083
interLATA fraction of total traffic	0.208
tandem-routed fraction of total intraLATA traffic	0.2
average direct intraLATA route distance, mi	25
tandem-routed fraction of total interLATA traffic	0.2
average direct access route distance, mi	25

Derived per-line BH traffic, CCS

residential -- total offered load	1.900
local	
intraswitch	0.683
interoffice direct	0.390
interoffice tandem	0.264
OS	0.030
intraLATA tandem	0.032
intraLATA direct	0.129
interLATA tandem	0.061
interLATA direct	0.325
business -- total offered load	5.260
local	
intraswitch	1.830
interoffice direct	1.067
interoffice tandem	0.712
OS	0.106
intraLATA tandem	0.087
intraLATA direct	0.349
interLATA tandem	0.219
interLATA direct	0.874

Special access inputs

Fraction of channels on DS-3 facilities	0.20
Fraction of channels on DS-1 facilities	0.80

Public telephone inputs

equipment investment, per station	$	1,200

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Data: Convergence Output
Use: Input for Expense Module

	0 - 10	10 - 100	100 - [illegible]	[illegible]	[illegible]	[illegible]
	32	31,973	78,260	72,260	303,171	110,074
	1	1,430	12,060	17,100	82,241	36,587
	31	29,170	62,817	51,789	205,603	67,947
	1	1,087	2,718	2,687	11,775	4,181
	31	28,598	60,401	48,857	186,912	52,267
$	20,268	$ 3,044,306	$ 3,551,666	$ 2,617,258	$ 8,773,556	$ 1,940,793
$	184,838	$ 14,575,168	$ 16,658,705	$ 10,120,589	$ 34,017,166	$ 10,196,366
$	2,025	$ 1,882,106	$ 4,122,368	$ 3,453,611	$ 13,485,701	$ 3,991,892
$	12,148	$ 4,694,929	$ 9,513,353	$ 6,417,842	$ 15,577,039	$ 2,584,378
$	2,500	$ 1,346,500	$ 2,447,000	$ 1,418,000	$ 3,291,500	$ 516,000
$	-	$ 3,200	$ 44,600	$ 63,600	$ 408,900	$ 147,600
$	6,255	$ 526,214	$ 424,373	$ 151,381	$ 272,059	$ -
$	-	$ 14,295	$ 314,467	$ 345,055	$ 775,632	$ -
$	6,255	$ 540,510	$ 738,841	$ 496,437	$ 1,047,691	$ -
$	9,382	$ 977,255	$ 885,274	$ 729,994	$ 5,084,775	$ 733,843
$	-	$ 26,548	$ 706,562	$ 1,564,172	$ 17,193,481	$ 7,878,570
$	9,382	$ 1,003,804	$ 1,591,836	$ 2,294,165	$ 22,278,256	$ 8,612,212
$	5,500	$ 6,604,771	$ 11,376,174	$ 8,948,061	$ 34,088,635	$ 11,267,208
$	602	$ 851,726	$ 1,070,233	$ 764,141	$ 2,993,922	$ 1,089,951
$	395	$ 388,509	$ 1,008,288	$ 959,205	$ 4,090,177	$ 1,505,846
$	82	$ 80,871	$ 198,000	$ 182,774	$ 766,839	$ 278,421
$	62	$ 61,292	$ 151,147	$ 140,041	$ 588,981	$ 214,393
$	41	$ 40,436	$ 99,000	$ 91,387	$ 383,420	$ 139,211
$	2	$ 2,536	$ 5,946	$ 3,048	$ 10,474	$ 2,389
$	23	$ 23,132	$ 56,634	$ 52,279	$ 219,341	$ 79,637
$	20	$ 23,245	$ 56,117	$ 29,103	$ 100,101	$ 22,963
$	98	$ 96,415	$ 253,424	$ 242,920	$ 1,039,153	$ 383,008
$	568	$ 564,094	$ 1,371,952	$ 1,263,746	$ 5,298,209	$ 1,922,983
$	68	$ 66,854	$ 163,682	$ 151,095	$ 633,928	$ 230,184
$	0	$ 477	$ 397	$ 117	$ 294	$ 34
$	188,966	$ 7,096,887	$ 5,584,904	$ 3,925,978	$ 24,537,613	$ 7,068,118
$	354	$ 347,465	$ 923,708	$ 915,002	$ 4,045,611	$ 1,535,726
	-	286	684	684	3,551	1,359
$	40.00					
$	30.00					
$	35.00					
	4					
	7,736,340					
	769,111					
	2,108,641					
	10,614,092					
	0.20					
	0.20					
	0.65					
	32,140					
	49,020					
	11,302					
RI						
NEW ENGLAND TEL CO - RI						
	0.6					
	27.5					
	0.3					

