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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

April 25, 2000

Chairman William Kennard
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

Re: ***Ex Parte Presentation* -- CS Docket No. 98-120 (Carriage of the Transmissions of Digital Television Broadcast Stations) and CSR 5528-Z (Petition for Special Relief of Gemstar International Group, Ltd. and Gemstar Development Corp. for Enforcement of the Communications Act of 1934, as Amended, and the Commission's Must-Carry Rules)**

Dear Chairman Kennard:

In Gemstar's pleadings in the digital cable carriage proceeding, we urged the Commission to require cable operators to carry *all* components of digital broadcast signals that are transmitted over the air for free, including all embedded data that enable or facilitate the functionality of electronic program guides ("EPGs").[1] This rule would ensure that viewers of digital television obtain complete and varied information about their programming options without the interference of cable systems intent on using their bottleneck power to protect and favor their own EPGs and steer viewers to cable-controlled content.

We are writing to reiterate our concern that the cable practice of stripping EPG information from the broadcast signal -- already a worrisome practice in the analog context --

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[1] *See* Comments of Gemstar International Group Limited and Starsight Telecast, Inc., in response to the Notice of Proposed Rulemaking, *Carriage of the Transmissions of Digital Television Broadcast Stations,* CS Docket No. 98-120 (Oct. 13, 1998) and Reply Comments of Gemstar International Group Limited and Starsight Telecast, Inc., *Carriage of the Transmissions of Digital Television Broadcast Stations,* CS Docket No. 98-120 (Dec. 22, 1998) (copies attached).

As in the analog context, this requirement should apply whether the broadcast station signal is carried pursuant to the must-carry rules or a retransmission consent agreement.

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will be carried over into the digital environment. In the fifteen months that have passed since we filed reply comments in the digital cable carriage proceeding, at least one cable operator has made clear its intentions to take control of the methods by which consumers learn about available programming choices -- by blocking or removing independent EPG information from broadcast signals. In March 2000, we were forced to file a Petition for Special Relief against Time Warner Cable, challenging Time Warner's practice of stripping EPG-enabling program information from the vertical blanking interval ("VBI") of local broadcast stations, and requesting a Commission order enforcing its analog cable carriage requirements to require Time Warner to discontinue stripping this program-related information from the broadcast signal.[2] Thus, in the analog context, at least one cable operator already is using its control over the predominant gateway to television homes both to impede the development of a market for independent EPGs and to frustrate the consumer's ability to choose an EPG.

Now, the threat of cable interference is extending into the digital environment -- where EPGs potentially represent an even more important element of consumers' viewing experiences. Interactive EPGs will facilitate the successful introduction and ultimate acceptance of DTV by simplifying and rationalizing the expanded digital channel landscape, making it easier for consumers to navigate and select from the array of channels available to them. However, cable systems are demanding retransmission consent language that would restrict free digital services and enhancements available to consumers and allow the cable systems to strip independent EPG data carried in a local broadcaster's DTV signal.

For instance, Time Warner, in a DTV retransmission consent agreement, asserts that it "retains and reserves" all rights to all signal distribution capacity contained in a local station's DTV bandwidth other than the bandwidth used for digital programming and content that falls within Time Warner's overly-restrictive definition of "Program-related Material" -- defined to include only closed-captioning, a single second language audio channel, program

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[2] *See* Petition for Special Relief of Gemstar International Group, Ltd. and Gemstar Development Corp. for Enforcement of the Communications Act of 1934, as Amended, and the Commission's Must-Carry Rules, CSR 5528-Z (filed March 16, 2000; Public Notice issued March 24, 2000 (DA 00-670)). *See also* 47 U.S.C. § 534(b)(3) (requiring cable systems to carry, where technically feasible, program-related information in the broadcast VBI).

In both the analog and the digital context, this conduct also contravenes Section 629(a) of the Communications Act, which requires to the Commission to ensure the commercial availability of navigation devices, including EPGs. 47 U.S.C. § 549(a). It also violates Section 76.1202 of the Commission's rules, which provides: "No multichannel video programming distributor shall . . . prevent navigation devices that do not perform conditional access or security functions from being made available to subscribers from . . . vendors that are unaffiliated with such owner or operator"). 47 C.F.R. § 76.1202.

identification codes, content advisory information, and material essential for the distribution of the signal. Another cable MSO would preclude the inclusion of "a program guide service" in the DTV signal of a station it is carrying. And a third is contractually disclaiming any requirement that it "carry or 'pass through' to its television subscribers any data, information, or electronic or other applications accompanying or imbedded within the primary digital broadcast signal of the Station." It is our understanding that these provisions are typical, and that cable companies are refusing to negotiate on these points.

These restrictions represent a concerted effort by the cable industry to hamper the development and ultimate success of digital services and benefits that local stations can provide to their communities, and specifically reflect a blatant attempt to stamp out competition from independent EPGs carried through the digital broadcast signal. Because the Commission is committed to protecting competition and preventing cable operators from exercising bottleneck control in the digital arena, it should ensure that consumers can access the EPGs that they have selected, purchased equipment for, and expect to receive -- whether they are cable subscribers or not. In short, the success or failure of interactive electronic program guides should be determined by the public, not by a cable operator that exploits its physical control over the broadcast signal to block competing services.

