

# Stop Comcast from encrypting cable channels on May 11, 2010

*Comcast is planning to encrypt its expanded basic channels  
(ch 23 to ch 99) in Stoneham after May 11, 2010.  
Most large screen TVs can now receive these channels without a cable box,  
but if Comcast encrypts this will no longer be possible.*

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## Introduction

Out of the blue recently I got a small card (see attached) from Comcast telling me that in few weeks (May 11, 2010) they are about to completely disrupt my TV viewing. The card says "as part of (our network) enhancement" after May 11, 2010 all TVs in your house "will need (their own) digital cable box ... to continue to receive your current level of service" and (in a footnote) "access to HD channels requires an HD cable box at an additional cost." I know what this means, they are planning to encrypt all the expanded basic channels (ch 23 to ch 99). To my certain knowledge expanded basic channels on Comcast cable in my area, and probably in all of the Boston area, have been sent 'in the clear' (not encrypted) in digital format since at least 2008, and because I had no reason to expect this to change, it has been central to the TV equipment I have purchased and installed.

How am I affected? For starters Comcast is about to cripple my large screen TV, which since I have had it has been getting HD channels with a direct cable connection, and because I am a techie I use my computer's hard drive to record cable programs for later play back. My computer TV recording and view system will essentially be destroyed by encryption, my investment in the hardware and software lost. I also know that Comcast does not allow you to buy your own cable boxes. It forces you to rent all your cable boxes from them at obscenely high rental fees. And I soon came to realize that Comcast has no equipment or 'fixes' (at any price) for customers (like me) using our computer to record/watch TV. We are just being crippled and abandoned.

## *Doesn't Comcast have the right to encrypt?*

A friend of mine said to me, "Doesn't Comcast have the right to encrypt"? Well read on because encryption (vs 'in the clear') is a complex tangle of FCC rules forbidding encryption, cable companies attempt to get around the FCC with waivers, huge amounts of hardware now in use that works only for 'in the clear' cable channels (including nearly every large screen TV made in the last two years), and consumer rights. While I am strongly affected by encryption, I am sure I am not alone. I suspect a substantial fraction of those with a large screen TVs have them connected direct to the cable, and all are about to be affected by Comcast encryption. If you have multiple TVs in the house without cable boxes, you will really be screwed. After encryption each and every TV will need its own cable box, so the rental costs of all those HD cable boxes alone (there will be other costs too) will be huge.

## **Reasons cable companies give to justify encryption (brief summary)**

*1) Encryption is part of the cable digital transition (cable "enhancement" Comcast calls it)*

Not true. Encryption does *nothing* to improve picture quality or increase the capacity of the cable. It is not part of the cable digital transition, which occurred six months ago in Stoneham. If cable companies can wangle permission from the FCC, they like to add it on, because (like all those fees the banks are so fond of) it boosts revenue due to all the extra equipment that must be rented, and it increases the control of the cable company over customer viewing.

*2) Only a small number of customers will be affected by encryption*

Comcast has no idea how many customers will be affected. Cable companies have been known to tell the FCC that encryption

will affect only 1% of customers. Don't believe it. This number is arrived at by an invalid procedure. In fact Comcast has no way of knowing how many newer TVs are hooked directly to the cable. Comcast admitted as much to its service representative in a leaked internal Comcast memo about encryption.

*3) Reduces planet's CO2 emission*

Laughable. This claim was made to the FCC by a NYC cable company (not Comcast) seeking a waiver to encrypt. It refers to the fact that they can disable cable from the office rather than making a visit.

*4) Cable companies promise content providers to keep content secure*

Red herring. Content security issues are nearly all about premium channel movies and preventing customers from making DVD copies. Content security arguments applied to expanded basic channels ring hollow for the following reasons:

- a) Comcast expanded basic channels have been sent 'in the clear' (not encrypted) in Stoneham since at least since 2008 (to my personal knowledge)
- b) FCC has regulations limiting cable encryption
- c) A huge amount of digital cable-ready equipment (with QAM tuners) exists that can only receive 'in the clear' channels. This includes nearly all large screen TVs built within the last couple of years.
- d) Encryption (of non-premium channels) is the exception not the rule in USA.

*5) Encryption is needed to restrict customer access to channels not purchased*

Not true. Comcast retains the option it has used for years to block access, the insertion of traps (hardware filters) in the cable feed outside the home. The up side for the customer is with the use of traps for security once a customer pays for a higher level of service, like expanded basic, it is receivable by every digital ready TV in the house. Also use of traps allows those with the service to retain the ability to record TV using their own DVR or computer hard drive.

**Reasons to block encryption** (brief summary)

1) Comcast has monopoly power over cable --- For many town residents (like me) Comcast is a true monopoly as many apartment buildings are only wired for one cable provider and satellite is impractical. Even for homeowners Comcast bundling of TV, internet, and telephone provides a 'lock-in', so Comcast has monopoly or near monopoly power over much of its customer base.

2) FCC limits on encryption --- My understanding is that FCC rules have long limited encryption (excepting of course premium channels like HBO), and this has led to a huge amount of digital cable-ready equipment being manufactured, equipment that is now in people's home. Most large screen TVs made in the last couple of years are digital cable-ready (QAM tuners), meaning they can receive unencrypted digital and HD channels without a cable box. TV manufacturers must have expected digital cable channels to remain largely unencrypted in the future otherwise they would not have building in digital cable (QAM) tuners that can't receive encrypted channels. (Note QAM digital tuners in TVs are for cable only and are separate from ATSC digital tuners, which work only for broadcast digital TV.)

3) How many customers will be affected by encryption? --- I bet if Comcast wrote to the FCC for an encryption waiver it would count me as unaffected by encryption. Why, because a few months ago I got a cable box from Comcast. Comcast gave out up to three low end cable boxes free during the digital transition, and I hooked it to a 20 years old TV that I hardly use anymore. Comcast has no way of knowing my TV viewing is done almost entirely without cable boxes. My new large screen TV and my computer with its digital TV tuner are hooked direct to the cable. Comcast has freely admitted to their customer representatives that they don't know how many customers have digital cable-ready TVs (or computers with TV tuners) directly hooked directly to the cable. (I can tell you as an engineer that Comcast does not have the technical ability to detect this remotely.) I returned to Comcast two of the three free cable boxes they sent me, because I found my large screen TV and computer both worked better without cable boxes.

4) Many customers are likely to be affected --- I think it is likely that a substantial fraction of the digital cable-ready TVs, digital DVRs and digital computer TV tuners in peoples homes are connected directly to the cable. If you get a new HD TV, isn't the logical thing to do is plug in the cable and do a channel scan to see what's there? That's what I did. I now have two pieces of equipment connected direct to the cable: a large screen TV and a computer TV tuner.

5) Encryption will cause a loss of more than 50 channels --- Encryption will 'cripple' digital cable ready (QAM) TVs, DVRs and computer TV tuners because all expanded basic channels, which are now all digital and some of which are HD channels, will be lost.

6) Forced rentals --- Encryption forces those who now have direct cable connections to rent cable boxes (or get only Basic cable). One box is needed for each TV, HD boxes cost more, and recording HD boxes cost even more. Hardware rental fees alone can add hugely to a customers monthly cable bill.



7) Higher revenue for Comcast, higher cable bills for customer --- A strong case can be made that the primary reason Comcast is encrypting is to increase its rental revenue. Comcast hardware rentals are obscenely expensive with capital payback periods measured in months. The cost quoted to me for the hardware rental of just one HD recording cable box was 21.95/month. This does not include any HD service charge and other upgrades in service that will likely be demanded.

8) More clutter --- Maybe a detail, but still important. Every cable box comes with its own remote and some come with external power supplies. The result is a clutter of TV and cable box remotes, and the Comcast remotes are honking huge with about a million buttons.

9) Computer TV tuners can't change channel when used with a cable box --- For a computer with a TV tuner to act as a recorder/player it needs the ability to automatically change channels. This capability is lost when a cable box (or at least a low end cable box) is inserted between the TV tuner and the cable, so a cable box basically kills the usefulness of the computer digital TV tuner. Comcast has no 'fix' for the digital computer TV tuners it is crippling.

