The (WALT DISNEP Company

Marsha J. MacBride
Vice President
Government Relations

September 26, 2000

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Room TWB204
Washington, D.C. 20054

Ex Parte Presentation in Docket No. 00-30

Dear Ms. Roman Salas:

Pursuant to Section 1.1206 of the Commission's rules, an original and one copy of this letter are being filed as notice that representatives of The Walt Disney Company (Disney) attended a meeting on September 25, 2000, with Darryl Cooper, Attorney Advisor and Nancy Stevenson, of the FCC's Cable Services Bureau, along with several members of the staff of the Federal Trade Commission, to discuss issues relating to the pending merger between AOL and Time Warner. Representing Disney were Eric Haseltine, Executive Vice President, Robert Lambert, Senior Vice President, Peter Seymour, Vice President, Strategic Planning, James Olson and Mark Schildkraut (Legal Counsel, Howrey Simon Arnold & White), and myself.

The parties discussed issues raised by Disney in its comments and letters filed in this proceeding. Disney addressed concerns regarding the technical ability of the merged entity to discriminate against non-affiliated program providers, as outlined in its *ex parte* filing dated September 14, 2000. Specifically, Disney reviewed the various ways interactive triggers work in a cable system and the means by which such triggers could be stripped out or disabled in the downstream signal, at the router, or in the set top box. Attached is a white paper summarizing Disney's arguments. Disney also reviewed the elements that it believes are necessary to ensure meaningful non-discrimination and open access.

No. of Copies rec'd _O+1_
List A B C D E

Yours truly,

Marsha J. MacBride

cc: Darryl Cooper, Attorney
Nancy Stevenson, Attorney
James Bird, Office of General Counsel
Royce Dickens, Cable Services Bureau
Linda Senecal, Cable Services Bureau

CONTROL OF THE RETURN PATH
FOR INTERACTIVE TELEVISION

SUPPLEMENTAL MEMORANDUM OF THE WALT DISNEY COMPANY

PREPARED BY

ERIC HASELTINE, PH.D.

EXECUTIVE VICE PRESIDENT

WALT DISNEY IMAGINEERING RESEARCH & DEVELOPMENT, INC.

TO THE

FEDERAL TRADE COMMISSION

CONCERNING

AMERICA ONLINE, INC.'S

PROPOSED ACQUISITION OF

TIME WARNER INC.

The Walt Disney Company
   Louis M. Meisinger
   Executive Vice President &
   General Counsel

   Kenneth E. Newman
   Senior Vice President-
   Eastern Regional Counsel

Howrey Simon Arnold & White, LLP
   James F. Rill
   Marc G. Schildkraut
   James W. Olson
   Lisa Jose Fales
   Scott F. Weisman

September 25, 2000
Washington, D.C.

Scope

This document outlines technical means by which AOL/TW can discriminate against return path transactions from Interactive TV services of non-affiliated content providers. The analysis will first describe how Interactive TV services are delivered to consumers, and then explain how AOL/TW can exert discriminatory control at multiple stages of the ITV delivery system.