For these reasons, we urge the Commission to grant Gemstar's pending Petition for Special Relief against Time Warner, and to swiftly adopt DTV cable carriage rules that ensure the integrity of the digital broadcast signal by requiring cable operators to deliver the "free" portion of any digital television signal they carry, including all embedded data that enables or facilitates the functionality of EPGs.

Sincerely,

Stephen A. Weiswasser
Executive Vice President and
General Counsel

Attachments

cc: Commissioner Susan Ness
Commissioner Harold Furchtgott-Roth
Commissioner Michael Powell
Commissioner Gloria Tristani
Ms. Magalie Roman Salas
CS Docket No. 98-120 (2 copies)
CSR 5528-Z (2 copies)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of	)	
	)	
Carriage of the Transmissions	)	
of Digital Television Broadcast Stations	)	CS Docket No. 98-120
	)	
Amendments to Part 76	)	
of the Commission's Rules	)	

To: The Commission

COMMENTS OF
GEMSTAR INTERNATIONAL GROUP LIMITED
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October 13, 1998

COMMENTS OF GEMSTAR AND STARSIGHT
CS Docket No. 98-120
Carriage of the Transmissions of Digital Television Broadcast Stations
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EXECUTIVE SUMMARY

The Commission's concern that cable operators will attempt to extend their monopoly power to favor operator-owned electronic program guides ("EPGs") over unaffiliated EPGs is well-placed. The incentive for cable operators to take anticompetitive action against unaffiliated EPGs is at least as great as that which underlies the must carry and channel position requirements enacted by Congress, implemented by the Commission and upheld by the Supreme Court. The cable operator has a vested economic interest in preferring its EPG over unaffiliated guides and forcing consumers who subscribe to its cable system to use the operator's guide.

The Commission should exercise its statutory authority to preclude such anticompetitive conduct. Gemstar and its subsidiary StarSight (together, "G/S") are leading unaffiliated, developers and providers of interactive, on-screen electronic program guide ("EPG") advanced technology and services. These EPGs empower consumers to navigate, choose and maximize access to the burgeoning array of video programming, digital and analog, available via cable and other multichannel technologies. In this and other ways detailed in these Comments, G/S EPGs promote all of the major policy goals of this proceeding, particularly the overarching purpose of successful introduction of digital broadcast television ("DTV").

G/S are unaffiliated with operators and distribute their services to consumers directly or through varied arrangements, including those with broadcasters (who embed in their signals the stream of program information data necessary to the functioning of EPGs), cable operators (who can license S/G technology to develop and provide their own EPGs or joint venture with S/G to develop a guide) and equipment manufacturers (who make and sell, through retailers and otherwise, the receivers, set-top boxes and other equipment incorporating S/G EPG functionality). G/S's primary competition is cable operators who offer their own guides.

Rules requiring cable operators not to impede EPG program data or otherwise interfere with consumer use of unaffiliated EPGs, are essential to program diversity, competition, investment in advanced technology and the successful rollout of DTV because cable operators have precisely the same incentives to act anticompetitively against unaffiliated EPGs as against unaffiliated programming. These concerns are real, not just predictable. Some cable operators providing or planning proprietary EPGs have deliberately interrupted the use of equipment by consumers to receive the G/S data stream contained in broadcast signals already being carried on the cable system as must carry or retransmission consent. This interference has occurred in the analog environment and is technically possible and therefore anticipated in digital.

In either environment interference with unaffiliated EPG data is unjustified by any capacity or burden concern. In the digital realm the G/S EPG data will pass through automatically unless the operator strips it out or misdirects the G/S bitstream, which occupies an infinitesimal .00352 (about one-third of one percent) of a 6 MHZ channel. As in analog, pass-through is effortless; impedance requires operator equipment, affirmative steps and expense.

The Commission has ample authority to specify unimpeded EPG pass-through in its rules under Sections 614(b)(4)(B) (the source of this proceeding) and 629 (which the Commission is continuing to implement with respect to EPGs), and the Telecommunications Act of 1996 as a whole. There are no statutory or other impediments to effective Commission action, which is needed to prevent anticompetitive practices just as the public's reliance on EPGs is increasing.

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To: The Commission

COMMENTS OF
GEMSTAR INTERNATIONAL GROUP LIMITED
AND STARSIGHT TELECAST, INC.

Gemstar International Group Limited and its wholly-owned subsidiary, StarSight Telecast, Inc., hereinafter collectively referred to as "G/S," by their counsel, submit these Comments in response to the Commission's *Notice of Proposed Rulemaking* in the above-captioned proceeding.[1]

I. INTRODUCTION AND STATEMENT OF INTEREST

G/S are leading developers and providers of electronic program guide ("EPG") technology and services.[2] G/S are independent and unaffiliated with any cable operator. G/S and the local cable operator are today the most important competitive alternatives in providing

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[1] *Carriage of the Transmissions of Digital Television Broadcast Stations, Amendment to Part 76 of the Commission's Rules*, CS Docket No. 98-120, *Notice of Proposed Rulemaking*, FCC 98-153, 13 FCC Rcd 15092 (released July 10, 1998) (hereinafter "*Notice*"). The Commission extended the initial comment period to October 13, 1998, *Order*, DA 98-1719 (released August 27, 1998).

