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October 31, 2017

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. 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

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).

Cablevision: FCC CableCARD Report - Q32017

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 occurrence is logged into an automated database for escalation and resolution.

1.	Current Number of CableCARD Subscribers	Current Number of CableCARD Subscribers	22,823		
		Deployed	33,734		
		Deployed Per Household	1.48		
2.	Number of CableCARDS in Inventory	25,860			
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	34%	575	
		Customer Self-Installations	66%	1,097	
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)	2,292	Resolved on the phone with Standard troubleshooting	90%	
			Resolved with a technician visit	10%	
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 Communications¹
FCC CableCARD Reporting
July 1, 2017 through September 30, 2017

1. Current number of CableCARDs:

The total number of CableCARDs in service through September 30, 2017 is 185,603.

2. Provide the number of CableCARDs in inventory: 113,625

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?

Charter is currently moving towards standard pricing for all legacy companies. The monthly lease for a CableCARD will be \$2.00.

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

Charter is currently moving towards standard pricing for all legacy companies. The average cost for a professional installation will be \$49.99.

8. Process for resolving CableCARD trouble calls:

Customers with a CableCARD problem are directed to call the 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

¹ This report reflects consolidated data and information for the legacy cable systems of Charter Communications, Time Warner Cable, and Bright House Networks.

technicians. A record is maintained for 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, a designated member of the engineering department will 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:

CableCARD problems encountered this quarter were routine installation issues. Issues reported were customers having problems tuning to some/all channels. This is typically resolved by re-pairing the HOST/CableCARD or in some circumstances swapping the CableCARD.

Comcast
FCC CableCARD Report
7/1/16 – 9/30/17

Current Number of CableCARDS installed in active customer homes 297,484

Number of CableCARDS in Inventory 216,886

How are CableCARDS deployed: Customers may self-install (either visiting an Xfinity store/service center to pick up the CableCARD or calling Comcast to request the CableCARD be shipped directly to an address of their choice and perform self-activation of their CableCARD) or request a professional installation by a technician.

Total CableCARD New Installs 12,659

Number of Installs - Truck Rolls	2,748
Percentage of Installs - Truck Rolls	22%
Number of Installs - Self Installs	9,911
Percentage of Installs - Self Installs	78%

Average Number of Truck Rolls to Install a CableCARD 1.01

Monthly Lease Rate for Initial CableCARD \$0.00

Monthly Lease Rate for Additional CableCARD in the Same Device \$1.27

Average Installation Cost \$28.58

Process for Resolving CableCARD Problems

Comcast provides its customers with multiple methods to resolve problems with their CableCARD. Customers can call into Comcast's CableCARD support line (877-405-2298) to obtain a CableCARD and for all CableCARD activation, repair, and/or billing questions. This number is also displayed on the CableCARD information screen that is presented during CableCARD activation or troubleshooting on most CableCARD devices. Customers can also call into Comcast's customer service number (1-800-XFINITY) or initiate an online chat session with Customer Service Representatives ("CSRs") that are trained to handle questions or problems with CableCARDS.

Examples of Specific Issues and Resolutions

CableCARD technical and billing problems were related to configuration issues which caused installation and/or activation issues (e.g., incorrect CableCARD host information provided by customer). These problems were resolved by Comcast CSRs.

Cox Communications FCC CableCARD Reporting
7/1/17 through 9/30/17

1. The number of Residential CableCARDS in service:
Cox TOTAL: 65,650
2. General availability of CableCARDS:
Total CableCARDS available:
 - a. Please provide an indication of supply availability for CableCARDS. 24,649

*The above number only includes 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 device 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: 0.00
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 standard cost for a professional installation is \$50, (excluding discounts)
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.

Cox Communications FCC CableCARD Reporting
7/1/17 through 9/30/17

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.