10) Encryption will degrade my ability to record TV --- Presently I record TV programs on my computer's hard drive using a clear QAM computer TV tuner, which I purchased and which directly connects to the cable. I have many recorded TV programs stored on my computer's hard disk, and I have the option to expand storage space at will, which is practical because computer hard disk space is very inexpensive, and to archive programs at will. In contrast disk space on a recording Comcast cable box is quite limited and not expandable forcing programs to be regularly deleted.

11) Encryption will degrade my TV viewing --- Presently I play back recorded TV programs with advanced software (players) that have features like screen capture, lightening/darkening, and frame advance all from the keyboard. Most or all of these features are lost when TV recording/playback is done with Comcast cable boxes. In other words Comcast cable boxes, even at their obscenely high rental monthly fees, are not an adequate replace for my computer TV recording/playback system.

### Overview

Comcast is a true TV (and high speed internet) monopoly for me and my neighbors who live in apartment buildings in Stoneham. Comcast's plan to encrypt all its expanded basic channels after May 11, 2010 in Stoneham will cripple all the equipment I now own and regularly use for watching and recording cable TV. Comcast purpose, very simply, is to force everyone with any digital cable-ready QAM type equipment connected to the cable without a cable box, like me, to rent their inferior cable boxes at obscenely high monthly rates. I called Comcast and was told the rental fee for just *one* Comcast cable box that only partially replaces what I can do now with my computer (using its digital cable-ready TV tuner) would add (up to) \$22/month to my cable bill! FCC has rules requiring non-premium cable channels to be sent 'in the clear' (not encrypted) so digital cable-ready equipment will work. However, cable companies are gradually figuring out how to get around these FCC 'clear channel' requirements by requesting FCC waivers with absurd and unsupported statements like, 'only 1% of our customers will be affected', when the truth is they have no idea how many customers will be affected. Comcast links its May 11, 2010 encryption to the digital enhancements to the cable that occurred in Stoneham in Nov 2009, but the truth is they are unrelated. Encryption is a 'pack', 'add on', an 'extra fee generator'. Encryption does nothing to improve picture quality or expand cable capacity. It's just a monopoly using its power to force rentals of its own very expensive equipment and to push customers into higher levels of service to increase its revenue. It's a power grab plain and simple, and residents of the town of Stoneham need regulators to step in and protect us. Stop the planned Comcast May 11, 2010 encryption of expanded basic channels.

### Discussion

The order of discussion items is somewhat random, although I did try to put them in some sort of logical order. Following the discussion items are my suggestions on possible courses of action.

#### *\* Encryption of 'in the clear' (non-premium) digital channels*

The planned encryption of 'in the clear' expanded digital channels is not part of their recent transition to digital, although Comcast claims otherwise. The transition of expanded basic channels from analog to digital in Nov 2009 in Stoneham was part of a worldwide upgrade of cable and greatly increased the number of channels cable can carry and improved picture quality. Encryption of 'in the clear' expanded basic digital channels is a totally separate issue. It neither increases cable capacity nor improves picture quality.

It is, plain and simple, an abusive practice by a monopoly to increase its revenue both by forcing the rental of more Comcast equipment (with their obscenely high monthly rental rates), and by providing 'incentives' (opportunities for Comcast agents) to move customers to higher levels of service. Both hugely expensive to the customer.

#### *\* How many people will be affected?*

How many people will be affected by encryption? The honest answer is no one knows including Comcast. If Comcast tell you



otherwise, don't believe them. All Comcast knows is how many cable boxes you have. They have no way of knowing if you have an HD cable-ready TV hooked directly to the cable (maybe in another room) or the cable plugged directly into your computer. As an electrical engineer, believe me when I tell you there is no way Comcast can (externally) detect direct cable connections. In a leaked Comcast internal memo to its customer representatives (see Ref 1) Comcast admitted they didn't know how many customers would be affected by encryption.

I quote from the leaked Comcast memo, Question: "How many Comcast customers have QAM tuner televisions and/or will be impacted (by encryption)?" Answer: "There is no way of knowing how many of our customers own QAM televisions..." (see Ref 1)

However, when cable companies write to the FCC to request encryption waivers they sing a different song. A waiver request to the FCC by a cable company (not Comcast) asking for permission to encrypt is available online (see Ref 2). This cable company tells the FCC if they encrypt it will only affect 1% of customers. How do they know this? They don't! The FCC apparently take these bald and unsupported assertions at face value and is reportedly one of the reasons they grant waiver requests. What the cable companies do when writing to the FCC is to count everyone with one or more cable box as unaffected. This is baloney. In this way of counting I would not be affected, because I had one (free) cable box, which I obtained from Comcast during the recent digital transition. But I barely used it, because it was connected to old 21" TV. Virtually all my TV viewing is done with a an HD cable-ready large screen TV and my TV recording is done with my computer using its digital cable-ready tuner, both of which are hooked up to the cable directly without a cable box. Comcast has no way of knowing this. Any assertions by Comcast as to how many of its customers will be affected by encryption are not to be taken seriously. They have no way of knowing how many newer TVs there are out there hooked up directly to the cable. In fact I had two extra cable boxes that Comcast sent me during the Nov 2009 digital transition, and I returned them to Comcast because my large screen TV and computer TV tuner worked better with a direct cable connection than with Comcast's free low end cable boxes. And I don't have remotes piled to the ceiling (every Comcast cable box comes with its own remote most of which have about a million buttons.)

Thus do not believe Comcast if they tell you only a few people will be affected by encryption, because they have no way of knowing how many people have purchased large screen TVs in the last couple of years. To me the the logical thing to do when you get a new large screen HDTV is to just plug in the cable and do channel scan, so I suspect a large number of Stoneham customers are going to be affected by the planned encryption.

*\* For years I never had a cable box*

My own experience I bet is not uncommon. For years I subscribed to Comcast basic + expanded basic service, which prior to Nov 2009 in Stoneham was all analog. No cable box was needed for this class of service if you didn't want a premium service like HBO or on Demand, because for decades every TV made has been (analog) cable-ready. So for years prior to Nov 2009 digital transition I had no cable box. When I got a large screen HDTV around Christmas 2008, having no cable box I of course just connected the cable to the TV and told the TV to do a scan for channels. It found the (analog) channels my old 21" TV got (ch 2-99), plus beautiful HD (high definition) local channels (PBS, NBC, ABC, CBS, Fox, etc), and duplicate channels with strange channel number like 26-1, 26-2, etc. I now know the duplicate channels with the strange channel numbers were 'in the clear' expanded basic channels in digital format. Thus I know for a fact that expanded basic channels have been transmitted 'in the clear' in Stoneham since at least 2008. In the digital transition of Nov 2009 what happened was the analog version of expanded basic channels (ch 23-99) disappeared, but the digital version of these channels remained. Comcast's repeated statement to customers that if you didn't do something you would lose access to expanded basic channels after Nov 2009 was (at best) an oversimplification, and it could be viewed as outright lie.

If you hooked up the free cable boxes Comcast distributed in Nov 2008 in the way Comcast instructed, then you lost HD channels. This, of course, was a prod to get to call Comcast and inquire, "What happened to my HD channels?" At which point you would be told you need to subscribe to a Digital service and rent HD equipment to get your local HD channels back. Neither of which was true. (This is near universal scam run by all cable companies as noted by Wikipedia.)

*Wikipedia online encyclopaedia*

"The law does not require the cable provider to advertise the availability (of clear QAM channels), and the cable customer service representatives are known to unequivocally (and incorrectly) insist to customers that (an HD) converter box is mandatory to view any HD channels." (excerpt from Wikipedia 'QAM tuner', currently worded a little less inflammatory)

*\* Expanded basic channels are not typically encrypted*

Comcast online Q&A for customers has this: "Do I need a separate digital cable box for every TV?" The Comcast answer is, well if you want On Demand or an online program guide, then yes you need a cable box for each TV. If they were encrypting, there would be no such caveat, it would be an unconditional yes (or something like what we are being told now, which is if you want anything more than just basic you need a cable box). Hence Comcast themselves in this Q&A makes it pretty clear they have generally not been encrypting. Encryption is new. Here is the Comcast Q&A link:

<http://customer.comcast.com/Pages/FAQListViewer.aspx?topic=Cable>



Most of the digital computer TV tuners currently sold only receive 'in the clear' digital channels. TVs with Cablecard slots exist, but are rare and expensive. Manufacturers make what can be sold, hence what's available for sale indicates that encryption is rare.