[2] Gemstar and StarSight produce and offer a variety of EPGs having different features and "look and feel" characteristics. The guides of both companies are evolving on an ongoing basis to include advances in technology and other innovations to enhance consumer choice. For convenience, in these Comments both sets of EPGs are collectively discussed under the abbreviation "G/S," though individual guides vary.

EPG service to the public. A consumer can obtain EPG services in two very different ways. First, he or she can buy EPG-enhanced equipment (licensed by an EPG creator such as G/S), together with a flow of updating program data. Second, a consumer can buy or obtain EPG service through his or her cable operator.

G/S have various contractual arrangements with broadcasters, cable operators, program producers and equipment manufacturers to provide consumers who have purchased G/S-capable equipment updated on-screen information about current and future programs. That information "feeds" the consumer EPG equipment. When a cable operator chooses to offer its own EPG service, the operator assures that its own EPG data reaches the consumer's equipment. But that operator has a strong incentive to block the data stream of unaffiliated EPGs, or to otherwise impede consumer use of equipment to receive them, in order to enhance the competitive position of the operator's own services.

G/S EPGs compete by offering consumers updated on-screen information (e.g., time, channel, date, description and genre or theme) for channels received by any method of delivery (cable, over-the-air broadcast, direct broadcast satellite ("DBS"), wireless cable or any combination thereof). G/S organize and present this wealth of program information for the consumer to access and use in multiple ways. One such way is by theme. For example, at the press of a button viewers may ascertain all of the children's, news, sports, captioned or other programs available on channels, and may direct current or future VCR recording of programs to maximize viewing options via time-shifting.

Through these and other features G/S EPGs empower the public to choose among competing program offerings, and to maximize access to them. Unless prevented from doing so,

consumers may also choose among competing EPGs. Many consumers opt to pay more for receivers, converter boxes and other equipment because they contain G/S guides.

For these reasons, G/S have participated in earlier Commission proceedings involving EPGs,[3] and appreciate the Commission's recognition in the *Notice* of the importance of this DTV proceeding to the competitive availability of EPG equipment and services.[4] The array of diverse programming continues to increase in an unprecedented manner. Even now, before the rollout of non-experimental DTV, the choice of 100 or more channels is not unusual.[5] The advent of digital, and advanced compression techniques, will make available a bewilderingly larger array of program choices. During the transition to DTV there could be as many as 3200 broadcast signals (twice the current 1600) as television stations simulcast in analog and digital.[6] Adding further complication, broadcasters can choose either DTV or multiple standard

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[3] Comments of Gemstar International Group Limited and StarSight Telecast, Inc. filed July 31, 1998 in *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 98-102, *Notice of Inquiry*, 13 FCC Rcd 13044 (1998); Reply Comments of Gemstar International Group Limited and StarSight Telecast, Inc. filed in *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket No. 97-80, *Notice of Proposed Rulemaking*, 12 FCC Rcd 5639 (1997); Comments of StarSight Telecast, Inc. filed in *Implementation of the Cable Television Consumer Protection and Competition Act of 1992 - Broadcast Signal Carriage Issues*, MM Docket No. 92-259, *Memorandum Opinion and Order*, 9 FCC Rcd 6723 (1994); and various ex parte submissions.

[4] *Notice*, at ¶ 82.

[5] By year-end 1998, the average cable customer is expected to receive 90 channels. See National Cable Television Association, *Cable Television Industry Overview as of April 1998* (visited October 12, 1998) <http:www.ncta.com/overview98_1.html>.

[6] *Notice*, at ¶ 9 n.40.

transmissions, or a mixture of both, over the course of a single broadcast day, and these choices can change during and after the transition.[7] The potential for confusion to viewers is enormous.

EPGs provide easy-to-use, continually updated information about the programming options and allow for selection among them. EPGs also reduce consumer confusion by combining different video components and simplifying program selection from equipment such as television receivers, set-top boxes and VCRs. Cable operators and programmers also benefit from the ability of consumers to navigate successfully among available offerings.

In the DTV environment, and in the transition to it from analog, EPGs unaffiliated with cable operators are vulnerable to precisely the same types of anticompetitive action that motivated Congress to codify must carry and channel position requirements for broadcast signals in 1992. Last year the Supreme Court recognized the substantial government interests in preventing these types of discrimination[8] experienced by G/S in rolling out their products and services.

G/S therefore direct these Comments to the critical EPG points raised in the *Notice*, particularly Paragraph 82. That paragraph asks whether EPGs and other services "present another series of challenges similar to those that gave rise to Congress' channel positioning requirements," and "whether any rules are necessary to ensure fair competition between [EPGs] controlled by cable operators" and those that are not.[9]

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[7] Id. at ¶ 19.

