

ORIGINAL

Lincoln E. Brown
Director-Federal Regulatory

SBC Telecommunications, Inc.
1401 I Street, N.W.
Suite 1100
Washington, D.C. 20005
Phone 202 326-8890
Fax 202 408-4806

EX PARTE OR LATE FILED



August 13, 1999

EX PARTE PRESENTATION

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-A325
Washington, D.C. 20554

RECEIVED

AUG 13 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

RE: *In the Matter of Deployment of Wireline Services Offering Advanced
Telecommunications Capability; CC Docket No. 98-147*

Dear Ms. Salas:

On August 12, 1999 Walt Partidge, Mark Russell, John McDonald and the undersigned representing SBC met via conference call with Jerry Stanshine, Stagg Newman, Mike Jacobs, Vincent Paladini, and Staci Pies representing the Policy Division of the CCB and the Office of Engineering and Technology to discuss issues in the above referenced docket.

The SBC representatives discussed the changes to OSS systems that would be necessary in a line sharing environment. In addition, the SBC representatives presented an overview of the Selective Feeder Separation methodology.

Please include this letter and attachments in the record of these proceedings in accordance with Section 1.1206(a)(2) of the Commission's Rules.

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August 13, 1999

Ms. Salas

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Acknowledgment and date of receipt of this transmittal are requested. A duplicate transmittal letter is attached for that purpose.

Please contact the undersigned should you have any questions.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David E. Brown". The signature is written in a cursive style with a large, prominent initial "D".

Enclosures

Cc: Jerry Stanshine
Vincent Paladini
Stagg Newman
Staci Pies
Mike Jacobs

The Development of Selective Feeder Separation (SFS)

Note: SFS was previously referred to as Binder Group Management. A name change was made in February, 1999 because of confusion resulting from the use of binder group management to denote other spectrum management issues at an ANSI national standards level.

Introduction

The introduction of ADSL in the loop network brought with it the need to evaluate and address impacts of the product's spectrum characteristics. Rumors regarding the ADSL platform's sensitivity to circuit interference, both in being affected and it affecting other digital circuits, preceded its actual hands on testing. Little documentation in the industry was available in early 1998, and no documentation containing deployment in the loop data was available. Pacific's Loop Planning Organization in California assumed responsibility for the development of a strategy to minimize potential spectrum issues associated with the cable assignment and transport options of ADSL. The problem was further complicated with the parallel emergence of CLECs' xDSL offerings, which presented their unique spectral characteristics. The strategy needed to incorporate considerations beyond the commonly deployed retail digital platforms, e.g., HICAP, ISDN. SFS is the product of that effort.

The Outside Plant Network

The loop normally consists of F1 and F2 cable components. The F1, or feeder, is characterized by large cables (up to 4200 pairs). The large feeder cables taper as they extend into the loop network. Binder groups (25 or 100 pair bundles of cable pairs) are peeled off the feeder cables to provide pairs to the distribution areas in which the serving terminals, and in turn, customers are located. The F2, or distribution, represents the cable facilities within a distribution area. Distribution is normally characterized by small cables (25 pair up to several hundred pair). Distribution cables are found in back yard easements or residential streets to serve blocks of homes. For any loop, its F2 component normally doesn't extend more than several thousand feet. The remainder of the loop is F1. One can assume that in a loop of 15 kft., the F2 is not more than one seventh of the total length with F1 comprising the remaining six sevenths.

Pacific has deployed T1 circuits in the loop for approximately 25 years. Initially, these circuits were used to provide trunks for digital loop carrier systems. In the early 1980s, HICAP service offerings were introduced, and the repeatered T1 platform was used as transport in the loop for these high capacity digital service offerings. Little consideration was given to the spectrum impacts of these lines, except for the cross talk impacts that result from inadequate transmission engineering multiple T1 design. In the mid-nineties, ISDN sales emerged. Meanwhile, HDSL, ADN, Switched 56kb, etc. (all digital platforms) found niches in the market, and they too were introduced without benefit of a spectrum strategy. The result, in 1998, is a network in which digital circuits have been randomly assigned across the spectrum in loop networks in wire center after wire center. It is a situation that has and continues to compromise facility assignment and maintenance efficiencies.

