Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Nondiscrimination in the Distribution of Interactive Television Services Over Cable	)	CS Docket No. 01-7
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	)	
	)	

TO: The Commission

COMMENTS OF
GEMSTAR-TV GUIDE INTERNATIONAL, INC.

Gemstar-TV Guide International, Inc. ("Gemstar") supports the premise of the Commission's *Notice of Inquiry* in this proceeding that vertically-integrated multichannel video programming distributors have the capacity and in some cases the incentive to manipulate the fledgling interactive television ("ITV") market in ways that would protect the distributors' own commercial interests at the expense of the public's interest in new services. [1]

Gemstar's own experience in the distribution of its electronic program guide ("EPG") system offers clear evidence of the cable industry's willingness to use anti-competitive means to hinder the roll-out of consumer-friendly technology that challenges its products and business interests.[2] To protect against similar anti-competitive behavior in the ITV context, Gemstar urges the Commission to enunciate a broad principle of nondiscrimination designed to

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[1] Notice of Inquiry, *In re Nondiscrimination in the Distribution of Interactive Television Services Over Cable*, CS Docket No. 01-7, FCC 01-15 (rel. Jan. 18, 2001) ("*Notice*").

[2] *See In re Petition for Special Relief of Gemstar International Group Limited*, CSR-5528-Z (filed Mar. 16, 2000) ("*Gemstar Petition*"). Although no cable operator currently is, to Gemstar's knowledge, engaged in the process of "stripping" Gemstar's VBI-delivered program information, at least one operator admittedly did so in the past.

ensure that those taking the risk of developing new ITV products and services have a full and fair opportunity to market their products to consumers. The public interest will be served only if ITV businesses succeed or fail not because of competitive predation but because of consumer response to their products. A nondiscrimination principle that applies broadly to all forms of interactive television will both (i) protect against the emergence of an ITV marketplace shaped not by consumers but by those who control the ITV distribution platforms and (ii) encourage the kind of entrepreneurial, creative activity that will maximize the development of innovative, interactive content and services.

However, given the fluid and dynamic nature of the interactive television business, the nondiscrimination principle will not accomplish these goals unless the Commission itself takes care in this proceeding to avoid narrow, preclusive preconceptions of how interactive television products will work, what content they will offer, and how they will interact with television signals or multichannel video distribution platforms. The *Notice of Inquiry* threatens to make just the type of preclusive assumptions – about program guides, for example – about which we are concerned. The *Notice* suggests that a "pure EPG service" might not need protection against discrimination because data supporting the guide would not need to be synchronized with any video programming signal.[3] To the extent that the *Notice* assumes that EPG data will travel with, but not interact with or relate to, a broadcast signal, we believe it underestimates the capacity of future generations of EPGs and misunderstands how they will function. In fact, guides of the near future will offer consumers a rich and exciting interactive experience, including features that will require synchronization with video signals the consumer may receive from a variety of distribution sources.

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[3] *Notice*, ¶ 15.

For example, through a combination of downloaded data transmissions, electronic "triggers" embedded in analog or digital television broadcast signals, computer processing capability and a two-way connection (primarily using two-way paging frequencies), Gemstar's next-generation EPG would allow viewers using nothing more than their television remote controls to:

- Receive, on any channel they may be watching, customized text notification of real-time developments on subjects in which they may be interested (such as the updated score of the home team's big game or a change in the price of a stock they follow) and jump immediately to a channel offering further details about the new development;
- Watch a program on the guide while simultaneously obtaining information about an aspect of the program (for example, a product advertised or used during the program) and ordering the product;
- Order merchandise from a home shopping program simply by clicking on an icon superimposed on the television screen; and
- Obtain information about and order products advertised directly in the guide.

These features will be available to virtually any consumer with access to analog *or* digital television broadcast signals. They will not be limited only to those who can afford a premium digital cable or satellite service.

The advanced EPGs described above are clearly "interactive television" – that is, "a service that supports subscriber-initiated choices or actions that are related to one or more video programming streams."[4] The Commission identifies three "building blocks" of an ITV

[4] *Notice*, ¶ 6. The Gemstar guides depart from this definition in one respect, but only because of the Commission's inaccurate assumption that all ITV services are subscription-based. Purchasers of Gemstar EPG-equipped products will not be charged a subscription fee to take advantage of the interactive features because the service will be advertiser-supported.

distribution system: (1) a video stream; (2) a two-way connection between the consumer and the ITV provider; and (3) specialized customer premises equipment.[5]

Gemstar's advanced guides will include each of these components. First, many of the guide's interactive features will be launched by electronic "triggers" embedded in video streams containing programming or information to which the triggered information is related.[6] For example, data and triggers in a sports broadcast would prompt the guide to output sports updates on the consumer's receiver and a trigger in a home shopping broadcast would prompt the guide to launch the appropriate graphical overlay allowing the consumer to order the product displayed.

