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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: CS Docket No. 97-80 (Commercial Availability of Navigation Devices)

Dear Ms. Dortch:

In its Second Report and Order in CS Docket No. 97-80,¹ the Commission directed certain multiple system operators (“MSOs”) to file periodically with the Commission “reports detailing CableCARD deployment and support” as well as “the effort to develop and deploy a multistream CableCARD.” The Commission noted that the “cable operators may file separate reports or a joint report.” As a matter of convenience, NCTA has compiled the individual company reports and is submitting them as attachments to this letter. Should the Commission have questions about any of these reports, please contact me and I will ensure that the questions are forwarded to the appropriate person at the relevant company for a response.

CableCARD Deployment and Support. As of March 23, 2009, 29 consumer electronics (“CE”) manufacturers have had 592 Unidirectional Digital Cable Ready Product (“UDCP”) models (such as Digital Cable Ready DTV sets) certified, verified, or self-verified for use with CableCARDS and as well as eight (8) tru2way devices certified for such use. As for CableCARD deployment for those devices, the five MSOs who are required to report today – Cablevision, Charter Communications, Comcast Corporation, Cox Communications, and Time Warner Cable – and who serve nearly 80% of the cable subscribers in the country, have deployed almost 390,000 CableCARDS for use in those devices. When the CableCARDS deployed by the next five largest incumbent cable operators are included, *there have been just over 420,000 CableCARDS deployed for use in retail devices by the ten largest incumbent cable operators who serve approximately 90% of the cable subscribers in the country.*

By contrast, since the “integration ban” went into effect on July 1, 2007, those 10 companies have already deployed *more than 12,350,000 operator-supplied set-top boxes with CableCARDS. Therefore, in less than 21 months, cable operators have deployed almost 30 times as many CableCARD-enabled devices than the total number of CableCARDS requested by customers for use in retail devices over the last five years.*

¹ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, Second Report and Order, 20 FCC Rcd 6794 (2005).

Multistream CableCARDS. The Commission also asked for periodic reports on the "effort to develop and deploy a Multistream CableCARD." All CableCARD manufacturers have CableLabs Qualified Multistream CableCARDS that exist in various configurations: Cisco, CCAD (Motorola), Cisco/NDS and Corecross/NDS. CableLabs has provided testing of UDCPs for conformance to the M-Card interface test suite since January of 2007. Devices from TiVo and other manufacturers have been verified under this test program. Tru2way host devices also make use of the M-Card interface. Major cable operators have been deploying M-Cards since 2007.

If you have any questions about the information being submitted with this letter, please do not hesitate to contact me.

Respectfully submitted,

/s/ **Neal M. Goldberg**

Neal M. Goldberg

cc: Brendan Murray
James W. Hedland
Robert Schwartz

Cablevision Systems

FCC CableCARD Quarterly Report

CableCARD technology, which enables digital televisions to display encrypted programming, has been available to 100% of Cablevision customers since July 1, 2004. The installation and service of CableCARDs is a routine practice and has been fully incorporated into the business. As with all technical service issues, each occurrence is logged into an automated database for escalation and resolution.

- 1. Current Number of CableCARD Subscribers:** 17,908 (as of March 13, 2009). This represents a 6% increase in deployment from the 2008 4th quarter report.
- 2. Number of CableCARDs in Inventory:** 28,521 deployed [with 6,657 in reserve (non-deployed) inventory].
- 3. How are CableCARDs deployed:** All CableCARDs are professionally installed.
- 4. Percentage of Installs:** 100% of installs are professional installs requiring a truck roll
- 5. Average Number of Truck Rolls to Install a CableCARD:** 1.1
- 6. Monthly Lease rate for CableCARD:** \$2.00.
- 7. Average installation Cost (if applicable):** Professional install fee is \$34.95
- 8. Number of problems encountered with CableCARDs:** 3,775 installation and post-installation Remedy tickets were opened during the period of 1/1/2009 to 3/3/2009.
 - Host Related: 49%
 - CableCARD related including rebooting CableCARDs: 40%
 - Network Related: 11%

9. Of the problems encountered, please list how they were resolved: (Ex. TV Firmware upgrade)

Host DCR TV Issues (Sample)

Problem Description:

CableCARD does not bind with the host.

Occurs During:

Installation

Resolution:

The technician will unbind first CableCARD install/bind another CableCARD. In some instances, the customer needs to contact the host TV manufacturer for a patch to be sent out for the specific host TV or professional visit by the manufacturer's technician.