Why does almost every new large screen TV have a built-in digital tuner for cable (QAM tuner) that only works for unencrypted ('in the clear') channels? This tuner is not mandated by law. Manufacturers put it in because there is a market for unencrypted digital. Another indication that encryption is rare.

The website of a manufacturer of computer digital tuners lists all the clear channels in every postcode of the USA. My own little (unscientific) survey showed encryption is relatively rare, i.e. most markets have a large number of clear channels. Do your own survey. Here is the link: <http://www.silicondust.com/hdhomerun/channels> (select country, then cable in pull down list)

*\* Comcast is a true cable monopoly for many town residents*

Comcast is for many Stoneham residents who live in apartments, condos or rental units a true monopoly. I live in a large 200 unit apartment complex in Stoneham and the buildings are wired only for Comcast cable. (I confirmed this with a call to the apartment manager.) In an apartment there is usually no way to mount a satellite antenna (or run in the feed). Thus for me and many Stoneham residents our only high speed communication access to the modern world is Comcast. We are forced to buy from Comcast. Even for town residents who own houses the bundling of cable services (TV, internet, home pages, telephone) can lead to an effective lock-in to your cable provider.

The FCC is aware of the monopoly power of cable in apartments. FCC Chairman Kevin Martin was quoted in the New York Times as saying, "People who live in apartments deserve the same (cable) choices as people who live in the suburbs. The (FCC) found that people who live in apartment buildings often have no choice of companies when it comes to their video service provider." (NYT, 24 Jan 2008). But in spite of the FCC in 2007 forbidding apartments to sign exclusive deals with cable companies (cable companies, of course, appealed), the reality is nothing in the cable world has changed for me and my neighbors. For us it's pay what Comcast extorts or lose access to much of the modern world. Help!

*\* Predatory and abusive monopoly*

Comcast is the nation's largest cable provider, and its cable business generates so much cash it trying to buy NBC. Comcast well understands the power it holds, and in its dealing with cable customers, if it's not unrestrained, it acts accordingly, as a predatory and abusive monopoly. Its latest, and by far biggest local abuse, is its threatened crippling of all customer owned digital-ready (QAM) TVs and other equipment to force rental of Comcast equipment. We need protection from this abusive monopoly. We need regulatory protection from the town to stop the planned encryption of expanded basic channels.

Ever try to get straight answers on costs from Comcast? On a recent visit to the Comcast office when I asked about rental costs for an HD recording cable box, they refused to quote me a price (yes, they refused to quote me a price!) with the lame 'excuse' that its rental cost was going to change soon (increase I bet), nor would they detail additional service plan costs tied to the box. I called Comcast asking for a list of the monthly rental fees of all box types and was quoted prices from \$7 to \$22/month (details below), yet a week or so later when I visited a Comcast office I find a low end box was offered to me at \$2/month. The least expensive hardware and service plans it appears are typically hidden from customers unless asked for.

When I asked Comcast on the phone about Cablecards, which are inexpensive, the Comcast representative made several disparaging remarks made about the card. I would bet this disparagement of low cost equipment is scripted. I note Wikipedia in its article 'Cablecard' says this, "There has been much resistance from the cable companies to Cablecard rollout across the United States with the cable companies preferring to support their own set-top boxes." Gee, why do you supposed that is? Maybe because Cablecard rentals are much lower than most cable boxes and currently don't support 'On Demand'? However, the downside is that equipment that uses Cablecards is relatively rare and expensive. There's also risk in buying such equipment because Wikipedia notes, "(There are) still many in the cable industry who are advocating (to FCC) that physical Cablecards be dropped entirely."

*\* An aside on Cablecard risk*

I see new opportunity coming for Comcast to again stomp on customers. If you hate Comcast cable boxes (like I do) and opt for new equipment with Cablecards (\$200+ for a computer TV tuners or big bucks for a large screen TV), then you are opening the door for Comcast, assuming they can wangle a favorable ruling from the FCC, to out of the blue send you a mailing that in two months Cablecards will no longer be supported! Not to worry though because Comcast has plenty of old obsolete cable boxes ready for you to rent.

Also revealing was that on a visit to my local Comcast two weeks after receiving a mailing about the May 11, 2010 crippling of all digital cable-ready equipment I found no info at all about the planned cable change. You would think an upcoming (six weeks away) big change in the cable that will cripple a lot of customer equipment would be front and center at the Comcast office, but there is nothing, no literature on the desk, no posting on the bulletin board, zero. It's being done in secret. Why is that? Is Comcast ashamed to make it public? They should be ashamed.



*\* Comcast takes every opportunity to annoy you, or the idiot way a Comcast remote steps through channels*

A classic demonstration of the abusive nature of Comcast is shown by how a Comcast remote steps through channels. I have a low end Comcast cable box connected to an old 21" TV. The box, of course, is programmed from the Comcast office to display only the channels I pay for. But when I use the ch up/down buttons on the remote I find in the higher channel ranges it steps one by one through what appears to be hundreds of blue screen channels that say "Not Authorized" or "Subscription Service" and "for ordering press info". Why does it do this? Modern TVs don't do this, they only step through active channels (found in a channel scan). I think the reason is obvious. Comcast takes every opportunity to 'push' customers to upgrade to higher levels of service. They want customers to 'see' all the channels they are missing, and if the customer needs to be annoyed, or equipment and performance compromised to this end, then so be it. This is Comcast to a tee.

It all adds up to Comcast being a predatory and abusive monopoly.

*\* Comcast box rental*

With encryption pending Comcast is now telling all its customers you need a "digital device" on all your TVs. You cannot buy your own cable box and have it work with Comcast cable. Comcast does not allow it. Even if you buy used, say on EBay, the same model box they use, Comcast will not hook it up. You must rent your cable box from Comcast. Why do you suppose this is? Obviously, equipment rental is a significant revenue source for Comcast. You as a cable customer are trapped. Want Comcast cable, then you must rent hardware from Comcast. What's to keep them from pushing their rental cost obscenely high? Well basically nothing, so they do. Comcast is a predatory and abusive monopoly.

*\* Digital cable-ready TVs*

Nearly all large screen TVs manufactured in the last couple of years are digital 'cable-ready', and if the TV is HD (high definition), then they are also HD 'cable-ready'. (I am not speaking here of the rare expensive TVs with Cablecard slots.) These TVs have built-in digital (QAM) tuners that allow them to receive digital channels on cable without a cable box if the channels are not encrypted. My understanding is the reason TV manufacturers have built-in QAM tuners, and a large amount of digital cable-ready equipment manufactured exists in the form of DVRs (TV recorders) and computer TV tuners, is because the FCC has rules restricting encryption. It is in the public's interest not to have digital channels encrypted (premium channels excepted, of course). In the same way that analog cable-ready equipment was used on cable for decades the huge amount of digital cable-ready equipment extant should not be crippled by a profit maximizing monopoly.

*\* Cable company arguments to FCC for encryption*

Cable companies appear to have found ways around FCC restrictions on encryption by applying for waivers to encrypt. Unfortunately the FCC has granted some waivers. The reasons the cable companies give to the FCC to encrypt, based on waiver request online from a NY cable company (see below) are worth examining. One argument cable companies make is to imply that 99% of its customers will not be affected by encryption. As I argued above, this argument is totally bogus. Comcast in its leaked memo to its customer representatives says as much. The said honestly "there is no way of knowing" how many of their customers would be affected by encryption.

Here's a news article on a recent encryption waiver and the arguments the cable company (not Comcast) advanced to support it:

*FCC Grants Waiver On Encryption Rule For Cablevision --- Commission Says Cable Operator Made Strong Case*

"That strong case included that the move would "reduce costs, improve customer service, reduce fuel consumption and CO2 emissions, alleviate traffic [Cablevision says it made 1 million service calls last year], and have virtually *no negative impact* on customers." To make that last point, Cablevision pointed out that 99% of the subscribers in the New York system had either set-tops or CableCards, so the disruption would be minimal."