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Data: Convergence Pivot Table
Use: Calculate expense totals by density range

A	B	C	D	E	F	G	H	I	J	K	L
	Data										
density range	Sum of total lines	Sum of residential	Sum of business	Sum of tot u/g Cu fdr	Sum of public	Sum of total households	Sum of special access	Sum of public telephone investment	Sum of OS tandem trunk investment	Sum of link investment	[illegible]
	0	0	0	$ -	0	0	0	$ -	$ -	$ -	$ -
1000 - 5000	303,171	205,603	82,241	$ 17,193,481	3,551	166,912	11,775	$ 4,045,611	$ 10,474	$ 294	$ 633,928
> 5000	110,074	67,947	36,587	$ 7,878,570	1,359	52,267	4,181	$ 1,535,726	$ 2,389	$ 34	$ 230,164
500 - 1000	72,260	51,789	17,100	$ 1,564,172	684	48,857	2,687	$ 915,002	$ 3,048	$ 117	$ 151,096
10 - 100	31,973	29,170	1,430	$ 26,548	286	28,598	1,067	$ 347,485	$ 2,536	$ 477	$ 66,854
0 - 10	32	31	1	$ -	0	31	1	$ 354	$ 2	$ 0	$ 68
100 - 500	78,280	62,817	12,080	$ 706,562	664	60,401	2,718	$ 923,706	$ 5,946	$ 397	$ 163,682
(blank)	0	0	0	$ -	0	0	0	$ -	$ -	$ -	$ -
Grand Total	595,790	417,357	149,439	$ 27,369,333	6,545	377,066	22,450	$ 7,767,865	$ 24,395	$ 1,319	$ 1,245,791

	M	N	O	P	Q	R	S	T	U	V	W
density range	Sum of STP investment	Sum of tandem wire center investment	Sum of local tandem investment	Sum of total structure	Sum of total operator position investment	Sum of OS tdm wire center investment	Sum of OS tdm investment	Sum of common transport	Sum of dedicated transport	Sum of EO wire center investment	Sum of [illegible] switching [illegible]
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1000 - 5000	$ 5,298,209	$ 766,839	$ 4,090,177	$ 24,537,613	$ 219,341	$ 383,420	$ 588,981	$ 100,101	$ 1,039,153	$ 2,993,922	$ 34,086,635
> 5000	$ 1,922,983	$ 278,421	$ 1,505,846	$ 7,068,118	$ 79,637	$ 139,211	$ 214,393	$ 22,953	$ 383,008	$ 1,069,951	$ 11,267,206
500 - 1000	$ 1,263,746	$ 182,774	$ 959,205	$ 3,925,978	$ 52,279	$ 91,387	$ 140,041	$ 29,103	$ 242,920	$ 764,141	$ 8,948,061
10 - 100	$ 564,094	$ 80,871	$ 388,509	$ 7,096,887	$ 23,132	$ 40,436	$ 61,292	$ 23,245	$ 96,415	$ 651,726	$ 8,604,771
0 - 10	$ 568	$ 82	$ 395	$ 168,966	$ 23	$ 41	$ 62	$ 20	$ 98	$ 602	$ 5,500
100 - 500	$ 1,371,952	$ 198,000	$ 1,008,266	$ 5,584,904	$ 56,634	$ 99,000	$ 151,147	$ 56,117	$ 253,424	$ 1,070,233	$ 11,376,174
(blank)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grand Total	$ 10,421,532	$ 1,506,988	$ 7,952,398	$ 48,402,466	$ 431,047	$ 753,494	$ 1,155,916	$ 231,539	$ 2,015,018	$ 6,570,575	$ 72,288,349