[8] *Notice*, at ¶ 15 ("Preserving the benefits of free, over-the-air broadcast television, promoting the widespread dissemination of information from a multiplicity of sources, and promoting fair competition in the market for television programming, were important governmental interests." citing *Turner Broadcasting v. FCC*, 117 S. Ct. 1174, 1190 (1997)).

[9] *Notice*, at ¶ 82.

As demonstrated in these Comments, the answer to both questions is "yes." To implement Section 629 of the Communications Act ("Competitive Availability of Navigation Devices"), on June 11, 1998, the Commission adopted Section 76.1201 of its rules. It provides that "No [MVPD] shall prevent the connection or use of navigational devices to or with its . . . system."[10] The Commission also found that, "based on the plain language of Section 629," EPG equipment "falls within the requirements of Section 629,"[11] and indicated its continuing concern for competitive provision of EPGs and intent to take further action as appropriate.[12]

The time for that action is now. To function, EPG-providing equipment must receive an uninterrupted stream of program information data. In the analog context, this stream is sometimes embedded by broadcasters in the vertical blanking intervals (VBIs) of their signals which are already carried on cable systems under must carry or retransmission consent. Some cable operators have affirmatively blocked consumer receipt of unaffiliated EPGs by stripping out this data stream, thereby disabling the equipment selected by consumers to receive G/S services. This has occurred in particular where a cable operator is developing or offering its own proprietary EPG to compete with G/S.

In the digital context, although there is no VBI, the same anticompetitive incentives apply and could be acted upon by a cable operator to prevent consumer receipt of a competitor's EPG. G/S respectfully ask the Commission to prevent this problem now, early in the DTV rollout.

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[10] 47 C.F.R. § 76.1201.

[11] *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket No. 97-80, *Report and Order*, 13 FCC Fcd 14775 (1998), at ¶ 116.

[12] Id.

This is essential to protect the public interest in the objectives of this proceeding, of Section 629 and of the Telecommunications Act of 1996 as a whole. To do this the Commission should require simply the undisturbed pass-through of EPG-related megabits as part of the entire 6 MHZ digital signal being retransmitted, and prohibit any interference with competing EPGs. The Commission should also use this opportunity to strengthen its prohibition of interference with consumer use of EPG-delivering analog equipment. Such action is necessary and appropriate to the orderly and effective transition from analog to digital, over which the Commission has broad, clear authority.[13]

II. UNAFFILIATED INTERACTIVE ELECTRONIC PROGRAM GUIDES ("EPGs") SUCH AS GEMSTAR'S AND STARSIGHT'S ARE IMPORTANT FACILITATORS OF THE STATUTORY GOALS OF THIS PROCEEDING, INCLUDING EFFECTIVE DTV IMPLEMENTATION

Unaffiliated EPGs, when not impeded anticompetitively by cable operators, promote and are vital to each of the Commission's cited statutory goals for this proceeding: "successful introduction of digital broadcast television . . .; retention of the strength and competitiveness of broadcast television; minimization of the disruption and costs to subscribers, cable operators, and

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[13] The Commission is urged to exercise its communications jurisdiction to the maximum extent that it can to address behavior that is anticompetitive and inconsistent with the Communications Act and its policy goals. This is vital notwithstanding that the behavior may also violate other provisions of law to which Commission jurisdiction does not necessarily extend (an example is interference with contract), or where other legal policies and remedies may be available and also help define the public interest. United States v. Radio Corporation of America, 358 U.S. 334 (1959). Commission action is essential to provide one element of the necessary relief.

cable programmers; while not inhibiting investment and innovation in technologies and services."[14] G/S advance these and other statutory goals in the following ways:

A. EPG Equipment, Data and Services Simplify Consumer Access to Expanding Competitive Program Choice

Unaffiliated EPGs are critical to the successful rollout of DTV, and to the statutory goal of maximizing consumer choice of diverse programming.[15] As detailed above, G/S provide consumers with user-friendly, real-time information about available programming, and simple navigation, selection and time-shifting of options for present and future viewing. As described in Section I of these Comments, EPGs will be increasingly critical to consumers seeking to navigate the exponential expansion of offered channels during and after the transition to digital.[16]

Though all types of consumers look increasingly to EPGs, they will be especially important to the nation's 23 million hearing-impaired.[17] In the transitional and DTV environment, keeping program information current is a strong challenge. G/S EPGs solve that

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[14] *Notice*, at ¶ 1.

[15] *See, e.g.*, Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992) ("Cable Television Act of 1992") ("There is a substantial governmental and First Amendment interest in promoting a diversity of views provided through multiple technology media.") and Cable Television Act of 1992 § 2(b)(1) ("It is the policy of the Congress in this Act to -- (1) promote the availability to the public of a diversity of views and information through cable television and other video distribution media."); *Notice*, at ¶ 15 ("The [Supreme] Court emphasized that . . . promoting the widespread dissemination of information from a multiplicity of sources, and promoting fair competition in the market for television programming, were important governmental interests." citing *Turner Broadcasting System v. FCC*, 117 S. Ct. 1174, 1186 (1997)).