Problem Description:

Pixilation on most digital channels

Occurs During:

Post-Installation

Resolution:

Replace service drop or components to verify signal levels are within specification or customers may need to contact manufacturer directly to have a Certified Technician perform a service call to install new hardware in the DCR TV chassis.

Problem Description:

DCR TV missing premium channels

Occurs During:

Post-Installation

Resolution:

Perform “reboot” by removing CableCARD and turning DCR TV off. Channels are usually restored.

CableCARD Issues (sample)

Problem Description:

Customer getting CableCARD “no service” message every few minutes

Occurs During:

Post-Installation

Resolution:

Sent “hit” to CableCARD or customer removes and replaces the CableCARD from DCR TV.

Problem Description:

CableCARD error 161-4

Occurs During:

Post-Installation

Resolution:

Cabledata “hit” to CableCARD and reset DCR TV

Problem Description:

Customer has black screens on premium channels only.

Occurs During:

Post-Installation

Resolution:

Send “hit” to CableCARD. Have the customer turn off DCR TV and remove and replace CableCARD.

10. Problems encountered in deploying CableCARDS and how problems are resolved.

Cablevision has established technical support protocols to enable the technician to receive immediate troubleshooting support from Dispatch, Network Support or Engineering, if the technician encounters a problem during the professional installation of CableCARD equipment. It should be noted, that Cablevision responds to each CableCARD performance

issue in the same manner we respond to other CE interoperability issues (e.g., DVI, HDMI or 1394 interoperability issues).

If the technician is unable to complete the installation due to technical issues, the technician is required to record the reason(s) why the install was not completed and the work order remains open. At the customer's request, a follow-up visit is conducted to further troubleshoot the problem and/or install a second (new) CableCARD. At this visit, additional personnel may accompany the technician to provide enhanced technical support. If a customer is unable to activate their equipment due to interoperability issues, Cablevision will contact the CE manufacturer to define the issue, resolve the problem and once again offer the customer the CableCARD installation.

The data (fix codes) collected from the problem are analyzed by the operations and engineering departments to determine if there are any systematic issues contributing to the CableCARD technology not functioning properly on the network.

Cablevision has also undertaken significant steps to pro-actively work with all the major CE manufacturers to identify the numerous CableCARD enabled devices and conduct interoperability testing in our (single) test laboratory before any problems have been experienced in the field.

**Charter Communications
FCC CableCARD Reporting
December 1, 2008 – February 28, 2009**

1. Current number of CableCARD subscribers:

The total number of CableCARDS in service through February 28, 2009 is 29,447.

2. Provide the number of CableCARDS in inventory:

Motorola Multistream	6,347
Motorola Standard	3,709
SA Multistream	2,250
SA Standard	1,244
Grand Total	13,550

3. How are CableCARDS placed in service?

Installations of a CableCARD require a professional installation, including a truck roll, in all serviced areas.

4. Whether service calls are required for all CableCARD installations?

Yes, service calls are required for CableCARD installation.

5. Average number of truck rolls to install a CableCARD?

The average number of truck rolls to install a CableCARD (i.e., the initial truck roll and any truck rolls within 30 days from the date of installation) through February 28, 2009 was 1.1.

6. Monthly lease rate for a CableCARD?

The monthly lease for a CableCARD device is \$2.00. Some Charter markets still charge only a \$1.50 monthly lease rate, but they plan to transition to the standard \$2.00 price this year.

7. Average installation cost of a CableCARD (if applicable):

The average cost for a professional installation is \$32.00.

8. Process for resolving CableCARD trouble calls:

Customers with a CableCARD problem are directed to call the Charter customer service number. Customer Service Representatives (CSRs) are trained about the features and benefits of CableCARDS, just as they are trained on any other Charter product offering.

Some CableCARD calls are forwarded to the Advanced Services Team, whose members have more training and expertise on troubleshooting such calls. If the problem cannot be resolved over the phone, the CSR places a service order, which is then fulfilled by the cable installers and technicians. Charter maintains a record of any service calls for which a technician is dispatched.

Should a local cable installer or technician encounter a CableCARD problem, he/she reports such problem to his/her supervisor and the local technical support group. If the problem is not resolved at the local level, it is then escalated to corporate engineering or billing. If there appears to be a host problem, Charter has a designated member of its engineering department contact and place a report with the consumer electronics vendor or with the host manufacturer to resolve the issue as appropriate.

9. Reported problems associated with CableCARDs and how they were resolved:

Charter has experienced a steady decline in problems with its CableCARDs since reporting began,¹ a trend which continues this quarter with no verified problem resulting from CableCARDs.