How ITV is delivered through a cable system
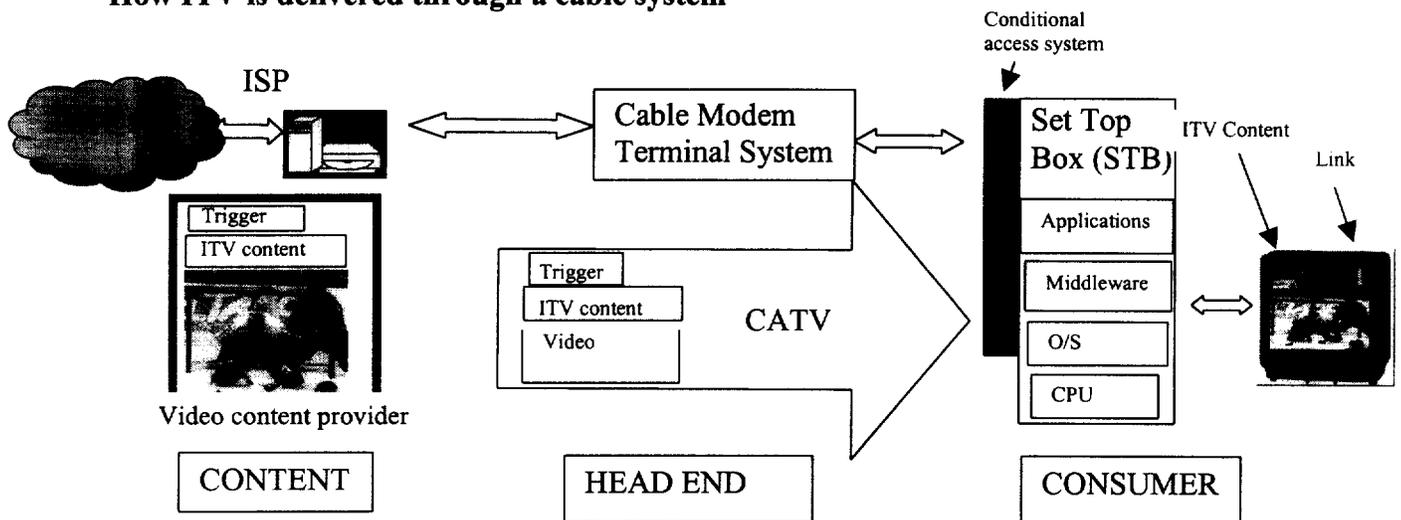
MSO's deliver ITV services by combining video and data in the cable head end, and sending them down a single cable to a digital set top box in a consumer's home. Downstream data for interactive applications are delivered in the main video signal, through a cable modem in the set top box, or through both the video and cable modem data streams. Upstream data *from* the set top box pass from the set top's cable modem to a router in the cable head end, called a Cable Modem Terminal System (CMTS), where they are routed to an ISP and then to the Internet.

ITV data, such as HTML pages, when delivered to the STB are processed by applications (such as web browsers) and are then displayed on the TV screen through middleware (e.g. a JAVA Virtual Machine) and the STB's operating system and CPU.

Conditional access hardware and software connected to the STB control video and data signals that may be used by the STB.

Video content owners who want to deliver interactive TV services embed two kinds of data into the video signal sent to an MSO. The first type of data, called a trigger, holds the address of a web site or local data cache that serves up the second type of data, ITV content. In this example, the enhanced ITV content is a play-along game for a sports program. Formats for both triggers and ITV content are based upon Internet standards and are governed by industry organizations such as ATVEF (Advanced Television Enhancement Forum). There are two types of ATVEF content, ATVEF-A in which triggers that cause the STB to fetch ITV content from the Web are embedded in the video signal, and ATVEF-B where ITV content is actually carried in the video signal.

The set top box, upon receiving the video with embedded ATVEF data first reads the trigger then displays an icon on the screen, alerting the viewer that enhanced content is available. When the viewer clicks his remote on the link, the set top box then fetches and displays the enhanced ITV content. If this content was shipped down with the video, the STB will retrieve this information from its own memory. If not, it will use the address in the trigger to get the content from the web, through the ISP service attached to the same STB. This second method can be much less desirable than the first, because in many cases, the enhanced data are intended to be frame synchronous with the video (for example secondary audio channels), and retrieving them from the Web destroys this synchrony.

It is also possible for users to access interactive content by launching a Web browser, typing in the URL of an enhanced content site, and downloading the content. However, in addition to destroying or severely weakening synchrony between the enhanced data and video, this approach imposes a major inconvenience on consumers.

After the initial download of ITV content from the video stream or the Web, users interact with the content both locally (e.g. by browsing player statistics stored in the STB memory) and by sending and receiving additional information (such as Instant Messaging traffic, or e-commerce transactions) to and from the appropriate Web site via the return path.

TW has complete control over the ITV delivery system

It's now easy to see how AOL/TW, who control the downstream signal, the set top box (STB) hardware, set top applications, middleware, operating software and return path from the STB, can discriminate against return path transactions in many different ways.

<u>Stripping ITVsignals</u>

The simplest method of eliminating return path transactions from non-affiliated content providers ITV programs is for AOL/TW to strip ATVEF triggers out of the video signal, so that STBs will have no address from which to retrieve ITV content or updates through the return path. Such stripping is easily accomplished by off the shelf technology,

whether the video signal is delivered in analog or digital format. TW was until recently stripping out such data (e.g., competing electronic program guides) from the vertical blanking interval of analog video.

AOL/TW could also choose to pass ATVEF A signals, but not ATVEF B data, thereby requiring users to download ITV content from the web through an ISP. This would slow down the delivery of enhanced content and disrupt synchronization of data with video (synchronization is critical in many applications, such as auxiliary audio delivery).