[16] The Internet provides a ready analogy. Millions fewer Americans would use the Internet if there were not navigators of its proliferating options. The same is true of EPGs and proliferating choices involved in DTV implementation.

[17] *Closed Captioning and Video Description of Video Programming*," MM Dkt. No. 95-176, *Notice of Inquiry*, 10 FCC Rcd 4912 (1995), at ¶ 1.

problem for consumers by providing continuous electronic updates as scheduling and other information changes. For the hearing impaired, all G/S EPGs provide updated information about which programs are closed and open captioned, and the StarSight guide displays this information in menus which may be customized by the hearing-impaired viewer. In the past, print schedules have often proved unreliable with respect to captions. For example, some episodes of a program series have been captioned while others have not, and that has been difficult to determine accurately in advance. G/S EPGs solve this problem via continuous electronic updating of the data stream. This ability will become increasingly important as programming options multiply and stations move to comply with the Commission's recent mandatory captioning rules, which have their own phased transition.[18] In this way, competing EPGs promote the additional statutory goals of Section 713 of the Communications Act ("Video Programming Accessibility").[19]

B. Competitive EPGs Help Retain the Strength and Competitiveness of Broadcast Television

Unimpeded pass-through of any EPG data contained in the broadcast signal as it is provided to the cable headend for retransmission is essential to retain the strength and competitiveness of broadcast television. As noted above, Congress and the Commission have afforded broadcasters the flexibility to configure their digital spectrum so as to maximize the competitive attractiveness of their offerings. It would defeat this policy to allow cable operators

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[18] *Closed Captioning and Video Description of Video Programming*, MM Docket No. 95-176, *Order on Reconsideration*, FCC 98-236 (released October 2, 1998); *Implementation of Section 305 of the Telecommunications Act of 1996 - Video Programming Accessibility*, MM Docket No. 95-176, *Report and Order*, 13 FCC Rcd 3272 (1998).

[19] 47 U.S.C. § 613. In Section 713, added by Section 305 of the Telecommunications Act of 1996, Congress required the captioning of video programming by all distribution technologies to ensure access to persons with hearing disabilities.

to misdirect or otherwise impair the EPG-empowering data stream from broadcast signals. Prohibiting such impairment is within Commission authority and consistent with current law, as shown below. It is also necessary if broadcasters are to remain competitive for the same reasons that underlie must carry and channel position requirements.

C. Fair EPG Competition Promotes Investment and Innovation in Technologies and Services

In the *Notice* the Commission emphasizes its goal of "not inhibiting investment and innovation in technologies and services" while promoting other statutory goals. G/S and their investors (including the public) and joint venturers have invested hundreds of millions of dollars in pioneering EPG technology and innovation, and continue to do so. Such activity is inconsistent with the deliberate disabling of services by a cable competitor, and government intolerance for it should be crystal clear. The Commission should therefore adopt the rules referenced in Paragraph 82 of the *Notice*.

D. Unimpeded EPG Competition Is Essential To Successful DTV Rollout

Each of these three factors -- alleviation of viewer confusion, retention of broadcast competitiveness, and promoting investment in innovation -- is part of the overarching goal of successful DTV rollout. A great deal rides on that. Congress, the Commission, and all segments of the video programming industry have already expended huge resources to develop the framework and process for DTV introduction. Now, billions of dollars in investments are being undertaken by broadcasters, cable operators, equipment manufacturers and programmers. G/S are also investing heavily, as they have done for many years to achieve technological and service innovations, to advance EPG technology to serve DTV consumers. The global competitiveness of several major U.S. industry segments are also at stake.

EPGs, if not impeded anticompetitively, facilitate consumer acceptance of the new technology, both during and after the transition. To continue to facilitate statutory and Commission goals, G/S and other competitive EPG providers must be assured that they can reach the marketplace. G/S asks only that. Once there, each competitor will stand or fall based on consumer preference. The relief sought by G/S in this proceeding will simply ensure that consumers can exercise that preference.

III. RULES ARE NECESSARY TO ENSURE FAIR COMPETITION BETWEEN EPGS CONTROLLED BY CABLE OPERATORS AND THOSE THAT ARE NOT

A. The Commission's "Paragraph 82" Concerns Are Real and Must Be Addressed Effectively

Reaching the marketplace on an equal footing with competitors is precisely what Congress sought to achieve in Section 614. The Commission is right to pose the questions of Paragraph 82 of the Notice. In full, those questions are:

> We also seek comment on whether advanced programming retrieval systems and other channel selection devices provided by cable operators which, in effect, filter and prioritize programming, represent another series of challenges similar to those that gave rise to Congress' channel positioning requirements. If so, we ask whether any rules are necessary to ensure fair competition between electronic programming guides controlled by cable operators and those that are controlled by broadcasters.