The problems and resolutions listed below are illustrative of the problems encountered at both the local and regional level as well as those that were escalated to Charter’s corporate offices. The host manufacturer for the problem is identified by a letter only to maintain confidentiality, with such letter corresponding to the same identified manufacturer(s) from previous reports. The undetermined issues on the below chart remain in the troubleshooting phase in order to identify the problem source.

The installation issues associated with the network which were encountered this quarter were resolved *at the time of installation* through Charter’s standard troubleshooting processes. Charter continues to troubleshoot and resolve problems occurring with various makes and models of digital television hosts as they arise.

Ops. Group	Type	Issue	Resolution	Mfgr.
All	Host	Host devices have been dropping channels.	The manufacturer is testing a downloadable upgrade which is expected to be provided soon, though no timeline has been given.	L
All	Host	Some Host devices are not displaying channels following firmware upgrade.	The manufacturer has been contacted, however no cause or resolution has been found.	L

¹ See Charter Communications FCC CableCARD Reporting, September 1, 2008 – November 30, 2008, p. 2, Attachment to Letter from Neal M. Goldberg to Marlene H. Dortch, Commercial Availability of Navigation Devices, CS Docket 97-80 (filed December 22, 2008).

East	Unknown	Host device missing multiple digital channels.	This problem remains in the troubleshooting phase.	L
West	Unknown	Host device reports error following CableCARD installation.	This problem remains in the troubleshooting phase.	L
West	Unknown	The Host device will not stay authorized with the CableCARD installed.	Not resolved, Charter is working with the manufacturer towards resolution.	L
West	Unknown	There was a channel mapping issue.	Not resolved, Charter is working with the manufacturer towards resolution.	L

**Comcast
FCC CableCARD Report
December 2008 – February 2009**

Current Number of CableCARDS installed in active customer homes	241,508
Number of CableCARD in Inventory	84,750
How are CableCARDS deployed: Truck Roll / Self Install / Both	Both
Total CableCARD New Installs	22,476
Number of Installs - Truck Rolls	15,059
Percentage of Installs - Truck Rolls	67%
Number of Installs - Self Installs	7,417
Percentage of Installs - Self Installs	33%
Average Number of Truck Rolls to Install a CableCARD	1.04
Monthly Lease Rate for Initial CableCARD	\$0.00
Monthly Lease Rate for Additional CableCARD	\$1.50
Average Installation Cost if part of installation of other services	\$ 7.11
Average Installation Cost if separate trip	\$ 22.51

Process for Resolving CableCARD Problems

The Comcast CableCARD problem escalation process begins with the local installer/technician and escalates to local supervisory personnel, then to the Division office, and finally to corporate engineering for further escalation to CableLabs or to senior contacts at the CE manufacturer as needed. The local market is expected to review CableCARD issues lists and troubleshooting information posted on an internal website prior to escalation. If an issue with the CE Host device is suspected the local market personnel also make an initial contact to the CE manufacturer's standard support line for help prior to escalation.

Examples of Specific Issues and Resolutions

Some flat panel Plug and Play televisions have the CableCARD slot in the back making it impossible to install or access the CableCARD when the set is wall mounted.

Some Plug and Play devices do not initially acquire the entire Comcast channel map requiring the customer to wait for hours to begin receiving all the channels. Also some devices do not automatically update their stored channel map when we make channel map changes for programming additions or changes. Comcast set-top boxes (including set-top boxes using CableCARDS) do not exhibit these problems.

Comcast technicians report that most CableCARD installations are unique with different issues arising due to variations in the many different models of Plug and Play devices that use CableCARDS. This often results in long installation times.

Cox Communications
FCC CableCARD Report
Dec 1, 2008 through Feb 28, 2009

1. The number of Residential CableCARDS in service:

Cox TOTAL: 38,053
Moto Total: 17,211
Cisco Total: 20,842

* This metric now reflects the total number of CableCARDS in service. Prior reports were reflecting the total number of CableCARD households.

2. General availability of CableCARDS:

Total CableCARDS available: 14,607

- a. Please provide an indication of supply availability for CISCO and Motorola CableCARDS
Cisco CableCARDS: 9,290
Moto CableCARDS: 5,317

*The above numbers only include inventory available in our billing system and inventory currently assigned to FSRs. It does not include inventory assigned to subscriber accounts, inventory pending disposition or repair, etc.

3. How cards are placed in service

A professional installation, requiring a truck roll, is currently required for all CableCARD installs.

4. Whether service calls are required for all CableCARD installations?

Yes.