[http://www.multichannel.com/article/443264-FCC\\_Grants\\_Waiver\\_On\\_Encryption\\_Rule\\_For\\_Cablevision.php](http://www.multichannel.com/article/443264-FCC_Grants_Waiver_On_Encryption_Rule_For_Cablevision.php)

*Consumer Electronics Association opposed the NY encryption waiver, saying*

"... A waiver would also render inoperable many QAM tuner devices purchased by subscribers. Cablevision's Petition does not present the particularized 'strong need' that Section 76.630(a) requires. Because it does not meet the rule's criteria, and because it would deny consumers an option that the Commission has long considered vital, the Petition should be denied." Another group opposing the NY waiver request said, "(With encryption) subscribers would have to pay an additional monthly rental fee ... for each and every TV set in their households."

[http://www.multichannel.com/blog/BIT\\_RATE/24671-](http://www.multichannel.com/blog/BIT_RATE/24671-)

[More\\_Reaction\\_to\\_Cablevision\\_s\\_Crypto\\_Ban\\_Waiver\\_Request.php?rssid=20092](http://www.multichannel.com/blog/BIT_RATE/24671-More_Reaction_to_Cablevision_s_Crypto_Ban_Waiver_Request.php?rssid=20092)

*\* My comments on the NY encryption waiver request*

The cable company asserts that encryption will have "virtually no negative impact on customers". The only support they offer for this wild claim is that 99% of its customers has a cable box. So what! I have a cable box but it's on an old TV and I will be hugely affected. What counts is how much equipment is directly connected to the cable, which a cable company (as Comcast has

admitted) has no way of knowing.

Note also the contradictory arguments. Telling the FCC that encryption will have "virtually no negative impact on customers", is equivalent to telling the FCC that they think there is almost no equipment directly connected to the cable. But if this is true, how can they then argue that it will make a big reduction in home visits, traffic and CO2 emissions? It doesn't make sense, the arguments are contradictory. If 99% of customers are already watching TV only through cable boxes, then the cable company already has 99% of what it claims to be seeking in the waiver, which is the ability to turn on/off cable service remotely. (Cable boxes need to 'activated' and can be deactivated remotely). And surprise, surprise there is no mention at all in the waiver request story of the increased cost to customers, and increased revenue to the cable company, as customers with direct cable connections will be forced to rent cable boxes for all their TVs.

*\* Cable boxes are convenient (for Comcast) and inconvenient (for users)*

Another argument cable companies make when writing to the FCC requesting permission to encrypt it that it reduces the planet's CO2 emissions. What! This argument is almost laughable and is nothing but spin. Here's what they are talking about. For years if someone does not pay his cable bill, the cable company would send out a technician to put in a filter in the cable feed outside the home. They can still do this with a digital cable, but they prefer not to. If every device in the home has a cable box on it, then Comcast can save the cost of a visit by just switching off the cable boxes over the cable from the office. Is this convenient? Sure for Comcast. Does it save a little money? Sure for Comcast, But it's certainly not convenient (not to mention hugely expensive) for the customer with remotes stacked to the ceiling and computer TV viewing/recording capability destroyed.

*\* Comcast privacy argument*

In the leaked Comcast memo to its customer agents it advises them to tell customer asking about encryption that Comcast has a duty to its channel providers to keep their content private. This argument rings hollow in light of the following facts:

- a) Comcast expanded basic channels have been 'in the clear' to my personal knowledge in Stoneham since at least since 2008
- b) FCC has regulations limiting encryption
- c) a huge amount of digital cable-ready equipment is in the hands of consumers, including most large screen TV built within the last couple of years that only receives 'in the clear' (unencrypted) digital channels
- d) encryption (of non-premium channels) appears to be the exception not the rule in USA.

*\* Cable box rental (monthly)*

I recently called and inquired about the rental cost of cable boxes. I ran through a list of possible cable box types and was quoted these monthly costs:

- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| a) non-HD cable box (no record)   | \$6.95/month                          |
| b) non-HD cable box with record   | \$9.95/month                          |
| c) HD cable box with record (DVR) | \$21.95/month (\$14.95 in some cases) |

As an engineer, I estimate Comcast cost for the HD box with record and play back capability is no more than \$150, probably closer to \$100. At a rental fee if \$21.95/month this is a payback time of 5 to 7 months. The rental costs of Comcast cable boxes are obscenely inflated. Yet another proof they are a predatory and abusive monopoly. Their plan to encrypt the expanded basic channels will be a nice boost in their equipment rental fees. This kind of piling on of fees by various underhanded tricks reminds me of the fees the banks have piled onto to debit cards until Congress recently stepped in to prohibit the worst abuses. Because Comcast has a true monopoly on TV and internet for me and my apartment neighbors, the only choice we have not to be extorted by Comcast is to give up cable channels on politics, sports, comedy, history, etc, etc. This is what monopolies do. This is why monopolies need to be closely regulated.

*\* Dealing with Comcast on costs is a nightmare*

I cannot get a straight answer on costs from Comcast. On a recent visit to the Comcast office when I tried to pin down the rental cost of a HD recording cable box (previously quoted to me on the phone as \$15 to \$22/month), they refused to give me a cost with the lame 'excuse' that its rental cost was going to change soon, nor would they detail additional service plan costs tied to the box. This is how predatory and abusive monopolies act.

*Looking for costs on Comcast.com*

Ever try to get costs from Comcast online? It's a waste of time. I finally got to to a page on their site with a few prices, and then at the bottom is this footnote, "Disclaimer: Regulated Prices quoted above may not apply in all markets. Please call 1-800-COMCAST to learn more about Regulated Prices for your area." This is a joke. Comcast could easily ask for a zip code or an account number and give you pricing online that applies to you, but they choose (they choose!) not to. Their service plan pricing and rental pricing is a deep mystery. Heaven forbid they should give their customers a clear cut list of plan prices and equipment prices, so customers can make a reasoned decision. They are a monopoly, they act like a monopoly, normal business rules don't apply.



After writing above, I did locate a screen on the Comcast site that did ask for an address prior to pricing and the next screen was identified as (my) pricing for "All Comcast products". What came up was pricing for eight plans ranging from \$130 to \$200 per month. What a joke. Comcast tells you they are going to list your price for "all" their cable service plans and then they list only the most expensive. Where was Basic service, Digital Economy service? Did Comcast just forget to list anything but premium plans? Sure, that's it, they forgot. (This is what monopolies do.)

*\* Higher level of service ploy*

Note the above quoted cable box rental cost of \$15 to \$22 is for a *one* cable box. If you have another TV, it needs its own box! On top of that I suspect this is the tip of the iceberg. If I were to go to Comcast office, I suspect that there would be caveats. I would be told that this or that box is not available with my level of service. If I tell Comcast I want HD, and of course I want HD after buying a HDTV, I'm betting it would be, Oh, you need digital HD service and of course rental of HD cable box(es). It sounds reasonable you need to buy HD digital service and rent a Comcast HD cable box to receive HD channels. But is this the whole story? (I'm skeptical given that Comcast routinely 'forgets' to mention lower cost options.)

I recently called Comcast and I asked if local HD channels would still be receivable without a cable box after the planned May 11, 2010 encryption date. I was told yes. (I initially took this with a grain of salt, because if I ask again the answer might very well be no. On cable forums a common complaint is you never get the same answer twice from Comcast.) However, what I was told is consistent with my understanding that FCC mandates HD versions of local channels be sent 'in the clear'. Does the monopoly Comcast ever tell its customers this with out being asked? Not in my experience.

My recent Comcast mailing says every TV will need a cable box ("digital device") after May 11, 2010. Without a cable box only "basic" channels will be receivable. What does this mean? All basic channels are on the cable in at least two formats and many in three formats: analog (lowest quality), higher quality (SD digital), and highest quality (HD digital). So what does Comcast mean when they say if you don't rent cable boxes from us you will only get "basic" channels after May 11. Does this mean only the low quality analog only? I didn't know, and as an electrical engineer I know a lot about cable.

I didn't understand it, because Comcast did not say what they planned to provide. The quality level of Basic channels after 5/11/2010, and specifically whether local HD channels are to be included, is a very important point. Customers need to understand this to make a rational choice. Yet on this critical point the Comcast mailing (see attached) is as vague as it can possibly be.