The answers are yes, not only for EPGs controlled by broadcasters, but for all EPGs not affiliated with the cable operator which retransmits the signal containing the EPG data or that provides its own proprietary EPG. When a broadcaster includes EPG data in its signal, whether in the VBI or a digital bitstream, the EPG in question is at least contractually controlled by or affiliated with the broadcaster. Commission DTV rules should require cable retransmission of the entire 6 MHZ of the broadcast signal, without tampering by the operator. Commission

concern, however, should extend to all EPGs that are independent of the cable operator, for they all face the same anticompetitive incentives. A central goal of the 1996 Act is to promote competition and the deployment of advanced technology in all telecommunications markets from diverse sources.[20]

Like road maps, EPGs rapidly are becoming essential to navigate program choices. For this reason, cable operators (and other MVPDs) offer or plan to offer their own EPGs to their subscribers. But EPG competition is possible only if consumers have unimpeded access to the program data streams from all EPG providers. Some cable operators have at times viewed it as advantageous to engage in anticompetitive behavior against unaffiliated EPG providers by affirmatively stripping the data streams. If successful, the effects of this could include:

- Consumers could be left stranded, deprived of choice and the investment they have made in EPG-enhanced equipment. G/S-ready receivers, for example, contain the G/S EPG functionality, and consumers choose the sets partly on that basis and pay more for them. If a cable operator disables the data stream, the functionality may not work.

- The retailer, the set manufacturer, and the EPG provider all are deprived of the benefits of their agreements with one another.

- Technological innovation could be stifled.

- The competitive EPG marketplace could be undermined and consumers could be limited to the single EPG provider selected by their cable operator, no matter how good or bad or whether the functions and "look and feel" of the guide meet the consumer's needs and preferences. That is precisely what Congress, in Section 629 of the Act, sought to prevent:

> One purpose of this Section is to help ensure that consumers are not forced to purchase or lease a specific,

[20] *See* H.R. Conf. Rep. No. 104-230 (1996).

proprietary converter box, interactive device or other equipment from the cable system or network operator.[21]

B. The Concerns Underlying Must Carry and Channel Positioning Apply Directly to the EPG Market

These are exactly the kinds of consequences that Congress sought to prevent in the must carry and channel position requirements.[22] The statute and its legislative history make this clear:

> A cable television system which carries the signal of a local television broadcaster is assisting the broadcaster to increase its viewership and thereby attract additional advertising revenues that otherwise might be earned by the cable system operator. *As a result there is an economic incentive for cable systems to terminate the retransmission of the broadcast signal, refuse to carry new signals, or reposition a broadcast signal to a disadvantageous channel position.* 47 U.S.C. § 521(a)(15) (emphasis added).

> The conferees find that the must-carry and channel positioning provisions in the bill are the only means to protect the federal system of television allocations, and to promote competition in local markets. H.R. Conf. Rep. No. 102-862, 102d Cong., 2d Sess. 1 (1992), reprinted at Cong. Rec. 1-8 8308, H8327 (daily ed. September 14, 1992).

> Cable television systems and broadcast television stations increasingly compete for television advertising and audience. *A cable system has a direct financial interest in promoting those channels on which it sells advertising or owns programming. As a result, there is an economic incentive for cable systems to deny carriage to local broadcast signals, or to reposition signals to disadvantageous channel positions, or both.* Absent reimposition of must carry and channel positioning requirements, such activity could occur, thereby threatening diversity, economic competition, and the Federal television broadcast allocation structure in local markets across the country. *Id.*

In the quoted authority, the Commission need only substitute "unaffiliated EPG data" for "broadcast signal" or "programming" to discern the analogy to EPGs. EPGs unaffiliated with a

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[21] H.R. Conf. Rep. No. 104-230, at 181 (1996).

[22] Only last year the Supreme Court upheld the substantial governmental interests in preventing the consequences, and the Congressional approach to preventing them. Turner Broadcasting System v. FCC, 117 S. Ct. 1174 (1997).

cable operator face precisely the same economically-motivated discrimination from operators with their own competing EPGs. The incentives are to delete the competing EPG entirely, or to make it more difficult for the consumer to receive it.

Congress also recognized that the timing of exercise of the incentives can also be critical. Congress therefore prohibited even permissible carriage changes during "sweeps" periods when ratings services measure local television audiences.[23] Timing is also important for EPGs. Certain cable operators have disabled competing EPGs even before the operator has an operational product to offer. This has occurred at the outset of introduction of new products and features by G/S. The Commission should act now, at the outset of DTV deployment, to prohibit interference clearly and permanently.

C. In the Digital Environment, Fair Competition in the EPG Market Is Essential to Fair Competition in the Program Market

Unchecked EPG data stripping can also have the effect of restoring to cable operators the video program discrimination abilities lost by operators under must carry. The placement of programs on menus in the EPG directly affects the availability of programs to consumers as a practical matter, and therefore can skew consumer viewing habits. A cable operator can act anticompetitively to eliminate competing guides and favor programming it owns in its proprietary guide. In other words, EPGs now provide the functional equivalent of channel positioning. They can be used to determine the order and manner in which program listings are presented to the viewer. Program order differs among competing guides. Fair competition in the EPG market is therefore an essential component of competitiveness in the video programming market.