Ideal administration of spectrum in the loop would involve the ongoing administration of binder groups so that disturbers maintain separation from each other. On a one by one basis for type of disturber this is impractical, as there are not enough binder groups available to establish a group for each. Grouping disturbers, i.e., repeatered T1s, 2B1Q line coded circuits, and DMT based ADSL, offers some possibilities in as much as the separation from the most damaging disturber, repeatered T1, can be attempted. It is desirable to maintain separation between 2B1Q and DMT line coding formats as not enough is known currently about actual in field interference impacts. It is necessary that the business attempts to avoid future failure of a service with no means of isolating the trouble because the assignments of disturbers is spread across the available spectrum. Even then, the ability to manage spectrum through separation of binders exists in most distribution cables is limited as there are only a binder or two available for all of the circuit assignments. Every wire center in Pacific has feeder configuration, technology serving platform variety, distribution networks, and imbedded service mixes that make the decisions associated with management of spectrum unique to that wire center.

Assumptions and Objectives

Issues that contributed to the development of a process to manage digital circuit assignments in the loop network and cable spectrum include:

- Disturber charts developed by Alcatel (SBC's ADSL equipment supplier) and TRI (the R&D arm of SBC) that present the reach impacts of other digital circuits on ADSL. The chart is attached.
- The unknowns about other xDSL technologies, the absence of testing data, including modelling, the variety of platforms emerging, and anecdotal observations that all of the platforms, including ADSL, will have interference issues.
- The existing Pacific situation with digital circuits and their random assignment in the existing network, and the operations efficiencies they are creating
- The particularly damaging impacts of repeatered T1 on ADSL circuits, and the reality of interference problems without some cable binder management, even if repeatered T1 binders were avoided, as adjacent binder assignments would be a result of random assignments, and adjacent binder assignments are damaging to a large band in the network.
- Spectrum exhaust situations in advance of facility exhausts, thereby advancing the need to expend capital compared to the PMO, and possibly forcing unfavorable budget pressures on the business capital program, because we didn't attempt to manage it.
- Preconditioning and qualifying to allow management of the facilities. If the future is vague and undefined, you want to know what you have and where it is when you have to manage it.
- The need to integrate a process with the existing feeder administration process in Loop Planning. Whatever we cooked up is but another component of the Planner's tool kit.
- Need for something to mass qualify loops instead of repeating the process for every order. Basic cost of doing business considerations.
- Consideration for the network assurance function in Operations. Chasing bit errors is a lot more difficult than shooting trouble on analog POTS circuits.

Selective Feeder Separation

Selective Feeder Separation (formerly referred to as Binder Group Management) consists of managing the F1 such that repeatered T1s, 2B1Q circuits, and DMT line coded ADSL reside in separate feeder cable binders. The very size of feeder cable cross sections is what makes its possible to attempt to manage the spectrum. It is not a total solution because it only addresses the F1. Minimizing disturber impacts in the feeder limits the risk of disturbers to F2 situations. Challenges await us in managing the F2 spectrum as both retail and wholesale xDSL circuits proliferate in the loop network. It is worth noting that Pacific Bell is making loop qualification decisions for a retail product service inquiry with the consideration that at some point in the future there will be a CLEC xDSL presence. A final aspect regarding SFS worth noting is that Pacific has solicited input and upgrades from the CLECs regarding the administration of spectrum and only one company, COVAD, has responded. That company's proposal to segregate repeatered T1s from xDSL assignments has been adopted.

Closing

SFS is in place in all wire centers that have been activated for ADSL. The offer to do the same for CLECs selling service on a DMT ADSL platform has been extended, but no CLECs have responded. This may be in part as most of the CLECs offerings consist of a 2B1Q xDSL platform. The offer stands.