	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
density range	Sum of total optical *SAI	Sum of total electronics	Sum of total passive SAI	Sum of total NID + terminal and splice	Sum of tot ser dist	Sum of tot [illegible]	Sum of tot [illegible]	Sum of tot [illegible]	Sum of tot [illegible]	Sum of tot [illegible]	Sum of tot [illegible]
	$ 11,050,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1000 - 5000	$ 3,291,500	$ 15,577,039	$ 408,900	$ 13,485,701	$ 8,773,556	$ 34,017,166	$ 1,047,691	$ 272,059	$ 775,632	$ 22,278,256	$ 5,084,775
> 5000	$ 516,000	$ 2,584,378	$ 147,800	$ 3,991,892	$ 1,940,793	$ 10,196,366	$ -	$ -	$ -	$ 8,612,212	$ 733,643
500 - 1000	$ 1,418,000	$ 6,417,842	$ 63,600	$ 3,453,611	$ 2,617,258	$ 10,120,589	$ 496,437	$ 151,381	$ 345,055	$ 2,294,165	$ 729,994
10 - 100	$ 1,346,500	$ 4,694,929	$ 3,200	$ 1,882,106	$ 3,044,306	$ 14,575,168	$ 540,510	$ 526,214	$ 14,295	$ 1,003,804	$ 977,255
0 - 10	$ 2,500	$ 12,148	$ -	$ 2,025	$ 20,268	$ 184,838	$ 6,255	$ 6,255	$ -	$ 9,382	$ 9,382
100 - 500	$ 2,447,000	$ 9,513,353	$ 44,600	$ 4,122,368	$ 3,551,666	$ 16,658,705	$ 738,841	$ 424,373	$ 314,467	$ 1,591,836	$ 885,274
(blank)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grand Total	$ 20,071,500	$ 38,799,689	$ 668,100	$ 26,937,703	$ 19,947,847	$ 85,752,831	$ 2,829,732	$ 1,380,283	$ 1,449,450	$ 35,789,856	$ 8,429,323

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old output from
old version of model

Total TSLRIC Costs

Obsolete analysis
and formats

Michigan

MICHIGAN BELL TEL CO - MI

	0 - 10 pop/km2	10 - 100 pop/km2	100 - 500 pop/km2	500 - 1000 pop/km2	1000 - 5000 pop/km2	> 5000 pop/km2	Totals	Row %
Annual Capital Cost	$ 15,240,309	$ 78,536,333	$ 57,782,692	$ 51,368,178	$ 213,128,506	$ 14,741,052	$ 430,797,069	27.32%
Capital Cost - Genl Supp	$ 421,610	$ 2,083,786	$ 1,495,521	$ 1,319,952	$ 5,607,412	$ 392,796	$ 11,321,077	0.72%
Network Expenses	$ 8,382,595	$ 53,236,044	$ 43,679,661	$ 41,927,702	$ 168,284,573	$ 12,243,460	$ 327,754,035	20.78%
Network Operations	$ 2,152,166	$ 20,653,152	$ 23,917,941	$ 25,027,894	$ 113,929,490	$ 8,974,356	$ 194,655,000	12.34%
Network Support	$ 45,999	$ 171,556	$ 98,676	$ 81,319	$ 391,953	$ 28,378	$ 817,881	0.05%
Misc Expenses	$ 1,944,696	$ 12,350,345	$ 10,133,339	$ 9,726,898	$ 39,040,702	$ 2,840,387	$ 76,036,367	4.82%
Subtotal	$ 28,187,376	$ 167,031,215	$ 137,107,830	$ 129,451,943	$ 540,382,635	$ 39,220,429	$ 1,041,381,429	66.03%
Customer Operations	$ 10,737,238	$ 63,626,142	$ 52,227,616	$ 49,311,308	$ 205,844,530	$ 14,939,989	$ 396,686,824	25.15%
Corporate Operations	$ 1,799,194	$ 10,661,567	$ 8,751,564	$ 8,262,890	$ 34,492,509	$ 2,503,432	$ 66,471,155	4.21%
Uncollectibles	$ 480,791	$ 2,849,043	$ 2,338,641	$ 2,208,055	$ 9,217,280	$ 668,981	$ 17,762,792	1.13%
Other Taxes	$ 1,483,546	$ 8,791,117	$ 7,216,202	$ 6,813,260	$ 28,441,191	$ 2,064,233	$ 54,809,549	3.48%
Total	$ 42,688,146	$ 252,959,084	$ 207,641,853	$ 196,047,456	$ 818,378,146	$ 59,397,064	$ 1,577,111,748	100.00%
total per line per month	$ 60.84	$ 37.57	$ 26.63	$ 24.03	$ 22.03	$ 20.30	$ 24.85	