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[23] 47 U.S.C. § 534(b)(9).

In short, there is no rational way to conclude from the Communications Act, or any part of it, that a cable operator can lawfully make itself the only "filter and prioritizer"[24] of programming in EPGs, but not otherwise.

IV. THE COMMISSION SHOULD, IN THIS PROCEEDING, PROHIBIT INTERFERENCE WITH THE PASS-THROUGH OF COMPETING EPGS DURING AND AFTER THE TRANSITION TO DTV

The data-stripping activity described above in the analog context has been made known to and recognized by the Commission in prior proceedings, and has occurred in G/S' experience earlier this year. This, and the legal and policy grounds detailed in these Comments, provide a basis for further Commission action in accord with the result of the Navigational Devices proceeding. Cable operators cannot be allowed to be the gatekeeper of unaffiliated EPGs any more than they are allowed to discriminate against the unaffiliated programming that the guides make accessible to viewers. To preclude gatekeeper action, the Commission need only require non-interference with the pass-through of EPG data that is already contained in broadcast signals which cable systems retransmit pursuant to must carry or retransmission consent, and prohibit interference by other means. The Commission has the authority to do this, and there are no legal or practical impediments to it.

A. The Commission Has Ample Authority to Require Unimpeded Pass-through of Competing EPG Data and Services

The Commission correctly concludes that it now has broad authority to define the scope of a cable operator's signal carriage requirements.[25] That authority stems from Section

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[24] *Notice*, at ¶ 82.

[25] *Notice*, at ¶ 13.

614(b)(4)(B), Section 629, several other provisions of the Communications Act, and the intent of Congress as reflected in legislative history. Section 614(b)(4)(B) requires that this proceeding be held "to establish *any changes in the signal carriage requirements of cable television systems necessary to ensure cable carriage of*. . . [local broadcast signals converting to DTV]" (emphasis added). The Commission has prescribed modified standards for those local stations that encompass the conversion to DTV, in which EPGs will play a critical role. It would be antithetical to those standards, and to the statutory goals of this proceeding, to tolerate the parsing of the broadcast signal by cable operators for anticompetitive gain.[26]

The unprecedented broad sweep of the changes involved in DTV implementation requires the broad scope of this proceeding. The Commission is right to examine differences since adoption of the Cable Act of 1992 and its signal carriage provisions.[27] Those differences include:

- Enactment and Commission implementation of Section 629, which precludes the impairment of consumer use of navigational equipment, including equipment that delivers EPGs;[28]

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[26] The Commission's authority in this proceeding encompasses analog as well as digital cable retransmission of competing EPG data. There is no "flashcut" transition from analog to digital, and simulcasting of both will occur over a period of years. Analog signal carriage during the transition is therefore clearly encompassed in the discretion conferred upon the Commission by Section 614(b)(4)(B). Authority over analog also comes from Section 629, which does not differentiate between analog and digital. From a policy standpoint, the same anticompetitive incentives, and an ability to act on them, apply to both modes of transmission. Consumers will need to continue to rely on analog transmission of EPG data at least through the end of the transition. Requiring unimpeded pass-through of EPG data, and other non-interference with consumer receipt of EPG services, is necessary not only to the transition, but to implement the Commission's implementation of Section 629 and overriding competitive and technology-encouraging goals of the Communications Act.

[27] *Notice* at ¶ 16.

[28] 47 C.F.R. § 76.1201.

- The growth and expansion of EPG technology and services, and the increasing reliance of consumers upon them as the DTV conversion approaches;

- The continuing gatekeeper role of cable operators, to whom competition has been slow to develop;[29] and

- The willingness of some cable operators, who offer or plan their own EPGs, to disable competing EPGs.

Each of these developments supports Commission action to require EPG pass-through and prohibit other interference. In addition to Section 614(b)(4)(B), authority for this action is found in the Commission's fundamental empowerment to act with respect to recognized concerns in the public interest.[30] Congress and the Commission when implementing statutory requirements, may act preventatively.[31]

B. There Are No Legal Impediments to Commission Action to Assure EPG Pass-through

Neither Section 614(b)(3) nor Section 336(b)(3) is an obstacle to the relief sought in these Comments. Section 614(b)(3) is part of the 1992 must carry provisions which the Commission

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[29] *See Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 97-141, *Fourth Annual Report*, 13 FCC Rcd 1034 (1988) at ¶ ¶ 15, 55, and 75 (DBS systems had a total of 5.1 million subscribers as of June 1997 compared to 64.2 million cable subscribers while wireless cable had 1,100,000 subscribers).

[30] 47 U.S.C. Sections 4(i), 303(r). The concerns about EPG availability were expressed in the Navigational Devices proceeding. *See Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigational Devices* CS Docket No. 97-80, ***Report and Order***, 13 FCC Rcd 14775 (1998), at ¶ 116 and Separate Statement of Chairman William E. Kennard.