Release 3.0 Interferer Table

No. of Disturbars	T-Carrier						HDSL						ISDN-BRI						ADSL					
	Same BG			Adjacent BG			Same BG			Adjacent BG			Same BG			Adjacent BG			Same BG			Adjacent BG		
	1.5/384	384/384	384/128	1.5/384	384/384	384/128	1.5/384	384/384	384/128	1.5/384	384/384	384/128	1.5/384	384/384	384/128	1.5/384	384/384	384/128	1.5/384	384/384	384/128	1.5/384	384/384	384/128
0	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
1	9.1	12.7	12.7	10.9	14.7	14.7	12.4	12.4	14.4	13.2	14.9	15.1	14.3	15.2	17.2	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
2	8.8	12.3	12.3	10.5	14.3	14.3	11.8	11.8	14.2	13.0	14.4	14.9	14.3	14.8	17.0	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
3	8.6	12.0	12.0	10.3	14.1	14.1	11.5	11.5	14.1	12.9	14.1	14.8	14.2	14.5	16.9	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
4	8.5	11.9	11.9	10.1	13.9	13.9	11.3	11.3	14.0	12.9	13.8	14.7	14.2	14.3	16.9	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
5	8.4	11.7	11.7	10.0	13.8	13.8	11.1	11.1	13.9	12.8	13.7	14.6	14.1	14.1	16.8	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
6	8.3	11.6	11.6	9.9	13.7	13.7	11.0	11.0	13.8	12.8	13.5	14.6	14.0	14.0	16.7	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
7	8.2	11.5	11.5	9.9	13.6	13.6	10.8	10.8	13.8	12.8	13.4	14.6	13.8	13.8	16.7	14.5	16.0	17.5	14.5	16.0	17.5	14.5	16.0	17.5
8	8.1	11.4	11.4	9.8	13.5	13.5	10.7	10.7	13.7	12.7	13.3	14.5	13.7	13.7	16.6	14.5	15.9	17.5	14.5	16.0	17.5	14.5	16.0	17.5
9	8.1	11.4	11.4	9.7	13.4	13.4	10.6	10.6	13.6	12.7	13.2	14.5	13.6	13.6	16.6	14.5	15.8	17.5	14.5	16.0	17.5	14.5	16.0	17.5
10	8.0	11.3	11.3	9.6	13.4	13.4	10.6	10.6	13.5	12.7	13.1	14.5	13.6	13.6	16.6	14.5	15.7	17.5	14.5	16.0	17.5	14.5	16.0	17.5
11	8.0	11.2	11.2	9.6	13.3	13.3	10.5	10.5	13.4	12.6	13.0	14.4	13.5	13.5	16.5	14.5	15.6	17.5	14.5	16.0	17.5	14.5	16.0	17.5
12	7.9	11.2	11.2	9.6	13.3	13.3	10.4	10.4	13.4	12.6	12.9	14.4	13.4	13.4	16.5	14.5	15.6	17.5	14.5	16.0	17.5	14.5	16.0	17.5
13	7.9	11.1	11.1	9.5	13.3	13.3	10.3	10.3	13.3	12.6	12.8	14.4	13.4	13.4	16.5	14.5	15.5	17.5	14.5	16.0	17.5	14.5	16.0	17.5
14	7.8	11.1	11.1	9.5	13.2	13.2	10.3	10.3	13.3	12.6	12.8	14.4	13.3	13.3	16.5	14.5	15.5	17.5	14.5	16.0	17.5	14.5	16.0	17.5
15	7.8	11.0	11.0	9.4	13.2	13.2	10.2	10.2	13.2	12.6	12.7	14.3	13.3	13.3	16.4	14.5	15.4	17.5	14.5	16.0	17.5	14.5	16.0	17.5
16	7.8	11.0	11.0	9.4	13.1	13.1	10.1	10.1	13.1	12.5	12.7	14.3	13.2	13.2	16.4	14.5	15.4	17.5	14.5	16.0	17.5	14.5	16.0	17.5
17	7.7	10.9	10.9	9.4	13.1	13.1	10.1	10.1	13.1	12.5	12.6	14.3	13.2	13.2	16.3	14.5	15.3	17.5	14.5	16.0	17.5	14.5	16.0	17.5
18	7.7	10.9	10.9	9.3	13.1	13.1	10.1	10.1	13.0	12.5	12.6	14.3	13.1	13.1	16.3	14.5	15.3	17.5	14.5	16.0	17.5	14.5	16.0	17.5
19	7.7	10.9	10.9	9.3	13.0	13.0	10.0	10.0	12.9	12.5	12.5	14.3	13.1	13.1	16.2	14.5	15.2	17.4	14.5	16.0	17.5	14.5	16.0	17.5
20	7.7	10.8	10.8	9.3	13.0	13.0	10.0	10.0	12.9	12.5	12.5	14.3	13.0	13.0	16.2	14.5	15.2	17.4	14.5	16.0	17.5	14.5	16.0	17.5
21	7.7	10.8	10.8	9.3	13.0	13.0	9.9	9.9	12.9	12.4	12.4	14.2	13.0	13.0	16.2	14.5	15.1	17.4	14.5	16.0	17.5	14.5	16.0	17.5
22	7.6	10.8	10.8	9.2	12.9	12.9	9.9	9.9	12.8	12.4	12.4	14.2	13.0	13.0	16.1	14.5	15.1	17.3	14.5	16.0	17.5	14.5	16.0	17.5