I kept reading online that the FCC generally required cable companies to keep local HD channels unencrypted even if expanded basic channels were encrypted. So I called Comcast and asked this specific question and was told yes HD local channels would remain unencrypted. So why doesn't Comcast just say this (without being asked), clearly tell customers if their HD TVs can receive local HD channels now without a cable box it will continue to do so after May 11? I think the answer is obvious. They paint the blackest picture they can (without outright lying) in an effort to rent more equipment. This shows the kind of company they are, a predatory and abusive monopoly.

*\* Comcast mislead Stoneham customers in Nov 2009*

When I got a large screen TV Christmas 2008, its channel scan found a lot of channels with strange numbers like 25-1, 27-4, which I paid little attention to since they were duplicates. However, after the cable went digital in Nov 2009, they were still there. Comcast had repeatedly said in Nov mailings and telephone calls that if you did not do something, you would lose all channels above ch 22 after Nov 2009. That was clearly a lie. I did nothing and I continued to receive expanded basic channels and local HD channels, all of which I was paying for, because instead of hooking up the free cable box I got from Comcast I just left the TV connected direct to the cable. This taught me a valuable lesson. Almost nothing Comcast tells you can be taken at face value, Comcast lies to its customers.

What happened in the Nov 2009 digital transition in Stoneham was that the analog versions of expanded basic channels were removed from the cable. The digital versions of expanded basic channels, most of which had been there long before the transition, those which my TV received with the strange channel numbers like 25-1, 27-4, remained. My TV could still get them without a cable box. I did, however, need to adjust to new channel numbers. A price I willingly paid to retain HD channels, which were lost if you hooked up the free cable box Comcast provided.

How Comcast handled loss of HD channels with their free cable boxes in Nov 2009 was another eye opener. Maybe Comcast did not lie outright about picture quality with the free box, but it was at best exceedingly misleading. They repeatedly emphasized the free boxes would *improve* picture quality because the picture would be 'digital'. The fact is the free boxes Comcast distributed were non-HD boxes, incapable of passing an HD picture to the TV. Prior to the digital transition expanded basic customers didn't need cable boxes and undoubtedly many of those with newer large screen TVs were enjoying HD cable channels courtesy of the QAM tuners built into the TVs. Comcast, of course, knew this, and knew their free set-top boxes would rob customers of their HD



channels, but they didn't want to say so. I suspect a lot of people (at least prior to the digital transition) didn't really understand the difference between 'digital' and 'HD', and this confusion was played up. A lot of Comcast customers were probably rudely surprised in Nov 2009 when they hooked up the free Comcast cable boxes and found their high quality HD channels were gone. If they called Comcast, how much you want to bet they were told they needed to rent a HD box?

*\* An aside on a better way to hook up a low end Comcast cable box*

It is possible to hook up most of the low end non-HD Comcast boxes (not the DTAs) and still get HD on an HDTV (at least most HDTV's with built-in digital QAM tuners). Of course Comcast doesn't tell you about this! If you hooked the box up the way Comcast told you, then you got no HD, because the box will not output HD to the TV. Here we have yet another example of why I think Comcast is predatory and abusive monopoly. I described my simple method (see below) to a Comcast cable technician, and he agreed it would work, and I've tried it and it does work.

*How to get HD to your TV with a low end (non-HD) Comcast cable box*

Run the cable into a splitter with one splitter output to the cable box (RF in) and the other splitter output to the TV (RF in). Then run the Composite output of the cable box (you need a three wire cable with red, white, yellow plugs on both ends) into the Composite input of the TV (nearly all TVs have multiple input connectors.) The TV can still pick up everything it got before including local HD channels because it has a direct cable feed. To access the cable box, which gives you access to On Demand, channel guide, and your old channel numbers for expanded basic channels, you use your TV remote to switch the TV input source to Composite.

*\* Cable bill increases*

Unless I cut back service I expect Comcast's encryption will cause my monthly cable bill to soar as I will be forced to rent an obscenely expensive, technically obsolete, recording cable box from Comcast. I can almost guarantee that Comcast will also demand upgrades to HD service plans to receive HD channels. Based on the rental costs I have been quoted added equipment rentals and higher level of service could easily push my cable bill \$20 to \$40 dollars/month higher.

*\* Recording TV to your computer hard drive using non-Comcast equipment*

I put in a lot of hours putting together a system of hardware and software to record cable programs on my computer, essentially converting my computer into a Tivo-like device. I had long had an (analog) TV tuner on my computer (made by Hauppauge), but all channels on my computer above ch22 were gone after Nov 2009 when expanded basic channels in Stoneham went digital. At that time I found that Hauppauge had just introduced a new model TV tuner that included a clear QAM tuner (see ref 3 for 143 Amazon reviews). Like nearly all TV digital tuners on the market it can receive only digital channels sent 'in the clear' (not encrypted). (Don't confuse this with digital broadcast channels. QAM tuners work only for digital TV on cable.) To complement the hardware TV tuner I had to also buy software to run on the computer to do the recording and play back the recorded shows.

That's right folks, if your a techie you can convert your computer into a cable box. You need three pieces: TV QAM tuner (\$70), recording/(program schedule) software (\$40), and playback software (\$0). Presto chango you have your own cable box, all perfectly legal, and it records and plays back even better than a top of the line Comcast cable box. I now regularly record TV shows for later play back, recording in both SD and HD formats. As long as my computer is turned on, the software using a downloaded program schedule sets the channel of my digital cable-ready computer TV tuner card and does the recording all automatically. But come May 11, 2010 if Comcast is not stopped, not only my computer recording 'cable box', but thousands of large screen cable ready QAM TVs in Stoneham will no long be able to pull expanded basic channels directly off the cable, because encryption scrambles channels on the cable and only cable company cable boxes contain the secret key to unscramble them.

*\* Comcast recording cable box is a poor substitute for recording on your computer*

And here's the kicker. Comcast's super expensive recording box will not be nearly as good as what I have now. Comcast web site shows they offer two recording cable boxes: a DVR with 80 Gb disk capacity and an HD DVR with 160 Gb capacity. What, 80 and 160 Gb? This is five year old technology! The same old equipment gets reused again and again. Comcast doesn't upgrade their cable boxes. Basically they rent crap. Do you suppose, just suppose, this has anything to do with them being a monopoly, and the only cable boxes that they will let you use must be rented from them? (For reference 1,000 Gb computer disk drives (x6 to x12 times more recording capacity than Comcast boxes) are now common and can be bought retail for \$80.)

*\* An aside on Comcast remotes*

I have a Comcast cable box hooked up to my old 21" TV. It comes with a Comcast remote to control both the TV and cable box. The remote has an 'All On' power button that is supposed to switch both the TV and cable box on/off together. In fact what it does is switch the cable box once and the TV multiple times requiring me to get up and switch the TV on/off manually! I never had a problem turning this TV on/off with any other remote. Another data point (as an engineer would say) that Comcast rents crap.



You have far more flexibility and control with TV recorded on your computer than with a primitive Tivo-like recording box that Comcast offers. Programs recorded and played back using your own computers hard drive you be screen captured, permanently archived, video corrected and even edited. None of this is possible with Comcast's recording cable boxes. Bottom line --- Comcast is planning to cripple my TV recording/playback equipment and does not have an adequate replacement (at any price).

And what does Comcast have to say about encryption totally screwing those who use their computers for TV recording/viewing, like me? Well, nothing. That's right, because they have no 'fix' (at any price), no comparable equipment. They never mention the subject in mailings or online. No apology, no explanation, nothing. Yup, that's Comcast, they screw you and it's not even worthy of comment.

*\* Did Comcast ever hear of computers with TV tuners?*

When Comcast is selling it bundled cable services, they paint a world with cable the key to integrated TV, high speed internet, and telephone. But curiously when Comcast is advising its customers how to adjust to TV changes it is making on cable, TVs are treated as stand alone devices. It's like we are back in the 1980's. Did Comcast ever hear of computers with TV tuners? They act like they never have. There's a reason for this. For a computer TV tuner to be useful and work with recording the computer needs to be able to change the channel of the tuner. This TV tuner feature is crippled if you add a Comcast cable box between the computer and the cable. So as the cable has digitized, how has Comcast advised its customers? In other words what was Comcast's fix for for customers with computer TV tuners when the cable was digitized last Nov? Well they had no fix. Look at all the Comcast literature of the last six months and you will see that customers with cable connections to their TVs were never mentioned.