Total Investment	$ 3,067,701,482
Total Cap Cost	$ 442,118,146
CapCost % of Inv	14.41%

Actual '95 Revenue	$ 2,625,442,000
Model RevReq/Actual	60.07%

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Network Support derived by applying Network Support factor to outside plant investment categories
Misc Expenses includes Furniture, Office Equipment, General Purpose Computers, Public Telephone Terminal equipment
Expense factors calculated by dividing actual expenses by TPIS
Network Operations expense is calculated using Ameritech NetOps exp/line of $36.70/year
Uses NET CO Switching Factor of 0.0269 instead of computed factor of 0.061
Includes calculated amounts for General Purpose Computers and Other Terminal Equipment
Uses corporate operations factor of .06 based on airline and auto manufacturing industries
Uses BA Depreciation Lives for Plant Categories

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Unit Costs

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Unit Cost by Network Element — *Michigan* — *MICHIGAN BELL TEL CO - MI*

A. Loop elements

	0 - 10 pop/km2	10 - 100 pop/km2	100 - 500 pop/km2	500 - 1000 pop/km2	1000 - 5000 pop/km2	> 5000 pop/km2
Loop Distribution						
Annual Cost	$ 19,852,022	$ 103,180,366	$ 78,428,057	$ 72,452,702	$ 287,821,584	$ 20,864,002
Units	58,470	561,100	649,797	679,952	3,095,208	243,813
Unit Cost/month	$ 28.29	$ 15.32	$ 10.06	$ 8.88	$ 7.75	$ 7.13
Loop Concentration						
Annual Cost	$ 3,905,811	$ 26,252,376	$ 23,066,549	$ 20,190,192	$ 63,505,350	$ 2,543,030
Units	58,470	561,100	649,797	679,952	3,095,208	243,813
Unit Cost/month	$ 5.57	$ 3.90	$ 2.96	$ 2.47	$ 1.71	$ 0.87
Loop Feeder						
Annual Cost	$ 1,208,377	$ 3,684,032	$ 3,907,867	$ 5,299,283	$ 46,920,395	$ 3,870,013
Units	58,470	561,100	649,797	679,952	3,095,208	243,813
Unit Cost/month	$ 1.72	$ 0.55	$ 0.50	$ 0.65	$ 1.26	$ 1.32
Total Loop						
Annual Cost	$ 24,966,210	$ 133,116,773	$ 105,402,472	$ 97,942,177	$ 398,247,328	$ 27,277,045
Units	58,470	561,100	649,797	679,952	3,095,208	243,813
Unit Cost/month	$ 35.58	$ 19.77	$ 13.52	$ 12.00	$ 10.72	$ 9.32

	Annual Cost	Units		Unit Cost		
End office switching	$ 230,708,683					
1. Port	$ 69,212,605	4,496,174	switched lines	$ 1.28	per line/month	
2. Usage	$ 161,496,078	79,373,893,325	minutes	$ 0.0020	per minute	
Signaling network elements	$ 30,750,449	n/a	Signalling Cost/Message	$0.001425122		
STP Cost	$27,582,739		STP cost/message	$0.000405464	Total Call Attempts	15,461,160,332
SCP Cost	$3,151,478		SCP cost/message	$0.001019658	Local Call Attempts	15,453,606,074
Link Cost	$16,232					
Transport network elements						
1. Dedicated	$ 11,941,639	732,789	trunks	$ 1.36	per DS-0 equivalent/month	
				$ 32.59	per DS-1 equivalen/month	
				$ 912.58	per DS-3 equivalent/month	
				$ 0.00017	per minute (actual usage basis)	
				$ 0.00014	per minute (computed trunk basis)	
2. Common	$ 1,413,188	19,949,052,360	minutes	$ 0.00004	per minute per leg (orig or term) (actual usage b	
				$ 0.00012	per minute per leg (orig or term) (computed trun	
3. Tandem switch	$ 51,995,238	19,949,052,360	minutes	$ 0.0026	per minute	

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Unit Costs

Operator systems	$	4,220,861	n/a		
Public Telephones	$	43,980,372	n/a		
Total	$	1,161,962,436		10,044	trk-min/mo

