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December 22, 2008

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 December 22, 2008, 29 consumer electronics (“CE”) manufacturers have had 596 Unidirectional Digital Cable Ready Product (“UDCP”) models (such as Digital Cable Ready DTV sets) certified or verified for use with CableCARDS. As for CableCARD deployment for those UDCPs, 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 just over 363,000 CableCARDS for use in UDCPs. When the CableCARDS deployed by the next five largest incumbent cable operators are included, *there have been just over 392,000 CableCARDS deployed for use in UDCPs 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 9,766,000 operator-supplied set-top boxes with CableCARDS. Therefore, in less than 18 months, cable operators have deployed more than 24 times as many CableCARD-enabled devices than the total number of CableCARDS requested by customers for use in UDCPs in just over the last four 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:** 16,777 (as of December 10, 2008). This represents a <1% increase in deployment from the 2008 3rd quarter report.
- 2. Number of CableCARDS in Inventory:** 26,565 [9,778 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 \$46.95
- 8. Number of problems encountered with CableCARDS:** 2,138 installation and post-installation Remedy tickets were opened during the period of 10/1/2008 to 12/10/2008.
 - Host Related: 49%
 - CableCARD related including rebooting CableCARDS: 39%
 - Network Related: 12%
- 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 the first CableCARD and then 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 schedule a professional visit by the manufacture'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 the customer may need to contact the 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 a “reboot” by removing the CableCARD and turning off the DCR TV. Channels are usually restored.

CableCARD Issues (sample)**Problem Description:**

Customer gets a CableCARD “no service” message every few minutes.

Occurs During:

Post-Installation

Resolution:

Send a “hit” to the CableCARD or have the customer remove and replace the CableCARD from the DCR TV.

Problem Description:

CableCARD error 161-4

Occurs During:

Post-Installation

Resolution:

Send a billing system “hit” to the CableCARD and reset the DCR TV.

Problem Description:

Customer has black screens on premium channels only.

Occurs During:

Post-Installation

Resolution:

Send a billing system “hit” to the CableCARD. Have the customer turn off their DCR TV and remove and replace the 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
September 1, 2008 – November 30, 2008**

1. Current number of CableCARD subscribers:

The total number of CableCARDS in service through November 30, 2008 is 28,633.

2. Provide the number of CableCARDS in inventory:

SA CableCARDS:	5040
Moto CableCARDS:	11878
Total CableCARDS:	16918

3. How are CableCARDS placed in service?

Installation of a CableCARD requires 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 November 30, 2008 was 1.1.

6. Monthly lease rate for a CableCARD?

The average monthly lease for a CableCARD device is \$1.50.

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,² a trend which continues this quarter with no verified problems 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 manufacturers for the problems are identified by a letter only to maintain confidentiality, with such letter corresponding to the same identified manufacturer(s) from previous reports.

The undetermined issue on the below chart remains 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.

DIV.	TYPE	ISSUE	RESOLUTION	MFGR.
East	Unknown	Host device would not accept CableCARD.	Charter will continue to work with the customer and manufacturer on resolution.	C
East	Host	Host device would not accept CableCARD.	The Host firmware was updated and the CableCARD was successfully installed.	L
East	Unknown	The DTV was not receiving digital channels.	Charter is still troubleshooting this problem with the manufacturer.	L

² See Charter Communications FCC CableCARD Reporting, June 1, 2008 – August 31, 2008, p. 2, Attachment to Letter from Neal M. Goldberg to Marlene H. Dortch, Commercial Availability of Navigation Devices, CS Docket 97-80 (filed September 22, 2008).

**Comcast
FCC CableCARD Report
September 2008 – November 2008**

Current Number of CableCARDS installed in active customer homes	233,224
Number of CableCARDS in Inventory	97,683
How are CableCARDS deployed: Truck Roll / Self Install / Both	Both
Total CableCARD Installs	29,564
Number of Installs - Truck Rolls	19,512
Percentage of Installs - Truck Rolls	66%
Number of Installs - Self Installs	10,052
Percentage of Installs - Self Installs	34%
Average Number of Truck Rolls to Install a CableCARD	1.05
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.

A few Plug and Play devices do not initially acquire all of the Comcast channels from the channel map requiring the customer to wait for hours or even days to begin receiving all the channels. Comcast set-top boxes (including set-top boxes using CableCARDS) do not exhibit this problem.

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 as compared to Comcast set-top boxes that also use CableCARDS but can be installed and initialized efficiently.

Cox Communications
FCC CableCARD Report
September 1, 2008 through November 30, 2008

1. The number of Residential CableCARDS in service:

Cox TOTAL: 24,382
Moto Total: 10,963
Cisco Total: 13,419

2. General availability of CableCARDS:

Total CableCARDS available: 15,951

- a. Please provide an indication of supply availability for CISCO and Motorola CableCARDS

Cisco CableCARDS: 10,911
Moto CableCARDS: 5,040

*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?

Total number of trouble calls for all CableCARD issues, escalated and un-escalated:

- Sept 2008: 703
- Oct 2008: 863
- Nov 2008: 985

Only the issues that were escalated to the Atlanta corporate offices are described below. Cox also uses a bi-weekly conference call to distribute information to the systems, such as issues lists and CE-supplied troubleshooting documentation, in an effort to provide the systems with the information they'll need to avoid escalation.

Cox Communications
FCC CableCARD Report
September 1, 2008 through November 30, 2008

Host Problems:

Site: 19, Manufacturer: 19

- Issue: Customer reported that the CableCARD was causing his DCR TV to reset. However, the DCR TV did not have an issue while the tech was on-site.
- Resolution: The Tech used multiple M-cards and an S-card to troubleshoot the issue but was unable to find any problems while on-site.

CableCARD Problems:

Site: 10, Manufacturer: 13

- Issue: A black screen was viewed on channels 700 and up. Upon installation of a second CableCARD, all channels were viewable. Technician rebooted the monitor. Channels went to Black screen and failed to come back online.
- Resolution: A HD set-top box was installed to get the Subscriber back online while the CableCARD was investigated. On 12/05/2008, a CableCARD was installed at the subscriber's home without any complaint of failure.

Site: 19, Manufacturer: 9

- Issue: Customer had missing channels above channel 13. Pairing information was not accessible.
- Resolution: Customer service unpaired the CableCARD in the billing system after the customer called in with an issue. The tech removed the CableCARD from the TV, unplugged the power to the TV, and plugged the TV back in to reset its memory. After the CPMS information was cleared, the Tech installed a new CableCARD and everything worked properly.

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.

Cox Communications
FCC CableCARD Report
September 1, 2008 through November 30, 2008

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 Atlanta operations and engineering to escalate any issues that require immediate assistance.

**Time Warner Cable
FCC CableCARD™ Status Report
September 2008 – November 2008**

Current number of CableCARDS activated: 60,350

Current number of unique CableCARD customers: 43,664

Number of CableCARDS available in inventory: 30,124

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

Percentage of installs: Service Appointment: 99.4%; Self Install: 0.6%;

Average number of truck rolls required to install a CableCARD: 1.38

Monthly lease rate for CableCARD: Average: \$2.44. Most divisions are at \$1.75.

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? \$23.95

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

Resolution: Contact the CE manufacturers to update code on host device. If updated code is unavailable for the CE host device and it 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: CableCARDS not seated properly into Host device at time of installation.

Resolution: Technician reseats the CableCARD activating the MMI screen and initializing authorization.

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.