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June 23, 2010

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> 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,<sup>1</sup> 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.** The five MSOs who are required to report today – Cablevision, Charter Communications, Comcast Corporation, Cox Communications, and Time Warner Cable – have deployed over 487,000 CableCARDS for use in retail CableCARD-enabled devices. When the CableCARDS deployed by the next five largest incumbent cable operators are included, there have been approximately 520,000 CableCARDS deployed for use in retail devices by the ten largest incumbent cable operators. Since the “integration ban” went into effect on July 1, 2007, those 10 companies have also deployed more than 21,000,000 operator-supplied set-top boxes with CableCARDS.

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<sup>1</sup> *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  
Julie Kearney  
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:** 21,288 (as of June 14, 2010). This represents a 3% increase in deployment from the 2010 1<sup>st</sup> quarter report.
- 2. Number of CableCARDS in Inventory:** 27,916 total CableCARDS in inventory (21,288 CableCARDS deployed and 6,628 in 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:** 1.0
- 6. Monthly Lease rate for CableCARD:** \$2.00
- 7. Average installation Cost (if applicable):** Professional install fee for the CableCARD(s) is \$34.95.
- 8. Number of problems encountered with CableCARDS:** 3,414 installation and post-installation Remedy tickets were opened during the period of 3/1/2010 to 6/14/10.
  - Host Related: 45%
  - CableCARD related including rebooting CableCARDS: 42%
  - Network Related: 13%
- 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 - Swap the CableCARD.

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.”

Occurs During: Post-Installation

Resolution: Send “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  
March 1, 2010 to May 31, 2010**

1. Current number of CableCARD subscribers:

The total number of CableCARDS in service through May 31, 2010 is 29,978.<sup>1</sup>

2. Provide the number of CableCARDS in inventory:

Motorola Multistream	4,453
Motorola Standard	5,692
SA Multistream	1,408
SA Standard	2,627
<b>Grand Total</b>	<b>14,180</b>

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 May 31 was 1.0.

6. Monthly lease rate for a CableCARD?

The monthly lease for a CableCARD device is \$2.00.

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

The average cost for a professional installation is \$35.00.

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

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<sup>1</sup> The prior two reports inadvertently counted unreturned CableCARDS as in service. This report provides only CableCARDS in active use.

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,<sup>2</sup> a trend which continues this quarter with no verified problem resulting from CableCARDs.

In addition, there were no problems encountered this quarter other than installation issues associated with the network, which, as in past quarters, were resolved *at the time of installation* through Charter's standard troubleshooting processes. Charter will continue to troubleshoot and resolve problems occurring with various makes and models of digital host devices as they arise.

The lack of host device problems this quarter also follows the trend Charter has experienced of gradual improvement in host device manufacture.

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<sup>2</sup> See Charter Communications FCC CableCARD Reporting, December 1, 2009 – February 28, 2010, p. 2, Attachment to Letter from Neal M. Goldberg to Marlene H. Dortch, *Commercial Availability of Navigation Devices*, CS Docket 97-80 (filed March 31, 2010).

**Comcast  
FCC CableCARD Report  
March 2010 – May 2010**

<b>Current Number of CableCARDS installed in active customer homes</b>	323,314
<b>Number of CableCARD in Inventory</b>	152,396
<b>How are CableCARDS deployed: Truck Roll / Self Install / Both</b>	Both
<b>Total CableCARD New Installs</b>	48,829
Number of Installs - Truck Rolls	26,986
Percentage of Installs - Truck Rolls	55.0%
Number of Installs - Self Installs	21,843
Percentage of Installs - Self Installs	44.0%
<b>Average Number of Truck Rolls to Install a CableCARD</b>	1.09
<b>Monthly Lease Rate for Initial CableCARD</b>	\$0.00
<b>Monthly Lease Rate for Additional CableCARD in Same Device</b>	\$1.63
<b>Average Installation Cost if part of installation of other services</b>	\$9.49
<b>Average Installation Cost if separate trip</b>	\$25.67

**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 CableLabs lists of Verified devices and any lists of any known issues 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**

Customers occasionally attempt to move a CableCARD from one device to another creating service issues. CableCARDS do not automatically work properly when moved to a different device as the Card and the Host must be "paired" in the headend control system. Comcast personnel and control systems are not equipped to handle moving CableCARDS in this manner, so these situations require escalation to restore service. Comcast discourages this practice.

Many flat panel Plug and Play televisions have the CableCARD slot in the back making it impossible to access the slot for CableCARD installation and maintenance when the set is wall mounted.

**Cox Communications FCC CableCARD Reporting**  
**3/1/10 through 5/31/2010**

1. The number of Residential CableCARDS in service:  
Cox TOTAL: 45,129  
Moto Total: 19,281  
Cisco Total: 25,848
  
2. General availability of CableCARDS:  
Total CableCARDS available: 14,863
  - a. Please provide an indication of supply availability for CISCO and Motorola CableCARDS  
Cisco CableCARDS: 8,812  
Moto CableCARDS: 6,051

\*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 CableCARDS 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?

**CableCARD Problems**

- none
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 manufacturer) until the issue is resolved.

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  
March 2010 – May 2010**

*Current number of CableCARDS activated: 67,657*

*Current number of unique CableCARD customers: 48,494*

*Number of CableCARDS available in inventory: 40,178*

*How are CableCARDS deployed? TWC divisions generally require a service appointment.*

*Percentage of installs: Service Appointment: 100%; Self Install: 0%;*

*Average number of truck rolls required to install a CableCARD: 1.04*

*Monthly lease rate for CableCARD: Average: \$2.47*

*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? \$26.34*

*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 internal TWC SharePoint website is still in use for resolving existing and new CableCARD problems. The website also allows TWC divisions to share information on issues and work together to resolve them. The central CableCARD support desk continues to serve as an escalation point for all divisions and will shepherd an issue until 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.

**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:** Compatibility Issues between discontinued CE host devices and newer “MCard” CableCARDS

**Resolution:** Contact the CE manufacturer to update code on the host device. If updated code is unavailable for the CE host device and is also no longer supported by the manufacturer, an older “SCard” CableCARD is installed.

**Problem:** Missing or no channels on Host device due to faulty or non-compliant in-home wiring devices installed by customer, such as splitters and coaxial jumper cables.

**Resolution:** A cable technician replaces equipment and brings signal levels into specification.

**Problem:** Host device losing services.

**Resolution:** Contact the CE manufacturer 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 the CableCARD and/or resend billing activation codes.