5. Average number of truck rolls to install a CableCARD?

The average number of truck rolls needed to install a CableCARD includes the initial truck roll for the install itself and any truck rolls required within 30 days of the install.

The average number of truck rolls to install a CableCARD was: 1.1

6. Monthly price charged for a CableCARD?

The average monthly rental for a CableCARD is \$1.99

7. Average installation cost of a CableCARD if applicable?

- a. What is the service charge to the subscriber for the installation?
The average cost for a professional installation is \$24

8. Problems encountered in deploying CableCARDS and how problems are resolved?

Below are the reported CableCARD issues from Cox's field locations. This metric has been amended from prior reports. Prior reports showed the number of trouble calls across our entire CableCARD installed base. Now, this metric captures the number of CableCARD issues related to installations exclusively.

Cox Communications
FCC CableCARD Report
Dec 1, 2008 through Feb 28, 2009

CableCARD Problems

Site: 19, Manufacturer: 16

- Issue: CableCARD not pairing.
- Resolution: During an initial install, an initial CableCARD was tried. When the tech could not pair it, the tech installed another Cable CARD that he had with him. The second CableCARD appears to still be working in this customer's TiVo. It is not believed that the initial CableCARD ever had an attempt to pair since there is no CableCARD ID in the ICOMS CableCARD and Host Info Details screen. Consequently, it is believed that the tech could not access pairing information for this particular CableCARD during his initial attempt, so he tried a second one.

9. Process in place for resolving existing and newly discovered CableCARD implementation problems:

For any CableCARD issues encountered by a subscriber, Cox follows a prescribed troubleshooting process. If the troubleshooting resolves the issue, no further action is taken. If the troubleshooting procedures do not correct the issue, the issue is escalated to one or more of the following personnel within the system: (i) the Digital test desk; (ii) the IT group, and/or; (iii) the system's DAC or DNCS administrator. If none of the foregoing is able to resolve the issue, a problem form is completed and sent to corporate engineering. The problem form collects specific details about the problem and alerts the engineering team to the relevant issues. Corporate engineering then follows up on the issue, contacting all of the necessary parties (including the CE manufacturers) until the issue is resolved.

In addition, a representative from each Cox system attends a platform specific bi-weekly conference call to discuss relevant CableCARD issues that have not yet been escalated, significant trends in the installation and maintenance of CableCARDS, and customer concerns within the system. Cox also uses this conference call to distribute important information to the systems, such as CE-supplied troubleshooting procedures or installation documentation. Atlanta operations and Engineering personnel are usually engaged on the call and work with the systems to resolve any issues or concerns.

In addition, Cox maintains an intranet site containing information about CableCARDS and specific issue updates. Cox Customer Support, Field Service, and Field Service Support also may use this site to review troubleshooting guidelines or details from CE manufacturers.

The DAC and DNCS administrators in each system also have direct connections with ATL operations and engineering to escalate any issues that require immediate assistance.

**Time Warner Cable
FCC CableCARD™ Status Report
December 2008 – February 2009**

Current number of CableCARDS activated: 62,913

Current number of unique CableCARD customers: 46,779

Number of CableCARDS available in inventory: 31,333

How are CableCARDS deployed? Majority of TWC divisions require a service appointment.

Percentage of installs: Service Appointment: 99.75%; Self Install: 0.25%;

Average number of truck rolls required to install a CableCARD: 1.07

Monthly lease rate for CableCARD: Average: \$2.78.

Do you charge for CableCARD installs? Some divisions charge a standard installation fee for CableCARDS while others waive the installation charge per division business procedure

What is the average installation cost? \$23.05

What is your process in resolving existing and newly discovered CableCARD implementation problems?

The processes reported in our previous submissions are still in place. The web forum referred to as “eRoom” is still in use for resolving existing and new CableCARD problems. The eRoom also allows TWC divisions to share information on issues and work together to resolve them. The central CableCARD support desk serves as an escalation point for all divisions and will shepherd an issue till resolution.

Problems encountered with CableCARDS and their resolution

Our divisions continue to report a variety of different issues arising with respect to CableCARD host device installations.

Problem: Incorrect software/firmware on host devices continue to cause reported issues and are common across all CE brands.

Resolution: The standard procedure is for the cable technician to inform the customer that a software patch from the CE manufacturer is required to upgrade the Host and correct the issue. After the CE manufacturer has completed the upgrade, a follow-up service appointment is needed to re-install the CableCARD.

Problem: Host device losing services.

Resolution: Contact the CE manufacturers and work together on a resolution. In most cases, a firmware or hardware update is required depending on the model and date of manufacture. Replace CableCARD and/or resend billing activation codes.