Intrastate Toll DEMs	13,890,086,000
Interstate Toll DEMs	9,654,951,000

Tandem Routed MOU		Direct routed MOU	
Local	17,594,548,660	Local	26,391,822,990
Intrastate Toll	1,389,008,600	Intrastate toll	5,556,034,400
Interstate Toll	965,495,100	Interstate toll	3,861,980,400
	19,949,052,360		35,809,837,790

Intrastate IntraLATA Calls	925,040	37.42%	SOCC message counts
Intrastate InterLATA Calls	1,547,134	62.58%	
	2,472,174		

Calculation of EO Usage

Local DEMs	67,671,341,000	
Intraoffice Local DEMs	23,684,969,350	
Intraoffice Local Actual Min	11,842,484,675	
Interoffice Local Actual Min	43,986,371,650	per end
Intrastate Toll Actual Min	13,890,086,000	
Interstate Toll Actual Min	9,654,951,000	
	79,373,893,325	

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Expenses by Service

	0 - 10 pop/km2	10 - 100 pop/km2	100 - 500 pop/km2	500 - 1000 pop/km2	1000 - 5000 pop/km2	> 5000 pop/km2	Totals	
Network-Related Expenses								
Distribution								
Annual Capital Cost	$ 8,721,551	$ 34,391,781	$ 19,936,387	$ 15,761,003	$ 60,899,126	$ 4,128,347	$ 143,838,195	
Network Expenses	$ 6,331,194	$ 39,692,254	$ 33,224,303	$ 32,181,615	$ 126,036,950	$ 9,111,016	$ 246,577,333	
Total Expense	$ 15,052,746	$ 74,084,035	$ 53,160,690	$ 47,942,618	$ 186,936,077	$ 13,239,363	$ 390,415,529	51.47%
Investment	$ 71,999,981	$ 283,918,241	$ 164,583,044	$ 130,113,537	$ 502,747,240	$ 34,081,194	$ 1,187,443,237	
Allocation of Joint	$ 3,675,577	$ 23,255,932	$ 20,828,042	$ 20,408,988	$ 84,593,719	$ 6,443,658	$ 159,205,916	
Total incl Joint	$ 18,728,322	$ 97,339,968	$ 73,988,733	$ 68,351,606	$ 271,529,796	$ 19,683,021	$ 549,621,445	
Var Overhead Markup	$ 19,852,022	$ 103,180,366	$ 78,428,057	$ 72,452,702	$ 287,821,584	$ 20,864,002	$ 582,598,732	
Concentrator								
Annual Capital Cost	$ 2,709,504	$ 17,244,832	$ 14,301,242	$ 12,218,598	$ 37,707,904	$ 1,474,079	$ 85,656,159	
Network Expenses	$ 252,067	$ 1,604,510	$ 1,333,898	$ 1,141,437	$ 3,537,929	$ 139,614	$ 8,009,455	
Total	$ 2,961,571	$ 18,849,341	$ 15,635,140	$ 13,360,035	$ 41,245,833	$ 1,613,693	$ 93,665,614	12.35%
Investment	$ 16,474,702	$ 104,854,423	$ 86,956,401	$ 74,293,218	$ 229,276,840	$ 8,962,901	$ 520,818,485	
Allocation of Joint	$ 723,156	$ 5,917,051	$ 6,125,755	$ 5,687,316	$ 18,664,874	$ 785,392	$ 37,903,544	