*\* My TV' are not stand alone*

Like many techies my two large screen TVs are tightly integrated with my computer. They do triple duty as computer monitors (large screens are great for bifocal wearers) for DVDs and for TV (live and recorded). It's ludicrous in 2010 for Comcast to be talking in terms of TVs as stand alone devices onto which they can just pop a cable box. Cable boxes just do fit into an advanced TV/computer set up, they totally mess it up.

*\* Hardware secrecy*

Ok, we in Stoneham are told by a Comcast mailing we need a "digital device" for each TV. You would think it would be easy to find a list of the cable boxes Comcast has for rent. Shouldn't they be on display at the office and their features and cost clearly marked? At least it should be online right? You can get a list of options with features and cost, right? Nope, none of the above. Any normal company would make this information available, but Comcast cable is not a normal company, it is a monopoly (or quasi-monopoly). With Comcast hardware is all secrets and secrecy. Choices are hidden, details of what the box can do are hidden, and most importantly rental costs if not exactly hidden are extremely difficult to pin down. How is a customer to make rational choices? The answer is the average customer can't. Hardware choices are essentially blind, or else you take what Comcast hands you. It's nearly impossible to find out what is offered, what it does, and at what price. Why do you suppose this is? Do you suppose it is because Comcast is an abusive and predatory monopoly?

*\* Blind hardware choice at Comcast office*

At a recent visit to my local Comcast office I found all hardware to be under the counter and hidden behind the bars. No written information about the hardware was available. Why does this matter? Well for one thing, what outputs a box has could be important if you want to feed the TV with a mixture of cable, computer and off the air inputs. Comcast boxes differ greatly in size. I my last visit to Comcast I had to chose if I wanted a huge honking box or a tiny box only on the basis of the Comcast agent waving them at me from across the room. I had no rational basis on which to make that decision. I had no idea what, if any, performance difference there was. You are forced to make hardware decisions virtually blind. Is this anyway to run a business. Comcast, being the abusive and predatory monopoly that they are, seems to thinks so.

*\* Variable costs for same box*

Rental costs for the box I would need to partially replace my computer recording have been quoted to me as either (in round numbers) \$15 or \$22 per month depending. There's a \$7/month difference rental for the same box. Depending on what? I can't find out. I have made tries (telephone and office visit) to get this clarified. Can it really be clarified, or is in fact the box rental cost variable, like airline seat pricing? Does the agent have flexibility to adjust rental fees up/down? More secrecy and complication.

A look at cable forums online are also revealing. You find people renting from Comcast report wildly different rental costs for exactly the same hardware in different regions of the country. Why is this?

*\* 'On Demand' revenue*

I would suggest another reason Comcast wants every TV to have a cable box is that it brings the Comcast 'On Demand' movie service to every TV (TVs with DTAs are the exception). 'On Demand' movies are expensive and Comcast heavily promotes it, so it is probably a major revenue source for Comcast. (Surprise, the 'On Demand' button is the biggest button on the Comcast remote!)



Thus encryption will increase Comcast revenue in two ways: more cable box rental income and they will sell more 'On Demand' movies. No wonder they want to encrypt!

### **Will any HD channels be receivable without a cable box after May 11, 2010?**

In other words what happens if you now have a newer HD television (with a QAM tuner) connected direct to the cable (no Cablecard) and do nothing? Comcast now just sows confusion about this. The Comcast mailing I received in March 2010 (attached) states a cable box is required for HD. I quote, "Access to HD channels *requires* an HD cable box ..." Whereas on the phone with Comcast I have been told the exact opposite, that local HD channels would continue to be available without a cable box! The truth will come out post May 11, 2010, but I suspect the Comcast mailing, which I just quoted, is at best misleading if not a flat out lie. I think Comcast is trying to scare as many customers as possible into renting a cable box prior to the encryption date.

#### *Primer on cable channels*

Local network channels, like ch 7 NBC in Boston area, are sent three ways on the cable. Ch7 in analog format, which has the lowest quality picture, is sent on one cable channel. A higher picture quality ch7, SD (standard definition) digital format, is on another cable channel, and the highest picture quality ch7, HD (high definition) digital format, is on a third cable channel. All of these carry ch7 programming all the time, just in different formats. An old TV connected direct to the cable tunes in the analog ch7. A non-HD digital cable box tunes in the SD ch7, and a HD cable box tunes in both the SD ch7 and the HD ch7. An HD television with a QAM tuner connected direct to the cable can tune in the HD ch7 too, if it is unencrypted. The TV convention is that '1' suffix is used for HD channels, so HD version of ch7 on an HDTV will typically have the channel number 7-1 (or 7.1).

In contrast for some idiot reason to tune in local HD channels on Comcast HD cable boxes you often need to tune in an 800 channel number! On my HDTV with a direct cable connection HD ch7-1 immediately follow analog ch7, a much more logical arrangement. Still another data point that Comcast rental equipment is crap.

#### *What customer need to know about Basic Service*

For Comcast to say you only get "Basic Service" (which they do repeatedly) is basically meaningless. I'm an engineer. I know a lot about cable, and I don't know what this means. It is, I would argue, deliberately vague. If you are going to get Basic Service what you want to know is in what formats ch2 to ch 22 will be delivered. More specifically, if you have a HD (QAM) television, what you are really interested in is this: Does (inexpensive) Basic Service provide unencrypted HD versions of local network channels allowing them to be received by an HD (QAM) TV using a direct cable connection?

The Comcast mailing (see attached) says, I quote, "After 5/11/2010, any TV without a digital device will receive Basic Service channels only. For a listing of Basic Service channels in you area visit: [www.comcast.com/channellineup](http://www.comcast.com/channellineup)". I went to the web site referenced on the Comcast mailing looking for answers. (For starters there is no channel listing for "Basic Service", but I assume 'Basic cable' is what is meant.) And surprise, surprise, there is no mention at all of channel format or which (if any) are HD. For example, Ch7 WHDH-TV (NBC) is included in Basic cable, but Comcast does not explain in what format this channel is provided: analog, SD, HD, or all three. Why the omission? I think the answer is obvious. Comcast downplays ('hides' is a more accurate word!), the features of its \$10 or so Basic cable hoping to sell customers on \$100 HD packages. Yet, another example, of how they are a predatory and abusive monopoly.

On 4/12/10 I made a third run at Comcast to find out the status of local HD channels (Ch 2,4,5,7) with Basic cable after 5/11/2010. I spent about an hour and half searching out and then talking in a live online chat session with a Comcast representative. (Screen captures of this chat session are attached.) I submitted the question, "After 5/11/10 in Stoneham MA, will local HD channels (ch 2,4,5,7) remain unencrypted?" I thought the question was clear, but the Comcast representative wandered all over the place, and I had to keep asking the question again and again.

### **Local HD channels will remain 'in the clear', or so I am told by Comcast**

Finally I got an answer from the online Comcast representative. The answer was 'yes' with Basic Service local HD channels will continue to be sent 'in the clear' (unencrypted) (see attached transcript). This means most large screen TVs (with QAM tuners) will be able to receive local HD channels with only inexpensive Basic cable and without a cable box! In other words if your interest is mainly local HD channels you need only \$10 or so Basic service (whoops, I see Comcast just increased the price to \$13) and no cable box, not a \$100 to \$200 dollar/month premium package. How many residents of Stoneham do you think know this? I'll bet, based on my experience, very, very few!!

As I was wrapping up this letter I found additional hints in various Comcast footnotes (in Channel Line up sheet and price sheet for Stoneham, see attached) that local HD channels will (probably) continue to be provided 'in the clear', providing at least a weak confirmation of what I was told online and by phone. If true, this means local HD channels can be picked up by most large screen HDTVs with a direct cable connection by subscribing to only low cost Basic Service. Or for about half of the expanded basic channels subscribe to relatively inexpensive Digital Economy Service, which includes Basic Service in its price. With Digital

economy the trick to getting local HD channels would be to use a splitter feeding both the cable and the cable box to the TV.

*An aside --- So does Comcast just outright lie about HD channels?*

Well, they come pretty close. A confusion that they sow has to do with the distinction between 'HD channels' and 'local HD channels'. When Comcast is pushing customers to buy expensive digital packages, invariably they just talk about 'HD channels', for example, such and such equipment and service is need to receive HD. They can defend this in that it applies to *all* HD channels. But my understanding is that different rules apply (or may apply) to 'local' HD channels, because the FCC has special rules that apply to retransmission of local broadcast channels on cable.