[31] *Turner Broadcasting System v. FCC*, 117 S. Ct. 1174, 6 Comm. Reg. (P&F) 829, 839 (1997) (upholding Commission "predictive judgments" as basis for action). See also, 47 U.S.C. Section154(i) (The Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act as may be necessary in the execution of its functions.)

must reassess pursuant to Section 614(b)(4)(B). The VBI will be used for EPG data only on a transitional basis. In the digital environment, the VBI disappears, and EPG data becomes bitstreams in a tiny portion of the 6 MHZ of broadcast spectrum (see the discussion of no capacity issue below).

VBI retransmission has never been prohibited, and has always been discretionary.[32] The Commission is required to adjust the signal carriage requirements of cable television systems in connection with the transition to digital. EPGs are important to that transition. In light of the competitive and technology considerations involved, the Commission can conclude that it is not in the public interest to permit the affirmative stripping of the one line of the VBI of one retransmitted signal that contains a competing EPG 's data during the DTV transition.

Section 336(b)(3)'s provision that "no ancillary or supplementary service shall have any rights to carriage under section 614 or 615 or be deemed a[n MVPD] for purposes of Section 628 ("Development of Competition and Diversity in Video Programming Distribution") is also no barrier to the relief sought. G/S EPGs are not within the scope of the services addressed by the Section. As the *Notice* itself notes, the legislative history makes clear that Congress intended not to "confer must carry status on *advanced television or other video services offered on designated frequencies.*"[33] G/S services do not fit these categories.[34]

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[32] As there is no VBI in digital, there is no issue in digital as to inclusion in the retransmitted digital signal of material carried in VBI lines in analog. The entire 6 MHZ signal should be required to be retransmitted as received at the cable headend.

[33] *Notice*, at ¶ 8 (emphasis added).

[34] G/S believes that its guides are program-related and, therefore, not ancillary and supplemental. In addition, most G/S guides are not provided on a subscription basis now, and subscriptions will be phased out completely over time.

C. There Are No Burden, Capacity or Other Practical Impediments to Undisturbed Pass-through of EPG Data

In the digital (and analog) modes, pass-through of EPG data occurs unless impeded. Pass-through requires nothing of the digital cable operator, other than refraining from configuring set-top boxes or using other equipment to separate, misdirect or waylay particular bits as they are included in and "addressed" in the digital stream. Stripping the EPG data, in contrast, requires several affirmative acts and items of expense, such as separating or diverting megabits from their proper destination.[15]

There is absolutely no capacity issue involved in digital (or analog) retransmission of EPG data. The cable operator should be required to retransmit whole the 6 MHZ of spectrum. For the record, this should not be burdensome; for example, "[c]able operators are replacing some analog channels with a digital tier of new channels at compression ratios as high as 12:1."[16] For the record, however, the number of bits required is an infinitesimal fraction of the 6 MHZ signal. Six MHZ involves 6,000,000 bits per second. Assuming a relatively slow EPG data rate of 19,200 bits per second, plus an EPG "overhead" of ten percent, EPG data would "occupy" 21,120 hits per second, which is .00352, or slightly more than one-third of one percent, of the total data stream.[17]

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[15] Stripping analog-transmitted EPG data requires equipment to identify and remove the one VBI line out of the 1000 in a 50-channel cable system that carries the data. Each broadcast signal, and each cable programming channel, has 22 VBI lines. The vast majority of these is unused and vacant. Many are under the control of the cable operator and available for its own use if desired.

[16] National Cable Television Association, *Cable Television Industry Overview as of April, 1998: Digital Cable TV* (visited October 12, 1998) <http://www.ncta.com/overview98_2.html>.

[17] Source: Tom Morris, Engineer, StarSight Telecast, Inc.

V. CONCLUSION AND RELIEF SOUGHT

For the multiple policy, legal and practical reasons set out in these Comments, Gemstar and StarSight respectfully urge the Commission to use the occasion of this statutorily required proceeding, as well as the ample other authority available, to take the following necessary actions:

1) Include in the rules adopted the simple, universal requirement that cable operators not disturb the pass-through of EPG data to consumers, or otherwise impede consumer access to competing EPGs by any means, in either the digital or analog environments;

2) Apply these pass-through and anti-interference requirements to both must carry and retransmission consent carriage of broadcast signals;

3) Provide for streamlined, time-certain resolution of allegations of violation of the general requirement, such as within 120 days as is currently required for resolution of must-carry complaints,[18] as it is unlikely that EPG data impairment would raise issues of greater complexity than non-carriage of the broadcast signal itself;

4) Require that the complete 6 MHZ of the digital broadcast signal be retransmitted as delivered to the cable headend, without tampering by the operator;

5) Avoid reliance on A/B switches or antennas as a substitute for signal carriage requirements, as terrain factors remain critical to reception in digital as well as analog transmissions, and both involve radio frequency transmissions subject to interference.[19]

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[18] 47 U.S.C. § 534(d)(3); 47 C.F.R. § 76.61.

[19] *Notice*, at ¶ ¶ 88-89.

By these simple, relatively modest and easily administered steps, the Commission will achieve a significant advance in the statutory objectives of this proceeding, not the least of which is the facilitation of the successful transition to DTV.

Respectfully submitted,

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