Total incl Joint	$ 3,684,727	$ 24,766,392	$ 21,760,895	$ 19,047,351	$ 59,910,707	$ 2,399,084	$ 131,569,157	
Var Overhead Markup	$ 3,905,811	$ 26,252,376	$ 23,066,549	$ 20,190,192	$ 63,505,350	$ 2,543,030	$ 139,463,307	
Feeder								
Annual Capital Cost	$ 562,285	$ 1,651,894	$ 1,697,019	$ 2,492,943	$ 24,223,043	$ 2,039,840	$ 32,667,024	
Network Expenses	$ 353,964	$ 993,260	$ 951,841	$ 1,013,640	$ 6,251,094	$ 415,898	$ 9,979,697	
Total	$ 916,249	$ 2,645,154	$ 2,648,859	$ 3,506,584	$ 30,474,137	$ 2,455,738	$ 42,646,721	5.62%
Investment	$ 4,749,179	$ 13,952,250	$ 14,333,379	$ 21,055,930	$ 204,592,974	$ 17,228,918	$ 275,912,631	
Allocation of Joint	$ 223,730	$ 830,348	$ 1,037,807	$ 1,492,739	$ 13,790,386	$ 1,195,219	$ 18,570,228	
Total incl Joint	$ 1,139,979	$ 3,475,502	$ 3,686,667	$ 4,999,323	$ 44,264,523	$ 3,650,956	$ 61,216,950	
Var Overhead Markup	$ 1,208,377	$ 3,684,032	$ 3,907,867	$ 5,299,283	$ 46,920,395	$ 3,870,013	$ 64,889,967	
End Office Switching								
Annual Capital Cost	$ 2,230,316	$ 16,532,036	$ 14,191,919	$ 13,386,066	$ 57,368,506	$ 4,469,661	$ 108,178,505	
Network Expenses	$ 657,112	$ 4,689,377	$ 4,119,162	$ 4,021,514	$ 17,918,316	$ 1,388,383	$ 32,793,863	
Total	$ 2,887,427	$ 21,221,413	$ 18,311,082	$ 17,407,580	$ 75,286,822	$ 5,858,044	$ 140,972,368	18.58%
Investment	$ 17,713,800	$ 131,302,124	$ 112,716,253	$ 106,315,938	$ 455,636,964	$ 35,499,318	$ 859,184,398	
Allocation of Joint	$ 935,046	$ 8,754,847	$ 9,412,229	$ 9,683,607	$ 44,242,199	$ 3,649,405	$ 76,677,333	
Total incl Joint	$ 3,822,473	$ 29,976,260	$ 27,723,310	$ 27,091,187	$ 119,529,020	$ 9,507,450	$ 217,649,701	
Var Overhead Markup	$ 4,051,822	$ 31,774,836	$ 29,386,709	$ 28,716,658	$ 126,700,762	$ 10,077,897	$ 230,708,683	
Signaling								
Annual Capital Cost	$ 178,104	$ 1,673,600	$ 1,927,464	$ 2,013,764	$ 9,158,758	$ 721,354	$ 15,673,045	
Network Expenses	$ 34,297	$ 319,499	$ 367,627	$ 383,969	$ 1,746,072	$ 137,513	$ 2,988,976	
Total	$ 212,401	$ 1,993,099	$ 2,295,091	$ 2,397,733	$ 10,904,829	$ 858,868	$ 18,662,021	2 46%
Investment	$ 1,262,111	$ 11,859,753	$ 13,658,729	$ 14,270,279	$ 64,902,360	$ 5,111,785	$ 111,065,016	
Allocation of Joint	$ 68,783	$ 822,249	$ 1,179,719	$ 1,333,827	$ 6,408,208	$ 535,052	$ 10,347,837	