23	7.6	10.7	10.7	9.2	12.9	12.9	9.8	9.8	12.8	12.3	12.3	14.2	12.9	12.9	16.1	14.5	15.0	17.3	14.5	16.0	17.5	14.5	16.0	17.5
24	7.6	10.7	10.7	9.2	12.9	12.9	9.8	9.8	12.8	12.3	12.3	14.2	12.9	12.9	16.0	14.5	15.0	17.3	14.5	16.0	17.5	14.5	16.0	17.5
25	7.6	10.7	10.7	9.2	12.8	12.8				12.3	12.3	14.2	12.9	12.9	16.0	14.5	15.0	17.3	14.5	16.0	17.5	14.5	16.0	17.5
26	7.6	10.7	10.7	9.2	12.8	12.8				12.3	12.3	14.2	12.8	12.8	16.0	14.5	14.9	17.3	14.5	16.0	17.5	14.5	16.0	17.5
27	7.5	10.6	10.6	9.1	12.8	12.8				12.2	12.2	14.2	12.8	12.8	15.9	14.5	14.9	17.2	14.5	16.0	17.5	14.5	16.0	17.5
28	7.5	10.6	10.6	9.1	12.8	12.8				12.2	12.2	14.2	12.8	12.8	15.9	14.5	14.9	17.2	14.5	16.0	17.5	14.5	16.0	17.5
29	7.5	10.6	10.6	9.1	12.7	12.7				12.2	12.2	14.1	12.7	12.7	15.9	14.5	14.9	17.2	14.5	16.0	17.5	14.5	16.0	17.5
30	7.5	10.6	10.6	9.1	12.7	12.7				12.2	12.2	14.1	12.7	12.7	15.9	14.5	14.8	17.2	14.5	16.0	17.5	14.5	16.0	17.5
31	7.5	10.6	10.6	9.1	12.7	12.7				12.1	12.1	14.1	12.7	12.7	15.8	14.5	14.8	17.2	14.5	16.0	17.5	14.5	16.0	17.5
32	7.5	10.5	10.5	9.1	12.7	12.7				12.1	12.1	14.1	12.6	12.6	15.8	14.5	14.8	17.2	14.5	16.0	17.5	14.5	16.0	17.5
33	7.4	10.5	10.5	9.0	12.7	12.7				12.1	12.1	14.1	12.6	12.6	15.8	14.5	14.8	17.1	14.5	16.0	17.5	14.5	16.0	17.5
34	7.4	10.5	10.5	9.0	12.6	12.6				12.1	12.1	14.1	12.6	12.6	15.8	14.5	14.7	17.1	14.5	16.0	17.5	14.5	16.0	17.5
35	7.4	10.5	10.5	9.0	12.6	12.6				12.1	12.1	14.1	12.6	12.6	15.8	14.5	14.7	17.1	14.5	16.0	17.5	14.5	16.0	17.5
36	7.4	10.5	10.5	9.0	12.6	12.6				12.0	12.0	14.1	12.5	12.5	15.7	14.5	14.7	17.1	14.5	16.0	17.5	14.5	16.0	17.5
37	7.4	10.5	10.5	9.0	12.6	12.6				12.0	12.0	14.1	12.5	12.5	15.7	14.5	14.7	17.1	14.5	16.0	17.5	14.5	16.0	17.5
38	7.4	10.4	10.4	9.0	12.6	12.6				12.0	12.0	14.1	12.5	12.5	15.7	14.5	14.6	17.1	14.5	16.0	17.5	14.5	16.0	17.5
39	7.4	10.4	10.4	8.9	12.6	12.6				11.9	11.9	14.0	12.4	12.4	15.7	14.5	14.6	17.1	14.5	16.0	17.5	14.5	16.0	17.5
40	7.3	10.4	10.4	8.9	12.6	12.6				11.9	11.9	14.0	12.4	12.4	15.7	14.5	14.6	17.0	14.5	16.0	17.5	14.5	16.0	17.5
41	7.3	10.4	10.4	8.9	12.6	12.6				11.9	11.9	14.0	12.4	12.4	15.6	14.5	14.6	17.0	14.5	16.0	17.5	14.5	16.0	17.5
42	7.3	10.4	10.4	8.9	12.5	12.5				11.9	11.9	14.0	12.4	12.4	15.6	14.5	14.6	17.0	14.5	16.0	17.5	14.5	16.0	17.5
43	7.3	10.4	10.4	8.9	12.5	12.5				11.9	11.9	14.0	12.4	12.4	15.6	14.5	14.5	17.0	14.5	16.0	17.5	14.5	16.0	17.5
44	7.3	10.3	10.3	8.9	12.5	12.5				11.9	11.9	14.0	12.4	12.4	15.6	14.5	14.5	17.0	14.5	16.0	17.5	14.5	16.0	17.5
45	7.3	10.3	10.3	8.9	12.5	12.5				11.9	11.9	14.0	12.4	12.4	15.6	14.5	14.5	17.0	14.5	16.0	17.5	14.5	16.0	17.5
46	7.3	10.3	10.3	8.8	12.5	12.5				11.8	11.8	14.0	12.3	12.3	15.5	14.5	14.5	17.0	14.5	16.0	17.5	14.5	16.0	17.5
47	7.3	10.3	10.3	8.8	12.5	12.5				11.8	11.8	14.0	12.3	12.3	15.5	14.5	14.5	17.0	14.5	16.0	17.5	14.5	16.0	17.5
48	7.3	10.3	10.3	8.8	12.5	12.5				11.8	11.8	14.0	12.3	12.3	15.5	14.5	14.5	17.0	14.5	16.0	17.5	14.5	16.0	17.5
49	7.2	10.3	10.3	8.8	12.5	12.5				11.8	11.8	14.0	12.3	12.3	15.5	14.5	14.5	17.0	14.5	16.0	17.5	14.5	16.0	17.5
50				8.8	12.5	12.5				11.8	11.8	14.0			14.5	14.5	17.0				14.5	16.0	17.5	
51				8.8	12.4	12.4				11.8	11.8	14.0			14.5	14.5	17.0				14.5	16.0	17.5	
52				8.8	12.4	12.4				11.8	11.8	14.0			14.5	14.5	17.0				14.5	16.0	17.5	
53				8.8	12.4	12.4				11.8	11.8	14.0			14.5	14.5	17.0				14.5	16.0	17.5	