Ignoring ITV signals

Because AOL/TW control STB software, they can pass ATVEF data to the box, but program the box to ignore the data from non-affiliated content providers. This capability is well within the bounds of the ATVEF specification for Enhanced Content (1999), which stipulates in Section 1.1.5 *"Receiver implementations will set their own policy for allowing users to turn on or off enhanced TV content..."*

Control through Conditional Access (CA)

Although the Open Cable specification compels all STB providers to adhere to certain standards, it left to the MSO's discretion how they would handle conditional access. The Open Cable specification only requires that the STB interface to the Conditional Access hardware, called POD (for Point of Deployment) device, comply with certain specifications. The Open Cable specification permits a proprietary implementation and control of the POD. Furthermore, even when consumers buy Open Cable compliant STB's from third parties, AOL must provide CA hardware and software components that are uniquely compatible with their distribution system. Since it is possible for a STB CA system to differentiate between video, audio and data portions of a video signal, AOL/TW could restrict access (on a consumer-by-consumer and channel-by-channel basis) to portions of the downstream signal that contain triggers and ITV content, thereby discriminating against trigger-enabled return path transactions of non-affiliated content or service providers. AOL/TW's ability to selectively deny access to video triggers that fetch ITV content from the Web is present even if consumers connect to alternate ISPs through return paths (such as narrowband or broadband telephone lines) that are completely separate from the cable service.

Control through the CMTS in the head end.

Data traffic to and from the STB cable modem is controlled at the CMTS in the head end. The DOCSIS Specification 1.1 for cable modem systems that stipulates that such CMTS systems must support different Quality of Service levels for both downstream and upstream traffic, on a user-by-user basis. Cisco, a leading supplier of CMTS technology, offers a product called CISCO IoS that implements these standards. Here is an excerpt from product literature describing CISCO IoS's capabilities:

3

- *Peak upstream sustained rate* enables service providers to set a limit on the transmission rate of any single customer to prevent "bandwidth hogging."

- *Peak downstream sustained rate* enables similar limits on downstream transmissions.

- *Upstream traffic priority* enables service providers to prioritize traffic streams based on traffic type or on a premium paid for preferential service.

- *Guaranteed upstream rate* works like the committed information rate (CIR) in ATM and Frame Relay networks to ensure that customers receive a minimum amount of bandwidth at all times. Users can burst above this rate when network capacity is available.

Thus, AOL/TW can, as it sees fit, either deny return path access on a subscriber-by-subscriber basis (by dialing bit rate down to zero) or provide inferior quality of service.

AOL/TW can also discriminate against return path transactions even if TW passes upstream signals to the head end. It need only place filters in their head end routers that prevent connections or provide inferior quality of service to IP addresses of Web sites that provide ITV content to non-affiliated content providers programming. These filters are similar to those used for allowing parents to limit their children's access to certain web sites, or by companies to limit employees access to streaming media sites.

AOL/TW can discriminate through the above methods whether they provide ISP service to the STB, or they let consumers use alternate ISPs because all return path traffic, regardless of which ISP it eventually goes to, must first pass through an AOL/TW controlled CMTS.

The power that AOL/TW will have over controlling data traffic in and out of their head ends is best summed up in a 1999 white paper, "Controlling Your Network—A Must for Cable Operators", page 3, in which Cisco outlines the capabilities of CISCO IoS system for CMTS head end cable modem systems.

> *"How do multiple services ... coexist without competing with each other for bandwidth? Cisco QoS has solved this problem by putting **absolute control, down to the packet, in your hands.**"*

> *"Tools such as type-of-service (ToS) bits identification allow you to isolate network traffic by the type of application, **even down to specific brands,** by interface used, by the user type and individual user identification, or by the site address."*

Conclusion

We have pointed out several ways that AOL/TW could discriminate against the return path transactions for ITV between a third party content provider and the viewer. Even in the case where consumers buy their STB from an open system vendor and connect it to

an ISP and return path that is completely independent of AOL/TW, AOL/TW will still have enough control over both the downstream signal and STB conditional access to deny or degrade return path access to non-favored sites and content. Indeed, there are so many different avenues for proprietary control over the return path that we find it hard to believe that the AOL/TW assertion to the contrary is more than a misunderstanding. Indeed, the AOL/TW assertion to the contrary cannot be reconciled with Disney's negotiations with Time Warner, in which Disney was denied access to the return path. Thus, in the absence of relief, the AOL/TW return path will continue to be for AOL/TW and its partners.