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Expenses by Service

	0 - 10 pop/km2	10 - 100 pop/km2	100 - 500 pop/km2	500 - 1000 pop/km2	1000 - 5000 pop/km2	> 5000 pop/km2	Totals	
Total incl Joint	$ 281,183	$ 2,815,348	$ 3,474,810	$ 3,731,560	$ 17,313,038	$ 1,393,919	$ 29,009,858	
Var Overhead Markup	$ 298,055	$ 2,984,269	$ 3,683,298	$ 3,955,453	$ 18,351,820	$ 1,477,555	$ 30,750,449	
Dedicated Transport								
Annual Capital Cost	$ 49,073	$ 496,518	$ 624,932	$ 674,869	$ 3,159,591	$ 251,794	$ 5,256,776	
Network Expenses	$ 18,448	$ 186,652	$ 234,926	$ 253,698	$ 1,187,761	$ 94,655	$ 1,976,140	
Total	$ 67,521	$ 683,170	$ 859,858	$ 928,567	$ 4,347,352	$ 346,449	$ 7,232,916	0.95%
Investment	$ 372,372	$ 3,767,632	$ 4,742,056	$ 5,120,979	$ 23,975,331	$ 1,910,641	$ 39,889,011	
Allocation of Joint	$ 21,865	$ 281,840	$ 441,983	$ 516,549	$ 2,554,715	$ 215,828	$ 4,032,782	
Total incl Joint	$ 89,386	$ 965,010	$ 1,301,841	$ 1,445,116	$ 6,902,067	$ 562,277	$ 11,265,698	
Var Overhead Markup	$ 94,749	$ 1,022,910	$ 1,379,951	$ 1,531,823	$ 7,316,191	$ 596,014	$ 11,941,639	
Common Transport								
Annual Capital Cost	$ 16,015	$ 109,654	$ 114,000	$ 94,387	$ 284,209	$ 13,642	$ 631,906	
Network Expenses	$ 6,020	$ 41,221	$ 42,855	$ 35,482	$ 106,841	$ 5,128	$ 237,548	
Total	$ 22,035	$ 150,875	$ 156,855	$ 129,869	$ 391,050	$ 18,770	$ 869,454	0.11%
Investment	$ 121,522	$ 832,067	$ 865,041	$ 716,220	$ 2,156,611	$ 103,515	$ 4,794,976	
Allocation of Joint	$ 7,136	$ 62,243	$ 80,626	$ 72,245	$ 229,800	$ 11,693	$ 463,743	
Total incl Joint	$ 29,171	$ 213,119	$ 237,481	$ 202,114	$ 620,849	$ 30,463	$ 1,333,197	
Var Overhead Markup	$ 30,921	$ 225,906	$ 251,729	$ 214,241	$ 658,100	$ 32,291	$ 1,413,188	
Tandem Switching								
Annual Capital Cost	$ 240,187	$ 2,364,835	$ 2,858,389	$ 3,038,807	$ 14,034,651	$ 1,112,060	$ 23,648,929	
Network Expenses	$ 82,902	$ 807,285	$ 958,323	$ 1,012,141	$ 4,646,831	$ 367,315	$ 7,874,797	
Total	$ 323,090	$ 3,172,120	$ 3,816,712	$ 4,050,948	$ 18,681,482	$ 1,479,375	$ 31,523,726	4.16%
Investment	$ 1,746,946	$ 17,200,066	$ 20,789,810	$ 22,102,036	$ 102,077,679	$ 8,088,302	$ 172,004,839	
Allocation of Joint	$ 104,627	$ 1,308,651	$ 1,961,859	$ 2,253,489	$ 10,978,147	$ 921,611	$ 17,528,385	
Total incl Joint	$ 427,717	$ 4,480,771	$ 5,778,571	$ 6,304,437	$ 29,659,629	$ 2,400,985	$ 49,052,111	
Var Overhead Markup	$ 453,380	$ 4,749,618	$ 6,125,285	$ 6,682,703	$ 31,439,207	$ 2,545,045	$ 51,995,238	
Operator Systems								
Annual Capital Cost	$ 23,462	$ 218,897	$ 252,209	$ 261,158	$ 1,172,954	$ 91,432	$ 2,020,113	
Network Expenses	$ 8,936	$ 83,676	$ 96,373	$ 99,883	$ 449,152	$ 35,048	$ 773,067	
Total	$ 32,398	$ 302,573	$ 348,582	$ 361,041	$ 1,622,106	$ 126,479	$ 2,793,180	0.37%
Investment	$ 161,343	$ 1,505,279	$ 1,734,348	$ 1,795,889	$ 8,065,981	$ 628,744	$ 13,891,583	
Allocation of Joint	$ 7,911	$ 94,982	$ 136,572	$ 153,694	$ 734,048	$ 61,558	$ 1,188,765	
Total incl Joint	$ 40,309	$ 397,555	$ 485,154	$ 514,735	$ 2,356,154	$ 188,037	$ 3,981,945	
Var Overhead Markup	$ 42,728	$ 421,408	$ 514,263	$ 545,619	$ 2,497,523	$ 199,320	$ 4,220,861	
Public Telephone								
Annual Capital Cost	$ 509,811	$ 3,852,286	$ 1,879,131	$ 1,426,583	$ 5,119,763	$ 438,843	$ 13,226,416	
Network Expenses	$ 637,655	$ 4,818,310	$ 2,350,354	$ 1,784,322	$ 6,403,628	$ 548,890	$ 16,543,159	
Total	$ 1,147,466	$ 8,670,596	$ 4,229,484	$ 3,210,904	$ 11,523,391	$ 987,733	$ 29,769,575	3.92%
Investment	$ 2,929,896	$ 22,139,164	$ 10,799,401	$ 8,198,599	$ 29,423,381	$ 2,522,040	$ 76,012,481	
Allocation of Joint	$ 280,188	$ 2,721,812	$ 1,657,087	$ 1,366,870	$ 5,214,652	$ 480,734	$ 11,721,342	