Second, the Gemstar system will include a two-way connection (probably using a two-way paging frequency) that enables the consumer to communicate with Gemstar and its ITV partners. The two-way connection, among other things, would allow the consumer to customize the programming and datatext delivered to the system and to order in real time products displayed or advertised on the receiver.[7] This two-way connection will function in the manner contemplated by the Commission – that is, it will transmit upstream requests from consumers and downstream information from the ITV provider.[8]

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[5] *Notice*, ¶¶ 10-13.

[6] The Gemstar triggers could use the ATVEF standard, but they need not do so because the Gemstar system will operate independently of the consumer's Internet connection.

[7] Product orders will be communicated to Gemstar, which will compile the order information and pass it along to the relevant advertiser or other ITV partner.

[8] The Gemstar ITV content need not be broadcast using the video pipeline or transmitted over the consumer's Internet connection. *See Notice*, ¶ 12. Gemstar's downstream data could be delivered through a broadcaster's video transmission (particularly to early-generation receivers not equipped with a module capable of receiving transmissions over two-way paging frequencies), but it need not be so delivered in all circumstances. Upstream requests would be transmitted directly to Gemstar (not over the Internet).

Finally, the Gemstar system will include specialized customer premises equipment. The EPG's processing unit, which may be incorporated into a set-top box or television receiver, will drive the guide's interactive features. The processor will be capable of accessing information stored in the processor's memory or received in real time.

Even if Gemstar's advanced guides do not use a cable system's video bandwidth directly, the advanced interactive EPG services, like other interactive television services, will be vulnerable to interference by a cable system or other entity controlling the video distribution platform. As we have noted above, Gemstar has already faced analogous interference from cable operators stripping EPG programming data transmitted in the VBI of broadcast programming.[9] Here, because the triggers embedded in the video signal will be essential to the proper functioning of the system, an entity controlling the delivery of the broadcast programming containing the triggers could seek – by stripping, disabling, or otherwise interfering with the triggers – to destroy or degrade the functionality of the EPG's interactive features.

With regard to Gemstar's VBI-delivered EPG program data, the Commission chose not to adopt a rule or policy to protect against cable interference, treating the matter as a request for adjudication. Here, however, the stakes are much broader. The Commission is faced not with one innovative entrepreneur with a specific product and particular problem. Rather, there are dozens of entities, using a variety of technologies, offering multiple overlapping and unique services – all of which face the risk of having their prospects squelched by cable operators intent on protecting their own products and services from competition. These ITV entrepreneurs should win or lose in the marketplace on their merits – not because of anti-competitive behavior by self-interested gatekeepers. In short, the Commission needs to assure

[9] *See Gemstar Petition*, *supra* note 2.

innovative ITV risk-takers that cable operators and other multichannel video programming providers that themselves offer ITV services will not be permitted to use their control over the video signals on their systems to disadvantage competing ITV providers (and consumers) by depriving consumers of the full functionality of their services. Without such broad, policy-based assurance, ITV innovation will be stymied in its infancy.

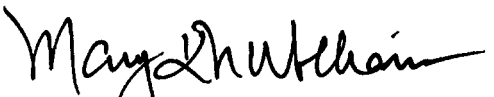
It is, to be sure, unclear at this time precisely what steps the Commission will need to take to protect unaffiliated ITV providers from discrimination by ITV providers that also control a video distribution platform. That is not surprising given the breadth of technologies and services ITV providers will develop. For now, we think it appropriate that the Commission adopt a general principle of nondiscrimination that will remain viable over time and that announces an unambiguous intention to protect ITV services from anti-competitive interference. Under that approach, an entity offering any of a broad range of technologically-varied interactive services that turn out to be vulnerable to discrimination should have early and speedy recourse to the Commission to remedy the discriminatory practices the most promising of them almost surely will face. Given the speed of change that can be expected in the competitive marketplace already being formed, regulatory uncertainty and delay in adopting this simple principle will have an immediate, adverse impact on the development of innovative ITV services.

CONCLUSION

For the foregoing reasons, Gemstar urges the Commission to adopt a general principle of nondiscrimination that it can adapt over time as necessary to ensure that consumers have full and fair access to a wide range of interactive television offerings made available to them.

Respectfully submitted,

GEMSTAR-TV GUIDE INTERNATIONAL, INC.



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