I have counted the number of HD channels my HDTV receives with a direct cable connection and find 10 HD channels. Of these 10 HD channels 8 of them are in the basic range (ch 2 to ch 22) on my TV and are listed as HD channels on the latest Comcast channel Line up under 'Basic'. Thus it looks like 8 of 10 HD channels (approximately) now available with a direct cable connection in Stoneham will continue to be available unencrypted after 5/11/2010 and receivable with Basic Service and no cable box (if you have a newer large screen TV). How many Stoneham residents know this? How could they know it?

*\* I had no objection to Nov 2009 transition of expanded basic channels to digital*

The Nov 2009 digital transition of the cable effectively killed my old (analog) computer TV tuner, but I made no protest. I supported this transition, it was a real and substantial cable upgrade. It did cost me some money and time, but was well worth it. I replaced my (analog) computer TV tuner with a new digital (clear QAM) model from the same manufacturer (see refer 3 below for details). Now after only six months use of my new computer TV tuner Comcast is now planning to cripple it with encryption. I really object to the crippling of my new computer TV tuner, because I know it's unrelated to enhancement of the cable, regardless of what Comcast claims! Encryption in my view little more its an abusive and predatory monopoly flexing its muscles to increase its control and revenue by the forced rental or more Comcast equipment at obscenely high cost, not to mention all the HD related service upgrades that will be demanded!

### **What can and should be done about Comcast's plan to encrypt?**

Whether the town, or in FCC speak the local cable 'franchising authority', has the authority to prevent Comcast from turning on encryption I don't know. It's a legal question, but it's also a consumer protection issue. I suggest it be kept in mind that FCC, while charged with regulating the cable industry has to a large extent been captured by it. A classic case being the granting of encryption waivers, which subverts the purpose of its 'in the clear' mandates. Below are my thought on stopping encryption, or if encryption goes forward steps the town should take to allow town residents to make an informed decision about their level of cable service and equipment rentals.

#### *Delay encryption?*

If the town does not have the legal authority to stop Comcast's planned 5/11/2010 cable encryption, perhaps it could force (or request?) a delay in Comcast encryption to allow time for the town's citizens to be properly informed about Comcast's lower cost HD options. I think I have laid out a strong case in this letter that not only has Comcast not properly explained its lower cost cable and HD options to its customers, but that it has taken steps to hide and obscure them.

Town residents should be informed that (inexpensive) Comcast Basic service now provides, and will continue to provide, eight local HD channels (unencrypted) and that most newer large screen HDTVs can receive these HD cable channels without a cable box. To find out if this works for them customers can do a little test: Plug the cable directly into the TV, have the TV do a channel scan (usually under 'setup'), and see if HD channels show up.

#### **I) Stopping encryption**

a) A consumer protection approach to FCC rules could perhaps be justified by Comcast's history of customer abuse and its monopolistic practices (as detailed in this letter). Comcast is a true cable monopoly for many town residents. Does this open any legal doors?

b) According to an FCC fact sheet the local cable 'franchising authority' has control over "signal quality". Perhaps this could be broadly interpreted to include encryption.

c) Does the town or ocal 'franchising authority' have leverage over Comcast via future cable franchise renewals?

#### **II) If encryption can't be stopped, the following is needed to allow customers to make an informed decision**

a) Require Comcast to inform customers (via a mailing) the details of what level of service and quality of channels will remain after encryption if they chose *not* to rent a cable box. In particular state clearly whether or not a cable box will be required to receive over the cable local HD (high definition) network channels (ch 2,4,5,7 etc).



In the attached transcript a Comcast online representative told me in a chat session that local HD channels will continue to be sent 'in the clear', and I was told this on the phone too by Comcast, and it appears to be what Comcast vaguely intimates in various footnotes. If this is true (I wouldn't bet the farm on this until after encryption starts), then local HD channels will continue to be receivable after 5/11/10 very inexpensively (without buying Digital service and without a cable box). This is very important news to get out, since the Comcast machine strives to send exactly the opposite message, which is to get HD you must have an expensive HD package and rent HD hardware.

It is vital that the town force Comcast in a mailing to explain these low cost HD Basic options to town residents. We are talking big bucks here of \$1,000 to \$2,000 per year in cable bills (\$10 per month vs \$100 or more per month). How many many town residents do you think know about low cost HD options? I'll bet, based on my experience, almost none!! And why, because Comcast unless directly asked, artfully hides it.

b) Require Comcast to provide customers (via a mailing) a brief description of the the cable boxes it offers for rent and their monthly rental costs. The level of service associated with each box should also be detailed as well as its cost.

c) Require Comcast to inform customers (via a mailing) of the format (analog, SD digital, HD digital) of each channel of Basic Service. Only then can customer make an informed decision as to whether to drop down to Basic Service, or Digital Economy which includes Basic service and about half the expanded basic channels, or pay higher monthly cable bills to maintain their current service.

d) Can anything be done to break the cable monopoly for apartment dwellers?

### **III) Other possible actions**

a) Ask Comcast to show you the text of their waiver request to the FCC to allow them to encrypt.

i) Are their arguments valid? (For example, Are they telling the FCC that customers with cable boxes are not affected by encryption, something which is demonstrably false?)

ii) Compare the reasons Comcast gives the FCC for encryption compared to what Comcast tells its customers. (I'm betting there is little to no overlap.)

### **IV) Final thoughts**

I would suggest the town may have leverage over Comcast separate from what the FCC allows or disallows. I think this letter shows pretty clearly how Comcast downplays, hides is more accurate, its lower cost cable and HD options. A request by the town to Comcast for it to explain clearly these lower cost cable and HD options to town citizens might very well get Comcast's attention. If Comcast refuses, ignores such a request, or its letter is not clear, then I would suggest that the town itself draft and send such a letter, and/or work with local media to get the word out. I think the town owes this to its citizens considering the monopoly power Comcast has over cable for many of the town residents and the huge differential in cost between the higher end and lower end cable packages.

I want to add that only after spending many hours researching Comcast and preparing this letter did I fully realize how cynically manipulative Comcast cable is when it comes to extracting maximum revenue from the town residents. I thought it important to document what I found, even though I recognize that it has made this letter much too long. I find Comcast treatment of its cable customers personally disgusting, and it will disgust me even more if the town continues to allow this monopoly to get away with these tactics.

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April 14, 2010

### **References & Comcast attachments**

1) Leaked Comcast memo with talking points on encryption

<http://oregonmediacentral.com/forum/2009/10/comcast-to-encrypt-channels-some-customers-need-new-device>

2) Text of encryption waiver request to FCC

[http://www.multichannel.com/article/443264-FCC\\_Grants\\_Waiver\\_On\\_Encryption\\_Rule\\_For\\_Cablevision.php](http://www.multichannel.com/article/443264-FCC_Grants_Waiver_On_Encryption_Rule_For_Cablevision.php)

3) Amazon reviews (143) of computer TV digital tuner ('Hauppauge WinTV-HVR-950Q TV Tuner Stick/Personal Video Recorder with Clear QAM')

[http://www.amazon.com/Hauppauge-WinTV-HVR-950Q-Personal-Recorder-Control/dp/B001DEYVXO/ref=cm\\_cr-mr-title](http://www.amazon.com/Hauppauge-WinTV-HVR-950Q-Personal-Recorder-Control/dp/B001DEYVXO/ref=cm_cr-mr-title)

4) Wikipedia article on digital cable ready (QAM) TV

[http://en.wikipedia.org/wiki/QAM\\_\(television\)](http://en.wikipedia.org/wiki/QAM_(television))

5) FCC cable complaint & info form

<http://www.fcc.gov/mb/facts/complain.html>

A scan of the one and only Comcast mailing I have received about encryption (front and back complete)

## Important notice:

**Our latest network enhancement is complete!  
Do you have the right digital equipment?**

**Effective on May 11<sup>th</sup>, 2010**



*March 2010 Comcast mailing (front)*

Dear Comcast Customer:

Now, with Comcast's latest network enhancement, we are bringing our customers even more HD channels and faster Internet speeds. As part of this enhancement, you will need a digital cable box or digital adapter on all TVs\* in your house to continue to receive your current level of service.