290	8.0	11.3	11.3	10.6	10.6	13.6	13.6	13.6	16.6	14.5	16.0	17.5
291	8.0	11.3	11.3	10.6	10.6	13.6	13.6	13.6	16.6	14.5	16.0	17.5
292	8.0	11.3	11.3	10.6	10.6	13.6	13.6	13.6	16.6	14.5	16.0	17.5
293	8.0	11.3	11.3	10.6	10.6	13.6	13.6	13.6	16.6	14.5	16.0	17.5
294	8.0	11.3	11.3	10.6	10.6	13.6	13.6	13.6	16.6	14.5	16.0	17.5
295	8.0	11.3	11.3	10.6	10.6	13.5	13.6	13.6	16.6	14.5	16.0	17.5
296	8.0	11.3	11.3	10.6	10.6	13.5	13.6	13.6	16.6	14.5	16.0	17.5
297	8.0	11.3	11.3	10.6	10.6	13.6	13.6	13.6	16.6	14.5	16.0	17.5
298	8.0	11.3	11.3	10.6	10.6	13.5	13.6	13.6	16.6	14.5	16.0	17.5
299	8.0	11.3	11.3	10.6	10.6	13.5	13.6	13.6	16.6	14.5	16.0	17.5
300	8.0	11.3	11.3	10.6	10.6	13.5	13.6	13.6	16.6	14.5	16.0	17.5