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Expenses by Service

	0 - 10 pop/km2	10 - 100 pop/km2	100 - 500 pop/km2	500 - 1000 pop/km2	1000 - 5000 pop/km2	> 5000 pop/km2	Totals	
Total incl Joint	$ 1,427,654	$ 11,392,407	$ 5,886,571	$ 4,577,774	$ 16,738,043	$ 1,468,468	$ 41,490,917	
Var Overhead Markup	$ 1,513,314	$ 12,075,952	$ 6,239,765	$ 4,852,440	$ 17,742,325	$ 1,556,576	$ 43,980,372	
Totals								
Annual Capital Cost	$ 15,240,309	$ 78,536,333	$ 57,782,692	$ 51,368,178	$ 213,128,506	$ 14,741,052	$ 430,797,069	
Network Expenses	$ 8,382,595	$ 53,236,044	$ 43,679,661	$ 41,927,702	$ 168,284,573	$ 12,243,460	$ 327,754,035	
Total	$ 23,622,904	$ 131,772,377	$ 101,462,353	$ 93,295,879	$ 381,413,078	$ 26,984,512	$ 758,551,104	######
Investment	$ 117,531,852	$ 591,330,998	$ 431,178,463	$ 383,982,625	$ 1,622,855,361	$ 114,137,359	$ 3,261,016,657	
Joint Network Expenses								
Capital Cost - Genl Support	$ 421,610	$ 2,083,786	$ 1,495,521	$ 1,319,952	$ 5,607,412	$ 392,796	$ 11,321,077	
Network Operations	$ 1,872,385	$ 17,968,242	$ 20,808,609	$ 21,774,268	$ 99,118,656	$ 7,807,690	$ 169,349,850	
Network Support	$ 45,999	$ 171,556	$ 98,676	$ 81,319	$ 391,953	$ 28,378	$ 817,881	
Other Taxes	$ 1,483,546	$ 8,791,117	$ 7,216,202	$ 6,813,260	$ 28,441,191	$ 2,064,233	$ 54,809,549	
Misc Expenses	$ 1,944,696	$ 12,350,345	$ 10,133,339	$ 9,726,898	$ 39,040,702	$ 2,840,387	$ 76,036,367	
Subtotal	$ 5,768,236	$ 41,365,045	$ 39,752,346	$ 39,715,697	$ 172,599,915	$ 13,133,484	$ 312,334,724	
Interoffice/Switching Net Ops	$ 279,782	$ 2,684,910	$ 3,109,332	$ 3,253,626	$ 14,810,834	$ 1,166,666	$ 25,305,150	
Interoffice/Sw Exp	$ 3,512,474	$ 27,220,677	$ 25,439,597	$ 24,914,697	$ 109,611,534	$ 8,561,506	$ 199,260,485	
Total Network and Joint	$ 29,670,922	$ 175,822,332	$ 144,324,032	$ 136,265,203	$ 568,823,827	$ 41,284,662	$ 1,096,190,978	
Common Overheads								
Customer Operations	$ 10,737,238	$ 63,626,142	$ 52,227,616	$ 49,311,308	$ 205,844,530	$ 14,939,989	$ 396,686,824	
Corporate Operations	$ 1,799,194	$ 10,661,567	$ 8,751,564	$ 8,262,890	$ 34,492,509	$ 2,503,432	$ 66,471,155	
Uncollectibles	$ 480,791	$ 2,849,043	$ 2,338,641	$ 2,208,055	$ 9,217,280	$ 668,981	$ 17,762,792	
Other Taxes	$ 1,483,546	$ 8,791,117	$ 7,216,202	$ 6,813,260	$ 28,441,191	$ 2,064,233	$ 54,809,549	
Subtotal	$ 14,500,770	$ 85,927,868	$ 70,534,023	$ 66,595,513	$ 277,995,510	$ 20,176,635	$ 535,730,319	
Grand Total	$ 42,688,146	$ 252,959,084	$ 207,641,853	$ 196,047,456	$ 818,378,146	$ 59,397,064	$ 1,577,111,748	
Actual Revenues								
Local Network Service							$ 41,683,031,000	
Network Access							$ 27,279,936,000	
Long Distance							$ 13,034,450,000	
Less: Uncollectibles							$ (1,048,252,000)	
Less: Mobile Revenues							$ (295,169,000)	
Less: CPE Revenues							$ (104,085,000)	
							$ 80,549,911,000	
Hatfield II % of Actual							1.96%	

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