After 5/11/2010, any TV without a digital device will receive Basic Service channels only.

For a listing of Basic Service channels in your area visit: [www.comcast.com/channellineup](http://www.comcast.com/channellineup)

If you need additional digital devices, ordering is easy!

Just visit us online at [comcast.com/digitalnow](http://comcast.com/digitalnow) or call us at 1-877-634-4434.

Thank you,  
Comcast

\* TVs or other devices with an authorized CableCARD do not require any additional equipment. QAM tuner digital TVs will only be able to receive Basic Service without additional digital equipment. Access to HD channels requires an HD cable box at an additional cost.  
X28142 GBR\_10\_6\_V2

*March 2010 Comcast Stoneham mailing (back)*

*Note how the real message of crippling QAM TVs is relegated to a footnote on the back  
and the word 'encryption' is nowhere to be found.*

*Note also this at the end of the footnote: "Access to HD channels 'requires' an HD cable box at an additional cost."  
Here Comcast is telling customers they must get ('required') an HD cable box to receive HD channels.*



Here is screen captures of an online chat session I had with Comcast representative on 4/12/10. I asked if local HD channels would remain unencrypted after the planned May 2010 encryption date in Stoneham, and finally (after 20 minutes) he says yes. I then asked for a confirmation and was told yes again.

Don> 'After 5/11/2010 in Stoneham MA, will local HD channels (ch 2.4.5,7) remain unencrypted?'

(( Analyst Carlo is here to assist you. ))

Carlo> Hello don\_, Thank you for contacting Comcast Live Chat Support. My name is Carlo. Please give me one moment to review your information.

Carlo> We appreciate the time you are taking to contact us, I will be assisting you from here on out. Before anything else, I would like to ask, how is your day so far?

Carlo> I see that you have a problem with your HD channel is that correct?

don\_> isn't my question clear?

Carlo> I do apologize.

Carlo> I see that you have a question regarding those HD channels that you mention is that correct?

don\_> yes, a Comcast mailing said after 5/11/2010 a cable box is required on each TV, and if you do not add a cable box, the mailing said you will get only "Basic Service". I want to know if Basic Service includes the local network stations on cable in HD format.

Carlo> I'll be happy to give you information regarding your issue. I'm glad that you came to chat so that we can help you on this matter. I will definitely assist you on this.

Carlo> I'll be glad to assist you with your issue.

Carlo> Before I may proceed, May I have your account number please?

don\_> I will have to go searching. You have my address is that not enough?

Carlo> Thank you for the information.

Carlo> Give me 3 minutes more. Almost found the information you need.

don\_> I don't think this is a difficult question. Basic Service means Ch2 to ch22. What Comcast doesn't state that I am asking about is whether HD versions of these channels will be provided in the future with Basic Service

Carlo> Thank you for waiting. The boxes that was being talked about in the mail was the digital adapter box. This adapter box will avoid the effects of digital migration. Comcast are digitalizing channels into one digital cable package and customer affected with this transistion are those with limited basic and expaned basi cable service and those tv that are directly connected to teh cable outlet. They will experience missing channel on there end. The adapters are used to prevent the missing channel effects brought by the transistion. Every comcast customers are given 2 free digital adapter. You can pick them up at your nearest local office.

don\_> That doesn't answer my question. I am not asking about cable boxes. I am asking about whether HD local network channels are sent 'in the clear' with Basic Service.

Carlo> I do apologize. you can see hd local channel if you only have HDTV.

Carlo> They are sent in clear with basic service Don.

Carlo> Let me get you the channel listings for your cable package.

don\_> So they will remain in the clear in my town after 5/11/2010, when expanded basic channels are to be encrypted?

Carlo> Yes that is correct.

don\_> thanks

Carlo> You're welcome!

Carlo> Is there anything else that I could assist you with? I'll be willing to help you.

don\_> no thank you

Carlo> You're welcome!

*It took persistence and repeated asking, but I finally got a Comcast representative to state (in writing) that local network HD channels will continue to be sent 'in the clear' (unencrypted). This means most large screen TVs (with QAM tuners) will be able to receive local HD channels with only inexpensive Basic cable and without a cable box.*



Here are scans of key footnotes on Comcast customer handouts that I recently picked up at my local Comcast office. The first is from the local Channel Line-up sheet for Stoneham and appears to be dated in the right corner as "4/10". Note footnote 3.

- |   |  |    |                                      |
|---|--|----|--------------------------------------|
| 1 | Some restrictions apply. Not all programming is available in all areas. Digital capable equipment is required to receive Digital TV channels. Additional equipment fees may apply. | 6  | A subscription to Sports Illustrated |
| 2 | High-definition capable equipment is required to receive high-definition channels.   | 7  | A subscription to the                |
| 3 | High-definition (HD) local broadcast signals are included with Basic Service subscription. See Basic and Expanded Basic channel line-up for channel numbers and availability.      | 8  | A subscription to Play               |
| 4 | A minimum level of Digital Starter is required to receive these channels.  | 9  | These channels are a                 |
| 5 | A minimum level of Digital Classic/Digital Preferred service is required to receive these channels.  | 10 | are available in all are             |
|   |  | 11 | Available for individu               |
|   |  |    | Effective April 24, 20               |

*Look at footnote 3) "High-definition (HD) local broadcast signals are included with Basic Service subscription".  
So here tucked away in a footnote we find a statement from Comcast that  
local HD channels are indeed included with (low cost) Basic service.*

Other side of Channel Line-up sheet. Note footnote 3, which is attached to eight HD local channels listed under 'Basic Service'. Translation: In Stoneham you get 8 HD local network channels with low cost Basic Service (or Digital Economy, which includes Basic), and if you have a newer (QAM) TV, it looks like you won't need a cable box to get them. On the Comcast channel list for North Andover there are 9 HD channels under Basic (vs 8 in Stoneham). Their added HD channel is ch9, because apparently for North Andover Manchester NH is local.

- |   |   |   |                     |
|---|---|---|---------------------|
| 1 | Some restrictions apply. Not all programming is available in all areas. Digital capable equipment is required to receive Digital TV channels. Additional equipment fees may apply.  | 5 | Digital Economy is  |
| 2 | Available in all digital format. Digital capable equipment is required. Channels subject to availability.   |   | primary outlet. A   |
| 3 | High-definition (HD) channels, including local signals, are subject to availability. A high-definition (HD) television set (not provided) and HD capable equipment is required.   |   | outlets. If you wis |
| 4 | Family Tier requires a digital set-top box and remote control, or a CableCARD. Music Choice® and On Demand are not available with the Family Tier. Family Tier can not be combined with any other XFINITY TV Package. Premium channels are available at an additional cost. | 6 | fee may be applic   |
|   |   |   | Available in Stone  |

*Look at footnote 3) "High definition (HD) channels ...(an HDTV) and 'HD capable equipment' is required.  
What does 'HD capable equipment' mean? Well, of course, it covers HD Comcast cable boxes,  
but it may also mean QAM digital cable tuners built into most large screen HDTVs.*

These footnotes (first 3 of 20) are on the recent Comcast Price list for Stoneham. This sheet shows the price of Basic in Stoneham on 4/24/10 increasing from \$10 to \$13, an increase of 30% (!) Note footnote 3.

- 1 The minimum level of Digital TV service you may purchase is BASIC SERVICE. You must purchase BASIC SERVICE to subscribe to any other video service offered by Comcast. Franchise Related Costs are applicable with the purchase of Basic Service. Service, programming and equipment are subject to availability. All pricing, programming and channel locations are subject to change. Prices do not include state or local taxes, franchise fees or FCC fees. Please call 1-800-XFINITY for further information. The purchase of premium channels, packages and digital services (including IN DEMAND, Pay-Per-View and On Demand) requires the appropriate equipment. ©2010 Comcast. All Rights Reserved.
- 2 Expanded Basic Service is only available as a component of Digital Starter.
- 3 A set-top box may not be necessary to view Basic Service. Please visit [www.xfinity.com](http://www.xfinity.com) or call 1-800-XFINITY for further information.

*Look at footnote 3) "A set-top box may not be necessary to view Basic Service"  
Well that wording is sure clear! Does it mean all of 'Basic Service', which includes local HD channels?  
But it does hint that with the right TV a cable box may not be needed to receive local HD channels.*