cable

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October 30, 2015

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 cable operators to file periodically with the Commission "reports detailing CableCARD deployment and support." 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 cable operators who are required to report today – Cablevision Systems, Charter Communications, Comcast Corporation, Cox Communications, and Time Warner Cable – have deployed over 587,000 CableCARDs for use in retail CableCARD-enabled devices. When the CableCARDs deployed by the next four largest incumbent cable operators are included, there have been over 618,000 CableCARDs deployed for use in retail devices by the nine largest incumbent cable operators. By contrast, those nine companies have approximately 54,000,000 operator-supplied set-top boxes with CableCARDs currently deployed.

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[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).

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: FCC CableCARD Report - Q32015

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 CableCARD is a routine practice and has been fully incorporated into the business. As with all the technical service issues, each occurence is logged into an automated database for escalation and resolution.

1.	**Current Number of CableCARD Subscribers**	Current Number of CableCARD Subscribers	24,178	
		Deployed	35,647	
		Deployed Per Household	1.47	
2.	**Number of CableCARDs in Inventory**	25,140		
3.	**How are CableCARDs Deployed**	Customers can visit a Cablevision Optimum Store for self-installation of M-CableCARDs in their DCR CableCARD-compatible devices		
		Professional Installation		
4.	**Percentage of Installations**	Professional Installations	43%	758
		Customer Self-Installations	57%	1,001
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 Installation Fee	$39.95	
8.	**Number of Problems Encoutered with CableCARDs (Installation and Post Installation)**	2,508	Resolved on the phone with Standard troubleshooting	85%
			Resolved with a technician visit	15%
9.	**Of the problems encountered, please list how they were resolved (Ex. TV Firmware upgrade)**	Host DCR TV Issues(Samples)	• Problem Description: CableCARD does not bind with the host - Swap the CableCARD • Occurs During: Installation • Resolution: The technician will first unbind the CableCARD and install/bind another CableCARD. In some instances, the customer may need to contact the host TV manufacturer for a patch to be sent out for the specific host TV, or arrange for a professional visit by the manufacturer's technician.	
			• Problem Description: Pixelation on most digital channels • Occurs During: Post-Installation • Resolution: Replace the service drop or components to verfiy signal levels are within specification or customers may need to contact the manufacturer directly to have 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 the DCR TV off. Channels are usually restored.	

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 issue, 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 conduct the interoperability testing in our (single) test laboratory before any problems are experienced in the field.

Charter Communications
FCC CableCARD Reporting
July 1, 2015 to September 30, 2015

1. Current number of CableCARDs:

   The total number of CableCARDs in service through September 30, 2015 is
   55,001.

2. Provide the number of CableCARDs in inventory:

Motorola Multistream	**27,794**
Motorola Standard	**1,609**
SA Multistream	**3,114**
SA Standard	**345**
Total	**32,862**

3. How are CableCARDs placed in service?

   Customers may self-install or request a professional installation.

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

   Service calls are not 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
   September 30 was 1.0.

6. Monthly lease rate for a CableCARD?

   The monthly lease for a CableCARD 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 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:

With the exception of the below-listed issue, CableCARD problems encountered this quarter were routine installation issues. Network problems 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 television hosts as they arise.

The illustrative problem with CableCARD installation and resolution for this quarter is listed below.

REGION(S)	ISSUE	RESOLUTION	HOST MFGR.
Various	Customers were unable to tune channels or channels were missing with particular host devices.	Problems were resolved by either swapping the CableCARD or re-pairing the host devices with the CableCARDs.	Various

Comcast
FCC CableCARD Report
6/30/15 – 9/30/15

Current Number of CableCARDs installed in active customer homes	340,447
Number of CableCARDs in Inventory	258,310
How are CableCARDs deployed: Truck Roll / Self Install / Both	Both
Total CableCARD New Installs	5,385
Number of Installs - Truck Rolls	2,341
Percentage of Installs - Truck Rolls	43%
Number of Installs - Self Installs	3,044
Percentage of Installs - Self Installs	57%
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 in the Same Device	$1.23
Average Installation Cost if part of installation of other services	$16.67
Average Installation Cost if separate trip	$45.80

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 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 in the new device. Comcast discourages this practice.

Cox Communications FCC CableCARD Reporting
7/1/2015 through 9/30/15

1. The number of Residential CableCARDs in service:
   Cox TOTAL: 57,735
     Cisco Total: 30,451
     Moto Total: 27,284

2. General availability of CableCARDs:
   Total CableCARDs available:

   a.   Please provide an indication of supply availability for CISCO and Motorola
        CableCARDs. 21,625
        Cisco CableCARDs: 11,715
        Moto CableCARDs: 9,910

   *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 or self install.

4. Whether service calls are required for all CableCARD installations?
   No. Self install is an option.

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: 1.04

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 $29

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 manufacturers) 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.

In Q4 2012, Cox added the role of Regional CableCARD Liaison to the CableCARD support process. A Liaison is appointed within each region to oversee all CableCARD support, troubleshooting/escalation issues, training, product updates and communications. The Liaisons make sure CableCARD issues are resolved according to established troubleshooting and escalation procedures in a timely manner. They function as a liaison between all local and corporate engineering, customer service, supply chain, etc. and work closely with a newly appointed corporate CableCARD Product Manager in Customer Care.

Time Warner Cable
FCC CableCARD™ Status Report
7/1/2015 – 9/30/2015

Current number of CableCARDs activated: **98,379**

Current number of unique CableCARD customers: **70,335**

Number of CableCARDs available in inventory: **80,370**

How are CableCARDs deployed? **Service appointment or self-installation**

Percentage of installs: **Service Appointment:** **51%**
  Self Install: **49%**

Average number of truck rolls to install a CableCARD: **1.0**

Monthly lease rate for CableCARD: **$2.37**

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? **$29.33**

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 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.